



Graduate Studies Catalogue

2024-2025

Birzeit, Palestine

All information contained in this catalog is subject to change without prior notice

- *This catalogue includes general information about the university in addition to academic information related to bachelor's degree programs only.*
- *Information on graduate studies are included in the university graduate studies catalogue.*

Please direct any questions related to admission and registration to:

Registration and Admissions Department

Birzeit University

Birzeit Palestine

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† ex-officio, University President

University Council

University President	
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The University

Mission

A Palestinian non-profit university, overseen by an independent Board of Trustees, committed to freedom of thought and expression, democratic practices and social diversity. The University offers distinguished and globally engaged teaching, research, and community-based programs designed to cultivate leadership skills, national and humanitarian values, critical thinking, lifelong learning, and a spirit of initiative and responsibility towards society and the environment in the context of an institutional culture of sound governance, openness, pluralism, and autonomy.

Vision

A national, non-profit, pluralistic, independent university, dedicated to producing leaders, and knowledge in service of humanity and of all Palestinians everywhere.

Values

Patriotism, justice, equality, diversity, freedom of opinion and expression, integrity and professionalism, sustainable development, life-long learning, academic freedom, commitment to the right to education, global engagement, environmental awareness, accountability and shared governance.

Facts and Figures

Birzeit University contains nine faculties: the [Faculty of Art, Music and Design](#), the [Faculty of Arts](#), the [Faculty of Business and Economics](#), the [Faculty of Education](#), the [Faculty of Engineering and Technology](#), the [Faculty of Graduate Studies](#), the [Faculty of Law and Public Administration](#), the [Faculty of Pharmacy, Nursing and Health Professions](#), and the [Faculty of Science](#).

In total, our faculties offer 119 academic programs, of which 76 lead to bachelor's degrees, 39 lead to master's, and three to doctoral degrees in social science, mathematics, and computer science. Additionally, the university offers two diploma programs and the Palestine and Arabic Studies Program for international students, which offers a unique language learning experience and an introduction to the political and cultural dimensions of the Palestinian cause.

In the 2021–2022 academic year, more than 15,000 students enrolled at Birzeit University, of which 13,523 enrolled in our undergraduate programs and 1,466 in our graduate programs. More than 62% of our student body is comprised of female students.

Within its 810 dunums, the university is 70% green and open spaces and houses 35 buildings, including nine faculties, four libraries, four sport fields, a museum, a clinic, an auditorium, a gymnasium, an observatory, a stadium, six cafeterias, and a dormitory for female students.

Our 11 institutions and centers undertake groundbreaking research and engage with the community, offering a range of programs such as literacy education, public and community health, media development, judicial reform, women's studies, continuing education, environment and water studies, technological development, and pharmaceutical industries.

In addition, the university produces enough solar energy to serve most of its energy needs through seven solar power stations on campus.

Milestones in Birzeit University History

1924	Mrs. Nabiha Naser and Mrs. Ratiba Shqair found “Birzeit Girls’ School” in the town of Birzeit to offer education to girls from Birzeit and the nearby villages.
1930	Birzeit Girls’ School changes to a coeducational secondary school.
1932	The name of the School changes to “Birzeit High School”.
1942	Birzeit High School becomes “Birzeit College”, but continues to offer high school classes as well.
1948	Birzeit College continues to deliver high-quality education and training despite the 1948 “Nakba” and provides assistance and education to students who sought refuge from the Israeli attacks on their towns and cities.
1953	Birzeit College, with Mr. Musa Nasir as president, begins to offer first-year university level courses in arts and science.
1961	Birzeit College adds second-year-level courses and begins awarding intermediate diplomas (an Associate of Arts and Science – AA and AS) in the following year. Primary, preparatory, and secondary classes are gradually eliminated in the following six years.
1967	Birzeit College continues to offer classes and courses after a brief interruption due to the Israeli occupation of the West Bank and Gaza in June 1967.
1972	<ul style="list-style-type: none"> - Birzeit College, with Dr. Hanna Nasir as president, launches its first four-year academic program for bachelor’s degrees in arts and sciences. The college offers seven academic programs, and the number of enrolled students increases to 200 male and female students from all over Palestine. - Community service is added as a graduation requirement for all students enrolled in the bachelor’s degree programs. Other social and volunteering programs are established in the following years.
1973	<ul style="list-style-type: none"> - Birzeit College is changed from a private institution to a national one, with a board of trustees, made up of Palestinian academics and professionals with experience in education, assuming responsibility for managing the institution. - Based on a military order, Israeli forces close the university’s campus for two weeks. The campus is closed 15 times in the following two decades.

1974	<ul style="list-style-type: none"> - Israeli forces exile University President Dr. Hanna Nasir to Lebanon (November 1974). Dr. Gabi Baramki is assigned by the Board of Trustees to serve as acting president for the university, while Dr. Hanna directs the University from Amman, Jordan. - Birzeit College introduces third-year courses, adding a junior year to its academic programs.
1975	During the 1975–1976 academic year, “Birzeit College” becomes Birzeit University.
1976	<ul style="list-style-type: none"> - The Faculty of Arts and the Faculty of Science are established. - Birzeit University becomes a member of the Association of Arab Universities in Beirut — the first Palestinian university to join the association. - Birzeit University celebrates the graduation of the first cohort of bachelor’s degree students from the Faculty of Arts and the Faculty of Science, which consisted of 55 students. Overall, 90 students graduate from the university in 1976. - Birzeit University launches the Literacy and Adult Education Program, a flagship program at the time through which the university played an important role in promoting and spreading literacy and adult learning in the Palestinian community and beyond.
1977	<p>Mr. Tawfiq Abu-Su’oud becomes the chair of the university’s Board of Trustees. Birzeit University becomes a member of the International Association of Universities (April 1977), making it the first Palestinian university to join the association.</p> <p>Birzeit University launches the master’s program in education, the first MA program in Palestine.</p> <p>Birzeit University forms a committee for defending the rights of students imprisoned by Israeli forces.</p>
1978	<p>The regulations governing the university’s Board of Trustees are officially registered (September 1978). Mr. Tawfiq Abu-Su’oud becomes the first elected Chair of the Board of Trustees after the official registration.</p> <p>The Faculty of Commerce and Economics (now the Faculty of Business and Economics) is established.</p> <p>The Institute of Community and Public Health is founded. Over the next 3 decades, a number of other institutes and centers are established in an effort to provide community services and conduct research for the betterment of the Palestinian community and beyond.</p>
1979	The Faculty of Engineering is established and, several years later, is merged with the Faculty of Information Technology.

1980	<p>The Israeli Occupation forces issue a military order that puts all higher education institutions under the command of the Israeli Military Governor, thus enabling their interference in student registration and the university's employment procedures. Birzeit University leads a national campaign against this military order that ends with its revocation.</p> <p>The inauguration of the university's new campus with the opening of the Faculty of Science's building (a new section is added to the building in 1997). During the next three decades, a number of other buildings are added to the campus in order to take in the increasing number of students and employees joining the newly established centers and programs.</p>
1981	Dr. Sa'di al-Faqih, previously the vice chair of the Board of Trustees, is elected Chair following Mr. Tawfiq Abus-Su'oud.
1982	The Center for Environmental Health was established (which later became the Testing Laboratories Center).
1984	<p>The Israeli Occupation forces close the university's Campus for a month. In the same year, Israeli soldiers shoot and kill Sharaf al-Tibi, who became the first martyr of Birzeit University's students.</p> <p>Faculty of Engineering building (the Omar Aqaad Engineering building) is inaugurated in addition to the Engineering Workshops, to which another section was added in 1995.</p>
1985	<ul style="list-style-type: none"> - Dr. Sa'di el-Faqih is re-elected Chair of the university's Board of Trustees. - The university's main library (Yousef Ahmad Ghanem Library) is inaugurated. Another section is added to the library in 2004. - The administration building (now the Baramki Building) is inaugurated with donations from Walid Qattan and Zain Mayasi, and the inauguration of the Kamal Nasser Hall, which was established with the help of Mr. Abdul-Muhsen el-Qattan. - Israeli Occupation forces close the university five times for a total period of 7 months between 1985 and 1987.
1988	<p>Dr. Darwish Nazzal is elected Chair of the university's Board of Trustees.</p> <p>Birzeit University is closed for the fifteenth time as part of a series of closures imposed by the Israeli forces on schools, colleges, and universities during the first Intifada. The closure lasts 51 months, and the Israeli Occupation declares education an illegal act. During this long closure, the university continues holding classes covertly through a number of small study groups that convened secretly outside the university's campus.</p>
1991	The Center for Continuing Education is established.

1993	<p>Dr. Hanna Nasir, the university president, returns to the Occupied Palestinian Territories after spending more than 18 years in exile (April 1993), taking over from Dr. Gabi Baramki, who led the university with prudence during what many consider to be one of the most difficult phases not only for the university, but for the Palestinian community as a whole.</p> <p>The Abdul Rahman Al-Juraysi Building, which houses the Faculty of Business and Economics, is inaugurated.</p> <p>The Institute of Law is established.</p>
1994	<p>The master's program in education is resumed after being halted during the first Intifada. The master's program in international studies is also established.</p> <p>The Ibrahim Abu-Lughod Institute of International Studies is established.</p> <p>The Institute of Women's Studies is established.</p>
1996	<ul style="list-style-type: none"> - The Faculty of Graduate Studies is established, and several graduate programs are introduced. - The university's clinic is inaugurated (Azeez Shaheen Building). - The Media Development Center is established.
1997	<p>The Center for Development Studies is established.</p>
1998	<p>The Institute of Law Building is inaugurated with the support of the French and the Qatari governments. Another section is added to the institute in 2009 with funding from the French government.</p>
1999	<ul style="list-style-type: none"> - The Sheikh Rashid Bin Said Al-Maktoum Building, which is used for student services and activities, is inaugurated. - The Diana Tamari-Sabbagh Center for Fine Arts is established.
2001	<ul style="list-style-type: none"> - The Israeli Occupation forces set up a military checkpoint near the village of Surda on the road connecting Ramallah to Birzeit, which placed the university under blockade for around three years. The university's community, however, continued to carry out their teaching and learning activities despite the hardships. - The Graduate Studies building (Naseeb Azeez Shaheen Building for Graduate Studies) is inaugurated. - The Institute of Environmental and Water Studies is established.
2002	<p>Ms. Saba' Arafat is elected Chair of the Board of Trustees.</p> <p>Birzeit University launches the Right to Education Campaign, which emerged out of the Prisoners' Committee and the Work for Humanity Project that started in the seventies and the eighties in order to provide legal assistance to students and employees who are harassed or arrested by the Israeli forces.</p>

2003	Mr. Ibrahim al-Daqqaq is elected Chair of the university's Board of Trustees.
2004	<ul style="list-style-type: none"> - Dr. Nabeel Kassis is appointed President of the University following Dr. Hanna Nasir. - A new section is added to the library building, funded by the Kuwaiti government. The Faculty of Law and Public Administration is established. The Kingdom of Bahrain Building for Women's Studies is inaugurated.
2005	The Ethnographic and Art Museum and the Virtual Gallery are established.
2006	<p>Dr. Hanna Nasir is elected Chair of the university's Board of Trustees.</p> <ul style="list-style-type: none"> - The Faculty of Information Technology is established. It is later merged with the Faculty of Engineering to form the Faculty of Engineering and Technology - The Physical Education Building (Mohammad Omran Bamieh and Walid Kayyali Building) is inaugurated.
2007	The Faculty of Arts building (Azeez Shaheen Building) is inaugurated.
2008	<p>The Faculty of Nursing and Allied Health Professions is established. It is later renamed the Faculty of Pharmacy, Nursing and Health Professions.</p> <p>The Najjad Zeenni Information Technology Center of Excellence is established.</p>
2009	The Said Khoury Building for Development Studies is inaugurated.
2010	<ul style="list-style-type: none"> - Dr. Khalil Hindi is appointed president of the university following Dr. Nabeel Kassis. - The Pharmacy, Nursing and Health Professions Building is inaugurated with a generous grant from Mr. Ghaleb Younis. - The Faculty of Education is established. - The Mohammad Omran Bamieh Building, which houses the Faculty of Education, is inaugurated.
2011	The university presidency building (Walid and Helen Kattan Building) is inaugurated.
2013	<ul style="list-style-type: none"> - The Faculty of Information Technology building (Munib Rashid Masri Building for Information Technology) is inaugurated. - The Mohammad Masruji Building for Media is inaugurated.

2014	<ul style="list-style-type: none"> - Birzeit University gains approval to launch the Ph.D. program in social sciences, which is the university's first doctorate program. - The Samih Darwazah Institute for Pharmaceutical Industries is established and its building is inaugurated. - The Shurfah Garden is established and inaugurated as the Samir Aweidah Garden. - The Faculty of Information Technology and the Faculty of Engineering are merged into one faculty called the Faculty of Engineering and Technology.
2015	<ul style="list-style-type: none"> - Dr. Abdullatif Abuhijleh is appointed as president of the university. - The Naseeb Azeez Shaheen Auditorium is established. - The Michel and Sanieh Hakim Observatory is established.
2016	<ul style="list-style-type: none"> - Birzeit University ranks first nationally according to the Webometrics Rankings. - The cornerstone for the Palestine-India Techno Park is laid.
2017	<ul style="list-style-type: none"> - The Riad Tawfik Al-Sadik Law and Public Administration Building is inaugurated. - The Ali Al-Haj Grandstand is established. - The Leadership and Active Citizenship Program — Masari — is established. The program aims to foster an active campus of entrepreneurs and innovators and bolster the university's internal entrepreneurial ecosystem.
2018	<ul style="list-style-type: none"> - The Faculty of Art, Music and Design is established. - Birzeit University wins the 2018 Yasser Arafat Achievement Award. - Birzeit University is ranked among the top 3 percent of universities worldwide in the 2018 edition of the QS World University Rankings. - The Engineering Office and General Services building (Zuheir Alami Building) is inaugurated.

2019	<ul style="list-style-type: none"> - The Samir Abdulhadi Building, a mathematics wing added to the Faculty of Science, is inaugurated. It is a 1450-square-meter building with four floors that include a breakout space, a cafeteria, and meeting and seminar rooms. - The Omar Abdulhadi Building, an annex to the Faculty of Business and Economics, is inaugurated. It is a 2650-square-meter building with four floors that include a number of classrooms, lecture halls, public halls, and meeting rooms. - The Samir Aweidah Building, housing the Faculty of Art, Music and Design, is inaugurated. The 5,508 square-meter building has four floors that include specially-tailored halls, classrooms, studios, and art and design workshops, among other facilities that help students experiment, research, practice, and present their work. - Birzeit University wins the 2019 Mohammed Bin Rashid Award for the Arabic Language for the development of the innovative Lexicographic Search Engine. - Birzeit University gains permanent membership of the Arab Council for Training Students of Arab Universities. - The university services building, housing several facilities for students and employees, is inaugurated.
2020	<ul style="list-style-type: none"> - Birzeit University tops 2020 The Impact Rankings nationally and regionally, based on the university's efforts to achieve the United Nations 'Sustainable Development Goals. - The university invests \$250,000 to update its communications infrastructure, providing the tools for students to pursue their education remotely during the COVID-19 pandemic
2021	<ul style="list-style-type: none"> - Dr. Beshara Doumani is appointed president of the university. - Birzeit University gains approval to launch two new Ph.D. programs in Mathematics and Computer Science. - A solar power plant, capable of generating one megawatt of clean energy, is inaugurated on the university's campus. - The university gains approval to establish a college offering technical training and vocational education programs leading to diploma degrees.
2022	<ul style="list-style-type: none"> - Birzeit University leads nationally in 2021–2022 URAP ranking. - Fifty-three university academics and researchers attain high positions in the 2022 AD Scientific Index. - Law students take first place in the eighth Arab Moot Court Competition. - The university announces journalism award and scholarship fund in memory of Shireen Abu Akleh.
2023	<ul style="list-style-type: none"> - Dr. Hanan Ashrawi is elected chair of the Board of Trustees, taking over the position from Dr. Hanna Nasir. - Students in the Department of Law achieve the top place in the SCCA International Arabic Moot for Commercial Arbitration. - Dr. Talal Shahwan is appointed as president of the university.

The Campus

Birzeit University campus lies on the outskirts of the town of Birzeit, 20 kilometers north-west of Jerusalem. Birzeit is known for its mild weather and its mountains that are covered with olive trees and is 850 meters above sea level.

The total area of the University campus is 810 dunums (Equivalent to 81 hectares or 200 acres), the campus includes 35 main buildings, including 9 Faculties, 4 libraries, Museum, Auditorium, Observatory, Studium, 5 Sports Fields, 6 Cafeterias. In addition to 7 solar energy stations and includes the following academic and main buildings and facilities.

Building Code	English Name
(Abdulahadi)	Omar Abdulhadi Building/ Business and Economics Building 2
(Al-Juraysi)	Abdulrahman Al Jeraisy Building/ Business and Economics Building
(N.Shaheen)	Naseeb Shaheen Building/ Graduate Studies Building
(CLI)	Azeez Shaheen Building/ University Clinic
(SCI)	Faculty of Science Building
(S.Abdulahadi)	Samir Abdulhadi Building/ Science Bulding -Math Wing
(Alghanim)	Yusuf Ahmed Alghanim Library Building/ Main Library
(KNH)	Kamal Nasir Auditorium
(Baramki)	Gabi Baramki Building/ University Administration
(Aggad)	Omar Aggad of Engineering Building
(Alami)	Zuheir Alami Building/ Engineering Office and General Services Building
(Kattan)	Waleed and Helen Kattan Building/ University Presidency
(IOL)	Law Building
(Maktoum)	Sheikh Rashid Bin Said Al-Maktoum Building/ Student Complex
(WKS)	Engineering Workshops Building
(Alsadik)	Riad Tawfik Al Sadik Building/Law and Public Administration Building
(El-haj)	Ali El-Haj Stadium
(Bamieh)	Mohammad Omran Bamieh Building/ Education Building
(A.Shaheen)	Azeez Shaheen Building/ Arts Building
(Zeenni)	Najjad Zeenni IT of Excellence Building
(Khoury)	Said Khoury Building for Development Studies
(Bahrain)	Kingdom of Bahrain Building for Women Studies
(GYM)	Mohamed Bamieh and Waleed Kayyali Building/ Physical Education Building
(Masri)	Munib Rashid Masri Building/ Information Technology Building
(Masrouji)	Mohammad Masrouji Building for Media
(NSA)	Naseeb Azeez Shaheen Auditorium
(PNH)	Ghaleb Younis Building/ Pharmacy, Nursing and Health Professions Building
(Darwazah)	Samih Darwazah Institute for Pharmaceutical Industries
(Aweidah)	Samir Aweidah Building/ Art, Music and Design Building



CAMPUS



0 25 50 100 150 200
METERS

TO TECHNICAL
PARK
إلى التكنوبارك

SOUTH GATE
(MAIN GATE)
المدخل الجنوبي

TO RAMALLAH

TO BIRZEIT

- ACADEMIC / CLASSROOM BUILDINGS: المباني الأكاديمية / قاعات التدريس
- ADMINISTRATIVE BUILDINGS: المباني الإدارية
- LIBRARY: مكتبة
- MUSEUMS: متاحف
- AUDITORIUMS: قاعات
- SERVICE BUILDINGS: مباني خدمات
- GATE HOUSE: مساكن الحرم الجامعي
- PEDESTRIAN ONLY (08:30-15:30) (15:30-08:30): شارع للمشاة فقط
- FEMALE DOMES: إيسكان الطالبات
- ENTRANCES: مدخلات
- MICHEL AND SANIEH HAKIM OBSERVATORY: مرصد ميشال وسنية حكيم
- SOLAR ENERGY STATION: محطة الطاقة الشمسية
- PUBLIC COMPUTER LABS: مختبرات حاسوب عامة
- CAFETERIAS: كافتيريا
- PARKING: مواقف سيارات
- PUBLIC TRANSPORTATION STOPS: مواقف نقل عام

- 1- OMAR ABDOULHADI BUILDING/ BUSINESS AND ECONOMICS BUILDING 2/ (ABDOULHADI): مبنى عمر عبد الهادي / مبنى الأعمال والاقتصاد
- 2- ABDULRAHMAN AL JARABY BUILDING/ BUSINESS AND ECONOMICS BUILDING (AL-JURABY): مبنى عبد الرحمن الجرابي / مبنى الأعمال والاقتصاد
- 3- NABEES SHAHEEN BUILDING/ GRADUATE STUDIES BUILDING (N. SHAHEEN): مبنى نabee شهابي / مبنى الدراسات العليا
- 4- AZEED SHAHEEN BUILDING/ UNIVERSITY CLINIC (UCL): مبنى عزيز شهابي / عيادة الجامعة
- 5- FACULTY OF SCIENCE BUILDING (FSC): مبنى كلية العلوم
- 6- SAHAR ABDOULHADI BUILDING/ SCIENCE BUILDING- MAIN WING (S. ABDOULHADI): مبنى صحر عبد الهادي / كلية العلوم - جناح الرئيسيات
- 7- BIRZEIT UNIVERSITY MUSEUM: متحف جامعة بيرزيت
- 8- YUSUF AHMED ALGHANNAM LIBRARY BUILDING/ MAIN LIBRARY (ALGHANNAM): مبنى مكتبة يوسف أحمد الغنم / المكتبة الرئيسية
- 9- KAMAL NABIR AUDITORIUM (KNH): قاعة الشريحة كمال ناصر
- 10- BAB BARAKH BUILDING/ UNIVERSITY ADMINISTRATION (BARAKH): مبنى بابي باراك / إدارة الجامعة
- 11- OMAR ASAAD OF ENGINEERING BUILDING (ASAAD): مبنى عمر العبد الله الهندسية
- 12- GENERAL WORKSHOPS AND GUARDS BUILDING: مبنى الورش العامة وحراس الجامعة
- 13- ZUHAYR ALAM BUILDING/ ENGINEERING OFFICE AND GENERAL SERVICES BUILDING (ALAM): مبنى زهير العلام / مبنى المكاتب الهندسية والخدمات العامة
- 14- WALEED AND HELEN KATTAN BUILDING/ UNIVERSITY PRESIDENCY (KATTAN): مبنى وليه كاتان / رئاسة الجامعة
- 15- LAW BUILDING (LQ): مبنى القانون
- 16- SHEKH RASHID BIN SAID AL-MAKTOUM BUILDING/ STUDENT DOMAINS (MAKTOUM): مبنى الشيخ راشد بن سعيد آل مكتوم / مجمع الطلبة
- 17- ENGINEERING WORKSHOPS BUILDING (WKE): مبنى ورش العمل الهندسية
- 18- RASHID TAYYEB AL BAKH BUILDING/ LAW AND PUBLIC ADMINISTRATION BUILDING (ALBAKH): مبنى رشيد تاييب الباك / مبنى الحقوق والإدارة العامة
- 19- SERVICES BUILDING: مبنى خدمات
- 20- SAHAR AMEDAH GARDEN - AL-SHURFAH GARDEN (SHG): حديقة صحر أمجداه / حديقة الشرفاء
- 21- EL-HA/ STUDY (EL-HA): مجمع علمي
- 22- MOHAMMAD CHIBAN BAKH BUILDING/ EDUCATION BUILDING (BAKH): مبنى محمد علي بركة / مبنى التربية
- 23- AZEED SHAHEEN BUILDING/ ARTS BUILDING (A. SHAHEEN): مبنى عزيز شهابي / مبنى الفنون
- 24- RIYADH HOUSING/ FEMALE DOMES (RIYADH): إيسكان الطالبات
- 25- NALJAG ZEEN IT OF EXCELLENCE BUILDING (ZENNI): مبنى نالجا زيني / مبنى التميز
- 26- BAD KHORY BUILDING FOR DEVELOPMENT STUDIES (KHORY): مبنى عبد الحميد خوري / مبنى الدراسات التنموية
- 27- KINGDOM OF BAHRAIN BUILDING FOR WOMEN STUDIES (BAHRAIN): مبنى ملكة البحرين لدراسات المرأة
- 28- MOHAMED BAKH AND WALEED KATAYI BUILDING/ PHYSICAL EDUCATION BUILDING (KATAYI): مبنى محمد باكر وبليه كاتي / مبنى التربية الرياضية
- 29- MUNIR RASHID MASHI BUILDING/ INFORMATION TECHNOLOGY BUILDING (MASHI): مبنى منير رشيد الماشي / مبنى تكنولوجيا المعلومات
- 30- MOHAMMAD MASHOUL BUILDING FOR MEDIA (MASHOUL): مبنى محمد المصطفى / مبنى الإعلام
- 31- SHOUKY AZEED SHAHEEN BUILDING/ UNIVERSITY HALLS BUILDING (SH. SHAHEEN): مبنى شوقي عزيز شهابي / قاعات الجامعة العامة
- 32- NABEES AZEED SHAHEEN AUDITORIUM (NSA): مسرح نabee عزيز شهابي
- 33- SHALES YOUNIS BUILDING/ PHARMACY, NURSING AND HEALTH PROFESSIONS BUILDING (YPH): مبنى شاليس يونس / مبنى الصيدلة والتدريس والمهن الصحية
- 34- SAHAR DAKAZAH INSTITUTE FOR PHARMACEUTICAL INDUSTRIES (DAKAZAH): معهد صحر دكاذه للصناعات الدوائية
- 35- SAHAR AMEDAH BUILDING/ ART, MUSIC AND DESIGN BUILDING (AMEDAH): مبنى صحر أمجداه / مبنى الفنون والموسيقى والتصميم
- 36- PALESTINIAN MUSEUM: المتحف الفلسطيني
- 37- MUNIR ATALLAH SPORTS FIELD: ملعب منير عطا الله
- 38- SPORTS FIELDS: ملاعب رياضية
- 39- WATER RESERVOIR: خزان مياه
- 40- ELECTRIC GENERATOR: محطة توليد كهرباء
- 41- ELECTRIC SUB-STATION: محطة كهرباء فرعية
- 42- SEWAGE TREATMENT PLANT: محطة معالجة مياه الصرف الصحي

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Support Units

Public Relations and Communications Office

Birzeit University's [Public Relations and Communications Office](#) aims to uphold the university's strategic image and brand. The office is responsible for connecting the university community with the media, nourishing long-lasting relationships with local, regional, and international organizations. The office composes and promotes news and multimedia from across the university, publicizing it to key audiences through the website, social media, and other outlets. It is responsible for supervising and managing the university's website and social media platforms, and coordinating the university's publications.

Public Relations advances Birzeit University's reputation and mission, and fosters communication to enhance the university's outreach and engagement among the public.

The Public Relations Office routinely creates a number of publications, such as the Birzeit University Annual Report, Al Ghadeer Magazine, and promotional materials for students and partner organizations.

The Right to Education Campaign

The Right to Education Campaign, part of the Public Relations Office, is a grassroots organization that works to raise awareness of the obstacles and restrictions placed by the Israeli occupation against education in Palestine. The campaign closely monitors Israeli occupational oppression against Palestinian students, providing legal aid and representation to detained students and faculty members.

The Right to Education Campaign regularly holds workshops, seminars, conferences, and meetings in which international students, academics, and activists learn about the fundamental human right to education and how they can counter Israeli violations of this right by raising awareness within their communities, supporting the campaign's calls for international action, and establishing connections with Palestinian universities and academic departments.

University Library

The main library ([Yusuf Ahmed Al-Ghanim Library](#)) contains more than 646114 volumes of printed and electronic books (191914 printed books, 454200 electronic books), 911 volumes of text books, 977 volumes of Braille books, 25663 printed periodicals, 39000 electronic journals, 60 videotapes, 38 CD-ROM databases, 2334 master's, 1046 doctoral dissertations, 3 print newspapers, 77 electronic databases, and 38 microforms). The Library has been a depository of UNESCO publications since 1979, a regional center for World Bank publications since 2005, a support center for Minisis Library system in Palestine since 1998, and has been accredited as a depository for United Nations publications in digital format since July 2016. The Library coordinates and cooperates with the following branch libraries: [Institute of Law Library](#), [Library of the Institute of Women Studies](#), [the Library / Said Khoury Building for Development Studies](#) (integration of 3 sub-libraries: Ibrahim Abu Lughod Institute for International Studies Library, Development Studies Library, and the Library of the Institute of Public and community health).

The library offers a wide range of services for students and researchers. It provides its patrons of access to 77 electronic databases (33 databases in subscription, and the rest are free of charge).

Registration and Admission Department

[The Department of Registration and Admission](#) is one of the most important units of the University.

Its services extend to the University's community of students, faculty members and academic departments in order to facilitate the educational process.

The Department seeks to organize and facilitate the admission, registration and acquisition of documents in order to serve the student since his admission to the university and during his academic career and after graduating through the optimal use of technology with full compliance with regulations and instructions. The department's objectives include:

- Implementing the University's admission policy with transparency and high efficiency.
- Implementation of all academic instructions and regulations.
- Modification of academic programs to suit students and teachers.
- Provide advice on academic systems for the benefit of students.
- Enabling students to be more efficient in planning their future needs.
- Documentation of academic student records.
- Enable students and graduates to obtain the required documents easily.
- Automating all forms of registration, admission, data archiving.

Summer Session

During the summer break, and based on the availability of resources, the University offers 9-week long summer session courses. These courses are academically equivalent to courses given in a regular academic semester.

During the summer session, the University is governed by the same rules and regulations applicable during regular semesters. All regulations followed during the academic year are applied in the summer session, including article 14 of the University law related to academic probation and suspension.

Information Technology Department

The [Information Technology Department supplies](#) the University with an integrated information network, both inside and outside the University campus. Its mission is to serve the academic process, scientific research, University management, and to contribute in the development of society in harmony with the University's mission.

The Information Technology Department provides the latest technologies to serve the University's academic and administrative needs. Ritaj – the University's e-portal – is used by students, faculty members, academic affairs employees and administrative departments. Ritaj also provides other specialized services such as registration services, admission services, financial affairs services, human resources management services, services for facilities, procurement, libraries, project management, management of institutes and centers and other services.

The Information Technology Department provides and manages specialized tools and systems in the field of distance education. It has provided the learning platform (ITC) that meets the emerging needs in distance education; this platform is used to broadcast live lectures and is used as a repository of exams, recorded lectures and supporting education materials. The Department also provides on demand services of synchronous lectures and meetings through (Zoom).

The Information Technology Department is operated by an advanced wired and wireless information networks that cover most of the University's campus, making its services accessible to students, faculty members and staff, enabling them to benefit from the University's electronic services and to access the World Wide Web.

The Information Technology Department supervises the work of the University's computer labs, which contain around 1200 computers designated for the use of students. These computers are loaded with programs that are required for academic courses as well as other programs that help users complete their daily tasks, support researchers and other electronic services, including the ability to connect smart devices to the wireless network.

Birzeit University Museum

Our Story:

Rooted in an academic institution, the [Birzeit University Museum](#) (previously known as the Ethnographic and Art Museum at Birzeit University), has since its early inception in 2005, been a unique space for knowledge production. In the heart of a lively university campus, BZU Museum embraces a new sense of interactive in museum spaces. BZU Museum was, from its very beginning, a groundbreaking experiment in Palestine. Given the colonial legacies of the museum, in concept and implementation, it has been an ongoing act of challenging norms. We work towards forging a local and contemporary understanding of a museum as a space that holds open possibilities between the past, present and future.

BZU Museum is an integral part of the university community and is a central space of dynamic interactivity and knowledge production. In the nascent history of museums in academic institutions locally, the BZU Museum set out to become a model for what museums can be in the political and cultural landscape of Palestine. BZU Museum was in many ways the first of its kind locally and has since been an effort in remaining groundbreaking in how museums are translated and curated in the Palestinian context. BZU Museum is a place of learning and knowledge production and is the space where we protect our history as we imagine our collective future.

Vision and Mission:

BZU Museum is an interactive and public museum that redefines museums conceptually, spatially and practically. We strive to be an intellectual home within a university campus for innovative thinking in relation to our collections as well pedagogical and artistic practices.

Both the material and virtual spaces of the BZU Museum are active and generative platforms for innovative knowledge production and exchange that nurture tools of creative thinking.

The three major themes under which we work in the BZU Museum are: pedagogical, research and events. Under the larger umbrella of Hawaki al Mathaf we provide programing that include discussions, workshops, displays and exhibitions.

The collections:

- The Tawfiq Canaan Palestinian Amulet Collection: more than 1380 pieces.
- Textiles Collection: holds nearly 400 pieces.
- Art Collection: holds nearly 300 pieces.

General Services Department

The [General Services Department](#) provides quality services to the university community to manage the university's facilities, equipment, supplies and maintenance. The department is committed to maintain the students and staff's safety, security and wellbeing. It is responsible of implementing the best logistic services, including: event planning, transportation, mail transfer between departments...etc. Moreover, the department provides day-to-day operations to buildings and systems through supervising the university's bookstores, self-service machines, the housing section and cafeterias. It offers many convenient transportation options from Birzeit to Ramallah and vice versa.

- **Female Student Housing:**

The university offers on-campus student dormitories to provide around **111** female students with safe and suitable housing options, especially to first-year students, and those who come from distant areas.

Until the moment, Birzeit University does not have any dormitories for male students under its supervision. However, the university can help them find safe and convenient housings that are close to the university.

- **Food Services:**

The university has **seven** facilities that offers food services to students and staff, and are located in Rashib bin Saeed Al Maktoum Building (Main Cafeteria); the Faculty of Pharmacy, Nursing and Health Professions; the Faculty of Science; the Faculty of Arts; the Community Services Building, in addition to Sameer Owaidah Garden.

- **Banking services:**

The university offers banking and ATM services to local banking institutions to facilitate the students financial transactions.

International Relations

The University is highly interested in developing its [international relations](#) and encourages interaction of different units with international organizations and universities around the world. to achieve this, the University offers several projects and international programs:

- **Academic Cooperation Program:**

Birzeit University has always prioritized establishing connections with regional and international higher education institutions due to their key role in developing the capacities of students and faculty alike and broadening their intellectual and cultural horizons. Through joint research projects, conferences, and workshops, the university's community has forged strong ties with their peers across universities in the Middle East, Europe, and North America, facilitating the exchange of knowledge and expertise in virtually all disciplines. The university's academic exchange program, in particular, has helped shape the experiences and perspectives of Birzeit University's students, giving them the opportunity to discover diverse cultures, learn new languages, and explore new teaching and learning methods. Through this initiative, organized and managed by the External Academic Relations Office and supported by the [Erasmus+](#) academic exchange program, the university's students are able to gain a broader perspective that helps them better address the challenges of their communities and advance their societies. For more information on the programs available to international students.

- **Palestine and Arabic Studies Program (PAS):**

The [Palestine and Arabic Studies \(PAS\)](#) Program is an academic program at Birzeit University that offers international students the opportunity to combine the study of the Arabic language with social science courses about Palestine and the Arab World. International students carry out their studies

Institutes and Centers

The University has 11 institutes and specialized centers. 7 institutes, some of which offer some graduate programs and carry out academic and applied research and 4 centers provide training and carry out applied research.

NO.	Institutes and Centers names
1.	<u>Institute of Law</u>
2.	<u>The Institute of Environmental and Water Studies</u>
3.	<u>Ibrahim Abu Lughod Institute for International Studies</u>
4.	<u>Institute of Women's Studies</u>
5.	<u>Samih Darwazah Institute for Pharmaceutical Industries</u>
6.	<u>Muwatin Institute for Democracy and Human Rights</u>
7.	<u>Center for Continuing Educations</u>
8.	<u>Media Development Center</u>
9.	<u>Center for Development Studies</u>
10.	<u>Testing Laboratories Center</u>
11.	<u>Institute of Community and Public Health</u>

Student Affairs

The student body at the University consists of students from all over Palestine, from cities, villages and refugee camps. These students form a socio-economic segment that represents the Palestinian people.

The number of students at the University has been steadily rising since its establishment in 1972, and the number of female students at the University increased around 63% of the total number of students.

- **Deanship of Student Affairs:**

The [Deanship of Student Affairs](#) is concerned with the different aspects of the students' University life, socially, culturally, and technically, in addition to developing the students' skills and enhancing their abilities to manage their lives and future. Furthermore, the Deanship of Student Affairs helps students solve any academic, financial and psychological problems they may face during their study years.

- **Mission:**

The Deanship of Student Affairs works diligently to provide students with opportunities that enrich their academic and non-academic experiences by conducting social, cultural, professional, intellectual and volunteer activities, which contribute to the development of their personalities and improve their psychological health. This approach enables students to live, learn, and develop their creative and leadership skills in addition to achieving excellence in learning; these activities also encourage tolerance as well as social and ethical responsibility.

- **Vision:**

The Deanship of Student Affairs strives for excellence in services they provide for students in order to enhance their performance in social, cultural, technical and volunteering activities, and to help create productive individuals.

- **Advising Division:**

The Advising Division consists of a group of specialists in psychological, social and academic guidance who contribute to making the University campus a place where students feel safe and are able to adapt personally and socially. In addition, the Division supports and empowers students on the personal, social, professional and psychological levels, which enable them to strengthen their personalities, achieve their goals, and overcome obstacles they may face.

The Division's goals correlate with the University's philosophy and goals as it provides an environment that supports freedom of speech and the respect of others.

- **Student Council and Bodies:**

The Council is the representative of the University's student body. On yearly basis, full-time students elect the members of the Council from a number of candidates who are required to hold good academic records. The election process is supervised by the Deanship of Student Affairs, which firmly believes in the importance of representation for all students within a formal democratic framework.

The Council is managed by a Secretarial Committee in accordance with the Council's constitution and the University's relevant rules and regulations. The Secretarial Committee consists of a number of sub-committees that work under the supervision of the Deanship of Student Affairs, and function as catalysts in developing a well-educated, mature and socially responsible student body.

- **Voluntary Work Unit:**

This Unit is responsible for the management and coordination of student volunteer work programs. Such programs aim to increase the students' interaction with their society and increasing their awareness of the social issues surrounding them. The programs also help bridge the gap between intellectuals and laborers with voluntary work held across different cities, villages and refugee camps.

- **Cultural and Artistic Activities Unit:**

This Unit works to increase the students' cultural knowledge in fine arts and literature in general by bringing them various plays, musical performances, art exhibits and publishing educational brochures. This Unit also seeks to develop the students' talents by offering courses to teach playing various instruments as well as language courses and other artistic and cultural ventures.

- **International Work Camp:**

Each year during summer, the University organizes a two-week-long [summer camp](#) in which University students and foreign students come together to work on different projects planned by Student affairs the Community Work Program at the University in order to give international students the opportunity to better understand the Palestinian life in general.

Financial Aid Unit

The [Financial Aid Unit](#) aims to help and support students in need, and to distribute available scholarships with the highest standards of transparency. Within the available capabilities and resources, the purpose is to assist academically outstanding and economically disadvantaged students who, without this aid, would be unable to obtain a university degree. The unit is responsible for communicating information on financial support, and it works closely with other departments to distribute scholarships, stipends and loans. All financial support related information and deadlines are announced on Ritaj portal and through other means of communication.

Financial Affairs

Scholarships, Exemption and Financial Aids

Birzeit University works diligently at making sure financial obstacles do not stand in the way of student opportunities for continuing their university education; it seeks to keep the tuition fees at an affordable minimum while maintaining high standards of teaching and providing other supporting services. The University does its best to offer students scholarships, loans and financial aid in addition to supporting students financially through paid work.

The university offers a wide range of scholarships, some of which are outlined below¹:

1. Honor Scholarship: enrolled students placed on the Honor List at the end of any given semester are granted a scholarship covering the tuition fees for the following semester.
2. Scholarship for Excellence in the General Secondary Examinations: ten annual scholarships are granted to ten students who have achieved the highest grades in the General Secondary Examinations of the enrollment year from all Palestinian cities, in both the Sciences and Arts streams. The scholarship covers the tuition fees for one academic year.

¹ All the scholarships are subject to the applicable scholarship regulations published on Ritaj.

3. Science Scholarship: depending on the availability of funding, a number of scholarships that cover the tuition fees for one academic year are granted to students who have achieved the highest grades in the General Secondary Examinations among their cohort when enrolling in one of the following programs: biology, chemistry, physics and mathematics.
4. Musa and Suhaila Nasser Scholarship: the university offers full scholarships to new students admitted directly to the bachelor's program in physics for the first two semesters from the date of their enrollment. The scholarship covers the tuition fees and provides fixed living aid. The scholarship can also be renewed for students who have completed 25 credit hours and achieved the required academic performance per the scholarship regulations published on Ritaj.
5. Siblings Scholarship: financial exemptions are offered to siblings enrolled in the University in the same semester, specifically those who do not receive any other financial support. The exemption rates are as follows:
 - The first sibling pays full fees
 - The second sibling is exempted from 15% of the fees
 - The third sibling is exempted from 20% of the fees
 - The fourth sibling is exempted from 25% of the fees
6. Employee offspring scholarship: a scholarship offered to the children and relatives of the University employees.
7. Named Scholarships: these are scholarships donated by local and international individuals and institutions. These scholarships are offered to regular students' in-need who complete the Scholarship application, and are subject to the donor selection criteria and the minimum requirements set by the University.

There are many other scholarships provided to students through cooperation agreements and from local institutions, including: Governor of Ramallah and Al-Bireh Scholarship, Birzeit Municipality Scholarship, scholarships from the Ministry of Higher Education and Scientific Research, among others. The university also provides other support to students, including living aid to cover housing or transportation expenses, and in-kind support to help students in their studies, such as computers, university books, and others. In addition, the University allows the students to pay their tuition on instalments, and it facilitates the provision of educational loans through the Student Loan Funds of Higher Education Institutions in Palestine

Graduate Studies Academic Regulations

Article 1: Admission Requirements

1. A minimum grade of 65% in the General Certificate of Secondary Studies.
2. A bachelor degree from a university recognized by Birzeit University in a field specified by the program to which the application is made, with a minimum overall assessment of “Good.” Graduates with a “Satisfactory” assessment may be admitted by the Academic Council upon the recommendation of the department council or program committee in the faculty.
3. Two confidential recommendation letters from faculty members familiar with the applicant’s work, or from administrators familiar with the work of the applicant, or one from each.
4. Personal interview, if required by the program.
5. The bachelor degree takes 60-80 percent from the overall admission requirements, unless exception is issued by the academic council. Other requirements for admission may be specified by the program committee and approved by the Academic Council, such as proficiency in a foreign language and work experience.

Article 2: Admission and Registration

1. Applications, including all required documents, are submitted at specified times to the Registration and Admissions Office. Department Councils and Program Committees review the applications and recommend the acceptance of students to the Academic Council, which approves the acceptance of all new students. Applicants who have not completed the bachelor degree at the time of application may be given acceptance on condition of receiving the bachelor degree before enrollment in the program.
2. Admission decisions are communicated to the Registration and Admission Department by the Vice-President for Academic Affairs. The Registration and Admission Department announces the decisions to admitted students.
3. Students wishing to change their fields of specialty must submit an application to the desired program at the specified time. Admission requirements of the desired program will apply in these cases.

Article 2 (Repeated): Transferring Graduate Programs

1. Students registered in one of the university's graduate programs may submit an application to transfer to a different graduate program.
2. The Admission and Registration Department opens transfer application submissions twice per academic year.
3. The director of the relevant graduate program and the dean of the Faculty of Graduate Studies and Scientific Research review the application and studies the capacity and admission criteria of each program and the student's academic record. The director and the dean submit their recommendation to the Admission and Registration Department. The transfer request shall be referred to the university's Academic Council if there are contradictions between the recommendations of the dean and the program director.
4. Compulsory courses are counted if the course description and content are identical or similar, upon the recommendation of the committee of the transferred program and the approval of the university's Academic Council.
5. Successfully finished elective courses are counted on the condition of not exceeding the maximum number of credit hours that are stated in Article (5/1/B).
6. Approval of transfer can be conditional. Students might be obliged to take remedial courses set by the new program, attached with the approval letter.
7. The maximum time allowed for students to complete the program will be calculated from the student's enrollment in the program from which they transferred.
8. The registrar issues the final decision of the transfer request and notifies the student and relevant programs to commence the transfer.

Article 3: Transfer from Other Universities

1. Admission requirements for applicants wishing to transfer from universities recognized by Birzeit University are the same as those listed under Admission Requirements in Article 1.
2. Up to 9 credit hours (with a minimum assessment of "Good") taken at other universities may be counted as equivalent to courses within the program, provided this is approved by the Academic Council upon the recommendation of the Department Council or Program Committee.

3. In special cases, up to a maximum of 12 credit hours may be transferred from other universities and upon approval from the academic council. This only applies in the mobility of student's program and according to the learning agreement.
4. Grades received for courses at other universities are not included in a student's cumulative average.
5. In addition to any credit hours transferred from other universities, a student must complete a minimum of 24 credit hours (including the thesis/seminar track requirements) of program requirements at Birzeit University.
6. One semester will be deducted from the maximum number of semesters a student is allowed in order to complete the requirements for the master degree or higher diploma for each six hours (or more) transferred from other universities.

Article 4: Graduation Requirements for the Higher Diploma

1. Completion of a minimum of 30 credit hours in the program, including a minimum of 9 credit hours of Compulsory courses (600-700 level) and a minimum of 6 credit hours of elective courses specified by the program. Some courses from other graduate programs may be substituted for program electives upon approval of the program committee. Up to 3 credit hours of elective courses may be taken from advanced undergraduate course (not taken previously) upon the approval of the program committee.
2. Completion of remedial courses, if any, required by the program (these courses must be completed before the beginning of the student's third semester in the program; extension of the deadline requires the approval of the Vice-President for Academic Affairs upon the program's recommendation). Remedial course credits and grades are not included in the student's total earned hours or in the calculation of the cumulative average. Remedial courses may be repeated only once, and in the case of failure, the student is dismissed from the program.

3. Passing the general examination in those programs that require it; students who fail are allowed to repeat the examination once. Approval for taking the examination for a third time is given by the Academic Council, and failure in the examination results in dismissal from the program.
4. Completion of the last 15 credit hours at Birzeit University, and any exception needs academic council approval upon the program council's recommendation
5. A minimum cumulative average of 2.33 in graduate courses.
6. Completion of any other program requirements.

Article 5: Graduation Requirements for the master degree

1. Completion of 36 credit hours according to the academic plan in the program, as follows:
 - a. Minimum of 12 credit hours of Compulsory courses.
 - b. 6 credit hours of elective courses specified by the program.
 - Courses from other graduate programs (maximum of 9 credit hours) may be taken to substitute program electives upon approval of the program council. .
 - -Up to 3 credit hours of elective courses may be taken from advanced undergraduate courses (not taken previously) upon the approval of the program council.
 - c. Completion of the two seminar courses (830 and 831) or the thesis (860). The two seminar courses may not be taken concurrently in the same semester without the approval of the Dean upon the program's recommendation, and they cannot be counted towards the fulfillment of elective requirements. Students may replace one of the seminar courses with an elective course from the program if approved by the Department Council or Program Committee.
 - d. 12-18 credit hours in a concentration, if any, including the seminar courses (830 and 831) or the thesis (860), provided the seminars and the thesis are in the area of concentration.
2. Completion of remedial courses, if any, required by the program (these courses must be completed before the beginning of the student's third semester in the program; extension of the deadline requires the approval of the Vice-President for Academic Affairs upon the program's recommendation). Remedial course credits and grades are not included in the student's total hours or in the calculation of the cumulative average. Remedial courses may be repeated only once, and in case of failure, the student is dismissed from the program.
3. Passing the general examination in those programs that require it; students who fail are allowed to repeat the examination once. Approval for taking the examination for a third time is given by the Academic Council, and failure in the examination results in dismissal from the program.

4. Completion of the last 24 credit hours (including the thesis or the two seminars) at Birzeit University. Any exception from this requirement needs Academic Council approval.
5. A minimum cumulative average of 2.33 in graduate courses.
6. Completion of any other program requirements.
7. In special cases and upon program committee's recommendation and dean's approval, students who complete all graduation requirements with seminars track, may register for the thesis track on condition that the period does not exceed four semesters from the graduation time.

Article 6: Attendance

Graduate students are required to attend all sessions of courses, seminars, and laboratories. Students are allowed to be absent without an excuse for a maximum of three times the number of weekly meeting sessions, and for a maximum of five times the number of weekly meetings regardless of the reason for the absence including health and emergency reasons. In all cases, students are responsible for material covered during their absence. Excusable absences include illness and emergencies, provided the student submits the necessary documentation (medical report accepted by the University physician in cases of illness, and proper documentation in emergencies; in the absence of the latter, the student must provide a report that is acceptable to the department/program head and the Dean). Any absence beyond the allowed limit, reported by the instructor, results in suspension of registration in the course. A student will be given a "W" (withdrawal), or "WF" (withdrawal with failure) if he/she had a failing grade when the decision to suspend the student's registration was taken.

Article 7: Course load

Students are allowed to register for a maximum of 12 credit hours per semester (6 hours during the summer session). Students registering for the thesis (860) may register for up to 15 hours in the semester in which they register for the thesis (9 hours during the summer session). If the thesis is not completed in the following semester, the student is allowed to register for 9 credit hours (6 hours during the summer session).

Article 8: Duration of Program of Study

All requirements for the Higher Diploma must be completed within a period of three academic years after admission to graduate study. Master degree requirements must be completed in a maximum of 10 semesters within a maximum period of six years after admission to graduate study. Extension beyond the maximum allowed period of study (including any period of withdrawal or interruption) due to non-academic reasons requires the recommendation of the Dean and the approval of the Academic Council.

Article 9: Grades and Evaluation

1. All courses taken by a student are registered in his/her record.
2. The minimum passing grade for a graduate course is C. Failing grades are D and F only. The passing grade for a remedial course is C-. Course grades are evaluated using letter grades on the following basis: A+, A, A-, B+, B, B-, C+, C, D, F.
3. Result of the thesis is reported as Pass (P) or Fail (F).
4. Final results of seminar courses are evaluated like all the other graduate courses.
5. Results of general exams, where required, are reported as Pass (P) or Fail (F).
6. Incomplete grades (I) are given when a student fails to complete course requirements in time provided the instructor and the department or program head are given convincing reasons; Incomplete grades must be completed in the period not exceeding the fourth day after the start of late registration add and drop period; otherwise, the grade of (F) will be registered in the student's record.
7. Students who do not complete their theses in the semester in which they register for the thesis are given a grade of "IP" (In Progress).
8. Students are allowed to repeat courses that they have passed in order to raise their cumulative average. Both grades are registered in the academic record, but the latest grade is calculated in the student's cumulative average.
9. Compulsory courses cannot be substituted by elective courses unless approved by academic council after chairperson's recommendation.

Article 10: Calculation of Cumulative Average in Graduate Programs

1. The cumulative average is calculated by including results of all graduate courses in the specific graduate program. It also includes graduate courses from other programs and/or undergraduate courses if approved by program chairperson. The average is weighted according to the number of credit hours assigned to each course.

The average is rounded up to two decimal points and the average counted out of four.

Grade	Numerical Value	Grade	Numerical Value
A+	4.00	B-	2.67
A	4.00	C+	2.33
A-	3.67	C	2.00
B+	3.33	D	1.67
B	3.00	F	0

2. Results of remedial courses, the thesis, and the general examination are not counted in the cumulative average. Any course in which the student has a grade of “W,” undergraduate courses not approved by the student’s program chairperson, and courses transferred from other universities are not included in the cumulative average. In repeated courses, the latest grade is calculated in the cumulative average.
3. If a student is accepted in another graduate program, the cumulative average will be calculated only for the courses—graduate or undergraduate-- required or approved by the new program.

Article 11: Assessment of Degrees

The evaluation of graduate degrees is based on a student’s cumulative average in all courses counted towards the degree, and as follows:

Distinction	Cumulative Average
Distinction	4.00-3.67
Very Good	3.66-3.00
Good	2.99-2.67
Satisfactory	2.66-2.33

Article 12: Choosing Tracks and Transfer from Track to Track

1. Students are required to submit a written request for joining one of the two tracks (thesis and non-thesis tracks) upon the completion of a minimum of 15 credit hours in the program including the research methods course(s). The program’s decision will depend on the student’s academic record, the ability of the program to provide supervision, and the program’s announced criteria.
2. Students may change tracks upon their request and the recommendation of the department or program council and approval of the Dean. The Program Committee/Council may also recommend to the Dean, based on the recommendation of the Program chairperson that a student change to seminars track. This will be based on the thesis supervisor’s monthly reports and based on the Committee/Council’s assessment of the student’s seriousness. In both cases, a grade of “Withdrawal” for the thesis will be entered in the student’s record.

Article 13: Thesis Registration

1. Procedure for registration of the thesis:
 - a. The supervisor appointed to a student should have published at least one research during the last five years before date of appointing him.
 - b. To take into consideration when appointing a supervisor that he cannot supervise more than four students at one time. Any exception needs approval of vice president of academic affairs.
2. If thesis-track students do not complete the thesis (860) in the semester in which they register for the thesis, their registration for the thesis continues until the completion of all thesis requirements provided, they pay the required registration fees. The grade of “IP” is registered until the thesis is completed and defended. The thesis should be completed within the allowed period for completion of all graduation requirements.
3. Students who do not complete the thesis within the allowed period will receive the grade of “Withdrawal” for the thesis on their records, unless they have permission for extension from the academic council upon recommendation from the program committee. They might be transferred to seminars track depending on program committee’s recommendation.

Article 14: Academic Probations

1. Students whose cumulative average falls below 2.33 are issued academic probations, which are given only after attempting 6 credit hours. Probations must be removed during the semester in which the opportunity is granted to remove them.
2. Students under academic probation must register for a minimum of 3 and a maximum of 6 credit hours (including the thesis if the student was registered for it in a previous semester) in the first semester they register following the probation.

Article 15: Dismissal from the Program

1. Academic suspension: Student may be suspended from the program for one semester if he/she:
 - a. Fails in two different courses required in the program.
 - b. Repeats a course and fails it.
 - c. Receives two probations (not necessarily consecutive).
 - d. Does not complete remedial courses with the specified period (article 4/2) unless the courses were not offered. Students who get suspension from the program may submit readmission application for the program. A committee from deans and registrar directed by the vice president of the academic affairs studies the applications and encribes the conditions for readmission.
2. Academic dismissal from the program: student may be finally dismissed from the program if he/she:
 - a. Accumulates three academic probations (not necessarily consecutive).
 - b. Fails in three courses including failure twice in same course and another course.
 - c. Fails twice in defending the thesis.
 - d. Does not complete graduation requirements within the specified period (article 8).
Student who is finally dismissed from the program may submit readmission application for the program as a special student if he meets the conditions set in the relative regulations.
3. Student who is finally dismissed from his/her program may submit application for another program. In case of admission to another program, a maximum of 9 credit hours may be counted from his previous program provided that the grade of the courses transferred is C+ and above, and approved by the program committee.

Exception from dismissal: If a student deserves dismissal from the program while he/she has only 6 credit hours or less left to fulfill graduation requirement, then he/she is given a maximum of two semesters to complete the graduation requirements.

Article 16: Dismissal from the University

Students are dismissed from the university in the following circumstances:

1. If they are dismissed from one program and are not admitted to another program;
2. If they exceed the maximum period for completion of degree requirements; (article 8)
3. If they violate university regulations; in this case the decision is taken by the University Council upon the recommendation of the University Disciplinary Committee in the Faculty of Graduate Studies or the university disciplinary committee or any other committee appointed by the University Council for this purpose.

Article 17: Withdrawal from Courses

1. Students may withdraw from courses during the add/drop period where the courses do not appear on their academic records.
2. Withdrawal from courses after add/drop period and till the end of the 12th week (6th week in summer session), from beginning of instruction results in a grade of “W” in the course/courses and appears on the academic record. Failure to withdraw officially results in a grade of withdrawal with failure “WF” which is counted in the cumulative average.
3. Withdrawal from courses after 12th week (6th week) from beginning of instruction results in a grade of “WF”.

Article 18: Withdrawal from the University

1. Students who wish to withdraw from the university must complete the appropriate forms and seek the approval of the department or program chairperson and the Dean. Failure to do so will result in the recording grade of "Withdrawal with Failure" (WF) in all courses for that particular semester irrespective of the time of withdrawal.
 - a. If a student officially withdraws from the university within the add/drop period, the courses he/she has registered for, do not appear on the academic record.
 - b. Official withdrawal after the add/drop period and till the end of the 12th week from the beginning of instruction (the end of the 6th week during the summer session) results in the grade of “W” in all courses (including the thesis).
 - c. Students may not withdraw from the university after the 12th week from the beginning of instruction (the 6th week in the summer session). Students who stop attending classes unofficially, regardless of the period of study during the semester, will receive a grade of “WF” in all courses except for (the thesis which will be given a grade of “IP”).
2. Students are allowed to withdraw officially from the university for a total period of two years during the period of his/her study, provided the period of withdrawal does not exceed three consecutive semesters. Students will be able to apply for readmission to their programs in this case.
3. Students who withdraw are not exempted from their financial obligations toward the University.

Article 19: Readmission

1. A student who officially withdraws from the University may apply for readmission to the program he/she withdrew from. A student wishing to join a new program must apply for admission according to the application procedures in force at the time of the application.

2. The student submits readmission application to the Registration Department at least one month before the beginning of the semester.
3. Readmission of student is subject to recommendation from the department council or program committee and the approval of the Faculty Dean. Academic and financial regulations in force at the time of readmission will be applied.
4. A student loses his/her right to readmission if his/her withdrawal exceeds a total of two years or more than three consecutive semesters. A new application must be submitted in this case, and if the student is admitted, the program will decide what, if any, of the courses already taken by the student can be counted towards the degree requirements. If the student is admitted to a new program, the program will decide what, if any, of the courses already taken can be counted towards the degree requirement

Article 20: the Summer Session

The summer session is treated as a regular semester for the purposes of issuing academic probations, removing probations, and dismissal from the university, provided the student has registered for three or more credit hours during the summer session. Students may register for the thesis and defend it during the summer session upon the prior approval of the department council or program committee. Students may register for one seminar (830 or 831) during the summer session provided no other courses are registered and upon approval of the department council or program committee.

Article 21: Study at Other Universities

Students are allowed to study up to 9 credit hours at other universities with the approval of the Academic Council based on the recommendation of the department council or program committee, taking in consideration item 4 in article 4 and item 5 in article 5.

Article 22: Conditions for Granting the Degree

The Academic Council approves the granting of degrees upon the completion of all degree requirements. Degrees are granted at specified times. Students must observe the following instruction for the submission of the thesis:

1. One binded hard copy of the thesis to each of the following: the Dean of the Faculty, the Office of the Dean of Graduate Studies, the Program office, the advisor, and the main library.
2. One electronic copy of the thesis each to the main library, the Dean of the Faculty, and the Office of the Dean of Graduate Studies.

Article 23: Joint Programs with Universities

The rules and regulations applied for the master degree at Birzeit University, apply too on the joint programs unless there are special protocol.

Article 24: Amendments to the Regulations

These regulations amend the decision of the University Council.

- Approved by the University Council at its No. 37 – 2004/2005 dated July 20, 2005.
- The amendment of Article VIII of the University Council under Resolution No. 1 (34) on 21/6/2006, and starts work this amendment as of the beginning of the year 2006/2007.
- The amendment of Article fifth item to build on the University Council resolution 2 (9) 2014/2015 dated 12/09/2014.
- Article XXII added building on the University Council resolution 4 (11) 2014/2015 dated 01/24/2015.
- Modified under the University Council resolution No. 3 (36) 2015/2016 dated 18/05/2016.
- Modified to fit the grading system in letters by university council resolution No. 1 (34) 2017/2018 dated 6/6/2018

Instructions Related to Academic Integrity

The University pays special attention to academic integrity from the principal and ethical points of view, and considers any breach of academic integrity a violation that directly affects its reputation and the reputation of its students. Academic integrity means not resorting to cheating, or to the use of any illegitimate methods during exams, university tasks and homework, in the preparation and writing of reports, researches, etc. In line with the University's goal related to the development of the research and intellectual investigations amongst its students, the University requests that its students full maintain academic integrity, and deals with any violations seriously and imposes punishments for those committing such violations. Therefore, the University Council conducts regular reviews of the academic integrity instructions, from time to time, and makes the required amendments whenever necessary, in order to make these instructions clearer and to prevent the violation of these instructions.

Clause One: Definition of Cheating, for the purposes of these Instructions

For the purposes of these instructions, cheating is defined as resorting and/or using illegitimate methods in an exam or a university task. Furthermore, the attempt, complicity, or embarking in an act of cheating is as serious as the actual act of cheating, as there is no real difference between actually cheating and attempting to cheat or assisting someone else in conducting such act during exams, homework, reports, or research papers. The below cases, and any similar cases, are considered acts of cheating:

1. Copying, or taking, in part or in full from a book, magazine, electronic source, or any other source, including material that the student has previously submitted in fulfillment of the requirements for another course or graduation requirements at Birzeit University or any other university, whether such material has been published or not, without clearly referring to the source and properly referencing it. In addition, cheating includes relying on another author's main ideas, concepts, and using his/her language without reference, whether such act was done in an exam, a homework, report, research paper, book review, Master's thesis, graduation project, course project, computer program, or any other material adopted by the University in the evaluation of a student's academic performance.

2. Lying in the declaration in which the student certifies, where applicable, that the work provided, unless otherwise explicitly referenced, is the student's own work, and has not been submitted elsewhere for the fulfillment of the requirements of any other course or to obtain any credit hours at Birzeit University or at any other university.
3. Conducting an exam, a lab experiment, or a homework on behalf of another student, or to ask another student to conduct an exam, a lab experiment, or a homework on your behalf.
4. Using materials or sources (books, magazines, printings, special papers, technical and electronic tools and means, etc.) that are not allowed during an examination.
5. Passing, or attempting to pass, information from one student to another inside the exam hall.
6. Fraud of all kinds and types, including forging the name on an exam paper and homework papers, and forging results and information in homework, research, and lab experiments, in addition to making any changes on grades or any other University documents.

Clause Two: Academic Order Committee

1. Cheating is treated and punished on the disciplinary level (except for temporary and final dismissal) by the academic order committees which are formed on the faculty level at the University.
2. The Dean of each Faculty shall form an academic order committee in his/her faculty during the first week of every academic year, and shall make all needed actions to properly maintain order during summer semesters. As for the academic order committees assigned to look into cheating and fraud cases related to graduate students, a central committee is formed for this purpose, and the Dean of Graduate Studies is considered the dean of faculty or the dean of the related faculty wherever the "Dean" is mentioned in these Instructions.
3. All cases of cheating in the courses offered by the various departments and programs of a faculty shall be referred to the academic order committee of that faculty, taking into consideration what is mentioned in the previous Term in relation to graduate students.
4. The academic order committee shall send its recommendation to the University Council regarding the dismissal (temporary or final) of a student who commits a cheating violation which the committee considers as major violation that requires a punishment that exceeds the level of punishment that the committee is allowed to impose.
5. Decisions issued in accordance to these Instructions shall be announced on Ritaj Portal without mentioning the names of the students.

Clause Three: Penalties for Cheating

1. Students who attempt, complicity, or embarking in an act of cheating are punished on both the academic and behavioral levels, as below:
 - a. Academic Punishment:
 - Cheating on exams: the punishment ranges from the deduction of grades (minimum punishment), giving the student a zero mark on the exam (more severe punishment), and giving the student the minimum grade in the course as a whole (maximum punishment).

- Cheating on homework, reports, or research papers: the punishment ranges from compelling the student to redo the homework, report, or research paper (minimum punishment), giving the student a zero mark on that task (more severe punishment), and giving the student the minimum grade in the course as a whole (maximum punishment).

b. Disciplinary Punishment:

A disciplinary punishment is accompanying the academic punishment imposed by the academic order committee of the faculty, the general academic order committee at the University, or the University Council. Disciplinary punishments are governed by the instructions specified in the Internal Regulations of the General Academic Order Committee at the University, and ranges from a written notice, to a first warning, final warning, temporary dismissal, and final dismissal from the University (Clause 16 of the Internal Regulations of the General Academic Order Committee). The academic order committee can impose any of the aforementioned disciplinary punishments except for dismissal (temporary or final), as it can only recommend such punishment to the University Council through the related Dean of Faculty, who will follow-up on the implementation of the related procedures.

2. A student is allowed to appeal the decisions related to academic and disciplinary punishments as specified in Clause “Four” of these Instructions. However, a student is not allowed to appeal the decision of dismissal from the University which has been imposed as a disciplinary punishment by the University Council.

Clause Four: Procedures

1. The course instructor or controller shall take all measures to prevent cheating, and shall be responsible for detecting acts or attempts of cheating.
2. In case a cheating incident occurs during exams, the responsible controller (or course instructor) shall record all details, and shall take possession of all related papers and proofs, including the exam paper, in the presence of the other controllers (if any). The controller has the right to ask the student to leave the exam hall. In cases of cheating on homework, reports, or research papers, the course instructor shall record all details and take possession of all related papers and proofs, and keep them.
3. If the course instructor does not witness the act of cheating in person, and was not around during the incident, then the controller who discovered the incident shall hand all proofs and papers to the Head of Department or the Program Manager, accompanied with a report issued by the controller containing all details related to the act of cheating, which shall include the names of witnesses (if any). The Head of Department should then collect all documents, proofs, reports, and details related to the incident and hand them to the course instructor, and should submit a copy to the related Dean of Faculty.
4. In case the course instructor finds that this act is considered a cheating act in accordance to the applicable instructions, then the student shall be given a chance to give his/her statement about what happened. In case the instructor decides that the cheating has in fact occurred, then he/she shall impose the necessary academic punishment according to his/her judgement, and

in accordance with Clause 3/1/a, within two work days from the date of discovering the cheating act or attempt.

5. In addition to imposing the academic punishment, the course instructor shall recommend the disciplinary punishment to the Head of Department or Program Manager, and shall submit all proofs and documents that prove the occurrence of the incident.
6. After the Head of Department or Program Manager receives the decision issued by the Course Instructor related to the academic punishment, and the recommendation related to the disciplinary punishment, he/she shall inform the related Dean of Faculty of the punishments, and shall submit all proofs and documents that prove the occurrence of the incident.
7. The Head of Department or Program Manager (in case the course instructor does not report a cheating incident and/or does not take any actions in such case) might recommend to the Department Council/Program Committee an academic punishment and a disciplinary punishment to be imposed on a student who committed a cheating act, after giving that student a chance to give his/her statement regarding the incident, and to validate the occurrence of the act of cheating. The Head of Department or Program Manager shall inform the related Dean of Faculty of the decision of the Department Council/Program Committee of the agreed academic punishment and their recommendation of a disciplinary punishment, and shall submit all proofs and documents that prove the occurrence of the incident.
8. After the decision of the Course Instructor or the Department Council/Program Committee related to the academic punishment is issued, the related Dean of Faculty shall be informed of the decision and shall inform the Student of the decision, and shall send a copy of the decision to the Vice President for Academic Affairs. Furthermore, the Dean of Faculty shall inform the Registration and Admission Department of the decision in order to include the academic punishment in the Student's profiles as necessary.
9. The Dean of Faculty shall submit all proofs and documents that prove the occurrence of the incident to the Academic Order Committee, and shall inform it of the academic punishment that was imposed in the student, and the recommended disciplinary punishment, and shall request that the Committee looks into the case, provided that such action shall be done within a maximum period of five work days from the date of the cheating incident or the date on which the Dean received the documents.
10. The Academic Order Committee shall summon the Student to give his statement regarding the incident. The Committee has the right to request the statements of other individuals as part of its investigations related to the incident.
11. The Academic Order Committee shall take its decision related to the disciplinary punishment, taking into consideration the severity of the violation and the unbinding recommendation related to the disciplinary punishment, within a maximum period of ten work days from the date of receiving the case.
12. In case the Committee sees that the student shall be dismissed from the University (temporarily or finally), then such issue should be referred to the University Council by the

related Dean of Faculty explaining the details of the incident, as such decision is outside the powers of the Committee.

13. The Academic Order Council shall submit a detailed report of its deliberations related to the incident to the Dean, and shall inform him/her of its decision (or recommendation in case of dismissal) regarding the disciplinary punishment.
14. The Dean shall then approve the decision related to the disciplinary punishment, or reject it. In case of rejection, the case should be referred back to the Academic Order Committee with his/her notes, and the Committee's decision shall be final after considering the Dean's notes.
15. The related Dean of Faculty shall inform the Student of the decision related to the disciplinary punishment, and shall inform the Registration and Admission Department of the decision in order to include the disciplinary punishment in the Student's profiles as necessary.
16. The Student has the right to appeal the decision related to the academic punishment issued by the faculty's Academic Order Committee within five work days from the date on which he was informed of the decision by the Dean. The appeal shall be rejected in case the Student does not appear in front of the Committee after he/she is invited to do so. After the Committee meets the Student and reviews the document, it shall take its decision of whether to impose a more or less severe punishment, or to keep the initial punishment. The Committee shall issue its decision within ten days from the date of appeal. In case the Student was found to be innocent, then the Head of the Registration and Admission Department shall be informed in order to amend the Student's profile, and the actions taken against the Student shall be corrected by giving him/her the opportunity to retake the exam, research, or report, if the Committee deems such actions appropriate.
17. The Student has the right to appeal the decision related to the disciplinary punishment issued by the faculty's Academic Order Committee in front of the General Order Committee at the University within five work days from the date on which he was informed of the decision. The appeal shall be rejected in case the Student does not appear in front of the Committee after he/she is invited to do so. After the General Order Committee meets the Student and reviews the document, it shall take its decision of whether to impose a more or less severe punishment, or to keep the initial punishment. The General Order Committee shall issue its decision within ten days from the date of appeal. In case the Student was found to be innocent, then the related Dean of Faculty and the Head of the Registration and Admission Department shall be informed in order to amend the Student's profile.
18. In all cases, a copy of the decisions issued by the related committees shall be kept in the Student's profile in the Department or the Program and in the Registration and Admission Department. Any committee looking into cases related to any students shall request his/her profile in the Registration and Admission Department before taking any actions against that Student. Committees shall take into consideration the repetition in the violations committed by the Student, and shall impose more severe punishments in case of repetition.

Those amended Instruction were approved by the University Council on the 24th of June 2009, and were first implemented at the beginning of the Academic Year of 2009/2010.

Instructions Related to the Registration, Supervision, Writing, Discussion, and Publishing of a Master's Thesis

Below are the instructions related to the registration, supervision, writing, discussion, and publishing of a Master's Thesis at Birzeit University.

First: Supervision and Discussion

1. The Dean of Faculty shall form a Program/Institute Committee based on a nomination form the Head of the Program/Institute at the beginning of the Academic year, and should continue for a duration of one year. The Committee should fairly represent the various specializations inside the Program. The Committee shall supervise all procedures related to the Program, at the level of the Department or the Institute. At the beginning of each academic year, each Program shall distribute the specific regulations related to the Master's thesis to its students, which should be endorsed by the Institute or Department Committee, or the Program Committee (specifications related to the proposal, thesis writing method, etc).
2. The student shall submit a written request to the Institute or Department Committee, or the Program Committee, in order to select the Thesis Track (Track "A") after he/she completes no less than 15 credit hours from the graduation requirements (in accordance with Clause 12 of the Academic Regulations for Graduate Studies). Each Program sets its acceptance criteria for the Track "A" application forms. Students are advised to enroll in Track "A" in their third semester in the Program.
3. After obtaining the Program's approval on the request, the student shall submit a brief proposal for the Thesis to the Head of Department, the Head of Institute, or the Program Manager/Coordinator, who should then approve the proposal and inform the Dean, prior to assigning a supervisor. The Brief Proposal should include the below elements (in around three pages) as a minimum:
 - a. Study problem
 - b. Study questions
 - c. Importance of study
 - d. Methodology (Nature of data, data collection methods, how to analyze data in order to provide answers to the questions).
 - e. Brief literature review.

4. The decision related to assigning a Supervisor for the Student's Thesis is issued by the relevant Dean of Faculty, based on the recommendation of the Head of Department, the Head of Institute, or the Program Manager/Coordinator, the Student's preference, and the Supervisor's approval. The Supervisor cannot be changed unless such change is approved by the Dean of Faculty, , based on the recommendation of the Head of Department, the Head of Institute, or the Program Manager/Coordinator.
5. The selected Supervisor shall meet the below requirements:
 - a. Is faculty member at the University, and holds a professorship degree in a field related to the student's field of study.
 - b. The number of theses that he/she supervises simultaneously does not exceed four theses, with three new theses as a maximum. Any exception to this requirement shall be approved by the University's Vice President for Academic Affairs.
 - c. The Supervisor shall not abandon his/her role as a supervisor for the student's thesis from one side. Furthermore, the Supervisor shall not be changed except under exceptional conditions, and after obtaining the approval of the Program Committee and the Dean of Faculty. The Dean of Faculty has the right to request full or partial reimbursement for the supervision bonus paid to the Supervisor.
6. In special cases, a person from outside the University, who meets the supervision requirements, may participate in the main supervision on the Thesis, along with a qualified faculty member from the University.
7. The student shall prepare a detailed proposal for his/her thesis, and this proposal shall include the title of the thesis, its importance, the used methodology, the study problem or subject, its content (if needed), literature review and evaluation, and an initial list of the references and sources used in the study. The detailed proposal shall be submitted to the Head of Department, the Head of Institute, or the Program Manager/Coordinator before the end of the first semester during which the student applies for the Thesis Track Request. The student shall set a date to defend the submitted proposal in front of the Program Committee, taking into consideration the below points:
 - a. The student shall defend the submitted proposal in the presence of the Supervisor. If needed, the Committee shall resort to voting in order to determine if the student shall continue with the Thesis Track, or shall change to the "Two Scholarly Papers" Track. Moreover, the Committee might request that the Student resubmits the proposal within a period that does not exceed one academic semester from that date.
 - b. The detailed thesis proposal should be discussed in the presence of the Supervisor, and the Supervisor is given the right to vote whether he/she is a member in the Committee or not, in a manner that ensures equality in evaluation for all students appearing in front of the Committee.
 - c. In case it was decided that the student should be transferred to Track "B", then a "Withdrawal" evaluation should be given for the Thesis Course.

8. The Student shall enroll for the Thesis Course (860). In case the Student does not complete the Thesis during the semester of enrollment, then he/she will be given an “In Progress” evaluation, and the student’s registration will continue without additional hours for a period of one or more semesters, until he/she completes his/her Thesis, provided that the Student does not exceed the allowed period for the completion of the Thesis (four regular semesters).
9. At the end of each semester, the Student shall submit a detailed report (a report submitted per semester describing the advancements in the Student’s work on the Thesis – attached) to the Supervising professor, describing the progress made on the Thesis. After giving his/her comments and recommendations, the Supervisor shall submit the report to the Head of Department/Head of Program, who can recommend to the Program Council/Committee, based on the submitted reports and the seriousness of the Student’s work, whether to allow the Student to proceed his/her work on the Thesis, or to submit a recommendation to the Dean of Faculty requesting the transfer of the Student to Track “B”, provided that the Student does not exceed the period given for the completion of the Thesis (four regular semesters).
10. A Student can submit a request to transfer to the “Two Scholarly Papers” Track (Track “B”) to the Head of Program, provided that such request is submitted during the period given for the completion of the Thesis (four regular semesters), and that such request is justified.
11. In case the Program Committee approves the track transfer request, a recommendation in this regards should be submitted to the Dean, and in case the Dean of Faculty approves such transfer from the Thesis Track to the Two Scholarly Papers” Track, then a “Withdrawal” evaluation should be given for the Thesis Course in the Student’s transcript.
12. The Discussion Committee should consist of the Supervisor (or Co-supervisors) and two other members from the University holding a Professorship Degree. One of the members might be assign from outside the University, and shall meet the same requirements that are determined for the Discussion Committee members and should undergo the same procedures used for assigning Discussion Committee members from inside the University. An additional Discussion Member can be added in extraordinary cases justified and approved by the Dean of the related faculty.

13. The members of the Discussion Committee shall be assigned by the related Dean of Faculty, provided that one of the members of the Discussion Committee is nominated by the Head of Department, the Head of Institute, or the Program Manager/Coordinator, and the other member is nominated by the Supervisor, at least three months ahead of the expected date for the Discussion.
14. Members of the Discussion Committee, in the presence of the Student, shall discuss a progress report submitted by the student in relation to the Thesis and the progress of work, and the Student shall record any notes they deem required. The minutes of this meeting shall be documented by the Supervisor, and shall be later submitted to the members of the Discussion Committee and the Head of Department / Program Manager, and the Dean of Faculty. The members of the Committee shall follow-up on the Student's work until the completion of the Thesis.
15. Upon preparing the Thesis for discussion, the Student shall submit a copy to the Department or the Program, in addition to the copies that shall be distributed to the members of the Discussion Committee, six weeks prior to the discussion date. The Head of Department / Head of Institute / Program Manager/Coordinator shall be responsible for fulfilling this condition. After all members of the Discussion Committee confirm that the Thesis is ready to be discussed (provided that the "Initial Evaluation of the Master's Thesis Discussion Committee" Form is filled by all members of the Discussion Committee, and a copy of the filled form is submitted to the Head of the Program and the Dean of Faculty), then the Head of Department, the Head of Institute, or the Program Manager/Coordinator, and based on the recommendation of the Supervisor, shall determine the date for the discussion and submit it to the Dean of Faculty, who shall then inform the Head of Department, the Head of Institute, or the Program Manager/Coordinator, the Student, and the members of the Discussion Committee of the Discussion Date, and to announce it inside the University. The Discussion shall be held at least two weeks prior to the graduation date for the semester that the Student intends to graduate in.
16. In case one of the members of the Committee sees that the Thesis is not ready to be discussed, the Committee shall debate this issue. In case the Committee fails to agree on a decision, then the Supervisor shall refer the issue to the related Dean of Faculty, who shall take the final and appropriate decision in such case.

17. The Thesis shall be discussed publically, and shall be open for the attendance of those who are interested. The procedures of the Discussion are as below:
 - a. The Head of the Committee asks the Student to provide an oral presentation summarizing the research topic, the methodology and the results.
 - b. The right of discussion is given to the Discussion Committee first, then the audience are given the chance to ask questions.
 - c. After completing the Discussion, the Committee shall debate the decision related to the evaluation of the Thesis by the majority vote of the Discussion Committee. The Head of the Committee announces its decision in the presence of the members of the Committee and the Student. The results shall be as follows: Pass, Pass after Amendments, Fail. The Committee's decision shall be documented in a special form ("Report of the Master's Thesis Discussion Committee"), which should be signed by the members of the Committee. The Dean of Faculty and the Registration and Admission Department shall be informed of the Committee's decision.
 - d. In case the Student passes the Discussion, he/she shall submit the Graduation Form and copies of the Thesis to the official bodies at the University within a maximum period of ten business days from the Discussion Date.
 - e. In case of failure, the Student shall be invited for a second session for discussion, which shall be attended by the members of the Discussion Committee, within a period that does not exceed six months, and the Student shall register again for the Thesis Course.
 - f. In case there is a need for amendment, the Student is given a chance with a maximum duration of four months to complete these amendments. The Committee's decision is documented and the Dean of Faculty and the Registration and Admission Department shall be informed of the Committee's decision. The Student's evaluation for this course should remain as "In Progress" until the Thesis is completed. Upon completing the amendments, the Committee shall decide, based on the vote of the majority of its members, if the Student has successfully completed the requirements for passing the course. In case the Student fulfills the requirements of successful completion, the members of the Discussion Committee shall sign the "Finalizing the Master's Thesis Amendments" Form. In case the Student fails to make the required amendments within the mentioned period, the Program Council/Committee shall look into the reasons for the delay and gives its recommendations to the Academic Council regarding whether to give the Student another chance to complete the Thesis, or to give him/her a "Withdrawal" evaluation for the Thesis. The Academic Council shall be responsible for defining the additional period to be given to the Student.
 - g. Members of the Discussion Committee shall sign the official page inside the Thesis after all the required amendments have been applied, and it should be first signed by the Supervisor.
18. Upon the Student's fulfillment of all graduation requirements, the Dean of the related Faculty shall submit a recommendation letter to the Academic Council to grant the Student a Master's Degree.

Second: Copyrights

The student is the owner of the copyrights for his/her thesis as a whole. However, this right is transferred to the University in case the student has received financial support (full or partial) in form of a research scholarship from the University or through it, for the purposes of conducting the research on which the Thesis is based. Such scholarships do not include the tuition scholarships in return for work, or any other type of scholarships other than research scholarships. Despite the Student's ownership of the copyrights for the Thesis, the University has the right to provide copies of the Thesis, or parts of it, (in paper form or electronic form) to researchers through the means currently used by the University, and those that will be later developed. The student's approval of granting the University these rights is one of the graduation requirements and the attainment of a scientific degree.

Third: Writing (Formatting)

The Thesis is written in accordance with the below:

1. The Thesis should be written in Arabic, and should include a clear abstract in Arabic and another one in English. The number of words in the Abstract shall not be less than 200 words or more than 600 words for each language. The Thesis can be also written in English, and should include an abstract in Arabic that consists of no less than 200 words or more than 600 words. In both cases, the Thesis must be written using correct language and shall not exceed 200 pages.
2. The internal cover of the Thesis shall contain the following:
 - a. Thesis title in both languages.
 - b. Name of its writer as registered in the official records of the University.
 - c. Date of Thesis discussion.
 - d. Names of the Supervisor and the members of the Discussion Committee.
 - e. The below statement should be included:

“This Thesis was submitted in partial fulfillment of the requirements of the Master's Degree in _____ from the Faculty of Graduate Studies at Birzeit University, Palestine”
3. The official page following the first page shall contain the Student's name, Thesis title, date of discussion, and the signatures of the members of the Discussion Committee. The pages of the Thesis shall be duly organized according to the known guidelines related to the formatting of scientific papers, as it should start with the acknowledgement, introduction, table of contents, list of tables and figures, the abstract in both languages, and then the chapters of the Thesis. The numerical numbering of pages shall start on the first page of the first chapter, and the first pages of the Thesis shall be numbered alphabetically. At the end of the Thesis, a list of references should be included.

4. The Thesis and the Abstract should be saved in Word format and printed on size A4 paper using a laser printer. The printing should be neat and presentable, and free of any printing defects, and on one face only.
5. In the Arabic copies of the Thesis, page numbering should be added on the top left side of the paper. As for the English copies of the Thesis, page numbering should be added on the top right side of the paper.
6. In the Arabic copies of the Thesis, a line spacing of one line and a half should be added between the lines. In the English copies of the Thesis, a line spacing of two lines should be added between the lines. A page margin of 3.5 cm should be added at the right and left sides and the top and bottom of the pages.
7. In case the Thesis includes maps, images, or any other figures and forms, the Student must use appropriate paper and tools that guarantee that such items are presented in a good and clear form, with the same quality in all copies of the Thesis.
8. The Student must abide by the guidelines related to quotations and the documentation of references, notes, bibliography, and indexes as specified in the Chicago Manual of Style or any other manual recognized by the Academic Council in relation to the specific field.
9. A full hard copy of the Thesis shall be submitted to each of the following:
 - a. Office of the Dean of Faculty.
 - b. Office of the Dean of Graduate Studies.
 - c. Program Office.
 - d. Thesis Supervisor.
 - e. University Library.
10. An electronic copy of the Thesis shall be submitted to each of the following:
 - a. University Library: on a CD containing the file in Microsoft Word format (.doc), and another file in PDF format (Adobe Acrobat).
 - b. Office of the Dean of Faculty: on a CD containing the file in PDF format.
 - c. Office of the Dean of Graduate Studies: on a CD containing the file in PDF format.

Fourth: Publishing the Results of the Master's Thesis Research

Birzeit University encourages its students to publish the results of their Master's Thesis research in all carriers of information in the methods applied at other universities, graduate studies institutions, and research centers. Similarly, as applied in such cases, and in order to explain and regulate the methods and mechanisms related to the publishing of such results, the below instructions shall be applied:

1. The right to publish the results of the research related to the Master's Thesis in the carriers of information is granted to the Student and the Thesis Supervisor.
2. The Student's name shall be listed as the first author, and the Supervisor's name as the second author.
3. The Supervisor can waive his/her right to publish, and in such case, and if the Student published part of the research results, then the Student should indicate that these results are part (or all) of the results of the research of a Master's Thesis that was completed at Birzeit University, with mentioning the name of the Supervisor in an appropriate location, in accordance with the known procedures in such cases in journals, periodicals, or books.
4. In special cases where the Student is unable to work with the Supervisor for the purposes of preparing the research results for publishing, or in case the Student waives his/her right to publish, the Supervisor can publish the results of the research after obtaining the Student's written approval, provided that the Student's name is mentioned as the first author. Otherwise, the Supervisor is not allowed to publish the results of the research.
5. In case any dispute arises between the Student and the Supervisor in relation to the interpretation or implementation of the instructions related to the publishing of the results of the Master's Thesis research, such dispute shall be referred to the Dean of Graduate Studies for adjudication. In such case, the Dean shall be based on the regulations followed at the University in relation to work ethics and the maintenance of academic integrity.
6. These instructions shall be applied retroactively on the Theses completed up to this date at Birzeit University.

Fifth: regardless of what is mentioned in these instructions, the student may choose the thesis track based on peer-reviewed articles if the following criteria are met:

1. The thesis must comprise at least two publications that have been published or accepted for publication in reputable refereed journals classified in the third category at a minimum. One of these articles may be published in the proceedings of an international conference or in a book published by a publisher of comparable stature as chosen by the Program Committee. If the publication falls into the first category, one published or accepted article may be used to satisfy the requirements, provided that the thesis includes an additional chapter devoted to presentation, methodology, and a summary of the studies or research projects undertaken by the student.
2. The student should be the main author of the articles. The articles should be the outcome of work that was developed from the date that the student was admitted to the master's program and continued under the supervisor's direct supervision.
3. If the paper is written in Arabic and is published in an Arabic-language journal, the list of journals approved by the university will be used for promotion purposes based on the field of study.
4. The articles must be homogeneous in terms of general topic, and when the language of one of the two articles differs, the student should translate one of them into the other language, with the original article attached as an appendix to the thesis in its original language.
5. Regardless of what is stated in item "First" 2, the student may petition the program committee to choose this path after two months of enrollment, provided that the student does not sign up for the thesis until after completing at least 9 credit hours of graduation requirements.
6. In joint research, the student who authored the thesis must be the first author of one of the two articles, and the student's second article is counted if the student's contribution in writing the research is 50% or more, according to the supervisor's discretion and approval by the program committee, regardless of the student's rank among the other student authors. The identification of the authors' contributions should be indicated in the first part of the thesis.
7. The Program Committee looks over the application or short proposal and assigns students the right level of authorship based on how much research they plan to do on the joint project.
8. The co-authors must be informed of the intention of the thesis writer to use the joint work in the thesis and document their approval of this by mentioning them as authors according to the percentage of their contribution to the work.
9. The student must obtain written permission from the publisher to utilize the articles in the thesis, particularly those in unopened publication journals, and must attach the authorization to the thesis. If this is not possible, the message, or parts of it, are withheld from public publishing at the university during the publisher's protection period.

10. In all cases, the thesis must include information about the publication in which the thesis's articles were published or accepted for publication, and this information is used when preparing reports for examining text similarity.
 11. The Dean of Graduate Studies, in conjunction with the Vice President for Academic Affairs, makes any decision not specified in this item, which constitutes an integral part of these instructions.
- Approved by the University Council on the 19th of May 2010, and amended in Session number (25) held on 09/04/2014, and recently amended in session number (13) on 6/12/2017.
 - Modified by the University Council on the 8th of December 2021, and amended the instructions for registering, supervising, writhing, discussing, and publishing master's thesis by adding an item No. Fifth in session number (18).

Doctoral Dissertation – Instructions on Registration, Supervision, Writing, Defense and Publishing

Article 1: Registration of the doctoral dissertation

1. Enrollment in the doctoral program takes place in the semester following the successful completion of the PhD qualifying examination.
2. Candidates submit an initial research proposal to the PhD program committee no later than the middle of the semester in which they enroll in the doctoral program. If the committee does not approve the proposal, candidates will be given a one-semester extension to submit a revised or a new proposal. The revised or new proposal may not be submitted more than twice.

Article 2: Appointment of dissertation Supervisor

1. A primary supervisor from Birzeit University is appointed for each PhD candidate. This person should be at least an Associate Professor and should have published in reputable academic journals in the last five years.
2. If necessary, a co-supervisor from outside the University may be appointed. This person should fulfill the criteria of the rank and academic performance mentioned. His/her appointment should be made in consultation between the program director and the primary supervisor.
3. The supervisor will be appointed in the semester in which the candidate enrolls in the dissertation after the doctoral program committee has accepted his or her initial proposal, based on the recommendation of the program director and the candidate's consent. In special cases, the supervisor may be appointed in the semester following registration of the dissertation, upon recommendation of the program director and approval of the dean.
4. After the dean has contacted the supervisor to obtain a written acceptance to supervise the dissertation, and after the supervisor has agreed, the supervisor will provide a written response of acceptance or rejection to the dean, who will inform the program director and the candidate of the response.
5. Once it is confirmed that all academic requirements, including the proposed supervisor's agreement to supervise, have been met, the Dean will issue a letter of appointment and notify the supervisor, the candidate, and the Program Director in writing of the appointment.

Article 3 - PhD supervision - role and responsibilities

1. In the case of joint supervision, the primary supervisor is the liaison between the Dean, the Program Director, the Doctoral Program Committee, and the co-supervisor, if applicable.
2. If a co-supervisor is appointed, the primary supervisor will manage the PhD supervision from the approval of the detailed dissertation proposal to the acceptance of the dissertation, with the co-supervisor playing a critical role in this process.
3. The supervisor decides on the language of the dissertation (Arabic or English) in consultation with the candidate.
4. Within six weeks of the supervisor's appointment, a supervision plan will be drawn up in consultation with the candidate. A copy of the plan will be sent to the Dean and the Program Director. It serves as an organized framework for regular meetings between the candidate and the supervisor.
5. The supervisor's responsibilities include ensuring the following:
 - a. The doctoral research is conducted in accordance with the ethical standards of academic research applicable to the university, and in accordance with the ethical and professional standards and code of conduct applicable to the academic field of study.
 - b. The research will be conducted in accordance with the guidelines of academic research ethics if interviews with individuals are conducted for research purposes.
 - c. Possible restrictions imposed on research and restrictions that may limit the freedom to publish data and results, when the research is funded in whole or in part by an external party, are not inconsistent with academic freedom.
6. The supervisor will track the candidate's progress in completing the dissertation manuscript through regular meetings with the candidate and through written evaluation of a periodic report and participation in an oral presentation by the candidate every six months. The report is then submitted to the program director.
7. The candidate submits the dissertation manuscript to the supervisor either in its entirety or in parts. The supervisor reads the manuscript or the submitted sections to ensure that the manuscript meets the requirements of the dissertation. The candidate makes the agreed revisions and then submits the complete manuscript to the supervisor for final approval.
8. In the event of a conflict between the candidate and the primary supervisor or co-supervisor, or if it is demonstrated that one of the supervisors is not academically supportive of the candidate, the Program Director will review the matter and submit his/ her documented recommendation, supported by evidence, to the Dean. This recommendation may include a request for a change of supervisor. If a new supervisor is appointed, the procedures outlined in Article 2 shall be followed.

Article 4 - Detailed proposal for the dissertation

1. The candidate should submit a detailed dissertation proposal to the supervisor no later than the end of the semester following the registration of the dissertation. The research proposal should be supported by clear rationale demonstrating its significance. It should include at least a brief literature review, proposed methodology, problem statement and research questions, and an initial list of references.
2. After the proposal has been approved by the supervisor, and within a maximum period of four weeks after dissertation committee has been appointed, the candidate must defend his/her proposal before the committee to obtain its written approval.
3. Upon approval of the dissertation proposal, the supervisor will send a copy of the proposal to the Program Director, who will attach his/ her evaluation or comments to the proposal and forward it to the Dean for approval.
4. If the candidate does not pass the proposal defense, he/she will be given another opportunity to defend the same proposal or a new proposal. If the dissertation proposal defense is failed a second time, the candidate must modify the proposal and defend it within a period of at least six months.

Article 5 - Appointment of dissertation committee

1. Within no more than three weeks of the supervisor's approval of the detailed dissertation proposal, and at the request of the supervisor and after consultation with the candidate, the Dean, upon recommendation of the Program Director, shall appoint the dissertation committee, with the supervisor serving as a chair of the committee.
2. The committee consists of the supervisor and three other members who specialize in the field of the dissertation, whereby at least one member of the committee must come from outside the university.
3. The committee meets at least once every six months at the invitation of the chair to hear the candidate's presentation and discuss the progress of the dissertation. A regular report will be submitted to the Dean through the Program Director. In special cases, with prior approval of the Dean, participation in the meeting may be via electronic means of communication where in-person attendance is not required.

Article 6 - Approval of the dissertation

1. At least six weeks prior to the dissertation defense, the candidate shall submit five copies of the dissertation manuscript to the Program Director for submission to the dissertation committee.
2. The chair supervisor and co-supervisor, if applicable, are responsible for the manuscript and ensure that it meets the relevant standards, taking into account the following points:
 - a. The importance and authenticity of the research topic.

- b. The importance and accuracy of the research questions.
- c. The academic criteria relating to the layout of the study, the analysis and treatment of the data.
- d. The derivation of new knowledge perspectives from the analysis.
- e. The accuracy of the scientific methodology used in the study.
- f. The clarification of the relationship between the conclusions of the study and the prevailing scientific theories and perspectives.
- g. The use of a creative approach related to the study's field of knowledge.
- h. The clarity of style and balanced structure of the manuscript and the absence of errors.
- i. Evidence of at least one published (or accepted for publication) article from the dissertation in a reputable journal.

3. The supervisor will notify the candidate of his/ her approval or disapproval of the dissertation manuscript using a template approved by the Doctoral Program Committee. A copy of the form will be sent to the Program Director and forwarded to the Dean. In all cases, approval of the dissertation manuscript must be obtained within a period of six weeks from the date of submission, and reasons for rejection must be provided.

4. If the supervisor does not approve the dissertation manuscript, the Dean, in consultation with the Program Director, has the right to appoint another supervisor after discussing the matter with the candidate and the supervisor and obtaining opinions from experienced professors.

5. In the case of joint supervision, where one supervisor approves the manuscript and the other rejects it, the procedure is as follows :

- a. Each supervisor writes his/ her opinion, and the manuscript and the supervisors' opinions are sent to the doctoral committee via the Program Director.
- b. Within six weeks of receiving the manuscript, the committee sends a written statement to the supervisors via the Program Director as to whether the manuscript is suitable for defense as a dissertation. The members of the doctoral committee may suggest changes to the dissertation.
- c. The decision of the committee to admit the candidate to the defense of the dissertation shall be made by a majority of the members. In the event of a tie, the manuscript shall not be considered ready for defense as a dissertation.
- d. The chair supervisor is responsible for notifying the candidate in writing of the committee's decision on the dissertation defense, whether it is accepted or rejected, and sending a copy of the decision to the Program Director and the Dean.

6. Upon approval of the completion of the manuscript and the granting of permission for the candidate to defend the dissertation, the Dean, in consultation with the supervisor and the program Director, will set the date for the defense meeting. The Dean is responsible for notifying the university community about the time and place of the defense meeting at least three weeks prior to the date.

7. At least three weeks prior to the defense meeting, the candidate agrees to grant the university exclusive publication rights to a digital copy of the dissertation.

Article 7 - Defense of the dissertation

1. Prior to the defense meeting, the chair of the dissertation committee shall determine the course and duration of the meeting and the time allotted to each member of the Committee for his/her interventions.
2. The defense of the dissertation may be conducted in Arabic or English.
3. Some committee members (with the exception of the chairperson) may participate electronically with the permission of the Dean.
4. The defense meeting lasts at least two hours, and follows these guidelines:
 - a. The dissertation committee chair will ask the candidate to give a presentation on the dissertation, and then invite the committee members to ask their questions. With the chair's approval, persons outside the committee may also ask questions.
 - b. Then the chair of the dissertation committee shall declare the end of the public portion of the defense meeting, and the beginning of a closed-door session restricted to the candidate and committee members present.
 - c. At the end of the closed-door session, the dissertation committee reaches its decision in a meeting not attended by the candidate.
5. The dissertation is accepted by the dissertation committee if it receives the majority of votes. In this case, the chair of the committee congratulates the candidate on behalf of the university community and announces the conclusion of the defense meeting.
6. The committee's decision on the dissertation may be one of the following four options:
 - Pass
 - Pass with revisions
 - Incomplete
 - Not passed
7. In the case of an "Incomplete" decision, a period of six months to one year is granted to make the required revisions. The committee will reconvene to discuss the work, review the necessary revisions and assess the validity of the work after the revisions.
8. All members of the committee sign the first page of the final copy of the dissertation. Some of these signatures may be electronic.
9. The committee may request revisions to the dissertation, which will be specified in writing. The candidate makes the requested revisions within eight weeks and documents this in a letter addressed to the supervisor. The committee members will confirm in a letter to the to the Program Director and the Dean that the candidate has made the requested revisions.
10. After final approval by the Doctoral Committee, which recommends the awarding of the doctoral degree, the Doctoral Program Committee submits the recommendation to the Academic Council via the Dean.

Article 8 - Dissertation - requirements, content, and scope

1. The dissertation represents the research carried out by a doctoral candidate and consists of a scientific work on a specific topic, presented in the form of a book. It may include references or a significant number of citations from reputable research papers previously published by the candidate, accepted for publication by an editorial board of a relevant journal or publisher, or submitted to a publisher based on the proposed dissertation research completed during the period of enrollment in the doctoral program.
2. The maximum length of the dissertation should not exceed 100,000 words. The Dean may allow this limit to be increased upon written request by the candidate and with the approval of the supervisor.
3. If the dissertation is written in Arabic, an English translation of the title, abstract and the table of contents must be included. If the dissertation is written in English, an Arabic translation of the title, abstract and the table of contents must be included.
4. The dissertation must include a title page indicating the candidate's first and last name as registered with the Department of Registration and Admission. The names of the supervisor and dissertation committee members should also be listed, according to their academic rank.
5. The institutions that supported the research project or facilitated its completion, as well as the individuals who contributed to the evaluation of the dissertation and supported the candidate, should be mentioned in accordance with the established form of thanks and acknowledgment as per the norms of academic research literature.
6. The dissertation should be printed in accordance with the instructions for printed materials and submitted in one volume, unless the nature of the dissertation requires a different format with the approval from the Dean.
7. The candidate must include copies of publications based on the dissertation.
8. The candidate must submit one hard copy and one digital copy of the dissertation to the University Library. A copy of the dissertation should be sent to the global dissertation database as determined by the Dean.

Article 9 - Dissertation Copyright

The candidate owns the copyright to his/ her dissertation as a complete manuscript. Even if the candidate owns the copyright, the University has the right to distribute copies of the dissertation or parts thereof (in printed or electronic form) to the research community, using the means currently in use or to be created later. Granting the university this right by the candidate is a condition for graduation and the award of the academic degree.

Article 10 - Publications resulting from the Dissertation

Birzeit University encourages the publication of dissertation research results in information collections using methods common to universities, institutes of higher education and research centers. In order to clarify and regulate the dissemination and publication mechanisms of these findings, the following instructions are applied:

1. The right to publish the dissertation research results in the form of books, chapters in edited volumes, or articles in various information collections is shared between the candidate and the supervisor (s).
2. In the case of unmodified publication of the dissertation, the name of the supervisor(s) and committee members must be retained in accordance with Article 8 of these instructions.
3. If the dissertation is converted into a book, the candidate is expected to give appropriate credit to the University and the dissertation supervisor(s) and the committee members in the preface or introduction.
4. When research required for graduation is published (even if it includes some supplements), it must be published under the name of the candidate and supervisor(s), with the candidate's name first in the list of authors, unless the advisor chooses not to participate in the publication.
5. In the event of disagreement between the candidate and the supervisor over the interpretation or application of the instructions for the publication of dissertation research results, the matter shall be referred to the Dean of Graduate Studies for resolution. In this case, the Dean will rely on the University's procedures regarding professional ethics and academic integrity.
6. These instructions apply retrospectively to dissertations previously completed at Birzeit University.

Article 11 - In cases not covered by these instructions, the instructions for the registration, supervision, writing, defense and publication of the Master dissertation at Birzeit University shall apply. The University Council shall decide on any developments not provided for in one of the instructions.

These instructions come into force from the second semester of the academic year 2018/ 2019.
Approved in the meeting of the University Council on 14. 11. 2018.

Academic Regulations for the Conferral of the Doctor of Philosophy Degree

Clause 1: Terms and Definitions

1. The following definitions apply where found in these regulations:

- a. **Dissertation:** An original piece of research that is written and executed according to specific instructions and guidelines, and is a result of research conducted by a student during his/her studies to obtain a Doctorate Degree.
 - b. **Dissertation Defense:** The meeting that includes a general discussion of the dissertation, on the basis of which the Doctorate Degree is granted.
 - c. **Program Director:** The person who administers a specific Doctorate program. The Program Director shall, at minimum, hold the rank of Associate Professor.
 - d. **Program Committee:** The Doctorate Program Committee, which holds the same responsibilities and rights of the Program Committee as defined in the University's general law.
 - e. **Dissertation Committee:** This Committee is responsible for the evaluation of the dissertation, and examines the student during the dissertation defense.
 - f. **Supervisors:** Members of the faculty who supervise the progress of the research and read the draft dissertation. They are members of the Dissertation Committee.
2. The regulations related to obtaining a Master's Degree shall apply to all cases not covered in these regulations.

Clause 2: Doctorate Degree

1. The Doctorate Degree is considered the highest and final academic degree at Birzeit University. The Doctorate Degree is obtained upon the completion of its requirements, which include: the successful completion of at least 54 credit hours (24 of which are for the Dissertation) according to the related academic regulations, in addition to successfully passing the dissertation defense. The Dissertation must be an original and independent piece of research, and shall be discussed in the presence of the Dissertation Committee, which is assigned by the Dean of Graduate Studies, based on the recommendation of the Program Director.
2. The Doctorate Degree is granted by the University, and the certificate is signed by the President of the Board of Trustees, the University President, and the Dean of Graduate Studies.
3. In case the student obtains the Doctorate Degree from Birzeit University and another university based upon the same dissertation (in accordance to a joint supervision system specified at the time), the dissertation defense shall be conducted at Birzeit University, and according to the applicable regulations.

Clause 3: Admission in Doctorate Programs

1. Admission Requirements:

- a. A Master's Degree (thesis track) in a field related to the Program (as specified by the Program Committee) from an accredited university, with a minimum assessment of "Very Good". In case the Master's Degree was obtained according to a non-thesis

track, the applicant must have published at least one article in a refereed journal or book.

- b. A Bachelor's Degree from an accredited university, with a minimum assessment of "Good".
- c. A General Secondary Certificate with a minimum cumulative average of 65%.
- d. A document proving that the applicant has completed a minimum of 80% of the credit hours by actual attendance in the related Bachelor's and Master's Degree Programs as a regular student.
- e. Successfully passing the Arabic language and English language proficiency examinations according to the standards specified by the Program.
- f. Successfully passing any examinations related to the field of specialization required by the Program at the time of admission. Students who do not pass these tests are required to complete remedial courses from the courses offered by related Master's Programs at the University, as specified in the admission letter, during the students' first year in the Program.
- g. Submitting a comprehensive research proposal.

2. Admission Procedures:

- a. The application for admission shall be submitted to the Registration and Admission Department, accompanied by all required documents, during the announced admission dates. Admission applications that fulfill the specified requirements are then transferred to the Program Committee, which gives its recommendations regarding the admission applications to the Dean of Graduate Studies.
- b. Students are admitted to a Doctorate Program based on the decisions of the Academic Council, and the recommendation of the Dean of Graduate Studies. The Vice President for Academic Affairs shall inform the Admission and Registration Department of the admission decisions, which in turn informs applicants of these decision in the specified time.
- c. The Program may require full-time enrollment in the Program. In this case, the admitted student will be provided a full fellowship, in accordance with relevant regulations.
- d. Students admitted to the Program may fund their studies on their own, or provide an external source of funding. In this case, the student will not be requested to complete any work or teaching at the University, unlike students who are given fellowships.

Clause 4: Courses and the Comprehensive Examination

- a. A student must complete no less than 54 credit hours (24 of which are for the Dissertation) from the courses provided by the Program beyond the Master's Degree. Based on the recommendation of the Program Committee and the approval of the Academic Council, the student may transfer no more than 9 credit hours completed at another university recognized by Birzeit University with a minimum evaluation of "Good". A student must complete the Doctorate Program requirements within a maximum of 3 years (six semesters) from his/her enrollment in the Program. The time required for the completion of the Dissertation does not count within this timeframe. A student may not, under any circumstances, register for more than 12 credit hours in a single semester.
- b. A Student cannot graduate with an average of less than 80% ("Good" evaluation).
- c. Enrolling in the Program requires attending all lectures and activities required by the Program.
- d. Students sit for the Comprehensive Examination after successfully completing no less than 24 credit hours of the program requirements, with a cumulative average of not less than 80%. Students who fail to pass this examination may retake it one more time within one academic year. In case of failure for the second time, they will be dismissed from the Program.

Clause 5: Academic Probation

A student is placed under academic probation when her/his cumulative average is less than 80%. For the purposes of academic probation, the cumulative average will only be calculated after completing 6 credit hours. The student must remove the academic probation in the semester specified for the removal of the academic probation.

Clause 6: Academic Dismissal

A student is dismissed from the Program in one of the following cases:

- a. If the student is placed under academic warning twice (not necessarily consecutive).
- b. If the student fails to successfully pass three courses from the Doctorate Program requirements (including failing to pass the same course twice, and failing to pass a different course).
- c. If the student fails to pass the Comprehensive Examination twice.
- d. If the student fails to complete the Program requirements within the program duration specified in Clause 11.
- e. If the student fails to defend his/her Dissertation proposal for the second time in accordance with regulations related to the registration, supervision, writing, defense and publishing of the Doctorate Dissertation specified by Birzeit University.

Clause 7: Dismissal from the University

A student is dismissed from the University in one of the following cases:

- a. In case the student is dismissed from the program.
- b. In case the student violates the University's general regulations. The dismissal in this case is based on the decision of the University Council, following the recommendation of the General Disciplinary Committee at the University or any other committee designated by the University President for this purpose.

Clause 8: Withdrawal from a Course

Students are not allowed to withdraw from any courses except in case of a documented emergency resulting in long absence periods and accepted by the Program Committee.

Clause 9: Withdrawal from the University

In case a student withdraws from the University or discontinues his/her studies, the University shall have the right to claim any amounts paid to the student through the fellowship granted by the University.

Clause 10: Graduation Requirements

A student graduates after he/she fulfills the below requirements:

- a. Successfully completing 30 credit hours from the Program Courses with a minimum evaluation of "Good", in addition to the completion of any remedial courses required at the time of admission.
- b. Successfully passing the Comprehensive Examination.
- c. Publishing one article in a reputable refereed journal, and submitting another article for publication.
- d. Completing the writing of the Dissertation under the supervision of two professors in accordance to regulations related to the registration, supervision, writing, defense, and publishing of the Doctorate Dissertation specified by Birzeit University, and successfully defending it before the Dissertation Committee.

Clause 11: Program Duration

A student must fulfil the Doctorate Program requirements within a period of six years, starting from the date of enrollment. The Academic Council may extend this period for one additional year under exceptional circumstances.

Clause 12: Grading system for Doctorate degree

First: Evaluation of the degree: The evaluation of the Doctorate student's results who successfully finished the graduation requirements is based on the cumulative average earned at the university.

Evaluation	Cumulative average percentage	
	Starting from	Below which
Distinction	90	100
Very Good	85	90
Good	80	85

Second: The highest grade of any Doctorate course is 100%, and failure grade is 65%.

Third: The minimum passing grade of any Doctorate course is 70%

Fourth: The passing grade for any remedial course is 65% for Bachelor level courses and 70% for any Master level courses.

Fifth: Starting from Then academic year 2021-2022:

- An academic warning is given if the Cumulative average percentage is below 80%
- The minimum Cumulative average percentage for graduation is 80%
- Failing grade for any doctorate course is defined by one grade which is 70%
- The minimum passing grade for any doctorate course is 75%
- The passing grade for any remedial course is 65% for Bachelor level courses and 70% for any Master level courses.

Clause 13: Interpretations

In case of any differences of opinion in the interpretation of these regulations, and in specific cases where these regulations are not applicable, the final decision rests with the University Council.

Clause 14: Validity

These regulations take effect from the date of their approval.

**Regulations approved by the University Council in session (1) 2014/2015 on 17/1/2015.
Decision Number (2) session (1) 2014/2015.**

Modified approved by the University Council in session (10) 2018/2019. Decision Number (1) 2018/2019

Modified approved by the University Council in session (13) 2020/2021. Decision Number (3) 2020/2021

Instructions Related to Tuition Scholarships and Work for Students of Graduate Studies

1. These instructions are the “Scholarships Instructions for Students of Graduate Studies” and apply to students who get tuition scholarships for their study and research at the University’s departments, academic programs, or main academic units, or to conduct other academic tasks at the University, under the direct supervision of the faculty members or related researchers at the University.
2. These scholarships aim at helping students of Graduate Studies to complete their higher education, in return
3. for their performance of specific works at the departments, programs, and main academic departments at the University. According to the applicable teaching and research assistant guidelines at the University, Students’ granting of such scholarship does not constitute as an employment of that student in a teaching or research assistance position.
4. Students benefiting from these scholarships are requested to work in accordance with their qualifications at an academic department or academic program that is part of the first university level/degree. Such work includes teaching a certain number of lab sections, or to give a specified number of theoretical lectures in the discussion courses offered by the departments or academic programs, especially primary courses, or any other similar academic works, as deemed appropriate by the department or program. Furthermore, students benefiting from these scholarships might be assigned to work in any of the main academic units at the University to assist in any of the works usually conducted by a faculty member or researchers, including training, guidance, and research. The work load for each student depends on the value of the offered sponsorship (see Clause 6 of these instructions). The full load for sponsorships is 8 hours per week per semester. Workloads are calculated in accordance with the teaching workload applicable at the University. As for the cases where students work in another field other than regular teaching, the full workload for “Tuition Scholarships and Work” is 24 work hours per week each semester.
5. Tuition scholarships, and the number of offered scholarships, are announced per Program for students who are accepted in the various graduate studies programs that have such scholarships with workloads. The number of such scholarships offered annually is determined according to the need and the available budget at the supervising unit (academic department, program, or main academic unit). Scholarships are given to applicants on competitive basis, based on the academic capacity to implement the required load.
6. Scholarships are available during the first and second semesters of each academic year, but are not usually offered during summer semesters.
7. Scholarships offered to students are of two types:
 - a. Full Scholarship: the student is required to perform full workload, which consists of 8 work hours per week in the student is offering regular teaching, and 24 work hours per week in case the student is working in irregular teaching, training and guidance (see Clause 3 of these Instructions). In return, the student is exempted from the tuition fees for the semester during which he/she obtains the scholarship. In addition, the student shall earn a financial

reward in the amount of 1500 one thousand and five hundred Jordanian Dinars during the semester during which he/she obtains the scholarship. The value of the reward is paid in two equal installments: at the middle of the semester and at its end. For some programs, the University Council may decide to increase the value of the fund from the amount mentioned above, to make it an annual scholarship, change the distribution of installments, and to change the workload assigned to the student.

b. Partial Scholarship: the value of such scholarship is proportional to the value of the offered scholarship in comparison to the full scholarship, in terms of the required workload, the exemption from tuition fees, and the value of the financial reward given to the student. The value of the reward is paid in two equal installments: at the middle of the semester and at its end. In special cases, the scholarship can be limited to the exemption from tuition fees in part or in full, based on the recommendation of the Dean and the approval of the Vice President for Academic Affairs.

In both cases, students will not be exempted from registration fees and other fees, such as graduation fees, etc. Furthermore, the student might be requested to return the value of the scholarship based on the recommendation of the Program Committee and the decision of the Dean, and to pay any fees that he/she was previously exempted from, in case the student is convicted of an academic or moral offense, or in case he/she did not commit to the scholarship condition mentioned in Clause 8 below.

8. The University has the right to renew the scholarship after it ends, or to amend it, or to fully cancel it, based on the Student's results, the evaluation of his/her work, and the need of the Department, Program, or Unit for the Student.
9. As a condition for obtaining a full tuition scholarship (See Clause 6.a above), the applicant must be a full time student at the University, and shall not be a full-time employee at any official, public, or private institution.
10. The maximum load of credit hours that the student benefiting from the tuition scholarship subject of these Instructions is 6 credit hours. This number can be increased to 9 credit hours (12 hours in case of PhD students) based on a recommendation from the Program Committee and the approval of the related Dean of Faculty. As for students registered for the Thesis Course (860), they are allowed to register for 12 credit hours in the semester during which they register for the Thesis. In case a student's registrations in the Thesis Course continues until the following semester, then the student is allowed to register for 6 credit hours. Students benefiting from partial scholarships are allowed to register for more credit hours, as specified in the applicable Graduate Studies regulations at the time, however, students will not be exempted from the fees related to these additional courses.
11. The Student benefiting from the scholarship is not considered an employee at the university, therefore, he/she is not entitled to any privileges given to the University's employees, neither according to the University's special regulations nor the applicable labor laws, or in accordance with any other laws, regulations, or norms.

12. All recommendations related to the implementation of these instructions shall be submitted to the University's Vice President for Academic Affairs for final decision on such issues.
13. These instructions shall be applicable starting from the beginning of the Academic Year 2015/2016.

Approved by the University Council on the 20th of July 2005, and amended on 19/09/2007 and 22 April 2015.

Academic Programs

The University includes the below nine faculties:

- [The Faculty of Arts](#)
- [The Faculty of Science](#)
- [The Faculty of Business and Economics](#)
- [The Faculty of Engineering and Technology](#)
- [The Faculty of Law and Public Administration](#)
- [The Faculty of Pharmacy, Nursing and Health Professions](#)
- [The Faculty of Education](#)
- [The Faculty of Art, Music and Design](#)
- [The Faculty of Graduate Studies](#)

These faculties offer a number of postgraduate programs leading to a master's degree. The faculty of Graduate Studies generally oversees graduate programs at the university and offers a number of programs that lead to a master's degree in different fields of knowledge and PhD program in Social Sciences.

The Faculty of Arts			
Program Name	Code	Program Name	Code
Arabic Language and Literature	ARAB	Arab and Muslim History	AMHI
Geography	GEOG	Contemporary Arab Studies	ARST
Sociology	SOCI	Community Psychology	CPSY
Critical Cultural Studies	CCST		

The Faculty of Science			
Program Name	Code	Program Name	Code
Environmental Biology	BIOL	Mathematics	MATH
Physics	PHYS	Applied Chemistry	CHEM

The Faculty of Business and Economics			
Program Name	Code	Program Name	Code

Economics	ECON	Business Administration	BUSA
Accounting and Auditing	ACCA	Executive Business Administration	EMBA
Supply Chain Management	MSCM		

The Faculty of Engineering and Technology			
Program Name	Code	Program Name	Code
Electrical Engineering	JMEE	Sustainable Engineering in Production	ENSU
Civil Engineering	ENCE	Mechanical Engineering	ENME
Urban Planning and Landscape Architecture	UPLA	Software Engineering	SWEN
Computing	MCOM	Computer Engineering	MSCE

The Faculty of Law and Public Administration			
Program Name	Code	Program Name	Code
Law	JURI	Law and Economics	LECO
Public Law		Government and Local Government	GOVA
Private Law			

The Faculty of Pharmacy, Nursing and Health Professions			
Program Name	Code	Program Name	Code
Clinical Laboratory Sciences	MCLS	Industrial Pharmaceutical Technology	MIPT
Oncology Nursing	ONCN		

The Faculty of Education			
Program Name	Code	Program Name	Code
Education	EDUC	Physical Education and Sports Sciences	PHED

The Faculty of Graduate Studies			
Program Name	Code	Program Name	Code
Applied Statistics and Data Science	ASDS	Israeli Studies	ISST
International Studies	INST	Democracy and Human Rights	DMHR
Community and Public Health	HLTH	Gender and Development Studies	GADS
Water and Environmental Engineering	WEEN	International Migration and Refugee Studies	IMRS
Water and Environmental Sciences	WESC	Community Development	CODE
Humanitarian Action in International Conflicts	HAIC	Renewable Energy Management	RENE

The Faculty of Graduate Studies – PhD	
Program Name	Code
Ph. D. Program in Social Sciences	PHSS
Ph. D. Program in Computer Science	COMP
Ph. D. Program in Mathematics	MATH
Ph. D. Program in Education Development	EDUC

Master Programs

Faculty of Graduate Studies

The [Faculty of Graduate Studies](#) was established in 1996, and a number of graduate programs were introduced:

- [Master Program in Applied Statistics and Data Science](#)
- [Master Program in Water and Environmental Engineering](#)
- [Master Program in Public Health](#)
- [Master Program in International Studies](#)
- [Master Program in Democracy and Human Rights](#)
- [Master Program in Water and Environmental Sciences](#)
- [Master Program in Gender and Development](#)
- [Master Program in Israeli Studies](#)
- [Master Program in International Migration and Refugee Studies](#)
- [Master Program in Renewable Energy Management](#)
- [Master Program of Community Development](#)
- [Master Program of Humanitarian Action in International Conflicts](#)
- [Master Program in Law and Information Technology](#)

Master Program in Applied Statistics and Data Science

The [Faculty of Graduate Studies](#) offers a [master program of Applied Statistics and Data Science](#) seeks to provide high quality of applied interdisciplinary statistics education to wide range background students. The program graduates professionals in statistics who are able to tackle different problems in demographic sciences, social sciences, economics, finance, health and other fields.

Admission Requirements:

Qualified applicants must fulfill the following requirements:

1. The first university degree in any of the following fields: the natural sciences, statistics, mathematics, computer science, health or medical sciences, engineering, agriculture, or any of the social sciences that deal with quantitative data such as sociology, economics, business administration, finance, public administration, education, psychology, and demography.
2. The Program Committee may require admitted students to take up to 6 credit hours of remedial courses in mathematics and statistics (MATH2351, STAT2311, and STAT2361). These courses will not count towards the fulfillment of the required credit hours in the program.
3. The Program Committee may require personal interviews with applicants.

Program Requirements

Students are required to complete 36 credit hours distributed as follows:

A. Core Courses: (16 credit hours):

Course No.	Course Title	Prerequisite(s)
ASDS6111	Statistical Packages R	
ASDS6302	Statistical Inference	
ASDS6311	Survey and Research Design	
ASDS6321	Applied Sample Design	
ASDS6331	Regression Analysis I	
ASDS7391	Data Mining	

B. Elective Courses: (14 credit hours):

Course No.	Course Title	Prerequisite(s)
ASDS6261	Regression Analysis 2	ASDS6331
ASDS6271	Small Area Estimation	
ASDS6291	Monitoring and Evaluation	
ASDS6341	Applied Non-Parametric Statistics	
ASDS6351	Multivariate Analysis	ASDS6331
ASDS6381	Time Series Analysis	ASDS6331 or Program Committee Approval
ASDS7211	Demographic Statistics	
ASDS7221	Economic and Social Statistics	
ASDS7231	Health Statistics	
ASDS7251	Actuarial Science	
ASDS7261	Data Visualization	
ASDS7291	Data Mining	
ASDS7381	Special Topic	

C. Track “A” or Track “B”: 6 Credit Hours; Thesis or two Seminars

Track	Course No.	Course Title	Prerequisite(s)
Track A	ASDS8600	Thesis	Complete no less than 17 credit hours from the program, including ASDS6311 and Program Committee Approval
Track B	ASDS8300	Seminar 1	Complete no less than 17 credit hours from the program, including ASDS6311 and Program Committee Approval
	ASDS8310	Seminar 2	ASDS8300

Applied Statistics and Data Science Course Descriptions (ASDS)

ASDS6111	Statistical Packages R
Program installation, program environment, data management, importing files, data types, operations on data, data analysis, plotting and data presentation	
ASDS6261	Regression Analysis 2
Multinomial and Ordinal regression models, Cox regression model, Mixed models, Panel data models, Path analysis, Estimation of structural models, Application using Statistical software's. <i>Prerequisite: ASDS6331</i>	
ASDS6271	Small Area Estimation
Introduction to small area estimation, Experimental small area estimation, Small area models, Best linear unbiased prediction, model diagnostics, Bayesian models, Model Selection, Delta method, Bootstrapping, Application using Statistical software's.	
ASDS6291	Monitoring and Evaluation
Monitoring and evaluation criteria, Needs assessment, Baseline evaluation, Indicators of monitoring and evaluation, Types of evaluation of cost, benefit and efficiency, Experimental design (weak experimental design which includes: one shot case study, one group pre-posttest design and true experimental design which includes pre-posttest control group design, posttest only control group design and Solomon group design), quasi-experimental design which includes: time series design and nonequivalent control group design, threats to internal validity, Pre-Post analysis, Difference-in-difference analysis, Application using Statistical software's.	
ASDS6302	Statistical Inference
Analysis of variance, Central Limit Theorem, Multivariate probability distributions, Conditional distributions and expectations, Moment Generating Functions, Chebyshev's Inequality, limiting distributions, Likelihood and Maximum Likelihood Estimation method, Application using Statistical software's.	
ASDS6311	Survey and Research Design
Research problem and questions statement, Literature review, Conceptual and theoretical framework, Data Sources including surveys and administrative records, Statistical Maps, Questionnaire design based on research questions, Pilot study, Experiments design, Survey validity, Telephone and Email surveys, Non-response and Dealing with Missing data replacement, Processing of surveyors errors, Data quality check, Knowledge of statistical report contents, Research proposal writing.	
ASDS6321	Applied Sample Design
Sampling frame construction, Probability and non-probability samples, Simple random sampling, Ratio estimator, Sample size calculation, Stratified sampling, Cluster sampling, Multi-stage sampling, Probability proportional to size sampling, Confidence level, Regression estimators, Bias, Variance, Standard errors,	

Applications on sampling and weighting, Case studies of sampling design and selection Application using Statistical software's.	
ASDS6331	Regression Analysis 1
General theory of simple and multiple regression models, Polynomial models, Analysis of variance, Categorical repressor's, Collinearity, Outliers and Influential observations, Measurement errors, Instrumental variable method, Generalized linear models, Application using Statistical software's.	
ASDS6341	Applied Non-Parametric Statistics
Hypothesis testing by ranks, Ordinal statistics, alternatives of Analysis of variance for ordinal data, Correlation, Nonparametric regression analysis, Bootstrapping methods, Application using Statistical software.	
ASDS6351	Multivariate Analysis
Analysis of multivariate data with high dimension of dependent variables, Statistical tools from one dependent variable to a group of dependent variables, Statistical analysis tools for correlated variables including: Multivariate regression, MANOVA, Factor analysis, Cluster analysis, Structural Equation modeling, Application using Statistical software.	
<i>Prerequisite: ASDS6331</i>	
ASDS6381	Time Series Analysis
Stationary models, Autocorrelation, Partial autocorrelation, Stationarity test, ARMA and ARIMA models, Box-Jenckins models, Models identification and estimation, Forecasting, Application using Statistical software.	
<i>Prerequisite: ASDS6331 or committee approval.</i>	
ASDS7211	Demographic Statistics
Historical development of demographic statistics, Population census planning, Census and Surveys, Non-response error, Vital registration systems, Fertility Survey, The Demographic Survey, Evaluation of family planning programs, Demographic projections, Life tables, Case studies, Data evaluation, Parameters consistency check, Results interpretation and implications on planning and policies, Application using Statistical software.	
ASDS7221	Economic and Social Statistics
Historical development of economic and social statistics, Stages and contents of establishment census, Time tables of economic and social surveys, Response errors, Establishments' registers, Several Economic and social surveys including: Industrial survey, Services survey, Trade survey, Labor force survey, Expenditure and consumption survey, Sample design for Economic Surveys, Measures of unemployment, poverty and inequality, Application using Statistical software.	
ASDS7231	Health Statistics

Basic designs of epidemiological studies, Odds ratio, Relative risk, Confounding and interaction ratios, Cohort studies, Case-Control studies, Matched case-control studies, Clinical trials, Crossover design and allocation of treatments, Sample size determination, Data analysis of survival and risk, Nonparametric methods, Kaplan-Meier estimation of survival function, Parametric models including proportional risk model and Cox model, Application using Statistical software.

ASDS7251	Actuarial Science
Life payments, money formation contracts, person insurance, business premiums, amount of insurance, variable payments and insurance, non-annual functions, death rates and at risk persons, other periods for calculating the death rate, application using Statistical software.	
ASDS7261	Data Visualization
Strategies of data analysis, Techniques of data visualization, Infographics, Techniques of multi-dimensional data visualization, Data visualization of data from different sources and depending on the purpose of visualization, Software applications of data visualization, Application using Statistical software.	
ASDS7291	Data Mining
Processing of big and multi-dimensional data, Data reduction methods, Locality-sensitive hashing, Distance and near neighbor measures, Frequent item sets, Graphs mining, Machine learning, Predictive analysis, Application using Statistical software. <i>Prerequisite: ASDS6331</i>	
ASDS7381	Special Topic
Special topic in applied statistics and data science.	
ASDS8300	Seminar 1
An advanced study in a subject in applied statistics or the application of machine learning algorithms and artificial intelligence that takes into account the instructions of the academic writing and the ethics of scientific research. At the end of the process, the student writes a scientific report or article, presents it to the teacher and students, and answers the teacher's and course students' inquiries. <i>Prerequisite: Finishing 17 credit hours including ASDS6311, and committee approval.</i>	
ASDS8310	Seminar 2
Continuing research in the topic of ASDS8300 or advanced research in another topic. Students will learn about publication strategies and the related databases. Students will deliver a research paper, present and discuss its results. <i>Prerequisite: ASDS8300</i>	
ASDS8600	Thesis
Conducting scientific research in a specified field following the rules and regulations in. <i>Prerequisite: Finishing 17 credit hours including ASDS6311, and committee approval.</i>	

Master Program in Water and Environmental Engineering

Introduction

Rapid increase in the global and local population have led to a growing demand for natural resources such as land, water, food, energy and raw materials. This has exerted a great pressure on the available natural resources. The imposed challenges resulting from the dramatic population increase are exacerbated by recalling that human activities inevitably produce tremendous wastes of gaseous, liquid and solid nature. The produced wastes would absolutely impose serious threats to the public health and harm the environmental systems, and as such might undermine development efforts, if not managed properly. Growing public awareness and demand for recreational areas and a clean environment together with increased concern for flora and fauna biodiversity have promoted increased effort to protect the environment. Sustainable development has become a key issue in environmental policy. Therefore, the today's environmental protection aims not only at cleaning-up of the past times pollution and erection of new wastewater treatment facilities, but also at pollution prevention at the sources, e.g. application of cleaner production principles, and resources recovery.

The [Institute of Environmental and Water Studies \(IEWS\)](#) at Birzeit University offers a [Master's program in Water and Environmental Engineering \(WEEN\)](#). The WEEN master program gives the students the knowledge and tools to face these environmental challenges. The research activities carried out in the WEEN master program are based on emerging local environmental issues and applied engineering problems that are often done in close cooperation with the private sector, consulting firms, local and foreign non-governmental organizations (NGOs) and public institutions.

Overall goal of the WEEN master program

The overall goal of the WEEN master program is to develop and upgrade students planning, design and implementation knowledge and skills. The graduates are expected to professionally work in the water and environment engineering fields in the governmental, non-governmental and private sectors, and as such should be able to meet the expectations of these institutions to work on water and environmental projects and programs.

Intended Learning Outcome of the WEEN Master Program

The Water and Environmental Engineering master program upgrades student's capacity for careers as leaders in understanding and addressing environmental issues from a problem-oriented, interdisciplinary perspective. The graduated students should be able to:

1. Develop and apply environmental plans for provision of infrastructure facilities (water and wastewater, eco-sanitation and solid waste) and environmental protection measures.
2. Design environmental technologies, and the ability to assess the design of existing technologies, with attention to socio-cultural aspects.
3. Develop feasibility studies for providing of environmental projects with ability to present different alternatives of technical solutions, concepts, locations, and prioritize them.
4. Apply advanced concepts of fundamental sciences and engineering to identify, formulate, and solve complex problems in sustainable and ethical means.
5. Prepare and make sense of managing organization's environmental management programs in a comprehensive, systematic, planned and documented manner.
6. Master core issues of professional practice of project management issues.
7. Communicate effectively both verbally and in writing across all stakeholders levels, including media, and ability to work in multi-disciplinary teams.
8. Think critically by using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
9. Use software programs in designing infrastructure facilities and environmental projects.
10. Demonstrate competence in research skills and creativity.

Admission Requirements

1. Applicants for the Water and Environmental Engineering master program must have a bachelor's degree in civil, chemical, or mechanical engineering or any other directly related engineering specialty as deemed suitable by the MSc Committee.
2. The MSc Committee may decide to conduct personal interviews with applicants in certain cases, and may specify remedial courses if needed.

Language of Instruction

Though Arabic is the official teaching language at BZU, the instruction and examination within the MSc program are in English. Therefore, prospective applicants have to demonstrate an acceptable language proficiency.

Courses offered for the Water and Environmental Engineering Master program

Students are required to complete 36 credit hours composed of the followings:

1. **Compulsory courses (18 credit hours)**

Course Number	Course Title	Prerequisite
WEEN6310	Urban Drainage and Sewerage Systems	
WEEN6350	Wastewater Treatment and Treated Water Reuse	
WEEN6380	Integrated Solid Waste Management	
WEEN7180	Scientific Research Methods	
WEEN7340	Integrated Land and Water Resources Management	
WESC7200	Bioremediation	
WESC7350	Water and Environmental Pollution	

Note: All students must pass WEEN7180 course within the first 15 credit hours registered

2. Elective Courses: 12 credit hours from the following list:

Course Number	Course Title	Prerequisite
WEEN6300	Political Economy for Environmental Planners	
WEEN6320	Water Distribution	
WEEN6360	Hydrology	
WEEN6390	Environmental Impact Assessment	
WEEN7230	Environmental Policy and Governance	
WEEN7240	Water-Energy-Food Security	
WEEN7310	Advanced Wastewater Treatment	WEEN6350
WEEN7320	Urban Planning and Environmental Management	
WEEN7380	Special Topics	
WESC6340	Environmental Processes	
WESC6370	Environmental Information Technology	

3. Track A or Track B: 6 credit hours either thesis or two seminars:

Track	Course Title	Course Number	Prerequisites
Track A	Thesis	WEEN8600	WEEN7180 Scientific Research Methods. The completion of at least 15 credit hours out of the requirements of the program
Track B	Two Seminars	WEEN8300	
		WEEN8310	

Water and Environmental Engineering Course Description (WEEN)

WEEN6300	Political Economy for Environmental Planners
The impact of the political, administrative, regulatory, and economic development on the environmental policies, taking into account the social aspects, impact of Israeli practices on the Palestinian environment, the interrelationship between population growth and sustainability of natural resources, financial aspects of the infrastructure of water and sanitation systems, financial management of municipalities and local councils for water projects, water pricing, social and economic factors affecting the water resources, wastewater and health, financial analysis and feasibility study for water and sewage system projects, sensitivity analysis for financial investments.	
WEEN6310	Urban Drainage and Sewerage Systems
Rational and historical background of wastewater and storm water collection and disposal; Quantities of wastewater and storm water; characteristics of combined and separate systems for storm water and wastewater collection and drainage; planning of urban sewer systems; material used in manufacturing sewers and manholes; operation and maintenance aspects; hydraulic design of open channels conduits; design principles of wastewater collection and storm water drainage systems; design principles of wastewater and storm water pumping stations.	
WEEN6320	Water Distribution
Water demand calculations: hydraulics of pressurized flow: design of water transport and distribution systems: pump selection: calculation of storage capacity: pressure zoning: house connections: phasing of construction: the use of computers in network design: selection of pipes, valves, and water meters. Types and characteristics of pumps and their applications, required power for the operation of pumping stations, operational and maintenance requirements of water supply networks: regular testing for water quality in pipelines, water hammer.	
WEEN6350	Wastewater Treatment and Wastewater Reuse
Composition of domestic and municipal wastewater, concepts of wastewater management (centralized, decentralized, on-site/off site, dry/wet, cleaner production, reuse, technology selection). Preliminary, primary and secondary treatment options for domestic and municipal wastewater. Nature-based solutions including natural treatment systems (waste stabilization ponds and constructed wetlands). Mechanised systems using aerated lagoons, trickling filters, biological rotating contactors and activated sludge systems. Development of flow sheets showing water and sludge lines, performance of treatment units, design exercise including comparison of alternatives with financial analysis, effluent standards, and focus on agricultural reuse. Recycling of reclaimed water in industry and planned groundwater recharge, pathogens and nutrient removals for health, environmental protection. Laboratory tests for monitoring aerobic and anaerobic bench scale and semi-technical wastewater treatment systems.	

WEEN6360	Hydrology
The hydrological cycle and its major elements, water balance, formation of rainwater, its characteristics and relation to climatic conditions. Precipitation measuring by monitoring networks, data assessment, surface water runoff, evaporation and evapotranspiration and the factors affecting them, measuring evaporation from soil and water surfaces, groundwater recharge, groundwater aquifers, interaction between groundwater and surface water and factors affecting that interaction.	
WEEN6380	Integrated Solid Waste Management
Types and components of solid wastes, collection and transport, treatment and disposal methods of solid wastes, study and design of bio-treatment methods as compost systems. Applications of cleaner production (CP) and waste minimization through integrated solid waste management including recycling and reuse, landfill site selection, design elements of landfills, leachate treatment and biogas utilization. Other treatment systems as incineration, and temporal storage of hazardous waste, managerial aspects and socio-cultural and economic issues of various solid waste types. Economical comparison and analysis of various technologies for solids waste treatment, technical field visits for some local landfill sites, rural composting and recycling facilities aiming at composting site erection and lab monitoring of the composting processes. Erection, operation and monitoring of a windrow-composting demo pile.	
WEEN6390	Environmental Impact Assessment
Environmental legislations and systems, legal and institutional aspects of EIA, environmental degradation and resulting environmental impacts, procedures and tools for performing EIA studies, advantages and disadvantages of environmental impact assessment studies. Resources needed for environmental assessment, types of environmental impacts, and methods of measuring and analysing the impacts, review of EIA reports and decision-making process. EIA case studies for different projects, introduction to social and health impact studies, cases on strategic environmental impact studies.	
WEEN7180	Scientific Research Methods
Research approaches and planning in the field of water and environmental sciences and engineering. Concept proposal writing, data collection and analysis, reading, analysis and critical review of selective scientific papers. Literature survey, styles of thesis, technical writing of scientific papers and posters.	
WEEN7230	Environmental Policy and Governance
Environmental politics and policymaking at various geopolitical scales, models and theories related to policy-making with focus on environmental policy, the roles of governmental, private sector, non- governmental, community, consumer, and other actors in environmental governance. Survey of the interrelated fields of environmental philosophy, politics and policy, respectively; and continues with case studies of environmental policymaking in domestic (community-based and multi-level), international, and global arenas, respectively. Globalization, trade, and the environment, socio-ecological challenge, environment as a political problem. Sustainable development in conflict between economic growth and environmental protection. Environmental ethics, justice and policy, climate change and environmental economics.	

WEEN7240	Water-Energy-Food Security
<p>Linkages between water, energy and food with respect to sustainable development. Socio-cultural and anthropogenic effects on hydrological and ecosystems. Sustainable energy sources, systems and security as a holistic tool. Food security and sustainability assessments of food production systems and food consumption patterns. Discussion of societal development goals (industrialisation, economic development, increased welfare, etc.) and policies (emission reductions, energy security, etc.) considering consequences for food, energy and water demand. Natural resource use and related impacts on food, energy and water over the entire supply chain until final consumption. Quantitative and qualitative indicators for sustainability. Available food, water and energy resources and how they can be localised, how the geographical distribution originates, and how be developed to fulfil societal needs. Infrastructure requirements and risks associated with various systems. Political conflicts and the influence of policies on food, water and energy systems. How rapid urbanization and increased industrialization affect resources with potential impacts on land-use, emissions and society.</p>	
WEEN7310	Advanced Wastewater Treatment
<p>Design and unit process calculations of secondary and advanced treatment processes with the emphases on nitrogen and phosphorus removal, aerobic and anaerobic treatment units like activated sludge and upflow anaerobic sludge blanket (UASB) systems. Tools for process operation and monitoring. Use of software packages for engineering design of unit operations in fixed film and attached growth systems. Detailed design exercise for a wastewater treatment plant with technical and economic analysis presented in a comprehensive technical report. Treatment methods for multi-beneficial uses of biosolids produced from wastewater plants.</p> <p><i>Prerequisite: WEEN6350</i></p>	
WEEN7320	Urban Planning and Environmental Management
<p>Relation between urban planning and environmental management through analysing and applying methods for environmental sustainability and protection from pollutants. Environmental planning for the urban and rural infrastructure. Strategies and policies of environmental planning and sustainability principals in Palestine and neighbouring countries explained by examples about sustainable environmental planning. Optimal utilization of the environmental resources (water, air, soil, trees, minerals) without jeopardizing the environmental system in one hand, and the environmental indicators to protect the resources on the other hand, or reaching a compromise to sustainable environment.</p>	

WEEN7340	Integrated Land and Water Resources Management
Definition of integrated land and water resources management, water resources assessment, water demands, water resource management plans, water demand management, water supply management, ideal use of the agricultural areas, decision-making on a multi-target level the management of water resources, Legislation related to land use and water, management of shared water resources, climate change adaptation, draught management, water management strategies, best management practice.	
WEEN7380	Special Topics
Research and discuss innovations and developments in the fields of water and environmental engineering and sciences in an in-depth methodical way, according to the needs and availability of staff members.	
WEEN8300	Seminar 1
An advanced study of a chosen topic according to student's specialization (water and environmental engineering or water and environment sciences). Course topics offered consider students' different directions in order to delve into their study and analysis, the possibility of choosing a separate topic, or part of an integrated project by a working group. Writing a high-level in-depth research, and presenting its results in an open specialized seminar, evaluation by a specialized committee <i>Prerequisite: finishing 15 credit hours and WEEN7180</i>	
WEEN8310	Seminar 2
An advanced study of a chosen topic according to the student's specialization (water and environmental engineering or water and environment sciences), provided that it is different or complementary to what was chosen in the course WEEN8300 within one of the areas of specialization offered by the program. Writing a high-level in-depth research, and presenting its results in an open specialized seminar, evaluation by a specialized committee <i>Prerequisite: finishing 15 credit hours and WEEN7180</i>	
WEEN7380	Special Topics
Research and discuss innovations and developments in the fields of water and environmental engineering and sciences in an in-depth methodical way, according to the needs and availability of staff members.	
WEEN8600	Thesis
Conducting a scientific research study in the field of specialization [WEEN or WESC] in accordance with the approved thesis instructions <i>Prerequisite: finishing 15 credit hour and WEEN7180</i>	

Master Program in Public Health

[Institute of Community and Public Health](#) began to offer Diploma and (MPH) programs in 1996, and graduated its first class of students in 1998. On average, 20 students have been graduating yearly since that time.

Institute of [Community and Public Health](#) admits students from a range of disciplines, with physicians, dentists, veterinarians, nurses and midwives studying side by side with other health professionals, nutritionists, engineers, economists, school teachers, and students who have science and social science Bachelor's degrees. This ensures that team work and inter-sectoral collaboration is instilled in students early on, and as part of the teaching process. This is also compatible with the principle that public health must be practiced inside and outside health services, including in school, community and the wider society.

ICPH offers the MPH program as part of its overall aim of contributing to health improvements and system building by upgrading and strengthening the conceptual, methodological and practical capacity of Palestinian health professionals and improving public health practice.

The main objectives of the program are:

- To assist students in developing a foundation of concepts, methods and competencies necessary for rational and effective public health practice, and relevant to the needs and aspirations of the Palestinian community.
- To equip students with the conceptual, analytical and technical skills required to identify health related problems, design interventions to address these problems, and monitor and evaluate the results of these interventions.
- To enable students to approach health-related problems with an appreciation of the broad determinants of health, including the social, political, and economic determinants in addition to the biomedical ones.
- To enable students to approach health conditions and services with the notion of inter-sectoral cooperation as an essential component of system-building.

Admission Requirements

1. A Bachelor degree from an accredited university with a minimum “good” standing.
2. A Bachelor specialty in general medicine, dentistry, nursing, one of the medical professions, or other specialties related to public health (such as nutrition, statistics, engineering, environment, management, economics, education, sociology, or psychology).
3. Passing ICPH's English proficiency examination.
4. Work experience in a field related to public health is preferred.

Program Requirements

The Master in Public Health is awarded upon successful completion of at least 36 credit hours divided as follows:

A. Compulsory Courses (17 credit hours) for all students

Course No.	Course Title	Prerequisite(s)
HLTH6230	Classical Epidemiology	
HLTH6301	Social Epidemiology	
HLTH632	Health Planning and Management	
HLTH6330	Research Methods and Data Collection	
HLTH6340	Health Statistics	
HLTH6380	Introduction to Environmental Health	

Note: All students are required to complete HLTH6330 within the first 15 credits of their registration in the program.

B. Elective courses (13 credit hours) from the following courses

Course No.	Course Title	Prerequisite(s)
BUSA636	Managerial Economics	
HLTH6100	Special Topics	
HLTH6201	Principles of Primary Health Care	
HLTH622	Management of Resources in the Health System	
HLTH625	Advanced Classical and Social Epidemiology	HLTH6230
HLTH626	Family Health	
HLTH627	Communication and Training Skills I	
HLTH629	Communication and Training Skills II	HLTH627
HLTH635	Health Policy and Planning	
HLTH636	International Health Systems	
HLTH637	A Public Health Approach to Communicable and Non-communicable Diseases	
HLTH721	Health and Society	HLTH6201 or concurrent
HLTH722	Gender and Health	HLTH6201 or concurrent
HLTH723	Special Topics	
HLTH724	Health Financing Policies	HLTH733
HLTH733	Health Economics	
HLTH734	Selected Topics	
HLTH7350	Population and Development	

C. Successful completion of one of the following tracks (6 credit hours)

Track “A” or Track “B”: 6 Credit Hours; Thesis or two Seminars

Track	Track Title	Track Number	Prerequisite(s)
Track A	Thesis	HLTH860	Complete no less than 15 credit hours from the program, including HLTH6330
Track B	Seminars	HLTH830	
		HLTH831	

Public Health Course Descriptions (HLTH)

HLTH6100	Special Topics
In depth study and research of special and emerging topics in the field of public and community health.	
HLTH6201	Principles of Primary Health Care
This course aims to introduce the student to the history of the development of the primary health care (PHC) concepts and practices worldwide, and the rationale behind the emergence of the PHC movement during the 1970s. It focuses on the basic principles of primary care outlined in the 1978 Alma Ata Conference, how PHC was implemented, what worked and what did not work over the years, the demise of PHC and reasons for its demise, and its resurgence beginning in the start of the 21st century. A special emphasis will be made on PHC's application in the Palestinian context.	
HLTH622	Management of Resources in the Health System
Identification, planning and management of the various resources needed for health systems, including human, financial and physical (infrastructure and equipment) resources. Development and operation of effective and reliable health information systems. Potential models of best practice and challenges to successful implementation relevant to countries with scarce resources such as Palestine.	
HLTH6230	Classical Epidemiology
A foundation course. Introduction to the basic concepts, methods, and applications of epidemiology. Sources of data, morbidity and mortality measures, epidemiological study designs and critical appraisal of epidemiological studies, epidemic investigation, causation, and inference. The distribution of epidemics and common diseases in Palestine and their patterns of occurrence	
HLTH625	Advanced Classical and Social Epidemiology
The main epidemics and diseases in Palestine, development of the conceptual and methodological skills acquired in the classical epidemiology course, in addition to the application of these concepts and skills to the study of the epidemics and common diseases in Palestine. <i>Prerequisite: HLTH6230</i>	
HLTH626	Family Health
Health problems that individuals face in the different stages of their lifecycles: childhood, adolescence, adulthood and old age. The various factors of different lifestyles, such as nutrition, and their effect on public health.	
HLTH627	Communication and Training Skills 1
The required theoretical and practical communication skills for health education through identifying suitable communication skills at the level of individuals, groups and society, with special focus on Palestinian society.	

HLTH629	Communication and Training Skills 2
Communication as an instrument of administrative organization and training, skills of developing plans and individual and collective programs, in addition to report writing and organizing programs. <i>Prerequisite: HLTH627</i>	
HLTH6301	Social Epidemiology
This course familiarizes the students with the basic concepts and terminologies used in employing a social epidemiological approach to the study of health and disease at the population level. It focuses on the social, cultural, economic, environmental and political contexts in which health is made or broken, and in which disease occurs. It emphasizes the use of multiple methods of data collection for the purpose of understanding population health needs and the means through which to work on fulfilling those needs. The course will also introduce students to qualitative methods of inquiry both theoretically and practically.	
HLTH632	Health Planning and Management
Main problems in planning and managing primary health care services on the local, regional and national levels, and the methods of dealing with these problems, with focus on specific skills, such as planning, monitoring, evaluation, networking, time management and record keeping.	
HLTH6330	Research Methods and Data Collection
Basic concepts in quantitative and qualitative public health research. Appraisal research designs, formulation of research questions, and design of research studies appropriate for a specific research topic/question. Preparation of a complete original research proposal	
HLTH6340	Health Statistics
Fundamental conceptual statistical principles and skills needed to deal with the problems of public health. Use of statistical methods and their role in assisting the process of decision making for policy formulation and planning for public health.	
HLTH635	Health Policy and Planning
The different methods of developing health policies and planning, different models and tools in the process of formulating policies, follow and evaluation, the different technical skills required for effective and realistic planning and the development of health projects, the role of health ethics in the process of policy formulation and planning. <i>Prerequisite: HLTH632 or teacher's approval</i>	
HLTH636	International Health Systems
The different methods used internationally to solve medical and health care problems, analysis of selected urgent health issues that are debated internationally, and applying this analysis in Palestine when formulating and building the health care system, taking into consideration the available local resources when rebuilding and developing the future Palestinian health care system.	

HLTH637	A Public Health Approach to Communicable and Non-communicable Diseases
Causes of disease, common communicable diseases in Palestine, and non- communicable diseases such as Tuberculosis, Diabetes. Social and psychological determinants directly related to public health, such as violence, disability and aging, with a focus on strategies for the prevention of diseases, such as vaccinations, medical investigation and health education.	
HLTH6380	Introduction to Environmental Health
The relation between the environment and people's health, their connection to material, environmental, economic, social, cultural and behavioral elements, medical biological determinants such as causes of diseases, climate change and global warming, the importance of environmental conditions in improving the health of populations, and environmental assessment tools.	
HLTH721	Health and Society
The relation between the social sciences and health services, with a focus on the social aspects that affect health, such as demographic and socio-economic changes, including urbanization, life style changes, and income changes as well as social and family relations. The development of Palestinian society, and its impact on health, including nutrition and the changes in other patterns and indicators. <i>Prerequisite: HLTH631 or parallel</i>	
HLTH722	Gender and Health
The social relations between men and women, the status of women in society and its implications for health, especially women's health. The experience of different international health and feminist movements in improving the health and social status of women. Study of Palestinian women's experience and the general health conditions of Palestinian women during the different stages of their lives (e.g. their mental and social health). <i>Prerequisite: HLTH631 or parallel</i>	
HLTH723	Special Topics
In depth study and research in the developments and advancements in the field of public and community health.	
HLTH724	Health Financing Policies
Analysis of health systems and health care financing schemes; roles of health care financing policies, goals of health care financing ; health care financing and health system performance, the relation among patients, health professional and financing agencies, money flow in the health care system, risk theory, national health accounts and health sector reform. <i>Prerequisite: HLTH733</i>	

HLTH733	Health Economics
Health Economics tools and concepts and their applications in health care and health care services, health as an economic service, characteristics of the health care market, demand and supply of health care, economics and decision-making in the field of health care, economic evaluation and allocation of scarce resources, cost analysis, cost-effectiveness analysis, cost-utility analysis, cost benefit analysis. <i>Prerequisite: BUSA636</i>	
HLTH734	Selected Topics
In-depth study and research in the development of and advancements in the field of public and community health.	
HLTH7350	Population and Development
Population data resources; demographic indicators; population growth; factors associated with population growth; population policies; population change, gender, and reproductive health rights.	
HLTH830	Seminar in Public Health
A seminar about on selected topics in the public health field. The seminar includes reading, analyzing and discussing some of the published research in scientific journals. It implies discussing the scientific troth principals and scientific research ethics and writing a report that includes enough literature review, re-writing the literature in student's words, developing a strategy for collecting data, conceptual and statistical analysis of the data and finally presenting the results to the other students for discussion. <i>Prerequisite: HLTH6330</i>	
HLTH831	Seminar in Public Health
A seminar about selected topics in the public health field. The seminar includes reading, analyzing and discussing some of the published research in scientific journals. It implies discussing the scientific troth principals and scientific research ethics, and writing a report that includes enough literature review, re-writing the literature in student's words, developing a strategy for collecting data, conceptual and statistical analysis of the data and finally presenting the results to the other students for discussion. <i>Prerequisite: HLTH6330</i>	
HLTH860	Thesis
Writing a thesis in the field of specialization according to the approved instructions for writing master's thesis. <i>Prerequisite: HLTH633</i>	

Master Program in International Studies

The [Ibrahim Abu-Lughod Institute of International Studies](#) offers an academic curriculum leading to the [Master Degree in international studies](#). The program is intended to develop the expertise of students, researchers and employees in relevant governmental and non-governmental organizations, through the study of major theories of the political and economic relations between states, in their historical context and within the organizing framework of international law.

Requirements for admission

1. Completion of the Bachelor's degree from a recognized university with the appraisal "good" at the very least;
2. Personal interview or writing sample by the applicant if the program committee so decides;
3. The program reserves the right to require the prior completion of compensatory courses by specific admitted students, in keeping with the academic bylaws governing graduate studies.

Requirements for completing the program:

- I. All students are to take Arabic 501 during their first semester.
- II. The completion of at least 36 credit hours distributed as follows:

First group: Courses required of all students: 9 credit hours distributed as follows:

Course No.	Course Title	Prerequisite(s)
INST6300	Introduction to International Relations	
INST6311	Research methods	
INST6321	International Relations Theory	

- a. INST6300 and INST6311 are prerequisites for all other courses in the program.
- b. INST6321 is to be completed among the first 15 credit hours taken in the program.

Second group: Elective courses 21 credit hours as follows:

a. At least 6 credit hours to be selected among the following:

Course No.	Course Title	Prerequisite(s)
INST6331	Historical roots of political concepts	
INST6332	Foreign policy and international relations	
INST6333	Principles of international political economy	
INST6334	Principles of international law	

b. A maximum of 15 credit hours to be selected among the following:

Course No.	Course Title	Prerequisite(s)
INST6381	Transformations in the international system during the twentieth century	
INST6382	International relations: concepts and thinkers	
INST6383	Non-state entities in international politics	
INST6384	Globalization and international politics: a critical approach	
INST7310	The nature of diplomacy	
INST7311	Negotiations and diplomacy	
INST7312	Conflict resolution and international crisis management: case studies	
INST7313	International trade policies	
INST7314	International development	
INST7315	The future of international politics	
INST7316	Human rights in international politics	
INST7317	Humanitarian intervention	
INST7361	Regional studies	
INST7371	Palestine in international politics	
INST7381	Special topic	

Third group: Track “A” or Track “B”: 6 Credit Hours; Thesis or two Seminars

Track	Course Number	Course Title	Prerequisite(s)
Track A	INST8600	Thesis	INST6300, INST6321, INST6311, and finishing 15 credit hours.
Track B	INST8301	Seminar 1	Finishing 24 Credit Hours.
	INST8311	Seminar 2	
	INST8011	General Oral exam	INST6311 and INST6300

International Studies Courses Description (INST)

INST501	Arabic Language writing Skills
This remedial course is intended to improve academic and practical writing skills, concentrating on issues of written Arabic such as the length of sentences, the absence of punctuation marks, as well as such phenomena as repetition, redundancies, exaggeration, etc.; to raising the students' attention regarding the identity of the presumed receiver so as to guarantee the effectiveness of written communication; to producing a short essay, then linking it to a longer one or placing it within a short piece of academic research; and to identifying common errors in linguistic and semantic composition and morphology.	
INST6300	Introduction to International Relations
An overview of the principal subjects dealt with in the Master program in international studies. A conceptual introduction to general principles in the areas of: the historical development of social organization, politics, political thought, the state, history of the development of international politics, international relations theory, international political economy, globalization, diplomacy.	
INST6311	Research Methods
Introduction to research methodology and varied research methods in the social sciences. Description of the methodological approaches employed in preparing research and Master theses. How to choose a subject, the research problem and its various parts, defining the hypothesis, methodological approaches in the fields of quantitative and qualitative research, comparison between methods. The elements of research production: structure, table of contents, research language, dealing with a variety of sources, written, spoken and visual, documentation, and academic ethics.	
INST6321	International relations theory
A survey of the principal theories in international relations, the principles, concepts and hypotheses on which they are based, and their most important thinkers. Discussion of the interpretive capacity of each theory as applied to the international system, international politics, foreign policy, international competition and cooperation, as well as questions of war and peace. Comparative analysis of realism, neo-realism, liberalism, neo-realism, constructivism and dependency theory.	

INST6331	Historical roots of political concepts
Obtaining a historical understanding of the fundamental criteria of modernity: democracy (5 th century BCE), empire (ancient Rome and the medieval Holy Roman Empire), the sovereign state (sixteenth century: Bodin and Machiavelli), the Westphalian international system (seventeenth century), capitalism (eighteenth century: Adam Smith), the nation (eighteenth-nineteenth centuries: Rousseau, Mazzini), constitutionalism (seventeenth-nineteenth centuries: Hobbes, Locke, Montesquieu, J S Mill), Socialism (nineteenth century: Owen, Marx, Lenin), internationalism (eighteenth-twentieth centuries: Kant, Wilson), the Third World (twentieth century: Frantz Fanon).	
INST6332	Foreign policy and international relations
Study of the relationship between foreign policy and international relations, and its influence on the structure of the international system and the functioning of international politics. The development of the scope of foreign policy in a variety of areas, and a study of the concepts and analytical contexts of the field of foreign policy analysis. Significant domestic and international elements in foreign policy decision making. The influence of the foreign policies of great powers on the international system and international politics. Foreign policy models and their influence on international relations.	
INST6333	Principles of international political economy
Basic concepts and principles of international political economy. Theories and practical applications of political economy, success and failure of the application of theory. Elements of international economy and their influences on states. The role of non-state actors in structuring the international political system, international financial organizations (the World Bank and International Monetary Fund), the World Trade Organization, and multinational corporations. Relations between states of the North and the South in the areas of trade and development, and international financing and investment. World financial crises and their political and economic effects.	
INST6334	Principles of international law
The principles and concepts of public international law. The rights and duties of states. The UN charter. The international responsibility of states. The enforceability of public international law. Individual state policy V.S the decisions of international organizations. International conflicts and the means for their settlement. Basic principles of international humanitarian law. The rights of refugees under public international law.	
INST6381	Transformations of the international system during the twentieth century
Structural transitions in the international system from 1890 to the present, their causes and effects. Systemic stability, peace and war. The Multipolar system (to 194), bipolar system (to 1990), Unipolar and post-Unipolar system (since 1990).	
INST6382	International relations: Concepts and thinkers
The main thinkers who contributed to the defining the concepts, ideas and theories in the field of international relations. Analysis of a set of fundamental writings by a number of thinkers such as Thucydides, Wilson, Keynes, Morgenthau, Carr, Waltz, Mearsheimer, Kissinger, Nye, Wallerstein, Samir Amin, and Alexander Wendt.	
INST6383	Non-state actors in international politics
Understanding the transformations undergone by the international system and international studies as a result of the increase in the number and influence of non-state actors in international politics, and a discussion of their influence on international relations. The role of international organizations such as the United Nations and its	

specialized agencies, regional organizations, popular organizations, multinational corporations, terrorist organizations, and individuals on international politics and relations.

INST6384 Globalization and international politics: a critical approach

The concept and theories of globalization. The various links, political, economic, cultural and technological between globalization and international relations, its influence on the international system, national sovereignty, non-state actors, global security and interstate relations, as well as such phenomena as migration and terrorism. The institutions of globalization, advocates and adversaries of globalization, critiques of the right and the left. Political fallout from globalization, notably national populism. The future of globalization and the international system.

INST7310 The nature of diplomacy

The origins and development of diplomacy over the centuries, the structural organization of diplomacy. The functions of diplomacy: representation, negotiation, protection and supervision. The nature of diplomacy: from the peace of Westphalia in 1648 to the Congress of Vienna in 1815; conference diplomacy, summit diplomacy, bilateral and multilateral diplomacy, coercion, preventive diplomacy, the influence of individuals on the nature and functions of diplomacy. Globalization and diplomacy, soft power, the role of non-state actors in the diplomatic arena. The future of diplomacy.

INST7311 Negotiations and diplomacy

Defining negotiations and the fundamentals as well as the concepts and laws of the negotiating process, and their links to diplomacy. How to define the goals of negotiations, and maximize gains while minimizing losses. The psychology of the negotiating process and the culture of negotiations. Asymmetrical negotiations, crisis management during negotiations. The choice of allies and understanding the various camps; how to choose a negotiation team. The methods of negotiation, tactics of the negotiating process, boycott and ending negotiations. Case studies.

INST7312	Conflict resolution and international crisis management: case studies
Theories of conflict and international crisis management. Causes of conflicts, types of conflicts, various methods for conflict resolution and international crisis management. Peaceful methods such as arbitration, mediation and negotiations, or non-peaceful methods such as military intervention. Analysis of a series of practical cases such as the division of Korea, the three-party invasion of Egypt, the Berlin blockade, the Cuban missile crisis, Egyptian-Israeli negotiations, the single China policy, the Madrid Conference, the Oslo accords, transitional justice in South Africa.	
INST7313	International trade policies
Principles of international trade, the bases for negotiations, trade agreements and associated policies. The legal framework of international trade from GATT to the WTO. Conditions for membership of the agreements, most notably the World Trade Organization, which contributed greatly to world economic development after World war two. The nature of regional trade groupings and international economic coalitions. Distinctions between free trade agreements, customs unions, a common market and economic or monetary union.	
INST7314	International development
Historical origins of the concept of international development since the Second World War Theories of development, and the developments leading to the current concept of international development. Social and economic development and political transformation. The role of the state in development. International developmental agencies and non-governmental organizations. UN agencies working in the field of development and the goal of sustainable development 2015-2030. Links between international development and the initiatives of the great powers, and their effects on developing countries, particularly with regard to international debt.	
INST7315	The future of international politics
A futurological analysis of the international system in the twenty-first century. The constituents of power and the redistribution of power. The future of the great powers, political and military alliances, and major economic blocs, and its influence on international politics. The role of a variety of actors in redefining international politics and the outlines of the future international system. Globalization and nationalism, free trade and protectionism, terrorism and migration. The relevance of international law and organizations.	

INST7316	Human rights in international politics
The transformation of the philosophical and juridical basis of an international culture of rights and the international structures of human rights, notably after World War two. Human rights criteria and types of rights. International documents, treaties and agreements related to human rights. The responsibility of states, pressures and international intervention versus the sovereignty of states. Regional and international bodies, local and regional courts, human rights networks, civil society organizations, public opinion, media. The influence of human rights on international relations and politics. Case studies.	
INST7317	Humanitarian intervention
The concept of international humanitarian interventions, types thereof and their legitimacy, legal, political, economic and ethical aspects. Growth and development of the phenomenon. Causes and justifications for international humanitarian intervention, such as strengthening human rights, protection of minorities, preventing crimes against humanity, peacemaking, furthering development. The responsibility to protect, humanitarian relief, emergency relief, natural crises and disasters as well as conflicts. The essential players in humanitarian intervention and their goals: states, governmental and non-governmental organizations. Case studies.	
INST7361	Regional studies
Detailed study of a regional Order (such as the EU, Africa, Latin America, Southeast Asia, etc.) based on need, interest and availability of resources.	
INST7371	Palestine in international politics
The Palestinian question and its Arab, regional and international implications, from the early twentieth century. The struggle with the Zionist movement and then Israel at the local, regional and global levels, during the mandate period, through the revolution and the Palestinian Authority. Palestine in the regional and global system. International decisions and their impact. The role of the great powers and international politics and the Palestinian question. Palestinian diplomatic successes and reversals. Negotiations since the Madrid conference.	
INST7381	Special Topic
Advanced study of a topic selected by the international studies program committee based on need and the availability of resources.	
INST8011	General Oral Exam
After the completion of 24 credit hours and during their last semester, track B students take their general oral examination, aimed at testing their general skills in the discipline of international studies. The exam is administered by a special committee and offered twice a year at the end of each semester. It is not offered during the summer semester.	
INST8301	Research seminar
Advanced study of a topic in the area of the “foreign policy of the great powers”. Each student must write an extended research paper (at least 12000 words).	
INST8311	Research Seminar
Advanced study of a topic in the area of the “Arab world and international politics”. Each student must write an extended research paper (at least 12000 words).	
INST8600	Thesis

A scholarly piece of research is produced, based on the criteria applying to Master theses.

Master Program in Democracy and Human Rights

The [Muwatit Institute for the Study of Democracy and Human Rights](#) offers a program of study leading to the [master degree in Democracy and Human Rights](#). The Program seeks to prepare students for work in several areas, including: teaching and advocacy of Democracy and Human Rights at various levels and in different sectors of society, as well as undertaking research in all areas relevant to Democracy and Human Rights. The Program addresses itself to students who are interested in any aspect of Democracy and Human Rights, including educators (schools, institutes, and universities), workers in government and civil society organizations, and academic researchers interested in democracy and human rights issues.

Admission Requirements

1. Applicants are expected to have a specialization that falls within Humanities, Social Sciences or Law. Applicants from other disciplines may be considered. Program Council reviews applications and may require completion of (no more than) 6 credit hours (90 hours of class meetings) in remedial course work which the Council will specify. Remedial course credit hours do not count towards graduation.
2. Interviews shall be required in cases where the Program Committee deems necessary. Applicants may be asked to write an essay in lieu of the interview. Nature and specifications of the essay will be determined by the Committee.

Program Requirements

1. Accepted applicants are expected to sit for an English language test whose result will determine whether the applicant needs to take a remedial course of 3 credit hours in the English language. The remedial course must be taken before the third semester of enrolment in the Program, in accordance with the rules and regulations of the School of Graduate Studies at Birzeit University
2. In order to graduate, a student must complete a minimum of 36 credit hours distributed as follows:
 - a. Compulsory courses: completion of 16 credit hours.
 - b. Elective courses: students must complete 14 credit hours: Choice of electives must comply with requirements and restrictions indicated below.
 - c. Completion of 6 credits in the form a thesis Track “A”, or as two research seminars for Track “B”.

List of Courses, Requirements and Restrictions Applicable to Program Students

Type of Course	Course No.	Course Title	Prerequisite(s)
Remedial Courses	DMHR5001	English Language for Studying Social Sciences	
	DMHR5002	Advanced Introduction to Social Sciences	
	DMHR6001	Using the Library, Data bases, Search Engines, and Scientific Documentation	
	DMHR6002	Critical Reading and review of Literature	
	DMHR6003	Scientific Writing and Argument Construction	
	DMHR6004	Research Proposal Writing	
	DMHR6005	Field Work	
	DMHR6006	Quantitative Analysis	
Required Courses 16 Credit Hours	DMHR6311	Democracy in Theory and Practice	
	DMHR6312	Human Rights in Theory and Practice	
	DMHR6313	Introduction to Studying and Researching Interdisciplinary Issues in Social Sciences	DMHR6311 or DMHR6312
	DMHR6321	Issues of Transitions to Democracy	DMHR6311
	DMHR6322	History of Democracy	
	DMHR6331	International Human Rights Law	DMHR6312
	DMHR6332	International, Regional, and National Mechanisms for the Protection of Human Rights	
	DMHR7151	Internship (practicum)	Program Approval
	DMHR7152	Documentation of Violations (practicum)	Program Approval
	DMHR7153	Strategic Planning	Program Approval
	DMHR7154	Managing Campaigns and Activities	Program Approval
Elective Courses 14 Credit Hours	DMHR6351	Theories of Rights and Human Rights	DMHR6312
	DMHR6352	Democracy and Social Justice	DMHR6311, DMHR6312
	DMHR6353	Democracy and the Deconstruction of Hegemonic Structures	DMHR6311
	DMHR6354	Political Theories and the Sources of Legitimacy	DMHR6311
	DMHR6355	Democracy and the Questions of Identity, Culture and History	DMHR6311
	DMHR6356	Civil Society	Program Approval
	DMHR6357	Democracy, Human Rights, and Globalization	DMHR6311, DMHR6312

DMHR6358	Democracy and Human Rights in Education	DMHR6311, DMHR6312
DMHR6359	The Legislative Process	DMHR6311, DMHR6312
DMHR6161	Basics of International Criminal Law	Program Approval
DMHR6162	Basics of International Humanitarian Law	Program Approval
DMHR6163	Basics of International Humanitarian and Criminal Law and the Palestinian Cause	Program Approval
DMHR6171	Democracy as an Interest and a Value	Program Approval
DMHR6172	Democracy and Citizenship	Program Approval
DMHR6173	Democracy, International Relations, and the World Order	Program Approval
DMHR6181	Political Parties in Palestine	Program Approval
DMHR6182	Palestinian Civil Society Organizations	Program Approval
DMHR6183	Refugee Rights	Program Approval
DMHR6184	Human Rights and Current Laws in Palestine	Program Approval
DMHR6187	Interaction with Current Debates in The Field	
DMHR6185	Issues of Democracy and Human Rights Under Occupation	
DMHR6186	The Condition of Human Rights in Palestine	
DMHR6187	Interaction With Current Debates in the Field	
DMHR6190	Current Issues	Program Approval
DMHR7311	Critiques of Democracy and Human Rights	Completion of required courses or Program Approval
DMHR7312	Democracy and Political Transformations in the Global South	Completion of required courses or Program Approval
DMHR7313	Democracy and Human Rights in Contemporary Arab and Islamic Thought	Completion of required courses or Program Approval
DMHR7314	Human Dignity, Democracy, and Human Rights	Completion of required courses or Program Approval
DMHR7315	The Philosophy of Human Rights	Completion of required courses or Program Approval
DMHR7316	Arab State, Revolution, and Political Transformation	Completion of required courses or Program Approval

	DMHR7317	Hegemony, Democracy, and Human Rights in the World and in Palestine	Completion of required courses or Program Approval
	DMHR7120	Selected Conceptions of Democracy and Human Rights	Program Approval
	DMHR7130	Selected Models of Human Rights Practices	Program Approval
	DMHR7140	Selected Models of Democratic Practice	Program Approval
	DMHR7190	Contemporary Issues	Program Approval
	DMHR7390	Special Topic	Program Approval

Track “A”	DMHR8600	Thesis	Completion of required courses and Program Approval
Track “B”	DMHR8301	Seminar 1 (in Democracy)	
	DMHR8302	Seminar 2 (in Human Rights)	

Democracy and Human Rights Course Descriptions (DMHR)

DMHR5001 English Language for Studying Social Sciences

English readings in the social sciences. The course aims at developing reading and comprehension skills (analysis of linguistic structures, discovery of meaning in context, distinguishing between main and secondary ideas, facts and personal opinions, tracing the development and organization of ideas). In addition, the readings are designed to help students build a stock of theoretical concepts and associated technical terms.

DMHR5002 Advanced Introduction to Social Sciences

A study of important texts in the fields of democracy, human rights, law, development, and gender. The aim is to present and discuss concepts and central debates in the social sciences, including: power structures and relations of different kinds—imperial (colonial), racial, gender and class-related; instrumentalities of domination, hegemony and subjugation; formation of social identities; the dialectic of power and individual will; types of discourse. These concepts and debates will be used as analytical-critical frameworks in the process of understanding the logic of social science discourse.

DMHR6001 Using the Library, Data bases, Search Engines, and Scientific Documentation

Practical skills employed in the search for resources relevant to research on specific subjects. These include: choosing keywords, cataloguing systems, important data bases in the areas of democracy and human rights, goals and methods of documentation, commonly used methods of documentation, and training in the use of different styles of documentation.

DMHR6002 Critical Reading and Review of Literature

Skills of critical reading of academic writings. These include: discovering central claims and theoretical frameworks; evaluation of the internal logic of the text and connections between theoretical frameworks, methods of research and results arrived at; identifying and reviewing relevant literature; forms and methods of criticism of the literature.

DMHR6003 Scientific Writing and Argument Construction

Academic writing skills: formulating a thesis, structuring ideas, dividing the paper (chapter) into sections, writing in a logically orderly manner. Students will also learn to recognize elements and structure of arguments - premises, conclusion (direct and indirect), and to distinguish between proof and probability, data, assumptions, presuppositions, and inferences.

DMHR6004 Research Proposal Writing

Practical training in the formulation of research proposals. The following elements of research proposals will be dealt with: the research problem, its importance, and how its solution contributes to current knowledge about the subject being studied; research method and instruments used to gather data; theoretical foundations; review of literature; list of proposed references; positioning of the proposed research in relation of other disciplines; thesis to be defended; assumptions and definitions of terms; time framework for the proposed research.

DMHR6005 Field Work

Introduction to methods, procedures and elements of field work, including: information gathering, varieties of sampling techniques, in-depth interview, structured and semi-structured interview, questionnaires, respect of privacy, coding, in-putting, and presenting of information.

DMHR6006 Quantitative Analysis

This course discusses methods and procedures for obtaining quantifiable information, how it is to be analyzed and evaluated, as well as methods for reaching conclusions on the basis of quantified information.

DMHR6161 Basics of International Criminal Law

A comprehensive historical, theoretical and practical overview of international criminal law. The course outlines the development of the international criminal court-system from the Tokyo War Crimes Trials, the Nuremberg Trial, down to the present International Court of Justice. The course seeks to provide students with essential knowledge about: judicial committees, international criminal courts, individual responsibility before international criminal law, international crimes, accountability, truth and reconciliation. Additionally, the course will dwell on the value and importance of major precedents in national and international courts.

Prerequisite: Program Approval

DMHR6162 Basics of International Humanitarian Law

This introduction to international humanitarian law raises two questions: under what conditions is it legitimate to use force to apply humanitarian law? What modalities are permissible in the use of force? The course will also deal with the following issues: history and sources of international humanitarian law in relation to the principles it embodies (distinction, proportionality, military and humanitarian necessities and exigencies); international agreements and conventions which constitute the source of this law; present-day challenges and recalcitrant problems of application; classification of types of conflict; combatants and civilians; administration of territories under occupation; conduct of war and legitimate weapons; the relation between humanitarian law and human rights law.

Prerequisite: Program Approval

DMHR6163	Basics of International Humanitarian and Criminal Law and the Palestinian Cause
<p>A study of both international human rights law and international criminal law, with the Palestinian cause serving as a case study. The course will discuss how international laws were (or were not) applied in the Palestinian case, and the relevant issues which this raises for these laws. The course will also deal with technical issues of implementation with respect to the Palestinian case, and will present a critical analysis of the possibilities and limits of applying international law, and the effects which this stands to have on the Palestinian project of liberation.</p> <p><i>Prerequisite: Program Approval</i></p>	
DMHR6171	Democracy as an Interest and a Value
<p>A comparative discussion and analysis of two rival conceptions of the grounds for adopting democracy as a system of government: the moral conception and the pragmatic conception. Questions for both conceptions will be raised and debated. Is democracy, together with all the practices associated with it, such as tolerance, pluralism, etc., of value in and of itself, and thus a moral choice of sorts (first conception)? Or is democracy, with all the practices associated with it, a matter of practical calculation of interests and utilities (public and private), so that viewing democracy as a value is consequent upon viewing it in terms of interests (second conception)? The course will seek to place the different answers in different philosophical and ideological perspectives in a way that will encourage students to arrive at well-reasoned positions about the motivations that lie behind the choice of democracy as a political system.</p> <p><i>Prerequisite: Program Approval</i></p>	
DMHR6172	Democracy and Citizenship
<p>A study of the concept of equal citizenship as a central concept of democratic thought-- a concept whose absence is sufficient to invalidate any claim on behalf of a political system to being democratic. The course intends to examine how this concept operates at the level of state laws and internal policies, and how it requires the absence of discrimination between citizens on the basis of gender, race, religion, and ethnicity.</p> <p><i>Prerequisite: Program Approval</i></p>	
DMHR6173	Democracy, International Relations, and the World Order
<p>This course deals with changes which took place in democratic systems and associated ideas since the end of the Cold War, and the rise of the "New World Order". Issues to be discussed include: circumstances and changes leading to the laying down of international standards for being a democracy, and the notion of there being externally defined criteria for political legitimacy; changes in the understanding and practice of national sovereignty, and the relation of this to international law, war and peace; changes in the role of the United Nations.</p> <p><i>Prerequisite: Program Approval</i></p>	

DMHR6181 Political Parties in Palestine

A general introduction to the development of political parties in Palestine since the end of World War II. The following subjects will be dealt with: Palestinian political parties before 1948; the rise of pan-Arab and Islamic parties; changes in type and nature of political parties after the founding of Palestinian National Liberation Organization (PLO). Special attention will be given to transformation of parties during the PLO period, and the rise of new (or neo-) Islamist parties after 1967. Also to be dealt with are changes in the political (party) scene after the establishment of the Palestinian Authority.

Prerequisite: Program Approval

DMHR6182 Palestinian Civil Society Organizations

A study of the development of civil society activism and organizations through two major periods: from 1918 to 1967, and during the post -1967 period of Occupation and Palestinian Authority rule. The course also deals with transformations of priorities and changes in roles played by civil society organizations.

Prerequisite: Program Approval

DMHR6183 Refugee Rights

This course examines international laws which are relevant to the protection of refugee rights, their historical development, and legal evolution. The course provides a survey of actors, international agreements, commissions, committees and organizations that deal with refugee affairs (UN High Commissioner for Refugees, the UNRWA, etc.) The course will also touch on the following issues: the relation between refugee laws and international human rights law; international and local challenges which face the task of providing protection for refugees; the impact of international political developments and changes on refugee rights and protections.

Prerequisite: Program Approval

DMHR6184 Human Rights and Current Laws in Palestine

A critical-analytical study of current laws in Palestine from the perspective of human rights. The course aims in part at ascertaining the role which these laws can or do play in putting an end to the effects of colonialism. The course offers a historical perspective on the development of law and legislation in Palestine, including constitutional, administrative and penal legislation. The course also examines laws dating back to the colonial period, their extensions into the present time, and assesses the degree of protection these laws provide for human rights. Finally, the course will deal with Palestinian human rights legislation at the present, successes, failures, and possibilities of developing laws that provide protection for human rights.

Prerequisite: Program Approval

DMHR6185 The Condition of Human Rights in Palestine

A survey and discussion of issues of human rights in Palestine, including: history and institutionalization of the advocacy of human rights; methods and instruments used to defend them; human rights activism; evaluation of the system of defending human rights; popular conceptions of human rights.

DMHR6186 Issues of Democracy and Human Rights under Occupation

The course focuses on the specificity of the ideas and practices of democracy and human rights under occupation. The course deals with the following topics: societal priorities of people living under colonialism, and the consequences of this for the development of a human rights system; Palestinian resistance, progress and retreat along the democratic path; obstacles facing democracy and human rights in the absence of national sovereignty; consequence of the Oslo Agreements for democracy and human rights.

DMHR6187 Interaction with Current Debates in the Field

Positive and active participation in relevant scientific and cultural activities through taking part in scientific seminars and conferences (locally and internationally) on issues relating to democracy and human rights and determined as relevant by the programme. Providing adequate and critical reports on the discussions. These reports are then discussed during class meetings. The completion of the course requires participation worth 30 hours in attendance and a report of each session. (Each paper presented by the student at a seminar or conference shall be considered to be worth six hours and the session report shall be replaced by a copy of the presented paper).

DMHR6190 Current Issues

An intermediate-level elective course dealing with current issues and recent developments of interest to researchers in democracy and human rights.

Prerequisite: Program Approval

DMHR6311 Democracy in Theory and Practice

An analytical study of the essential constitutive elements of democracy, its concepts and theoretical frameworks, including different conceptions of democratic practice and institutions. To be also discussed are the relation between liberalism and democracy, the concept of citizenship, individual and group rights, methods of protecting rights of all without exception. The course will also deal with the concepts of freedom and equality, social and economic rights, and how these concepts have been implemented in different historical periods. There will also be criticism of 20th century democracy from the standpoint of multiple theoretical frames. Of particular interest will be the use of democratic discourses as instruments of foreign policy.

Prerequisite: Program Approval

DMHR6312 Human Rights in Theory and Practice

The emergence of the concept of human rights and its intellectual and political development. The human rights movement after World War II, its development in the seventies and then the nineties of the 20th century and its association with political and economic change. The relationship between the concept of human rights and concepts of sovereignty, the rights of individuals and of citizens. Humanism, universalism and human dignity. The claim of neutrality, objectivity and the documentation of violations. The definition of violations and their technical and critical facets. The actual practice of the protection of human rights and its intersections with power relations in politics and economy and its relationship with colonialism. The prevailing system of human rights and national laws. The distinction between laws, rights, and their association.

DMHR6313 Introduction to Studying and Researching Interdisciplinary Issues in Social Sciences

A study of the epistemological and ontological assumptions and foundations of quantitative and qualitative methods. The following questions and issues are to be dealt with: the relation between theory and method; methodological issues in academic research in relation to epistemological determinants (context, facts,

stereotypes, consensus); goals, ethics, and means of carrying out research; matching research method to research problem, data, and other methods traditionally employed in specific fields; methods and instruments of quantitative and qualitative research; organization and critical analysis of ideas and information for purposes of writing; conceptual structure of the research, analysis, synthesis, causal relations and other methodological issues; issues of representation and power relations between researcher and research subjects; problems of research ethics; constituents of the research proposal—the research problem, methods, theoretical foundations, review of literature, analysis, and documentation.

Prerequisite: DMHR6311 or DMHR6312

DMHR6321 Issues of Transitions to Democracy

A study and analysis of the most important theoretical and practical issues, motivations and mechanisms relating to political transition to democracy. Topics to be covered include: theories and conceptions of democratic transitions (elite theory, rational choice, social contract theory); empirical studies of successful and unsuccessful transitions, with special reference to transitions from military, totalitarian, and absolute monarchical regimes to democracy, with the purpose of comprehending the role of economics, prevailing culture and international pressures in impeding or aiding the process of democratic transition; origins, political, intellectual and field-related motives lying behind the rise of “Transition to Democracy” as a field of research with different theoretical approaches; case studies of transition to democracy in Arab countries; relation between transition to democracy and: development, modernization, globalization, liberation, revolution and social forces supporting such transitions; difficulties and horizons for transition to democracy in Palestine.

Prerequisite: DMHR6311

DMHR6322 History of Democracy

A history of world political conflicts, with special emphasis on changes in concept and application of democracy and democratic principles in the present age of globalization. The course will present a critical reading of this history in the context of imperialism and liberation, with the aim of understanding the role of social movements of workers, women, and political parties viewed as providing ground for the growth and development of the will of the people to be represented in government. Other issues to be discussed are: the historical inauguration of democracy in association with economic systems and accompanying political philosophies; the normative turn of thinking about ideas of democracy in theory and practice; the development of Euro-centrism in the normative history of democracy; evolution of non- and anti-Eurocentric conceptions of democracy. Special attention will be accorded to democracy in countries of the South (Arab countries in particular).

Prerequisite: DMHR6311

DMHR6331 International Human Rights Law

The development of the human rights system within international law. The Universal Declaration of Human Rights; its inception and content. International and regional conventions on human rights. The components and elements of the system and its association with international law; its relationship with international humanitarian law and international criminal law for refugees. The institutions behind the system; the bodies of the United Nations, NGOs. The political, civil, social, economic and cultural content of human rights; technical aspects of handling the texts of conventions, their interpretation and definition. The mechanisms of implementation, monitoring and control within these conventions. Mechanisms for the localisation of international law and its application within the national legal system.

Prerequisite: DMHR6312

DMHR6332 International, Regional, and National Mechanisms for the Protection of Human Rights

The system of human rights protection; mechanisms of implementation, observation and monitoring of violations; international, national and regional mechanisms. The methods utilised by the United Nations, and the institutions emanating from it, to ensure the implementation and monitoring of performances and actual practices related to human rights; periodic reports; the individual complaints system; means of monitoring and control. Application of international, regional and national human rights principles. National mechanisms; The Ombudsman. Implementation and harmonisation of international conventions in national law; parliamentary oversight; Relationship of the application of human rights to international and regional mechanisms.

Prerequisite: DMHR6312

DMHR6351 Theories of Rights and Human Rights

This course examines a number of issues that lie at the intersection of law, ethics, and political theory: the origin and justification of rights and obligations; the different interpretations of justice, equality, and freedom; the different theoretical frameworks for the discussion of right, such as those of Kant, Hegel, Marx, Rawls, Contractarianism and Utilitarianism. To be also dealt with are philosophical theories of rights in relation to such notions as human action, identity, freedom of the will, responsibility and the applicability of such theories in the areas of civil rights, criminal law, gender equality, minority rights, racial and ethnic discrimination.

Prerequisite: DMHR6312

DMHR6352 Democracy and Social Justice

An in-depth study of the relation between democracy, economic, and social rights. Three approaches will be considered.

- (1) The 'no-relation' approach based on the idea that economic and social rights are not rights in the strict sense of the word.
- (2) The 'basic minimum' approach, according to which a basic minimum of social and economic rights must be fulfilled, in view of the fact that great economic disparities lead to political and social inequality, and hence to political instability.
- (3) The approach according to which social and economic rights are rights in the strict philosophical sense, justified not only by reference to considerations of political and social stability, but as rights in and of themselves.

Prerequisite: DMHR6311, DMHR6312

DMHR6353 Democracy and the Deconstruction of Hegemonic Structures

This course addresses the question of whether a democratic system of government is able to dissolve hegemonic structures of power (be they colonial, totalitarian, social or class structures). What would be the nature of such a system? How can democratic systems be strengthened from the perspective of human liberation and the dissolution of hegemonic structures, including those that are embedded in law and general policy? The course discusses the basis, mechanisms and modus operandi of democratic systems, and the potential which they hold for the realization of freedom for peoples, social groups and individuals. Prominent thinkers such as Gramsci, Habermas, and Zizek and others will be considered, in conjunction with rising democratic systems, national, ethnic liberation, and anti-discrimination movements.

Prerequisite: DMHR6311

DMHR6354 Political Theories and the Sources of Legitimacy

A discussion of some of the fundamental issues raised by past and present political thinkers, undertaken through study of important theoretical texts. Issues to be raised include: justification of different types of political system (democracy, anarchy, dictatorship); contract theories and theories of state; the language of rights (its meaning, function, and value); duty and limits of obedience; the problem of minorities; liberty (positive and negative); justice (formal and substantive); state and civil society; social-economic systems (capitalism, socialism, welfare state) and conceptions of freedom and justice which support them; sources of legitimacy; domination; and civil disobedience.

Prerequisite: DMHR6311

DMHR6355 Democracy and the Questions of Identity, Culture and History

This course discusses the relation between democracy in concept and practice on one hand, and prevailing political culture, identity and history, on the other. Subjects to be dealt with include: the relation between historically constitutive elements of culture and the present political culture; how political culture influences democratic practice; the manner in which democracy itself stands to affect political culture and identity. Special attention will be given to the relation between transition to democracy and processes of liberalization which, in their turn, stand to affect culture, collective, and individual identities. The influence exercised by colonial heritage on culture and identity will also be considered. Arab and Palestinian culture will be kept in view throughout the course.

Prerequisite: DMHR6311

DMHR6356 Civil Society

A study of the various meanings associated with the term “civil society” – how the different uses of the term evolved historically down to the present time. The course will also discuss the different constituent elements of civil society, its institutions, conditions for its (continued) existence and the connection between the concept and certain others, such as citizenship, nationalism, and democracy. Also to be dealt with is the function which the concept has been made to serve in Arab and international contexts, with reference to Palestine during the last three decades, and how the concept acquired symbolic status in the struggle against authoritarian Arab states.

Prerequisite: Program Approval

DMHR6357 Democracy, Human Rights, and Globalization

An examination of how democracy and human rights acquired new dimensions in the present age of globalism. The course will track transformations in the concept and practice of democracy and human rights, as well political and organizational structures, local and global, in the light of their origins, purposes, and effects. The course will also seek to understand these transformations in the light changes in the world system, such as the present unipolarity of international politics, increased dependence on information technology, neoliberalism, and the universal concern for security. The course will take time to examine different ideas about: the need to develop democratic systems in respect of mechanisms and forms of representation; the use of information technology; developing new international and regional organizations to be part of the present system for protecting human rights; the place of democracy and human rights at the level of international organizations, and the consequences of this for countries of the South, with special emphasis on the Arab world and Palestine.

Prerequisite: DMHR6311, DMHR6312

DMHR6358 Democracy and Human Rights in Education

An examination of three concepts: “education *for* democracy”, “democracy *of* education”, and “right to education”. The course will seek to clarify the ideas and principles which underlie different conceptions of democracy and human rights, and will focus on the methods of implementing these ideas and principles via education at home, school, and in society at large. Additionally, the course will study concepts, methods, and philosophy of education, from the perspective of convergence with, or divergence from the principles of democracy and human rights. The course will also introduce students to the theoretical foundations of teaching democracy and human rights, democracy in the teaching-learning process, and how this difference from memorization and rote learning.

Prerequisite: DMHR6311, DMHR6312

DMHR6359 The Legislative Process

The course outlines and discusses the various stages of the legislative process, and seeks to determine how, and where, substantive and/or formal infringements may take place, affecting rights, the will of the people, legislative consistency and harmony, and the ranking of laws and regulations. The course also discusses processes, instruments and procedures related to constitutional review and compliance with international human rights law. Legislative policies, plans, and priorities will also be dealt with.

Prerequisite: DMHR6311, DMHR6312

DMHR7120 Selected Conceptions of Democracy and Human Rights

An in-depth discussion of a selected conception of democracy and/or human rights with the aim of achieving grasp of the conception in question, relevant conceptual approaches, and the role of concepts in systems of democracy and human rights. (Course with variable content)

Prerequisite: Program Approval

DMHR7130 Selected Models of Human Rights Practices

A critical discussion of a selected model of human rights practice. This course (with variable content) discusses differences and gaps between theory and practice based on the study of a specific example in the practice of human rights. One goal is to acquaint students with methods of critical analysis and to encourage innovative thinking about theory and practice of human rights.

Prerequisite: Program Approval

DMHR7140 Selected Models of Democratic Practice

A critical discussion of a selected model of democratic practice. This course (with variable content) discusses differences and gaps between theory and practice based on the study of a specific example democratic practice. One goal is to acquaint students with methods of critical analysis and to encourage innovative thinking about theory and practice of democracy.

Prerequisite: Program Approval

DMHR7151 Internship (practicum)

In this course students work as interns in an agency or institution of democracy and/or human rights. Students are expected to write interim and final reports about their work, relating personal experience to theory. There will also be periodic meetings between instructors, students, and co-workers, and exchanges of progress reports.

Prerequisite: Program Approval

DMHR7152 Documentation of Violations (practicum)

In this course students will obtain training in monitoring and documentation of human rights violations. Training takes place in collaboration with appropriate agencies and institutions, where students acquire knowledge of the conceptual bases and mechanisms of the process of documentation. The course concludes with a discussion and evaluation of an actual work of documentation undertaken during the semester.

Prerequisite: Program Approval

DMHR7153 Strategic Planning

A study of the skills of strategic planning, beginning with definition of objectives. The course discusses evaluation of capacities, design of work plans, determination of required steps towards objectives, and concludes with laying down criteria for the evaluation of intermediate and final achievements. Models and examples drawn from democracy and human rights activism will be used.

Prerequisite: Program Approval

DMHR7154 Managing Campaigns and Activities

This course, designed for democracy and human rights advocates, is an introduction to methods of organizing campaigns and other forms of mobilization. The course includes presentation and study of different models of managing campaigns, and examines cases of success and failure and causes thereof.

Prerequisite: Program Approval

DMHR7190 Contemporary Issues

This advanced elective course deals with current (new) research, information, and knowledge in the area of democracy and human rights.

Prerequisite: Program Approval

DMHR7311 Critiques of Democracy and Human Rights

A critical study of the concepts of democracy and human rights. The course discusses the following topics: the economic foundations of liberal democracy; the problematic assumptions of human rights theory; the meaning of the term 'man' as used in human rights discourses; critique of democratic and human rights ideas and arrangements, both in theory and practice, with emphasis on contemporary discussions; critiques of democracy from different perspectives—Marxist, feminist, etc.; critique of different types of Islamic democratic discourse; liberal democratic critique of other types of democratic discourses; radical critique of contemporary forms of democracy. The course will also present criticisms of various types of human rights discourse along the lines indicated above.

Prerequisite: Completion of required courses or Program Approval

DMHR7312 Democracy and Political Transformations in the Global South

This course deals with the specificities of political transformation in countries of the South in view of colonial heritage, direct and indirect domination by foreign powers, need for development --all connected to existing political regimes. And the changes these are going through. The course will discuss theories according to which democratization and development depend on each other. Other issues to be discussed include the political import of development, foreign intervention and neo-colonialism in the guise of foreign aid ostensibly aimed at development; (the evolution of) concepts of development in the post-World War II period, culminating in the introduction of concepts of participation, inclusivity and sustainability; use of the concept of democratic development and human rights under conditions of colonial domination; alternative concepts of development; liberation and development.

Prerequisite: Completion of required courses or Program Approval

DMHR7313 Democracy and Human Rights in Contemporary Arab and Islamic Thought

An introduction to contemporary Arab and Islamic thought which concerns itself with democracy and/or transition to democracy. The course will include a historical narrative which begins with Arab democratic thought in the Arab Renaissance period, and covers the inter-war years, Nasserism, and contemporary discussions (which have been taking since the 70s of the past century). To be dealt with in this historical narrative are: concepts of democracy in relation to Arab society's political, economic, and social needs; intellectual background of contemporary social and political movements which strive for democracy; the pressing issues of democracy and human rights such as freedom, rights, political and intellectual pluralism; secularism; cultural specificity—all to be discussed in connection with modern Western scientific and intellectual heritage, as well as modern Arab and Islamic reform movements.

Prerequisite: Completion of required courses or Program Approval

DMHR7314 Human Dignity, Democracy, and Human Rights

An examination of the concept of human dignity and the potential which this concept holds for causing social change and movement towards realization of social justice. Among other things, the course will study: the place of the concept of dignity in human relations and human norms; philosophical approaches to the concept of dignity; the different social meanings which the concept reflects; historical struggles about the concept in context; the place of the concept of dignity in the system of human rights; the legal status of the concept and its different political manifestations; the concept of dignity in daily and professional life. The course will also discuss the reasons which lie behind the strong presence of the concept of dignity as a major slogan of popular movements, and ways in which the concept can be realized.

Prerequisite: Completion of required courses or Program Approval

DMHR7315 The Philosophy of Human Rights

The origins of the notion of human rights, the nature and justification of human rights, whether they are universal or not. The course examines the on-going international discussion about human rights, their legal standing in the Arab world, and in the world at large, and dwells on their theoretical and philosophical foundations, and their critique by different schools of thought. International consensus on human rights as reflected in the example of the International Declaration of Human Rights (among others), and the political purposes which these rights are made to serve by powerful countries, will also be dealt with in detail. Finally, attention will be given to the fact that a number of presumptive human rights are rejected by many, including some Arab countries.

Prerequisite: Completion of required courses or Program Approval

DMHR7316 Arab State, Revolution, and Political Transformation

A study of three stages in the evolution of the Arab state after World War I, and the nature of the Arab state in each stage, down to the time of Arab uprisings and revolutions at the beginning of the second decade of the 21st century. Special attention will be given to the breakdown of the “social contract” between Arab masses and authoritarian states in the period preceding (and foreshadowing) the recent uprisings, whereby peoples acquiesced to authoritarianism in exchange for guarantees of basic economic needs. Other topics to be discussed include: the conditions necessary for transition to democracy; comparative study of revolutions in different countries, with the aim of understanding causes of failure and success, and the lessons to be learned from these; prospects of revolution in various Arab countries, as can be ascertained on the basis of the Egyptian and Tunisian experiences.

Prerequisite: Completion of required courses or Program Approval

DMHR7317 Hegemony, Democracy, and Human Rights in the World and in Palestine

The nature and forms of hegemony in relation to the meanings, limits and potentials of the concepts of democracy and human rights, such as citizenship, human dignity, and rule of law. The course will present theoretical and practical approaches to facilitate understanding hegemony, its types, and structures. Also to be analyzed are the organizational and institutional structures of hegemony, partial and total, at both the international and local level, in order to understand the complexities and dynamics of the effects of hegemony in daily life. The course will also analyze the instruments and technologies which are hegemonically used to engineer daily life at the political, economic and social levels. This will lay the ground for discussing the different roles which democracy, human rights and the rule of law play, both as part of the aforesaid engineering process, and as instrument of resistance.

Prerequisite: Completion of required courses or Program Approval

DMHR7390 Special Topic

An in-depth study of a special topic in the area of democracy and human rights.

Prerequisite: Program Approval

DMHR8301 Seminar 1 (in Democracy)

An advanced course of study dealing with a thinker, topic, historical period, or main school of thought in the field of democracy. The course includes presentation and discussion of principles of academic honesty and research ethics. It also involves reading, analysis and discussion of research published in refereed journals. In consultation with the instructor, each student will choose a research topic. The research project must utilize an adequate number of references to be studied and analyzed. Students will present their research before class and course committee, and are expected to revise their research paper in light of instructor feedback and class discussion.

Prerequisite: Completion of required courses and Program Approval

DMHR8302 Seminar 2 (in Human Rights)

An advanced course of study dealing with a thinker, topic, historical period, or main school of thought in the field of human rights. The course includes presentation and discussion of principles of academic honesty and research ethics. It also involves reading, analysis and discussion of research published in refereed journals. In consultation with the instructor, each student will choose a research topic. The research project must utilize an adequate number of references to be studied and analyzed. Students will present their research before class and course committee, and are expected to revise their research paper in light of instructor feedback and class discussion.

Prerequisite: Completion of required courses and Program Approval

DMHR8600 Thesis

Completion of research in chosen subject in accordance with approved Thesis instructions.

Prerequisite: Completion of required courses and Program Approval

Master Program in Water and Environmental Sciences

Introduction

Rapid increase in the global and local population have led to a growing demand for natural resources such as land, water, food, energy and raw materials. This has exerted a great pressure on the available natural resources. The imposed challenges resulting from the dramatic population increase are exacerbated by recalling that human activities inevitably produce tremendous wastes of gaseous, liquid and solid nature. The produced wastes would absolutely impose serious threats to the public health and harm the environmental systems, and as such might undermine development efforts, if not managed properly. Growing public awareness and demand for recreational areas and a clean environment together with increased concern for flora and fauna biodiversity have promoted increased effort to protect the environment. Sustainable development has become a key issue in environmental policy. Therefore, the today's environmental protection aims not only at cleaning-up of the past times pollution and erection of new wastewater treatment facilities, but also at pollution prevention at the sources, e.g. application of cleaner production principles, and resources recovery.

The [Institute of Environmental and Water Studies \(IEWS\)](#) at Birzeit University offers a [Master's program in Water and Environmental Sciences \(WESC\)](#). The WESC master program gives the students the knowledge and tools to face these environmental challenges. The research activities carried out in the WESC master program are based on emerging local environmental issues and applied engineering problems that are often done in close cooperation with the private sector, consulting firms, local and foreign non-governmental organizations (NGOs) and public institutions.

Overall goal of the WESC master program

The overall goal of the WESC master program is to develop and upgrade student's acquaintance of water and environmental fundamentals and practice, planning and implementation knowledge and skills. The graduates are anticipated to professionally work mainly in the water and environment public awareness programs, laboratories, water and environment studies and research.

The graduates are expected to professionally operate, work, in the water and environment science and agriculture fields in the governmental, non-governmental and private sectors, and as such should be able to meet the expectations of these institutions to work on water and environment awareness and applied programs.

Intended Learning Outcome of the WESC Master Program

The WESC master program upgrades student's capacity for careers as leaders in understanding and addressing environmental issues from a problem-oriented, interdisciplinary perspective. The graduated students should be able to:

1. Master core concepts and methods of processes from biological, ecological, chemical and physical sciences and their application in environmental engineering.
2. Plan and execute experiments that validate the use and understanding of modern instruments and analytical techniques, recording skills, and safe lab practices.
3. Work in-group (team) and communicate effectively in written and oral form, and the ability to use effective presentation skills.
4. Master core concepts and methods from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions.
5. Make sense and being aware of the large-scale character of environmental problems and ways of addressing them, including interactions across local to global scales.
6. Demonstrate competence in creativity and research skills, critical thinking, using contemporary tools, and written and oral communication.
7. Develop a sense of public awareness and become aware of scientific issues in the larger social context, and appreciate the ethical context of environmental issues.
8. Recall and appraise the water and environmental laws, and able to effectively contribute to the development of environmental monitoring plans.

Language of Instruction

Though Arabic is the official teaching language at BZU, the instruction and examination within the MSc program are in English. Therefore, prospective applicants have to demonstrate an acceptable language proficiency.

Admission Requirements

1. BSc degree in natural sciences (such as biology, chemistry, and earth and environment) or agriculture, geography, or any other directly related specialty as deemed suitable by the MSc Committee.
2. The MSc Committee may decide to conduct personal interviews with applicants in certain cases, and may specify remedial courses if needed.

Courses offered for the Water and Environmental Sciences Master program

Students are required to complete 36 credit hours composed of the followings:

1. Compulsory courses: 18 credit hours

Course Number	Course Title	Prerequisites
WESC6330	Water Quality	
WESC6340	Environmental Processes	
WEEN6350	Wastewater Treatment and Treated Water Reuse	
WEEN7180	Scientific Research Methods	
WESC7200	Bioremediation	
WESC7350	Water and Environmental Pollution	
WESC7370	Instrumental Analysis	

Note: All students must pass WEEN7180 course within the first 15 credit hours registered

2. Elective Courses: 12 credit hours from the following list:

Course Number	Course Title	Prerequisite
WEEN6300	Political Economy for Environment Planners	
WESC6370	Environmental Information Technology	
WEEN6380	Integrated Solid Waste Management	
WEEN6390	Environmental Impact Assessment	
WESC7210	Society, Water and Environment	
WESC7220	Environmental Health and Hygiene	
WESC7330	Soil-Plant-Water Relation	
WEEN7340	Integrated Land and Water Resources Management	
WESC7380	Special Topics	

3. Track A or Track B: 6 credit hours either thesis or two seminars:

Track	Course Title	Course Number	Prerequisites
Track A	Thesis	WESC8600	WEEN 7180, The completion of at least 15 credit hours out of the requirements of the program
Track B	Two Seminars	WESC8300 WESC8310	

Water and Environmental Sciences Course Description (WESC)

WESC631	Urban Drainage and Sewerage Systems
Quantities of storm water and wastewater, characteristics of combined and separate systems for storm water and wastewater collection and drainage, planning of urban sewer systems, hydraulic design of sewers and open channels, execution of urban drainage systems, materials used in manufacturing sewers and manholes, operation and maintenance aspects, design project for a combined system or a separate system, design principles of wastewater and stormwater pumping stations, pumps` types, characteristics and applications, design project for wastewater or stormwater pumping station.	
WESC6330	Water Quality
Health risks and lab safety measures, water quality and sanitation, drinking water quality, water chemistry: basics and visualization; different water pollutant groups and their risks and fates, relations between different water quality parameters, surface and groundwater quality monitoring concepts, basic methods of calculation and sampling, experiments of surface and ground water, and wastewater quality (colours, acidity and alkalinity, hardness of water, gravimetric (precipitation and separation techniques), common wet chemical methods used in environmental laboratories; titrimetric; disinfection of water using chlorine, indication of organic and inorganic pollutants, microbiological quality).	
WESC6340	Environmental Processes
Types of microorganisms, growth, enzymatic activities, metabolic processes, and factors affecting these bio-processes, microbial role and activities in water and wastewater treatment, importance of microorganisms in the geo-chemical cycle including carbon, nitrogen, phosphorus, and sulphur, biofilms formation in water and sewer networks, membrane biofouling, sludge bulking and foaming, impacts and abatement methods, self-purification and eutrophication processes in receiving water bodies. Environmental microbiology lab sessions include methods for microbial isolation and characterization; examine the efficiency of a bench-scale activated sludge system including nitrification and denitrification rates, and pathogens removal.	
WESC6370	Environmental Information Technology
Types of environmental information, its management, provision of reliance and accurate environmental information and measurable in an optimal manner, environmental information system, computer and programs use for the study of different environmental models, predicting disasters or probable environmental changes, application of GIS for environmental monitoring.	

WESC7200	Bioremediation
Use of living organisms and plants to remediate and rehabilitate organic- and inorganic- polluted sites, bio-augmentation of microorganisms; factors affecting bioremediation and its success, adequate remediation technologies and evaluation of their efficiency. The course discusses bioremediation of controlled and uncontrolled waste dump sites, Planning and design of suitable biotechnologies to remediate polluted surface and groundwater and soil. Finally, the course discusses issues related to the financial and cost-effectiveness of bioremediation tools and economical costs of possible health and environmental impacts from polluted sites.	
WESC7210	Society, Water and Environment
Exploring human and natural systems and their dependence on freshwater at multiple scales. Topics of interest include global and environmental change, sustainability and human-environment interactions, ecosystem services, groundwater, population growth, urbanization and land use, watershed and river basin management, stakeholder processes, water allocations and economics, social change and movements. Discussions on conflicts over water allocations, drought and floods events and water quality problems, affecting societies and regional relations. Site field trips to nearby streams, groundwater, or water treatment facilities.	
WESC7220	Statistical Methods in Environmental Sciences
Public health and hygiene practices, scientific understanding of causes, and possible future approaches to control major environmental health problems. Impacts of environmental degradation on public health and environment; public health protection through awareness campaigns, management of pollution sources, regulation and inspection programs. Vectors for dissemination (air, water, soil); food- and water-borne diseases; ecological sanitation and hygiene, occupational health and safety; risk assessment, analysis and management; emerging global environmental health problems.	
WESC7330	Soil–Plant–Water Relation
Relationships between soil and water and their physic-chemical characteristics with plant growth and development. Water cycle in the soil and soil capacity to hold water, required plant nutrition elements, evaporation, transpiration, and evapo-transpiration. Soil role for water storage on the interface between aquifer and surrounding atmosphere. Methods water preservation in the soil minimizing water evaporation from the soil surface and transpiration from plants, plant response to water scarcity and the corresponding effects on nutrients availability, salinity effects, and heavy metal pollution on soil properties and plant growth. Use of plants for the treatment of wastewater, biosolids and polluted soil sites measurement tools of water content in soils and plants.	

WESC7350	Water and Environmental Pollution
<p>Nature, types and sources of different water and environment pollutants. Impact of pollutants on public health, soil, aquatic environment and microorganisms. Guidelines and standards of water and environment quality. Chemical technologies and applied biotechnologies for pollution abatement of water and air. Fate of toxic pollutants in the atmosphere, and aquatic environment. Liquid and gaseous industrial organic and inorganic pollutants. Environmental management systems and tools applied for pollution reduction of water and environmental. Global environmental phenomenon as acid rain and ozone layer and its depletion.</p>	
WESC7360	Environmental Monitoring
<p>Types and significance of programs for environmental pollution control, monitoring and assessment of statistical data programs, criteria selection for synergy evaluation within various environmental system elements, evaluation methods and environmental analysis, usage of basic scientific principles to ensure unity of environment system elements, monitoring of pollution values resulting from water and wastewater treatment using chemical methods, measure the current pollution values in environmental elements including water, air, soil and forestry, developing strategies for forecasting environmental situations and pollution hazards, study and analyse of likely possible negative impacts from environmental pollution incidents.</p>	
WESC7370	Instrumental Analysis
<p>Principles and applications of selected chemical and instrumental methods for water, wastewater, biosolids and gas analysis; basic methods of calculation and sampling; gravimetry (precipitation and separation techniques), common wet chemical methods used in environmental laboratories; titrimetry; basic theoretical principles and practical methods of instrumental analysis such as: electrochemical methods including ion selective electrodes, potentiometry, coulometry and voltammetry; Spectro-chemical methods including classical and flame atomic absorption, induced coupled plasma. Chromatographic methods including ion chromatography, gas chromatography and high performance liquid chromatography, Methods of quality control as applied to physical and chemical processes involved in water treatment. The course includes a laboratory section.</p>	

Master Program in Gender and Development

The [Master degree program in Gender and Development](#) has been offered by the Institute of Women's Studies since 1998. The program is a part-time, inter-disciplinary course of study that brings together critical social science approaches to the study of Gender as it relates to central issues in Development theory and practice. Since its founding, the MA Program has successfully trained graduates who have gone on to find employment in various spheres of Development or have continued their PhD studies in various fields of the social sciences. The Institute's MA program in Gender and Development is widely recognized as a leader in graduate gender studies in the region and has been consulted by numerous universities in the Arab World when setting up their own academic degree programs in gender studies. The Program's curriculum has continuously evolved in dialogue with innovative global approaches in gender studies, development research and theory and in relation to critical knowledge production across the social sciences. As well it has constantly been adapted to remain relevant to emergent knowledge issues in Palestine and the region.

Admission requirements

1. Applicants must hold a bachelor's degree in one of the social sciences from a university recognized by Birzeit University. Applicants with a bachelor's degree in other fields may also be admitted in this program.
2. Applicants must take the English language test specified by the program.

Conditions for continuing in the program

1. To pass the English language test specified by the program
2. Students who don't pass the above mentioned test are required to take "GADS 600 - English Readings in the Social Sciences" (students are not allowed to take any Compulsory courses from the program when enrolled in this course).
3. All students are required to pass GADS 630 and GADS 631 before taking any other courses offered by the program.

Requirements for completion of the Program

1. Students are required to complete no less than 36 credit hours distributed as follows:

A. Compulsory Courses: (18 credit hours)

Course No.	Course Title	Prerequisite(s)
GADS630	Concepts and Issues in Gender and Development	
GADS631	Historical and Theoretical Introduction to Gender and Development Studies	
GADS632	Theoretical Approaches to Gender and Development	
GADS633	Quantative Research Methods for Gender and Development	GADS630 GADS631
GADS634	Qualitative Research Methods for Gender and Development	GADS631
GADS635	Gender Analysis and Gender Planning	GADS630

Note: All students are required to complete either GADS 633 or GADS 634 within the first 15 hours of their registration in the program.

B. Elective Courses: (12 credit hours)

Course No.	Course Title	Prerequisite(s)
GADS636	Legal Frameworks for Gender, Citizenship and the State	GADS630 GADS631
GADS637	Gender and Economic Relations	
GADS638	Special Topics in Gender and Development	
GADS639	Development Policies	
GADS730	Non-Governmental Organizations and Gender	
GADS731	Applications of Modern Approaches to Gender and Development	
GADS732	Legal and Gender and Development Issues in the Palestinian and Arab Society	
GADS733	Theoretical Approaches to Gender and Law	

* Students can substitute three of the above-mentioned elective courses with three courses from another graduate program, after the approval of the Program Council.

A. Track “A” or Track “B”: 6 Credit Hours; Thesis or two Seminars

Track	Track Title	Track Number	Prerequisite(s)
Track A	Thesis	GADS860	Complete no less than 15 credit hours from the program, including GADS633 and GADS634
Track B	Seminars	GADS830 GADS831	

Gender and Development Course Description (GADS)

GADS600 English Readings in the Social Sciences

Selected English readings in different fields of social science, to develop students' reading and comprehension skills (analysis of the linguistic structure, looking into meaning of words and terms from the provided context, defining main and secondary ideas in the text and extracting information, differentiation between facts and personal opinions, understanding and following the structure of the text) as well as acquiring a glossary of academic and scientific terms.

GADS630 Concepts and Issues in Gender and Development

Introduction to concepts and issues related to gender and development through selected academic texts in English (related to the family and household, the state, civil society organizations, globalization, formal and informal work, structural adjustment, legal reforms and other concepts) through which students will develop and exercise advanced skills in reading and analysis.

GADS631 Historical and Theoretical Introduction to Gender and Development Studies

A historical review of the development of women's and gender issues (social, educational, economic, legal, political and cultural issues) and the development of feminist theories (liberal, socialist, Marxist, radical and postmodern). Main concepts necessary for studying and analyzing issues related to gender, society and development. Developing the necessary skills for critical and analytical reading of texts related to this field, as well as developing basic skills necessary for conducting scientific research.

GADS632 Theoretical Approaches to Gender and Development

The main theoretical and methodological approaches to development. Main theoretical approaches in recent decades, concerned with integrating women, and later gender, in the developmental process, including: integrating women in the development processes, women and development, and gender and development. Concepts and analytical tools to understand and analyze gender relations, and their overlap in the development process.

GADS633 Quantitative Research Methods for Gender and Development

Quantitative research methods in gender and development and their applications in social policy and planning. Study of gender on a macro-level using quantitative research methods and the examination the extent to which they can be relied on to reveal the details of gender based discrimination. Critical analysis of research based on quantitative surveys and local statistical data. Designing a quantitative research project in an area related to social policy and planning in Palestine such as the economy, education, labor, social welfare and support.

Prerequisite: GADS630, GADS631

GADS634	Qualitative Research Methods for Gender and Development
Exploring qualitative research methods for the purpose of studying the different aspects of the status of women and gender-based discrimination in society, as well as the origins of the study of gender as a concept and analytical tool on the partial level (the household, organizations, and local communities) using qualitative research methods. Examination and analysis of international and national studies using field research about gender relations. <i>Prerequisite: GADS631</i>	
GADS635	Gender Analysis and Gender Planning
Introduction to gender analysis and planning through a close examination of concepts, instruments and mechanisms developed to assist workers in the field in taking gender into consideration when preparing policies, plans, and in the execution of projects and developmental programs. <i>Prerequisite: GADS630</i>	
GADS636	Legal Frameworks for Gender, Citizenship and the State
The role of constitutions and basic laws in the construction of a democratic state. The international legal framework related to human rights and citizenship, and its influence on women's social and political rights. <i>Prerequisite: GADS630, GADS631</i>	
GADS637	Gender and Economic Relations
In-depth study of the participation of both men and women in the labor force. Analysis of the roles of men and women in different labor markets, both in the formal and informal economies, the role of law in enhancing or obstructing change in the economic roles of both men and women. Basic focus on Palestinian and Arab societies. <i>Prerequisite: GADS630, GADS631</i>	
GADS638	Special Topics in Gender and Development
Study of a specific topic related to gender and development. Topic is determined by the instructor and approved by the Program Council. <i>Prerequisite: GADS630, GADS631</i>	
GADS639	Development Policies
Main theoretical approaches and emerging issues in the secondary fields relating to developmental policies. Limits of political agents and organizations in the evaluation of existing development issues and their reform. Gender as an overlapping and intersecting dimension. <i>Prerequisite: GADS630, GADS631</i>	

GADS730	Non-Governmental Organisations and Gender
The role of non-governmental civil society organizations since the 1980s in developmental discourse and the practice of development; the view of these organizations as a substitute for the state, and the general progress of development. An overview of the history and the increase in the number of civil society organizations, and related concepts and issues such as welfare, civil society, pressure groups, lobbies, and litigation in the framework of understanding development and democracy, overcoming poverty, and empowering women in society. Focus on the Global South and its relationship to the Global North, concentrating on the Middle East and Palestine .	
<i>Prerequisite: GADS630, GADS631</i>	
GADS731	Applications of Modern Approaches to Gender and Development
Applying new approaches used in analyzing gender in developmental issues such as poverty, means of livelihood, population and fertility, political participation and representation, the agricultural issue, and structural adjustment policies.	
<i>Prerequisite: GADS630, GADS631</i>	
GADS732	Legal and Gender and Development Issues in the Palestinian and Arab Society
Basic issues related to development and social justice. Main challenges facing Arab and Palestinian societies under prevailing regional agreements and legislative policies such as the Cairo Agreement and the Gulf Cooperation Council agreements.	
<i>Prerequisite: GADS630, GADS631</i>	
GADS733	Theoretical Approaches to Gender and Law
Theoretical approaches in jurisprudence. Social understanding of the different branches of law (constitutional, administrative, labor, family, property, citizenship and others), their practical applications and influence in developing societies, especially in areas related to gender relations and as a means of bringing about social change.	
<i>Prerequisite: GADS630, GADS631</i>	
GADS830	Seminar in Gender and Development in the Region
Advanced study of a topic related to gender in the context of a developmental sector, social institution (e.g. family and the state), or social movement in the Third World and the Middle East, as determined by the Program Council. Writing a research report of about 40 pages and presenting it in class. <i>Prerequisite: completion of no less than 18 credit hours, including GADS633 and GADS634.</i>	
GADS831	Seminar in Gender and Development in Palestine
Advanced study of a topic related to gender in a developmental sector, or in the planning and policies of developmental organizations and programs in Palestine as determined by the Program Council. Writing a research report of about 40 pages and presenting it in class.	
<i>Prerequisite: the completion of no less than 18 credit hours, including GADS633 and GADS634.</i>	
GADS860	Thesis
Writing a thesis in the field of specialization according to the approved instructions for writing master's theses.	

Master Program in Israeli Studies

The [Faculty of Graduate Studies](#) offers an academic program that leads to a [master degree in Israeli studies](#), the program aims to train students to study Israeli society, politics, economy, and culture in a context of settler colonialism. The program aims to equip students with necessary language skills and knowledge of primary sources, as well as methodological, theoretical and critical analytical skills in order to conduct original and in-depth research. The program qualifies its graduates to work in governmental or research/academic institutions interested in Israeli affairs, both in Palestine and the Arab world. The program is implemented through close cooperation primarily with the Institute for Palestine Studies, and Madar - The Palestinian Center for Israeli Studies. This cooperation includes possibilities of training internships for students at these institutes and other similar institutes.

This program is the first Master program of its kind in the Arab World that is fully specialized in Israeli studies and integrates a strong interdisciplinary approach, with strong emphasis on language, research skills, and critical thought.

Admission Requirements:

1. BA degree in one of the branches of the social sciences, the humanities (such as sociology, anthropology, politics, history, geography, education, economics, development studies, international studies, and law) from an accredited university. Graduates from other academic fields may be given exceptions for admission based on a decision by the program's committee, and students may be requested to take up to nine credit hours of remedial courses.
2. Good English language skills.

Program Requirements:

1. Passing the requirements for continuation of studies in the MA programs as specified in the Faculty for Graduate Studies Guidelines.
2. Passing the Hebrew qualification exam at the end of the second semester.
3. The students are required to pass a total of 36 credit hours, 18 of which are requirements, 12 elective, and 6 credit hours either for writing and successfully defending an MA thesis or two research seminars. The program, however, encourages students to opt for the thesis option.
4. Remedial courses can be determined on a case-by-case basis, if necessary.

A. Compulsory courses (18 credit hours)

Course No.	Course Title	Prerequisite(s)
ISST630	Research Methods	
ISST631	Settler Colonialism and Israel	
ISST632	Judaism and Jewish History	
ISST633	Zionism: Ideology and Movement	
ISST634	Israeli Political System	
ISST635	Political Economy of Israel	

B. Elective courses (12 credit hours from the following list)

Course No.	Course Title	Prerequisite(s)
ISST636	The Palestinians in Israel	
ISST637	Geography and Demography in Israel	
ISST638	Israeli Legal System	
ISST730	Israeli Media	
ISST731	National Security in Israel	
ISST732	Women and Gender in Israel	
ISST733	Education and Scientific Research in Israel	
ISST734	Israel and World Jewry	
ISST735	Ethnic Divisions in Israel	
ISST736	State and Religion in Israel	
ISST737	Introduction to Culture and Literature in Israel	
ISST738	Special Topic	

Hebrew Language:

The students are required to take intensive Hebrew language courses offered by the program to prepare them for a qualification exam at the end of the first year. These courses are not part of the program's credit hours. Students with prior Hebrew language skills can take the exam at the beginning of their studies and thus be exempted from these courses.

Track “A” or Track “B”: 6 Credit Hours; Thesis or two Seminars

Track	Course Number	Course Title	Prerequisite(s)
Track A	ISST860	Thesis	ISST630
Track B	ISST830	Seminar 1	
	ISST831	Seminar 2	

Israeli Studies Courses Description (ISST)

ISST500	Proficiency in Hebrew
This exam measures the student's skills in the Hebrew language, including knowledge of Hebrew grammar, possession of a large vocabulary, as well as possession of conversation, reading, and writing skills, which enable the student to research a wide range of written and oral material relevant to the field of Israeli studies.	
ISST630	Research Methods
Introduction to the basics of scientific knowledge. Choosing a research topic and literature review. Research problem and hypothesis. Research justifications. Research methodology (quantitative and/or qualitative). Concepts and measuring variables. Types of samples. Methods of data collections (polls, interviews, field notes, content analysis). Analysis of data and explanation of results. Writing a research report. Thesis prospectus, research, writing, and defense.	
ISST631	Settler Colonialism and Israel
A historical overview of modern colonialism, its ideological formations and practices in the colonized world. Distinguishing between colonialism and settler colonialism in ideology and practice. Introducing cases of settler colonialism in the world (Australia, Canada, the United States of America, South Africa, etc.). Approaching Israel as a case of settler colonialism as a way of deepening our understanding of its specificities, in terms of ideology, social forces, legal and military practices. Covering other cases of Jewish and Christian settlement projects in 19 th c. Palestine.	
ISST632	Judaism and Jewish History
Introduction to the problem of writing ancient Jewish history and the difference between historical and ancient biblical evidence. The Canaanite period until the destruction of the Temple and the end of political power (586 BC). Ancient religious influences on Judaism (Babylon, Egyptian, and Canaanite). The Persian period (586-332 BC); Greek and Hellenistic period (332-64 BC); The Hasmoneans (167-37 BC); Roman period (63 BC - 324 AD); Byzantine period (324-638 AD); Arab-Islamic period (638-20th c.); Jewish Enlightenment (17-18th c.); Hassidic movement (18th century); Reformist movement (19th century); "New Orthodoxy" (19th c.); Zionism and the Bundism (late 19th c.); Modern religious Zionism, Orthodox and Reformists Judaism, and non-Zionist religious groups.	

ISST633	Zionism: Ideology and Practice
<p>The origin of the term and the relationship between Jewish religion and Zionism. The “Jewish Question” and the roots of Zionism in the second half of the 19th c. (the Enlightenment and the problem of assimilation, Zionism and European colonialism, anti-Semitism). Introducing the development of the idea and its early ideologues (Zvi Hirsch Kalischer, Juda Alkalai, Moshe Hess, Lovers of Zion, Leo Pinsker, Theodore Herzl). Different factions of Zionism and its programs (Practical Zionism, Political Zionism, Cultural Zionism, Socialism, Revisionism, Religious Zionism). Jewish Anti-Zionism (secular and religious). Zionism conferences. Zionist organizational structures. Transformations after the establishment of Israel.</p>	
ISST634	Israeli Political System
<p>Theoretical approaches to the study of political systems, especially the constitutional approach. Governmental structure, its religious dimension and institutions: president office, legislative body (the Knesset), the executive branch, the judiciary, state controller, and the local government. Political elites and decision-making in the Yishuv (The Zionist Jewish settlements before 1948) and in the State of Israel. Political parties, their histories, divisions, and ideologies. Electoral participation in the Knesset and in local government. Critical issues: the absence of a constitution, human rights, the mandate of the High Court of Justice, Israel's definition as Jewish and democratic, the Palestinian-Israeli conflict, and the status of the Palestinian Arabs in Israel.</p>	
ISST635	Political Economy of Israel
<p>The historical development of the Israeli economy, covering the impact of the Oslo Accords and the Second Intifada until the present. The size and structure of Israel's economy. Class structure and state capitalism. Private and public sectors: the radical transformation towards privatization. The relationship between economy and security. Multinational corporations and the private sector. Military industry and its role in the economy. The military role in the civil economy. Investment in the colonial settlements. US military-economic support. The hi-tech industry. The labor market and its ethnic composition. Israeli exports and their markets. Integration into the global market and the impact on the welfare state.</p>	
ISST636	Palestinians in Israel
<p>Survey of the political, economic, legal, social-economic, demographic, cultural issues among the Palestinians inside Israel. Measures of military Israeli rule: containment and exclusion until 1966. Racial segregation and discrimination in governmental participation, budgets, development, and land/residence. Questions of identity, political movements and parties, local government, electoral participation, cultural and research institutions.</p>	

ISST637	Geography and Demography in Israel
Theories of political demography and geography. Major trends in population changes in Palestine since the beginning of Zionist colonization. Demographic patterns and physical geography. Impact of wars. Impact and interrelations between Palestinian and Jewish-settler spaces and population. Mixed cities. The relationship between ethnicity and locality. Impact of military and security rational on the shaping of geographic and demographic realities.	
ISST638	Israeli Legal System
The judicial and courts system in Israel. Basic Laws in the absence of a constitution. The definition of Israel as a "Jewish and democratic state". Integrating previous legal systems and mixed legal sources. The impact of religious law. The structure of courts, and special courts (religious courts, personal status courts, labor courts, military courts). Anti-Arab, racist legislations in the last two decades.	
ISST730	Media in Israel
Theoretical approaches in media studies. Hebrew press in the pre-1948 era. The development of Israeli press, radio, and television. Israeli official and private media and its role in Israeli politics and propaganda. Israeli media in other languages (not Hebrew). Politics and the media. Articulating the Zionist narrative and targeting public opinion abroad.	
ISST731	National Security in Israel
Definitions and approaches to the study of the concept. Various dimensions of national security (political, military, economic, social, geopolitical). The Israeli doctrine of national security: military superiority, deterrence, nuclear weapons, preemption and offense, moving the battle to the enemy's ground, asymmetrical losses. Arab-Israeli wars since 1948 and Israeli settler-colonial expansion. Israeli's reactions to Palestinian resistance. The peace accords with Arab countries and their impact on Israeli's national security doctrine.	
ISST732	Women and Gender in Israel
Women and gender discourses in Israel among Ashkenazi, Mizrahi, and Palestinian women. Comparing these sectors status and role in society, economy, politics, security, etc. Various feminist organizations, movements, and lobbies. Class-Race-Gender triad in the Israeli colonial context. Gender, citizenship, ethnicity, and culture.	

ISST733	Education and Scientific Research in Israel
Education policies and institutions before and after the creation of the State of Israel. Pluralism in supervision and funding educational institutions (government, local councils, the Jewish Agency, the Histadrut). Education policies and curricula's role in making Jewish-Zionist values. Education structure and branches. Israeli universities in global context. Budgeting higher education. University's teachers and students ethno-demographics. Research centers, and scientific research. Scientific research and the economy. Scientific research and the military industry. Scientific research funding. The status and political role of Israeli academics.	
ISST734	Israel and World Jewry
Overview of Jewish populations in the world and the roots for making a modern nation. Distribution of main Jewish communities in the world and their ethnic and cultural diversity. Immigration to Palestine/Israel and ties with home countries. The problem of "who's a Jew"; the relationship between Zionism and Judaism. Jews in the world and their relations with Israel. Economic, political, military, media power of Jewish communities in the world and their influence in/for Israel. Zionist organization among these communities (AIPAC, ADL, etc.).	
ISST735	Ethnic Divisions in Israel
Major ethnic groups and sub-groups in Israel. Immigration and ties with original countries: Moroccan, Russian, and Ethiopian immigrations as case-studies. Arab-Jewish relations, and inter-Jewish sectarian relations. Geographic distribution of ethnic groups. Ashkenazi hegemony. Social and religious movements as protest movements among the Mizrahim. Comparing Israel to other multi-ethnic countries and colonial-settler contexts.	
ISST736	State and Religion in Israel
Zionism and Judaism. Zionist appropriation of central Jewish convictions (the messianic element, the notion of the 'chosen people') to a political program. Secularists vs. religious activists in the Zionist movement. The rise of the Hamizrahi and Agodat Israel movements. The Status Quo declaration in 1947 and its impact after 1948. Contested state/religion issues: the Jewish state; the constitution; the Sabbath; Kosher food; personal status law; conversion to Judaism; military service; education; the legal question of "who's a Jew"). The role of religious parties in various Israeli governments; the radicalization of religious parties. The status of Islam and Christianity in Israel. Religious law and its status. State and religion in Israel in comparative perspective.	

ISST737	Introduction to Culture and Literature in Israel
Distinguishing between Jewish, Zionist, Hebrew, and Israeli literature. Zionism as a ‘melting pot’ and the revival of the Hebrew language. Yishuv’s cultural and language politics in the Mandate period. Zionist pioneers’ literature. The image of the Arab in the Hebrew literature. The Hebrew University, the Hebrew language, and the “Negation of the Diaspora culture”. The 1948 moment and the institution of culture and literature. Hebraizing the landscape and the cultural scene. The state as a second ‘melting pot’ and the inauguration of a national culture. Israelization of the mosaic of cultural products and experiences (Mizrahi, Arab, Ashkenazi, Sephardic, Ethiopian, Russian, Popular, and Queer). The impact of the 1967 war, and resulting the expansion of the settler-colonial project, on culture and literature. Neo- and post-Zionism. Translation and globalization.	
ISST738	Special Topic
Thorough study of a selected topic.	
ISST830	Research Seminar 1
Thorough study of a selected topic. <i>Prerequisite: ISST630</i>	
ISST831	Research Seminar 2
Thorough study of a selected topic. <i>Prerequisite: ISST630</i>	
ISST860	Thesis
Writing a thesis on a topic approved by the program committee. <i>Prerequisite: ISST630</i>	

Master Program in International Migration and Refugee Studies

The program aims at producing theoretical and practical knowledge about issues in [international migration and refugee studies](#), and its impact in the Palestinian, regional and international arena.

Courses offered in this program will cover specialized topics in International Migration and Refugee studies intended to provide knowledge relevant to these phenomena, the program aims at developing research skills of the admitted students and to motivate them to publish in refereed publications.

The program will work to complement other relevant programs at the university by offering cross-listed courses, leading to building the capabilities of students in order to influence migration policies.

Requirements for admission

1. Completion of the Bachelor's degree from a recognized university with the appraisal "good" at the very least;
2. Personal interview or writing sample by the applicant if the program committee so decides;
3. The program reserves the right to require the prior completion of compensatory courses by specific admitted students, in keeping with the academic bylaws governing graduate studies.
4. Accepted applicants are expected to sit for an English language test whose result will determine whether the applicant needs to take a remedial course of 3 credit hours in the English language. The remedial course must be taken before the third semester of enrolment in the Program, in accordance with the rules and regulations of the School of Graduate Studies at Birzeit University
5. Fulfilling the admission requirements according to the Academic Regulations for the Master's Degree.

Requirements for completing the program:

I. The completion of at least 36 credit hours distributed as follows:

1. **First group:** Courses required of all students: 21 credit hours distributed as follows:

Course No.	Course Title	Prerequisite(s)
IMRS6310	Introduction to Asylum and International Migration Studies	
IMRS6320	The Politics of Migration and Asylum	IMRS6310
IMRS6330	Legal Issues in Asylum and International Migration	
SOCI634	Methods of Qualitative Research	
INST6311	Research Methods	
IMRS6340	Political and Economic Dimensions of Migration	
IMRS7310	Palestinian Refugees	
SOCI7321	International Migration, Asylum, and Diaspora	

2. **Second group:** Elective courses 9 credit hours as follows:

Students are allowed to complete 6 hours offered by other relevant programs at the university.

Course No.	Course Title	Prerequisite(s)
IMRS6350	Demography of Refugees: Comparative Perspective	
IMRS6360	Reparation for Injuries Resulting from Forced Migration	
IMRS7300	Psychological, Social, and Existential Dimensions of Refugee Life	
IMRS7320	Networking and Refugee Identity	
IMRS7330	International Organizations for Asylum and Migration	
IMRS7340	Migration and Asylum in the Middle East	
IMRS7350	Migration and Development	
IMRS7360	Migration and Identity	
IMRS7370	Migration and Health	
IMRS7380	Migration and Gender	

3. Completion of 6 hours in track A (thesis) or track B (two research seminars)

The program committee decides on acceptance based on applicants' academic qualifications and the capacity of each track to accommodate new students. A student may change from one track to another based on the academic bylaws governing graduate studies.

Track	Course No.	Course Title	Prerequisite(s)
Track A	IMRS8600	Thesis	Complete no less than 15 credit hours from the program including IMRS6310, IMRS6320, and either SOCI634 or INST6311
Track B	IMRS8300	Seminar 1	Complete no less than 15 credit hours from the program including IMRS6310, IMRS6320, and either SOCI634 or INST6311.
	IMRS8310	Seminar 2	Complete no less than 15 credit hours from the program including IMRS6310, IMRS6320, and either SOCI634 or INST6311.

International Migration and Refugee Studies Courses Description (IMRS)

IMRS6310 Introduction to Asylum and International Migration Studies

The main theories used in the studies of migration and asylum and their applications, international organizations working in the field and their role in the formulation and development of the international refugee system, development and economic issues such as brain drain and its impact on the countries of origin and host countries, international refugee conventions, the structure and evolution of the International refugee system, immigration and asylum policies, legal and social issues on migration and asylum.

IMRS6320 The Politics of Migration and Asylum

Looking at the role of power, economic interests and social motivations influencing voluntary and forced migration and how these aspects factor in developing asylum policies, historical and political contexts of the emergence and evolution of the international refugee system and related international policies; overlap and conflict between state policies and policies of international refugee organizations; the extent to which the international organizations are independent in their policies towards refugees, and the impact of states on the policies of those organizations; policies of marginalization and exclusion in some countries towards refugees.

Prerequisite: IMRS6310

IMRS6330 Legal Issues in Asylum and International Migration

Legal examination of human rights in accordance with the International Bill of Human Rights and the most significant international conventions, introducing protection mechanisms at the international and local levels, and the oversight committees responsible for ensuring respect of human rights as internationally protected, focusing on the legal regulation of Asylum and international migration and the obligations of the host state and the corresponding rights to refugees, based on the norms of public international law and international human rights law, as well as related international conventions, the course will discuss refugees individual rights, including economic, social and political, and collective rights related to settlement and return.

IMRS6340 Political and Economic Dimensions of Migration

The financial remittances of migrant workers and their economic role in the countries of origin, the impact of migrant labor forces on the economy of host countries, states' policies towards such migrant workers. Focusing on the Palestinian historical context in terms of the role of refugees and Palestinian migrants around the world in contributing to the building of formal and informal economic patterns in the host countries and the political impact for this, which was manifested in the emergence of a Palestinian national refugee movement.

IMRS6350	Demography of Refugees: Comparative Perspective
Examination of the demography of refugees through case studies, in a comparative perspective, with emphasis on generational shifts in refugee status in various fields and the primary indicators of those shifts; Study of the Palestinian refugee experience with reference to the existing literature on Palestinian demography.	
IMRS6360	Reparation for Injuries Resulting from Forced Migration
Exploration of elements of internationally wrongful acts against refugees from the standpoint of international law; Consequences of injuries caused by forced migration, particularly those sustained by Palestinians; special emphasis on full reparation for injuries of refugees in the form of restitution (e.g. the Palestinian right of return); compensation and satisfaction from the standpoint of customary and conventional international law.	
IMRS7300	Psychological, Social, and Existential Dimensions of Refugee Life
Study of the psychological, social, and existential crisis of refugees and their suffering with reference to crisis management literature, examining refugees needs and the corresponding treatment by international standards ;The role of international organizations, e.g. UNHCR, UNRWA, and IMO, in providing basic needs of refugees and ameliorating their living conditions.	
IMRS7310	Palestinian Refugees
The historical origins of the Palestinian refugee issue and its development in both human and political terms, as well as examining the different positions on the issue, by extrapolating the positions of the conflicting parties and the interaction of the local, regional and international community by highlighting the role of the United Nations in the issue of the Palestinian refugees.	
IMRS7320	Networking and Refugee Identity
The maintenance of refugee identity through various means of networking in view of the increasing number of refugees worldwide, accompanied by globalization and the development of communication technologies such as the internet; The phenomenon of diaspora, methods of maintaining ties with the country of origin; the strength of these ties across generations; and the role of diaspora communities in assisting refugees.	

IMRS7330	International Organizations for Asylum and Migration
Examining humanitarian action and the evolution of humanitarian agencies working in the field of Asylum and international migration, reviewing the legal and practical aspects of their operations and the policies guiding their interventions for securing the implementation of the right of asylum and the provision of services to refugees; Focusing on the work of the United Nations High Commissioner for Refugees (UNHCR) and the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA).	
IMRS7340	Migration and Asylum in the Middle East
A historical overview of migration issues to and from the Middle East during the 20th century, the situation of Palestinian, Iraqi and Syrian refugees and their role in the political and demographic redrawing of the region; political transformations in the region and their role in creating new refugee situations; the countries of the Levant and their role In the global refugee movement; the transformation of countries in that region from host to producing countries of refugees, with a focus on the Syrian situation.	
IMRS7350	Migration and Development
The controversial relationship between development and migration, migrant labor and its impact on economic development or economic decline in host countries and countries of origin; development and its role in population displacement and the creation of refugee victims; social transformations resulting from migration and its impact on development, asylum issues and their place in development plans in developing countries.	
IMRS7360	Migration and Identity
The impact of migration and forced displacement on the identity of communities and states, the formation of identities of the different generations of migrants and refugees and their interactions with the host communities, international organizations and their role in the re-formation of refugees' identity, marriage between migrants and non-migrants and their roles in the production of new identities; individual and collective strategies used by migrants and refugees to overcome the identity crisis in the host country.	
IMRS7370	Migration and Health
Impact of migration of workers in health sectors on such sectors and the health status in the country of origin, access of migrants to health services and its social and economic repercussions on host societies, international organizations and their role in providing health services to migrants and impacting international policies concerning the health of migrants and refugees; the deteriorating health situation in some countries of the South, its role in the design of asylum and migration policies, the epidemics resulting from migration and its impact on international migration policies.	

IMRS7380	Migration and Gender
Repercussions of migration and asylum issues on women and their implications on the economic and social participation of women; the empowerment of female refugees and migrants in host states and their impact on the improvement of their living conditions; social patterns resulting from the migration of youth (males) from rural to urban areas or abroad; the transformations created by these migrations in the traditional roles of women; the impact of forced migration and asylum on the traditional social roles of women and men in the society of origin and in the host society.	
IMRS8300	Seminar 1
An advanced research in the field of international migration. The course includes presentation and discussion of principles of academic honesty and research ethics. It also involves reading, analysis and discussion of research published in refereed journals. In consultation with the instructor, each student will choose a research topic. The research project must utilize an adequate number of references to be studied and analyzed. Students will present their research before class and course committee, and are expected to revise their research paper in light of instructor feedback and class discussion. <i>Prerequisite: Complete no less than 15 credit hours from the program including IMRS6310, IMRS6320, and either SOCI634 or INST6311.</i>	
IMRS8310	Seminar 2
An advanced research in the field of forced migration. The course includes presentation and discussion of principles of academic honesty and research ethics. It also involves reading, analysis and discussion of research published in refereed journals. In consultation with the instructor, each student will choose a research topic. The research project must utilize an adequate number of references to be studied and analyzed. Students will present their research before class and course committee, and are expected to revise their research paper in light of instructor feedback and class discussion. <i>Prerequisite: Complete no less than 15 credit hours from the program including IMRS6310, IMRS6320, and either SOCI634 or INST6311.</i>	
IMRS8600	Thesis
Completion of research in chosen subject in accordance with approved Thesis instructions. <i>Prerequisite: Complete no less than 15 credit hours from the program including IMRS631, IMRS632, and either SOCI634 or INST6311.</i>	

Master Program in Renewable Energy Management

Admission requirements

- Bachelor degree from an accredited university in (mechanical engineering, mechatronics engineering, electrical engineering, electronics engineering, civil engineering, architectural engineering, physics, chemistry or biology).
- Two recommendation letters.
- Interview upon request.

Continuation Requirements

The academic rules and regulation for Masters' degree at Birzeit University are implemented.

Graduation Requirements

The student should successfully pass 36 credit hours for the master degree in mechanical engineering with a cumulative average of 80% or higher

Program Structure and Content

The [Master in Renewable Energy Management](#) consists of 36 credit hours. The program comprises of 6 compulsory courses (18 credit hours), 4 elective courses (12 credit hours) and 6 credit hours for thesis or two seminars.

The study plan consists of credit hours distributed as follow:

Requirement	Credit Hours
Compulsory Courses	18
Concentration Elective Courses	12
Thesis or Two Research Seminars	6
Total	36

1. Compulsory courses

Completing 18 credit hours (6 compulsory courses) as provided in the table below:

Course No.	Course Title	Prerequisite(s)
RENE6310	Research Methodology and Scientific Writing	
RENE6320	Renewable Energy and Grid Integration	
RENE6380	Energy Efficiency & Renewable Energy	
RENE6390	Modeling and Simulation	
BUSA636	Managerial Economics	
BUSA7395	Project Management	

2. Elective courses

Students are required to complete 12 credit hours (4 elective courses), as provided in the table below:

Course No.	Course Title	Prerequisite
RENE6330	Applied Photovoltaic and Wind	
RENE6340	Biomass and Biofuel	
RENE6350	Smart and Green Buildings	
RENE6360	Solar Energy Conversion and Storage	
RENE6370	Special Topics in Renewable Energy Management	
ENSU635	Sustainable Engineering	
ENSU6332	Clean Production	
BUSA7393	Entrepreneurship and New Venture Establishment	
BUSA633	Marketing Management	

3. Thesis and seminars

The student can follow a thesis track or a non-thesis track. The table below provides relevant information about the thesis and seminar tracks.

Track	Course title	Course code	Prerequisite
Track A	Thesis	RENE860	Completion of 15 hours from program requirements
Track B	Seminar I	RENE8301	Completion of 15 hours from program requirements
	Seminar II	RENE8302	RENE8301 Seminar I

Renewable Energy Management Course Descriptions (RENE)

RENE6310	Research Methodology and Scientific writing
Introduction to research methods. Qualitative and Quantitative approaches in research, experimental reporting of renewable energy production process. Funding proposal writing. Engineering thesis proposal writing. Writing scientific paper, and reviewing scientific paper. Preparation of a scientific patent. Using LATEX software for word processing. Using Corel Draw and Matlab software, Citation and using library. Writing Ethics, Scientific Conference Paper presentation.	
RENE6320	Renewable energy and grid integration
Power electronic converters for renewable and distributed energy sources including wind turbines, photovoltaic, and energy storage systems. Generators for wind energy systems; construction and operation principle. Design, model and control of power electronic converters for off-grid and grid connected renewable energy systems; technical challenges, practical understanding and limitations. Power quality issues in renewable energy systems.	
RENE6330	Applied Photovoltaic and Wind
The characteristics of sunlight. Solar cell behaviour, properties, and design. Cell interconnection and module fabrication. Designing stand-alone and grid-connected photovoltaic systems. Special-purpose photovoltaic applications. Concentrator and hybrid solar thermal and photovoltaic systems. Advanced photovoltaic systems. Wind energy and wind turbines. Wind characteristics. Aerodynamics of wind turbines.	
RENE6340	Biomass and Biofuel
Introduction to energy production from biomass, uses of bio-energy sources, biomass energy as a solar reservoir: forests, agricultural residues, and farm residues. Sources of recycling: solid waste, gas production, fermentation, liquid fuels.	
RENE6350	Smart and Green Buildings
Environmental Elements, Building Systems Modelling and Energy Management Systems, Building Systems Development and Operation, Integrated Building Systems Simulation, Integrated Building Design for Health and Wellbeing, Indoor Air Quality in Buildings, Light, Lighting and Wellbeing in Buildings, Multi-Objective Design Optimization, Building Acoustics, Low-Energy Housing. HVAC management and operations, water and waste systems, transportation, security, and adaptive facades.	

RENE6360	Solar energy conversion and storage
Renewable energy and sustainability, fundamentals of energy conversion, photo-physics and photo-electrochemistry, thermodynamic principles of electrochemical reactions, semiconductors and solar cells operation and concepts. Energy storage techniques: batteries, fuel cells and supercapacitors; fermi level and electrochemical potential, types, designs, configuration, working principle, application and challenges.	
RENE6370	Special Topics in Renewable Energy Management
Special topics in renewable energy management depending on the availability of faculty staff and student interests.	
RENE6380	Energy Efficiency and Renewable Energy
Energy statistics, prices and indicators, energy conversion & energy efficiency. Electric energy efficiency in lighting, motors and power factor. Energy efficiency for pumping and compressed gas.	
RENE6390	Modeling and Simulation
Physical systems (Mechanical, Electrical, Fluid, Thermal), Sensor characterization. Block diagrams and analysis. Mathematical models (input, output, transfer function), Time domain analytical modeling. Frequency domain analytical modeling & Laplace transform. State space approach. Numerical Simulation (MATLAB – SIMULINK, COMSOL).	
RENE8301	Seminar I
Study of an advanced topic leading to a written report, and an oral presentation. The student will read, analyze, and discuss a number of peer reviewed published articles. Research ethics. The student will write a report on a topic of her/his choice, with a significant literature review. The report will be modified according to the discussion with peers and instructor.	
RENE8302	Seminar II
Study of an advanced topic leading to a written report, and an oral presentation. The student will read, analyze, and discuss a number of peer reviewed published articles. Research ethics. The student will write a report on a topic of her/his choice, with a significant literature review. The report will be modified according to the discussion with peers and instructor. This course can also be a continuation of RENE8301.	
RENE8600	Theseis
A thesis on a topic within the specialization according to the published thesis bylaws.	

Master Program of Community Development

This [master program of Community Development](#) is the first of its kind to combine in-class learning with community-based development work in the field, with a focus on marginalized regions in Palestine, in partnership with local actors and organizations. Using interdisciplinary approaches, global and local theories of development, combined with participatory community action research methods and a practicum in the field, this program enhances analytical and practical understandings of how to pursue the challenges of local development in a colonial context. Informed by social justice perspectives, the program builds expertise and hands on experience in the practices, organization, planning, policies, and processes of community-based development. Incorporating practical field experience into this degree, this MA program takes Palestinian higher education into new directions and opens up new employment opportunities for young people that channel their energies into local partnerships and strengthening community initiatives, local economic development, cooperatives, alternative agricultural practices and water use, as well as other community driven local development processes. This program will build on and cross-list courses from existing and related MA programs, including the MA programs in Gender and Development, Economics, Sociology and Community Psychology. The program is unique in its practical and applied dimensions; courses will include field visits to facilitate co-learning in the field, guest lectures who are experts in community development and workshops with local communities and grassroots organizations active in the field of community development. In the final year of the program students conduct a final thesis or seminar that focuses on a local problem, challenge or community development initiative in collaboration with grassroots actors and organizations.

Admission Requirements:

Applicants must hold a bachelor's degree in one of the social sciences from a university recognized by Birzeit University. Applicants with a bachelor degree in other fields may also be admitted in this program and asked to take a remedial course on the social sciences.

Program Requirements

1. Students who do not pass the English language test are required to take a remedial course of 3 hours in the English language. The student must complete this course before the third semester of the program, in accordance with the rules and regulations of Graduate Studies at Birzeit University.
2. Students are required to complete no less than 36 credit hours distributed as follows:
 - a. Core Courses: 18 credit hours.
 - b. Elective Courses: 12 credit hours.
 - c. Thesis or Two Seminars: 6 credit hours.
3. Core Courses: 18 Credit Hours
 - a. Compulsory courses: (18) credit hours consisting of the following courses:

Course No.	Course Name	Prerequisite
CODE6300	Introduction to Community Development: Theory and Practice	
CODE6330	Participatory Action Research and Community Engagement	
CODE6350	Practicum in Community Development	
ECON735	Economic Development	
GADS631	Historical and Theoretical Introduction to Gender and Development Studies	
GADS634	Qualitative Research Methods for Gender and Development	

- b. Elective courses: 18 Credit Hours

- 1) 12 Credit Hours from the following courses:

Course No	Course Title	Prerequisite(s)
CODE6320	Community Led Rural Development: Experiences from the Field	
CODE6380	Special Topic	
CODE7300	Alternative Community Development: Local and Global Perspectives	
CODE7310	Community Development and Palestinian Refugees	
CODE7320	Youth Activism, Community Development and Social Change	
CODE7330	Self-Reliance	
CODE7340	Land and Alternative Agriculture	
CPSY630	Introduction to Community Psychology	

SOCI6301	Theoretical Issues in Sociology, Development and Social Policies	
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2) Track “A” or Track “B”: (6 credit hour)

Track	Course Title	Course No.	Prerequisite
Track “A”	Thesis	CODE8600	Complete no less than 15 credit hours from the program, including CODE6300, CODE6330 and CODE6340
Track “B”	Two Seminars	CODE8301 CODE8311	

Community Development Course Descriptions (CODE)

CODE6300	Introduction to Community Development: Theory and Practice
<p>Theories and practices of community-based development, combined with scholarly and practical literature on the implementation of development at the community level in marginalized regions in Palestine. Uses interdisciplinary approaches, local and global development theories and social justice perspectives to promote new development strategies and knowledges that foster self-reliance and sustainable local development that is accountable to communities' and their ownership over local economic, social structures, and knowledges power. Includes visits to the field and practical engagement with local communities.</p>	
CODE6320	Community Led Rural Development: Experiences from the Field
<p>Global and local economic processes, colonial policies and development paradigms that have led to the marginalization of rural communities and economies. Strategies to revive rural spaces and promote local economies through community-led development. Past and present Palestinian rural visions, plans and successful community development models, including the rehabilitation of old city centers, alternative tourism, cooperatives, community agricultural, local food sovereignty and promotion of local economies will be studied through guest lectures from local leaders and local workshops in rural communities.</p>	
CODE6330	Participatory Action Research and Community Engagement
<p>Introduction to Participatory Action Research (PAR) as a laboratory alternative method for generating knowledge with communities. The epistemological underpinnings of PAR; the principles and process of PAR; investigate the role of power in the research process; brainstorm methods for establishing and maintaining community-researcher partnerships, among others. Explore ways to engage the community in the research process, including practical applications of PAR to community-based interventions, through discussions with community leaders and practical applications in the field.</p>	
CODE6350	Practicum in Community Development
<p>Combine theoretical knowledge and practical skills through academic study and supervised field experience. Direct involvement in development at the grassroots level and engagement in a community project. Provides students with the theoretical foundation on community development and the opportunity to share and reflect on their work in the field. Expand students' understanding of the challenges of community development and learn how to integrate theoretical and practical knowledge.</p>	

CODE6380	Special Topic
Study of a specific topic related to community development. Topic is determined by the instructor and approved by the Program Council.	
CODE7300	Alternative Community Development: Local and Global Perspectives
Theories and practices of alternative development, drawing on theories of liberatory development. Examination of how the establishment of alternative economies and modes of production have formed the basis of attempts to recreate social life and grassroots models of development that are rooted in social justice. Study cases from South Africa, Brazil, Mexico and Cuba, and past and present alternative models in Palestine, includes field visits to active grassroots communities linking theory to practice.	
CODE7310	Community Development and Palestinian Refugees
Community-based development in refugee communities and its role in fostering the right of return; UNRWA policies and their connections to social engineering and new formations in the lives of refugees. Concepts of development between societal and service-oriented perspectives. Linking community development to the space of the camp through field visits and examination of the impact of these issues on the identity of the space. The developmental role of refugees in the different host communities in the Palestinian villages and towns and its impacts on the socio-economic structures in these areas.	
CODE7320	Youth Activism, Community Development and Social Change
Focuses on the social phenomenon of youth grassroots activism, including student's movements, as forms of community development and social change under prolonged colonial conditions. Interdisciplinary theories of college student's development, theories of community organizing and youth grassroots activism are explored and integrated with a wide range of classical and contemporary examples of youth activism focusing on the Global South with emphasis on the local Palestinian colonial context.	
CODE7330	Self-Reliance
Theories and practices of economic self-reliance as a key pillar of community led and owned development. Historical overview of Palestinian local practices of self-reliance, the local knowledges and theories of steadfastness and resistance linked to these practices. Examination of alternative strategies and possibilities for fundraising that preserve independence and community ownership. Self-reliance in the context of globalization, free market and international free trade agreements. Relies on visits to successful examples of community self-reliance.	

CODE7340	Land and Alternative Agriculture
Examination of the importance of the relationship to the land, and the concept of the land as that which sustains Palestinians in their homeland, deepening the connections between human lives and the land as a daily practice. Exploration of agro-ecology as an alternative agriculture model that offers tools for liberation, and is rooted in knowledges that build on practical experiences and liberatory thought. Introduction to the philosophy and modern technologies of agro-ecological agricultural methods through exposure to these practices at the community level.	
CODE8301	Seminar 1
Advanced study of a topic related to community development. Writing a research paper or research report. Presentation and discussion of research ethics. Reading, analyzing and debating various studies published in academic journals. Each student will choose a topic for their research project in coordination with the instructor, and present the results of their research in front of a committee and students of the seminar. <i>Prerequisites: Complete no less than 15 credit hours from the program including: CODE6300, CODE6330 and CODE6340</i>	
CODE8311	Seminar 2
Advanced study of a topic related to community development. Writing a research paper or research report. Presentation and discussion of research ethics. Reading, analyzing and debating various studies published in academic journals. Each student will choose a topic for their research project in coordination with the instructor, and present the results of their research in front of a committee and students of the seminar. <i>Prerequisites: Complete no less than 15 credit hours from the program including: CODE6300, CODE6330 and CODE6340</i>	
CODE8600	Thesis
Students shall write a thesis based on the regulations of Birzeit University and the program. <i>Prerequisites: Complete no less than 15 credit hours from the program including: CODE6300, CODE6330 and CODE6340</i>	

Master Program in Humanitarian Action in International Conflicts (HAIC) Ibrahim Abu-Lughod Institute of International Studies

The [Master's Program in Humanitarian Action in International Conflict](#) is an interdisciplinary and program that combines classroom teaching (through lectures, panel discussions, individual supervision...) and practical and field training. The program addresses issues such as forced migration, human rights, humanitarian policy, negotiations, and the work of humanitarian aid organizations, public health, and development. This program studies humanitarian action at the local, regional and international levels, which will enable students to conduct comparative studies between different contexts.

Admission Requirements:

1. A Bachelor degree from an accredited university with a minimum “good” standing.
2. The program has the right to require admission to it by completing remedial courses in some cases, and in accordance with the academic regulations for postgraduate studies.

Program Requirements

The Master in Humanitarian action is awarded upon successful completion of at least 36 credit hours divided as follows:

Requirement	Credit Hours
Compulsory Courses	18
Concentration Elective Courses	12
Track “A” Thesis or Track “B” two seminars	6
Total hours	36

B. Compulsory courses: (15) credit hours consisting of the following courses:

Course No.	Course Name	Prerequisite
HAIC7370	Humanitarian Intervention	
HAIC7380	Research Methods	
HAIC6310	Strategic Communication	
HAIC6320	Humanitarian Action Ethics	
JURI7314	International Humanitarian Law	

C. Elective courses:

1) (3) credit hours out of the following courses:

Course No.	Course Name	Prerequisite
HAIC7110	Remote Management of Humanitarian Action	
HAIC7120	Financial Management of Humanitarian Action	
HAIC7130	Security Risk Management During Humanitarian Action	
HAIC7140	Monitoring and Evaluation	
HAIC7150	Strategic Thinking	
HAIC7160	Monitoring and Documentation	
HAIC7170	Leadership Skills	
HAIC7180	Special Topic	

2) (12) credit hours out of the following courses:

Course No.	Course Name	Prerequisite
HAIC6330	Public Health And Humanitarian Action	
HAIC6340	Women, Humanitarian Action and International Conflicts	
HAIC6350	Refugees and humanitarian action	
HAIC6360	Development and Humanitarian Action	
HAIC6370	International Conflicts: Comparative Perspective	
HAIC7310	Negotiations and Diplomacy	
HAIC7390	Conflict Resolution and International Crisis Management: Case Studies	
HAIC7300	International Development	

HAIC6300	Human Rights in International Politics	
HAIC6380	Management of Humanitarian Action During Conflict	
HAIC6390	Humanitarian Action Policies	
HAIC7320	Humanitarian Action Organizations	
HAIC7330	Protection at times of Conflict	
HAIC7340	Security Issues in Humanitarian Action	
HAIC7350	Critical Reading in Humanitarian Action	
HAIC7360	Special Topic	

D. Track “A” or Track “B”: (6 credit hour)

Track	Course Title	Course No.	Prerequisite
Track “A”	Thesis	HAIC8600	<ul style="list-style-type: none"> - Complete no less than 15 credit hours from the program. - Program Committee Approval.
Track “B”	two seminars	HAIC8300 HAIC8310	

Humanitarian Action in International Conflicts Course Descriptions (HAIC)

HAIC6300 Human Rights in International Politics
The transformation of the philosophical and juridical basis of an international culture of rights and the international structures of human rights, notably after World War two. Human rights criteria and types of rights. International documents, treaties and agreements related to human rights. The responsibility of states, pressures and international intervention versus the sovereignty of states. Regional and international bodies, local and regional courts, human rights networks, civil society organizations, public opinion, media. The influence of human rights on international relations and politics. Case studies.
HAIC6310 Strategic Communication
Provides students with skills of communicating in the field of humanitarian work, building trust and cooperation with the population, local authorities and the media in times of conflict, taking into account social sensitivities, carrying out support and advocacy campaigns for the cause, building dialogue with stakeholders, communicating with the team, training in some media skills including social media, presentation of practical cases in strategic communication.
HAIC6320 Humanitarian Action Ethics
The concept of humanitarian action ethics during conflicts; the historical development of humanitarian action and its association with intellectual schools of ethics; review of concepts, theories and controversy about humanitarian action ethics; humanitarian action ethics as seen by organizations working in the field; ethical management of humanitarian action; ethical contradictions of some humanitarian workers; dealing with the ethical challenges that may arise as a result of conflict, particularly in the context of armed targeting of humanitarian assistance; how to reconcile the needs of conflict victims, the conditions of the parties to the conflict and the policies of the donors so that aid is given to the most needy groups.
HAIC6330 Public Health and Humanitarian Action
Introduction to public health studies, health planning and management in time of crises: social, cultural, psychological and demographic factors affecting community health during conflict, health organizations working in humanitarian action area during conflict, managing health work in the field, field health clinics, dealing with health cases during conflict, ways to prevent the negative health effects of conflict, provision of medical aid taking into account social and cultural conditions in the action area.
HAIC6340 Women, Humanitarian Action and International Conflicts
Humanitarian issues during armed conflicts from a gender perspective, the role of women in humanitarian and relief work during the conflict with the presentation of Palestinian models that contributed to the physical protection and medical relief of victims, feminist considerations that are taken into account (or omitted) in the design and implementation of humanitarian action plans, humanitarian policies and their gender implications during conflicts, forms of attacks on women such as sexual violence and exploitation of women during conflicts, and forms of humanitarian protection for women victims of conflict. The socio-cultural dimension of dealing with women during humanitarian action.

HAIC6350 Refugees and Humanitarian Action

The nature and concept of humanitarian action in refugee contexts specifically in the Arab region, international organizations and their role in promoting international cooperation for the relief (or non-relief) of refugees, basic principles of international refugee law, patterns of community humanitarian action towards refugee crises and its role in creating solidarity with refugees and assisting host countries in bearing the burdens of asylum, humanitarian action inside the refugee camps, and the role of the refugees in the development of humanitarian action inside and outside the camps. Case studies of humanitarian action provided for refugees inside and outside of the camps.

HAIC6360 Development and Humanitarian Action

Theoretical and conceptual introduction to development issues against the background of conflicts; historical development of humanitarian development policies; the relationship between humanitarian action and development topics, international organizations and humanitarian assistance programs; the main actors in development work (states, institutions, individuals) and their role in creating development in conflict situations; optimal utilization of resources; effective planning of development projects in times of conflicts; challenges of development and alternative development in conflict; presentation of case studies by hosting experts on development during conflict.

HAIC6370 International Conflicts: Comparative Perspective

The emergence, types, development and impact of international conflicts on the conflicting countries and the international system, theories explaining these conflicts, international laws governing international conflicts, mechanisms for managing conflict and reaching agreements to resolve it, background and political, economic, social, intellectual and humanitarian effects of some conflicts. Focus on the two World Wars and some Cold War-related conflicts and humanitarian interventions.

HAIC6380 Management of Humanitarian Action During Conflict

Basic principles of humanitarian action management; project management and humanitarian institutions in conflict situations including staff management, decision-making, financial management in the organization, sound planning of emergency interventions and mechanisms for achieving and implementing goals on the ground, negotiation, taking into account the socio-cultural contexts of beneficiaries specifically for those who are most vulnerable such as women and children, remote humanitarian management, advocacy and support. Presentation of some of the experiences of experts from the field in the management of humanitarian action during the conflict.

HAIC6390 Humanitarian Action Policies

The political and historical contexts of humanitarian work; the emergence and development of humanitarian action throughout history; the principles of humanitarian action (neutrality, impartiality, humanity, independence) affecting the definition of its policies; state and non-state actors involved in humanitarian action and their role in shaping humanitarian policies and influencing the course of conflict; critical view of these actors' relief policies; the societal effects of these policies on aid-receiving communities; how these communities interact with these policies; the relationship between humanitarian action policies and international conflict issues, refugees, health, development and protection. Policies of humanitarian action in Palestine and their political and societal dimensions.

HAIC7110 Remote Management of Humanitarian Action
Identification of elements of remote humanitarian action management; management of risk, information and staff. Ability to guide the workflow remotely through the development of plans and ensure their implementation in the best manner and with available human, in-kind and financial resources. Build the capacity of the field staff and provide guidance and support remotely, the use of mechanisms and techniques of communication and information transfer optimally to ensure the safety of the team in the field and the arrival of assistance to those in need, remote financial control.
HAIC7120 Financial Management of Humanitarian Action
Fundamentals of financial management, sound financial planning and budgeting commensurate with the size of the task, control of financial resources and expenditures, financial reporting and control of financial corruption, fundraising in humanitarian action and dealing with donors, project management cycle (initiative, planning, implementation and project closure), management of financial and in-kind assistance provided by the foundation to beneficiaries.
HAIC7130 Security Risk Management During Humanitarian Action
How to reach and provide assistance to victims of conflict in insecure conditions starting with the design of the humanitarian action plan for the mission (including risk identification, prioritization, development of some proposed risk solutions), selection of staff and appropriate management of the mission, ensuring the safety of team members while performing work, working in the field under the pressure of time, making sure to achieve the desired goals, develop alternative plans in the absence of the possibility of implementation of the basic plan.
HAIC7140 Monitoring and Evaluation
Collect, analyze and audit information about humanitarian interventions to reach the desired objectives, performance evaluation mechanisms for humanitarian projects and programs, assess the expected and accomplished objectives, examine the series of results of humanitarian interventions (inputs, activities, outputs and impact), training on some quantitative research methods specifically statistical analysis. Basic steps of the design, monitoring and evaluation of humanitarian projects to ensure the effective functioning of the project.
HAIC7150 Strategic Thinking
Presentation of the concept of strategic thinking and patterns of that thinking, the development of visions and objectives and their role in strategic thinking, game theory and its applications, the use of strategic thinking tools such as SWOT / TOWS (analysis of strengths, weaknesses, threats and opportunities), Force Field Analysis, and the tool to analyze the external environment, presentation of cases to assess strategic behavior and building scenarios, employing strategic thinking to achieve development, self-assessment.
HAIC7160 Monitoring and Documentation
Mechanisms of visual, audio and written documentation of cases of victims in times of conflict, writing reports of various kinds, media communication, collecting and analyzing data and statistics from their official and unofficial sources, creating a database to collect information on different cases, comparing victims' cases with similar cases prior to reaching conclusions and documenting them, using documentation and monitoring techniques such as social media.

HAIC7170 Leadership Skills
Working with victims and making decisions in the absence of sufficient information in hazardous environments, managing work under pressure with many actors quickly and effectively, making decisions based on understanding the local context, coordination skills, ability to analyze risks, collaborating with the team to achieve desired goals.
HAIC7180 Special Topic
Advanced study of a topic selected by Humanitarian Action in international conflicts program committee based on need and the availability of resources.
HAIC7300 International Development
Historical origins of the concept of international development since the second World War. Theories of development, and the developments leading to the current concept of international development. Social and economic development and political transformation. The role of the state in development. International developmental agencies and non-governmental organizations. UN agencies working in the field of development and the goal of sustainable development 2015-2030. Links between international development and the initiatives of the great powers, and their effects on developing countries, particularly with regard to international debt.
HAIC7310 Negotiations and Diplomacy
Defining negotiations and the fundamentals as well as the concepts and laws of the negotiating process, and their links to diplomacy. How to define the goals of negotiations, and maximize gains while minimizing losses. The psychology of the negotiating process and the culture of negotiations. Asymmetrical negotiations, crisis management during negotiations. The choice of allies and understanding the various camps; how to choose a negotiation team. The methods of negotiation, tactics of the negotiating process, boycott and ending negotiations. Case studies.
HAIC7320 Humanitarian Action Organizations
International organizations working in the fields of humanitarian action in times of conflict, their origins, work, nature and the laws governing their existence. Relationship of organizations with states, whether member states or host countries of these organizations; a critical look at the role of these organizations in the course of conflict. Case studies of humanitarian action organizations.
HAIC7330 Protection at Times of Conflict
The concept and forms of protection during conflicts from a societal, institutional, legal and international perspective. Principles of protection during humanitarian action (promoting the sense of security; integrity in the distribution of assistance; helping victims recover from the effects of violence; helping people claim their rights). Deficiencies in the protection provided by international organizations, the role of societal protection in addressing such deficiencies, the development of legal mechanisms for the protection of victims of conflicts, global solidarity networks and protection for victims of war, particularly refugees in host countries, and the role of state security policies in the removal of protection for certain groups during conflict. The conflict of some concepts of humanitarian action with the provision of protection in some cases.

HAIC7340 Security Issues in Humanitarian Action
Human security issues and their links to international conflicts and humanitarian work, the impact of insecurity on humanitarian action, the role of humanitarian organizations in the promotion or deterioration of security during conflicts. Personal security and how to deal with emergency security problems during humanitarian assistance. Review of case studies from the region and the world of humanitarian missions that faced security risks during their work and the mechanism of dealing with them.
HAIC7350 Critical Reading in Humanitarian Action
Deconstructing humanitarian action policies and humanitarian relief organizations as means of colonial domination; the role of humanitarian aid, given during conflicts, in enhancing colonial domination and dependency and creating new victims; humanitarian action from the perspective of the victims of conflicts; the delusion of development based on humanitarian aid; political, economic and sociological aspects resulting from humanitarian interventions during conflicts; critical view of the principles of humanitarian action (humanity, neutrality, impartiality and independence).
HAIC7360 Special Topic
Advanced study of a topic selected by Humanitarian Action in international conflicts program committee based on need and the availability of resources.
HAIC7370 Humanitarian Intervention
The concept of international humanitarian interventions, types thereof and their legitimacy, legal, political, economic and ethical aspects. Growth and development of the phenomenon. Causes and justifications for international humanitarian intervention, such as strengthening human rights, protection of minorities, preventing crimes against humanity, peacemaking, furthering development. The responsibility to protect, humanitarian relief, emergency relief, natural crises and disasters as well as conflicts. The essential players in humanitarian intervention and their goals: states, governmental and non-governmental organizations. Case studies.
HAIC7380 Research Methods
Introduction to research methodology and varied research methods in the social sciences. Description of the methodological approaches employed in preparing research and Master theses. How to choose a subject, the research problem and its various parts, defining the hypothesis, methodological approaches in the fields of quantitative and qualitative research, comparison between methods. The elements of research production: structure, table of contents, research language, dealing with a variety of sources, written, spoken and visual, documentation, and academic ethics.
HAIC7390 Conflict Resolution and International Crisis Management: Case Studies
Theories of conflict and international crisis management. Causes of conflicts, types of conflicts, various methods for conflict resolution and international crisis management. Peaceful methods such as arbitration, mediation and negotiations, or non-peaceful methods such as military intervention. Analysis of a series of practical cases such as the division of Korea, the three-party invasion of Egypt, the Berlin blockade, the Cuban missile crisis, Egyptian-Israeli negotiations, the single China policy, the Madrid Conference, the Oslo accords, transitional justice in South Africa.

JURI7314	International Humanitarian Law**
<p>International humanitarian law: its concept, characteristics, its relationship to public international law, and its sources. The categories covered by the protection and the scope of this protection. The Fourth Geneva Convention for the Protection of Civilian Persons in Time of War and the Additional Protocols to the Geneva Conventions specializing in the protection of victims of international armed conflicts and international non-armed disputes, in terms of protected rights, the binding force of its provisions, the rules of international responsibility in accordance with the rules of international humanitarian law.</p>	
HAIC8300	Seminar 1
<p>An advanced course of study dealing the field of Humanitarian action. The course includes presentation and discussion of principles of academic honesty and research ethics. It also involves reading, analysis and discussion of research published in refereed journals. In consultation with the instructor, each student will choose a research topic. The research project must utilize an adequate number of references to be studied and analyzed. Students will present their research before class and course committee, and are expected to revise their research paper in light of instructor feedback and class discussion.</p> <p><i>Prerequisite: Complete no less than 15 credit hours from the program. Program Committee Approval.</i></p>	
HAIC8310	Seminar 2
<p>An advanced course of study dealing the field of Humanitarian action. The course includes presentation and discussion of principles of academic honesty and research ethics. It also involves reading, analysis and discussion of research published in refereed journals. In consultation with the instructor, each student will choose a research topic. The research project must utilize an adequate number of references to be studied and analyzed. Students will present their research before class and course committee, and are expected to revise their research paper in light of instructor feedback and class discussion.</p> <p><i>Prerequisite: Complete no less than 15 credit hours from the program. Program Committee Approval.</i></p>	
HAIC8600	Thesis
<p>A scholarly piece of research is produced, based on the criteria applying to Master theses.</p> <p><i>Prerequisite: Complete no less than 15 credit hours from the program. Program Committee Approval.</i></p>	

Master in Law and Information Technology

- **Introduction:**

The Master in Law and Information Technology program seeks to build vertical knowledge by graduating legal cadres with a high degree of specialized knowledge and qualification in law and information technology (IT). The program builds and develops knowledge abilities, academic research skills, and criticism, qualifying graduates to compete in the market and facilitate their access to Ph.D. program.

- **Admission Requirements:**

Admission to the Master in Law and Information Technology is based on the general framework of graduate studies program and in line with the conditions below.

- **An applicant is required to:**

1. Hold a BA in law from a recognized university.
2. Pass a written examination to evaluate their legal and IT capabilities.

- **Study Language:**

The language of teaching is mainly Arabic. As IT-related aspects incorporate English terminology, students are expected to have as a basic knowledge of English as to enable reading and overall understanding. Students are required to sit for an English placement test held by the Faculty of Graduate Studies. Based on the test result, students' need for English remedial courses is determined.

- **Program Requirements:**

The program requires the completion of 36 credit hours distributed as follows:

A. Compulsory courses: (15) credit hours consisting of the following courses:

Course Number	Course Name
JURI630	Research Methodology and Legal Drafting
LAIT6310	Legal Information Systems
LAIT6320	Data and Privacy Protection
LAIT7310	Digital Forensics
LAIT7320	Electronic Evidence in Civil and Commercial Matters

B. Elective courses: (15) credit hours out of the following courses

Group No.	Course Number	Course Name
Group one: 9 Credit Hours	LAIT6330	Human Rights and IT
	LAIT7330	Electronic Transactions
	LAIT7340	Cybercrimes
	LAIT7341	Legal Terminology and Information Technology in English
	LAIT7342	Cryptocurrencies
	LAIT7350	Special Topics in Law and IT
Group one: 6 Credit Hours	GOVS7340	E-Government
	JURI636	Intellectual Property
	JURI7353	Consumer Protection Law
	LAIT6340	Legal Regulation of Electronic Media
	LAIT7343	Artificial Intelligence in Legal Systems

C: Thesis track and Seminar track:

Track	Course Number	Course Name	Prerequisite
Track A	LAIT860	Thesis	Completion of at least 15 credit hours of the program courses.
Track B	LAIT830	Seminars 1	Completion of at least 15 credit hours of the program courses.
	LAIT831	Seminar 2	

Law and Information Technology Course Description (LAIT)

LAIT6310	Legal Information Systems
Use of technology in law; legal information systems and their applications in practice, with a particular focus on Palestine; T devices, programs and networks used to convert large legal information for easier classification, sorting, retrieval and manipulation; legal mechanisms, mediums and methods used to maintain and upgrade legal information systems.	
LAIT6320	Data and Privacy Protection
Legislation on data security in accordance with local and international standards, privacy violations and data breaches; types of violations and compatibility of social networking sites with information security policies; current legal framework of the European Union regarding data protection as well as measures concerned with privacy and data protection around the world.	
LAIT6340	Legal Regulation of Electronic Media
Processes of media development, digital journalism, information dissemination; of different types of electronic media; legal oversight of digital media applications, such as blogs and social networks; comparisons of different legal systems within electronic media, and legal and theoretical aspects of digital media applications.	
LAIT7310	Digital Forensics
Concepts, types, legal value, significance and authority of electronic forensic evidence in criminal cases; basic terms of cybercrime scenes; processes of obtaining digital evidence using electronic devices and software under the Cybercrime Law; techniques for tracking evidence in crime scenes and within forensic laboratories; legal processes for collecting, storing, preserving, and presenting digital evidence.	
LAIT7320	Electronic Evidence in Civil and Commercial Matters
Kinds of transactions in electronic mediums, types of evidence used; mechanisms for processing electronic evidence and means of preserving, retrieving and submitting evidence for proof in court; comparison of different legal systems, including Palestinian laws and the Model Law on Electronic Commerce (UNCITRAL); applications from Palestinian and international courts in relation to evidence by electronic means.	

LAIT7330	Electronic Transactions
Concepts of electronic transactions, the legislative framework for electronic transactions and contracts; mechanisms for applying the law to electronic transactions; basic principles of electronic transactions; obstacles to electronic and international transactions; legal effect of the use of technology in commercial fields including electronic signatures, online banking, banking websites and electronic contracts; resolution of conflicts arising from electronic transactions; and a discussion of practical aspects of electronic transactions.	
LAIT7340	Cybercrimes
Definitions of electronic/cybercrimes; local and international legal frameworks that regulate electronic/cybercrimes; provisions for certain types of electronic crimes; including hacking and fraud; most common types of recent electronic crimes, including digital intrusion and forgery and legal challenges in the electronic field, especially conflict of laws and jurisdiction.	
LAIT7341	Legal Terminology and Information Technology In English
IT-related legal terms in English and their equivalence in Arabic, in particular those terms related to the courses taken in this program; practical use of English and Arabic IT-legal terminology in practice	
LAIT7342	Cryptocurrencies
Legal regulation of digital/electronic currencies under the Palestine legal system; definitions of digital currencies and the mechanisms for their generation and trading; reviews of national and international perspectives on digital currencies and its economic implications; obligations arising from dealing with digital currencies from both producers and users; crimes related to digital currencies. Including theft. Fraud. Etc.	
LAIT7343	Artificial Intelligence in Legal Systems
Types of artificial intelligence (AI) in comparative legal systems; AI innovations in relation to the judicial system; importance of AI use in courts of law; judicial actors experience with AI techniques and relevant norms, standards and comparative experiences. AI impact on human rights; case studies of ethical principles in practice relating to impact of AI on human rights; AI in judicial systems.	
LAIT7350	Special Topics in Law and IT
An in-depth study of a particular topic in law and IT, selected from among topics that meet students' needs and faculty members' interests.	

LAIT830	Seminar 1
<p>Comprising three credit hours, for graduation, this course involves the selection of a new IT-related legal topic to write a legal research paper in line with the academic research methodology.</p> <p><i>Prerequisite: Completion of at least 15 credit hours of the program courses.</i></p>	
LAIT831	Seminar 2
<p>Comprising three credit hours, for graduation, this course involves the selection of a new IT-related legal topic to write a legal research paper in line with the academic research methodology.</p> <p><i>Prerequisite: Completion of at least 15 credit hours of the program courses</i></p>	
LAIT860	Thesis
<p>Comprising six credit hours, this course involves the writing of a genuine thesis, which is closely linked to the program topics.</p> <p><i>Prerequisite: Completion of at least 15 credit hours of the program courses.</i></p>	

Faculty of Arts

The [Faculty of Arts](#) was established in the year 1976. At present, the number of academic departments in the Faculty of Arts is eleven, offering the following programs:

- [Master Program in Arabic Language and Literature](#)
- [Master Program in Critical Cultural Studies](#)
- [Master Program in Arab Islamic History](#)
- [Master Program in Geography](#)
- [Master Program in Sociology](#)
- [Master Program in Community Psychology](#)
- [Master Program in Contemporary Arab Studies](#)

Master Program in Arabic Language and Literature

The [Department of Arabic Language and Literature](#) offers an academic program that leads to a [Master Program in Arabic Language and Literature](#). This program aims at giving students holding a bachelor degree in Arabic Literature or relevant field an opportunity to continue their graduate studies in the field to improve and train students to write scientific research, and define the developments in linguistic and literary Sciences.

Admission Requirements:

- Applicants must hold a bachelor degree in Arabic Language and Literature, or other related fields. Applicants should pass an acceptance exam, and after the approval of the program council students whose background other than Arabic should finish a remedial courses maximum of 9 credit hours. However, these 9 credit hours are not be counted from the total 36 credit hours, and must be completed before starting graduate courses
- Fulfilling the admission requirements mentioned in the Academic Regulations for Master's Degree.
- The program committee may require personal interviews with applicants.

Program Requirements:

- Students should pass successfully remedial courses from Bachelor Program in Arabic Language and Literature no more than (9) credit hours.

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (18) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite(s)
ARAB630	Research Methods in Language, Literature, and Manuscript Authentication	
ARAB631	Trends in Classical Arabic Literature	
ARAB632	Directed readings in Arabic Grammar Sources	
ARAB730	Studies in Contemporary Arabic Literature	
ARAB733	Studies in Modern Linguistics	
ARAB734	Studies in Modern Literary Criticism	

2. Elective courses: (12) credit hours from the following

Course No.	Course Title	Prerequisite(s)
ARAB633	Arabic Syntactic Theory	
ARAB634	Development of Arabic Linguistic Thought	
ARAB635	Innovative Movements in Arabic Poetry	
ARAB636	Jerusalem in Arabic Literature	
ARAB637	Narrative in Arabic Literature	
ARAB638	Semantics and Its Applications in Arabic	
ARAB639	Rhetoric and Stylistics	
ARAB731	Contemporary Palestinian Literature	
ARAB732	Arabic Language and Computational Linguistics	
ARAB735	Studies in Comparative Literature	
ARAB736	Ancient Semitic Languages	
ARAB737	Qur'anic Rhetoric	
ARAB738	Orientalism in Language and Literature	
ARAB739	Special Topic	

3. (6) Credit Hours; Track “A” or Track “B”: Thesis, or Two Seminars.

Track	Track Title	Track Number	Prerequisite(s)
Track A	Thesis	ARAB860	
Track B	Seminars	ARAB830 ARAB831	

4. Remedial Courses:

Remedial courses (9) credit hours, will be defined by the program committee according to the applicant's standard in the interview.

Arabic Language and Literature Course Description (ARAB)

ARAB630	Research Methods in Language, Literature, and Manuscript Authentication
The concept of literary and linguistic research. Research elements and procedures. Methodologies in literary and linguistic studies: descriptive approach, historical approach, comparative approach, parallel approach. Manuscript authentication: concepts, procedures, and versions comparison. Training students to carry out applied research Authenticating manuscript samples.	
ARAB631	Trends in Classical Arabic Literature
Studying trends of Arabic literature as cultural production. Identifying major influences on these trends such as: the structure of the classical ode; “brigand’s” poetry and their legacy during the Umayyad dynasty; the impact of Islam and political factions on poetry and prose; the development of poetry’s motifs in particular: adoration, praise, call-and-response. Poetry: artesian and spontaneous. Rhythm-free poetry, and prose in the Abbasid dynasty. Close readings of representative literary texts.	
ARAB632	Directed Readings in Arabic Grammar Sources
Close readings in chapters of classical sources in Arabic linguistics, phonetics, morphology, grammar, and lexicology, such as: Sibawayh’s al-Kitab, Mubarrid’s al-Moqtadhab, Zamakhshary's al-Mufasssal. The importance of phonetics and morphology studies in the study of grammar. Studying selected sections from various Arabic grammatical sources focusing on variations in terminology, classification, and formulation.	
ARAB633	Arabic Syntactic Theory
Syntactic Theory: overviews the syntactic theory and its limitations, relation of Arabic syntax with other languages structures. Features of Arabic syntactic theory: narration, analogy; parameters of analogy including: the compared to and the compared with, the cause, the judgment, the contradiction, the favoring, the induction, grammaticalization. Sources of linguistic information: the Holy Quran, Speech of the Arabs Bedouins within spatial and temporal limitations whether in prose or in poetry. Disagreement regarding the use of the Prophet’s Tradition Hadith in exemplification, explanation, interpretation, implication, alteration, the system theory of Abdul-Qaher AL-Jurjani, pedagogic syntactic theories in Arabic.	

ARAB634	Development of Arabic Linguistic Thought
Following the Arabic linguistic theory since its birth through the various periods until its present time. Studying the language codifying rules such as analogy, generally accepted usage, consensus, reasoning, context-dependency. The theory of AL-‘AAMEL the agent between acceptance and refusal; renewing grammar in the modern linguistic Arabic reference books. Making use of the modern western linguistic theory in the Arab linguistic study and the influence of Arabs on and by the others.	
ARAB635	Innovative Movements in Arabic Poetry
Recording the innovation concepts of Arabic poetry; the real factors contributing to innovation through the different time and place frames like: The influence of Islam in bringing about simplicity, spirituality and prophecy hymns, the impact of the other cultures on the Abbasside and Andalusian periods especially in love and nature poetry. Tracing the development of the poem’s structure, the internal and external unity, renovation in rhyme schemes and meters in lyrics. The beginnings of free verse, its social environments and its prosody. Prosaic poetry: its development, artistic features which include its language, images, rhythmic touch, transformations in the concept of poetry.	
ARAB636	Jerusalem in Arabic Literature
This course surveys the status of Jerusalem in both old and modern literature focusing on the Crusaders’ era as well as the period prior to and post the 1948 disaster in Palestine, in addition to relating this to the conflict on Jerusalem. This course further illustrates cultural, religious and historical aspects and their connectedness with the issues of identity and the collective memory. All this is carried out through studying selected prose and poetry texts, pinpointing their artistic as well as topic-related features; shedding light on the works of a literary figure whose creativity was centered on and around Jerusalem.	
ARAB637	Narrative in Arabic Literature
Tracing the development of narrative style and its external factors. Literary schools such as Classicism, Romanticism, Realism, and Consciousness School of Thought. Techniques of narration, its forms, its levels like dialogue, description, soliloquy, association and the narrator’s roles. Time sequence like reflection and anticipation and its nature in terms of chronology and psychology. Setting: its nature, functions and description from a detailed and psychological perspective. Studying all this by analyzing modern Arab novels and stories to grasp the narration style features and its development.	

ARAB638	Semantics and its Applications in Arabic
The concept of semantics, its relations with the different branches of linguistics, and methods of semantic analysis and its theories: Sign theory, imagery theory, behavioral theory, Firthian theory, semantic fields theory, and semantic development regarding its: causes and forms, investigating some semantic phenomena like: synonymy, polysemy, antonymy, inclusion, signifier and signified. Types of meanings: Phonetic, morphological, syntactic, lexical, social, psychological, contextual, and relative meaning.	
ARAB639	Rhetoric and Stylistics
The old and recent roots of stylistics, its development, and its concept as a rhetorical insight or a reflection of the individual or a deviation from the linguistic system or a selection of the language elements that can be reciprocal with each other. Its relation with linguistics and rhetoric; its fields and expressionistic, formalistic and application trends. Stylistics from the reader and text perspective. The concept of stylistic phenomenon; the literary communication, stylistics analysis methods and levels. All this is done through applied studies which reveal the stylistic perspective for the three rhetoric fields: psychological reaction for the metaphor, figures of speech, and the various contexts for semantics.	
ARAB730	Studies in Contemporary Arabic Literature
Studying topics like: Heritage, society, woman, freedom, alienation, time. The principle of literary commitment: its concept, conditions, development, and commitment between Social Realism and Existentialism. Examining artistic phenomena like: artistic form, language, image, symbol, legend, intertextuality, characters, narration and narrator, time and place, all these to be shown in the development of modern Arabic poetry as well as its harmony with the Arabic culture in its different environments and its influence by the other world cultures. All this will be clarified through scrutinizing poetic and prosaic texts.	
ARAB731	Contemporary Palestinian Literature
The development and the stages of Palestinian literature. Studying the features of its prominent subjects like: love and women, society and nature, its relation with the national cause, the patterns of resistance literature in home and in exile such as: the image of the other, the image of the refugee, the presence of the martyr, the prisons literature, ramifications of Jerusalem and the identity. Studying the Palestinian literature artistic characteristics as : the poem structure and its development, the dramatic poem, most outstanding stylistics, intertextuality forms, the artistic image and the rhythmic structure, the narrative style, the characters dimensions, narration techniques, types of novelists, the significance of time and place and other topics related to studying the different kinds of literary styles. Examining some of prominent modern Palestinian literary men and women and their production.	
ARAB732	Arabic Language and Computational Linguistics
This course aims to give an idea on theoretical and applied computational linguistics as well as its subfields, applications and objectives of this study. Further, this course sheds light on Arabic efforts in this area, machine translation, understanding, generating, analyzing Arabic words and sentences, and building databases for machine linguistic analysis; in addition to inferring the features of the Arabic linguistic system that make it feasible for computational analysis morphologically, syntactically and lexically.	
ARAB733	Studies in Modern Linguistics
The concept of modern linguistics and its approaches: descriptive, historical, comparative and applied. Shedding light on the contributions of contemporary linguists such as De Saussure, Bloomfield, Firth and	

Chomsky. Applications of the modern linguistic theory in Arabic; the various linguistic levels from a modern linguistic point of view; Contributions of old Arab linguists in shaping the theory of language, linguistic issues in phonetics, morphology, syntax, semantics and lexicology.

ARAB734 Studies in Modern Literary Criticism

Theoretical foundations for modern literary criticism: origins, concepts and development; linguistic roots such as stylistics and its expressionistic, applied and construction schools in addition to expressive style, the individual and the context. Constructive schools and their formal, generative and descriptive orientations, the concept of constructivism and its rules. Semiotics and its ramifications, intertextuality: concept, relation with plagiarism and comparative literature, mechanisms of using the hidden text, literary theory and criticism theory.

ARAB735 Studies in Comparative Literature

Development, schools, objectives and approaches of comparative literature in addition to conditions for doing a comparative research, field of comparative study. The differences between comparative and general literature. Focuses on topics such as: reciprocal effect, general and specific modes of communicating literature across languages like immigrations, wars, books and translations. Studying references prior and post development of comparative literature. Meaning of references and their types, demonstrating samples of thoughtfully-analyzed applications, revealing reciprocal relations between Arabic literature and old and new world literatures.

ARAB736	Ancient Semitic Languages
<p>Historical review of Semitic nations, naming and native land, Semitic migrations, Semitic demographic distribution, role of Semitic people in the development of orthography, origin of old Semitic orthography its geographic and time frames, review of types of Semitic orthography: stages, tools, material, fonts, Semitic alphabets, their development, branches, types and relations among each other. Presenting of old southern and northern Arabic orthographic models and relation with Semitic orthography. Reading of ancient manuscripts and their explanation Acadian, Canaanite, Aramaic and Arabic and using them as a historic reference to induce historic, political, religious and economic information.</p>	
ARAB737	Qur'anic Rhetoric
<p>Introducing the language of the Qur'an and its characteristics. Connotation value of the Qur'anic vocabulary and its relevance to the context. Morphology and syntactic structure such changing the word order, voicing and lenition, singular and plural, etc. Beginning and end of Suras and their topics, naming, stories and separation, rhetoric inimitability of the Qur'an. Qur'anic spelling and the way it differs from known spelling, the phenomenon of multiple meanings, the joining and un-joining of written words, and the conciseness and verbosity.</p>	
ARAB738	Orientalism in Language and Literature
<p>Studying the phenomenon of Orientalism in Arabic language and literature: origin, development and cultural and intellectual dimensions, cultural environments of Orientalism, relation with the Western attitude towards Islamic, Arab oriental culture. Exploring the efforts of some orientalists in studying and examining the sources of Arab culture and effect on Arab scholars.</p>	
ARAB739	Special Topic
<p>Exploring a certain linguistic phenomenon, topic, character, modern or old theory, in-depth study of references, study of a literary issue, school, or distinctive literary figure of outstanding cultural contribution in the development of Arabic literature.</p>	
ARAB830	Seminar
<p>Read, analyze and discuss a number of research papers published in refereed scientific journals; present and discuss the principles of academic integrity and scientific research ethics; write a research paper on a specific topic of interest in Arabic Language. This paper should include enough literature review and previous studies for presentation and discussion with the course instructor and students; and then rephrase the paper based on their comments and feedback.</p>	

ARAB831 Seminar

Read, analyze and discuss a number of research papers published in refereed scientific journals; present and discuss the principles of academic integrity and scientific research ethics; write a research paper on a specific topic of interest in Arabic Literature. This paper should include enough literature review and previous studies for presentation and discussion with the course instructor and students; and then rephrase the paper based on their comments and feedback.

ARAB860 Thesis

Writing a thesis in the field of specialization according to the approved instructions for writing master's thesis.

Master Program in Critical Cultural Studies

The [Faculty of Arts](#) offers an academic program that leads to a [master's degree in Critical Cultural Studies](#). The program aims to promote critical knowledge, the ability to transcend central frameworks and references in the cultural field, graduating students specialized in various cultural-critical fields, providing the labor market and the concerned institutions with qualitatively qualified competencies, Contribute to the creation of a critical epistemological debate on cultural production and its manifestations, In relation to different societal contexts and specificities, and actively contribute to the South-Global debate on critical knowledge.

Admission Requirements:

- Applicants must hold a bachelor's degree from a university recognized by Birzeit University, with a minimum overall assessment of "Good". The Program Committee may require admitted students to take some remedial courses when necessary, in accordance with the Academic Regulations for the Master's Degree.
- Students must take the English language test specified by the University.

Program Requirements

- All those admitted to the program who have not passed the English language placement test are required to take a remedial course in English at a rate of 3 credit hours. The student must finish this course before the start of his third semester at the university according to the academic regulations for postgraduate studies related to remedial courses.
- Students are required to complete 36 credit hours distributed as follows:

A. Core Courses: (15 credit hours)

Course No.	Course Title	Prerequisite(s)
CCST6300	Research Methods in Critical Cultural Studies	
CCST6310	Theoretical Issues in Critical Cultural Studies	
CCST6320	The Modern City: Knowledge, Space, and Experience	
CCST6330	Modern Representations of Culture	
CCST7300	Formulating and Analyzing Cultural Policies	

Note: All students are required to complete CCST6300 within the first (15) credits of their registration in the program.

B. Elective Courses: (15 credit hours) :

Course No.	Course Title	Prerequisite(s)
CCST6340	Capitalism and Culture: Forms and Practices	
CCST6350	Theoretical Approaches on Violence	
CCST6360	Racism and Otherness: Manifestation and Practices	
CCST6370	Language, Law, Archive	
CCST6380	Contemporary Visual Culture	
CCST7110	Field Visits for Cultural Institutions	
CCST7210	Academic and Critical Writing Skills	
CCST7310	Palestinian Cultural Scene	
CCST7320	The dialectic of power and resistance: an anthology of contemporary art and literature	
CCST7330	Propaganda in the information age	
CCST7340	Colonial and Post-colonial Studies: Ethnographic Approaches	
CCST7350	Selected Critical Readings from Africa and Latin America	
CCST7360	Nationalism, State, and Identity Politics	
CCST7370	Selected Readings in Contemporary Critical Studies	
CCST7380	Special Topic	

C. Track “A” or Track “B”: 6 Credit Hours; Thesis or two Seminars

Track	Course No.	Course Title	Prerequisite(s)
Track A	CCST8600	Thesis	<ul style="list-style-type: none">• The completion of no less than (15) credit hours including (CCST6300, CCST6310).• Program Approval
Track B	CCST8300	Seminar 1	<ul style="list-style-type: none">• The completion of no less than (15) credit hours including (CCST6300, CCST6310).
	CCST8310	Seminar 2	

Critical Cultural Studies Course Descriptions (CCST)

CCST6300	Research Methods in Critical Cultural Studies
<p>Concepts and skills central to academic research. Various schemes that conceptualize listening, reading, and writing, as well as their various related techniques. The concept of the “text”, by conceiving and analyzing the concept linguistically, methodologically, and rhetorically. The concept of research writing; its reasonings, motives and ethics, in addition to the use of different methods and schools of thought such as linguistic analysis, structuralism, deconstructionism, and hermeneutics. Delves into the relationship between knowledge and ideology. Research proposal, beginning with constructing the title and the abstract, charting out the argument and research question, moving on to the hypotheses, choosing the methodology, its quantitative and qualitative tools, and ultimately writing the research project in its final form and defending it.</p>	
CCST6310	Theoretical Issues in Critical Cultural Studies
<p>Fundamental epistemological and critical theoretical approaches in cultural studies by analyzing and presenting a set of key concepts in this field. An introduction to a set of approaches that emerge in the context of the vast literature of criticism. Most importantly, the concept of critique and its translation into Arabic under the category of "criticism" shall be an initial focus, including exploring its Marxist modifications, as well as presenting the politics of recognition and its many conceptual formations. Through this general mapping, concepts around which contemporary intellectual debates revolve will also be taken into consideration; namely, identity, culture, lived experience and race. Facets will be examined through the founding works in the field of cultural studies and critical analysis of contemporary epistemological, social, and cultural issues, such as the works of; Kant, Hegel, Marx, Nietzsche, Adorno, Benjamin, Gramsci, Fanon, Said, Al-Khatibi, Laroui, Amel, Butler and others.</p>	
CCST6320	The Modern City: Knowledge, Space, and Experience
<p>Modern city in terms of knowledge, space, and experience; investigating the cultural, social and economic factors that contribute to the formation of the modern city. A host of theoretical and analytical frameworks that supplant the study of the city in terms of function, general design, daily life, and the role of the individual and the group in the formation of the space in its formal and symbolic constitution. Diverse comparative and theoretical frameworks impacting the emergence of the city in the West and East in the eras of modernity and post-modernity. This entails the study of the colonial legacy and its impact on the phenomena of ruralization of the city, marginality, and the formal and informal economy. It also entails understanding the relationship between urban reconstruction and urban planning project and ethnic, class and religious segregation, as well as the relationship between urban expansion and bourgeois gentrification of public space. Covers a range of issues including social, political, and cultural production of urban spaces; surveillance, control, and securitization of public spaces alongside notions such as the right to the city.</p>	
CCST6330	Modern Representations of Culture
<p>Cultural production in several major cultural institutions, the most important of which are the university, the museum, the exhibit, and the archive. Exposes the different relations found within the cultural product, especially the interaction between dominant central approaches and the identity of the cultural product that are embodied in both its spatio-temporal and humanistic dimensions. Exploring concepts such as: violence and epistemological hegemony, colonialism and racism, orientalism, the invention of the ‘other,’ vis-à-vis notions such as: emancipation, liberation, justice, and new forms of Being. Emphasis will be placed on key texts from the Global South that have been concerned with critiquing and scrutinizing dominant frameworks of knowledge. This comes in parallel to organizing physical and virtual visits to selected cultural institutions.</p>	

CCST6340	Capitalism and Culture: Forms and Practices
Epistemological and critical approaches to the capitalist system and aims to study the bearing of capitalism on different levels, the first of which pertains to cultural forms: such as art, modernity, production, spectacle, body, and the cultural production. While the second involves various practices: consumption, work, pleasure, comfort, desire, leisure time, sports, happiness, and prayer. It further scrutinizes the relationship of both - forms and practices - with commodities and production. This will be done through reviewing founding texts of each of the following major theorists: Marx, Baudrillard, Adorno, Benjamin, Lefebvre, Bourdieu, De Certeau, Safadie, Hockheimer, Davis, Mouffe and others.	
CCST6350	Theoretical Approaches on Violence
The concept of violence through various theoretical approaches, including forms of violence, its sources and modes of practice, and its relationship to cultural systems and diverse social structures. Legitimizing and monopolizing violence, especially through a statist-legal approach, symbolic violence, and the violence of language, image, and forms of expression. Draws on the relationship of violence with hate speech, identity conflicts, interest, and class struggles, as well as the relationship of violence with the body, and biopolitics. It further investigates the concept of counter-violence as an existential, liberating practice linked to the question of human creation and formation.	
CCST6360	Racism and Otherness: Manifestations and Practices
The analysis of the practiced and discursive manifestations of racism and otherness across different temporal and spatial contexts. The historicity of these manifestations, as well as their various political, economic, social, and epistemological forms. The innate relationship between racism, colonial and Eurocentric politics, and the myths of white supremacy. Accordingly, scrutinize the concept of racism to reveal the different relations of power and domination that are based on racial, religious, sectarian, class, gender, and identities hierarchies through critical readings of texts dealing with these phenomena on Arab and global levels.	
CCST6370	Language, Law, Archive
The relation between Language (the theories of language), Law (the philosophy of law) and the Archive (its presence in literary studies, linguistics, sociology, and contemporary historiography). Sheds light on a group of research concepts that ostensibly belong to independent fields of inquiry; namely, the ontology of <i>language</i> , <i>text</i> , <i>document</i> , and <i>sentence</i> as scientific objects/subjects. This includes an exploration of the links between ‘social facts,’ laws, and rules; and the “empirical” status of the archive as a <i>source</i> of linguistic corpora and documentary material for various fields within the humanities and social sciences.	
CCST6380	Contemporary Visual Culture
Methodological distinctions in the “eye culture,” “the ear culture,” and “the tongue culture” in terms of policies, practices, and productions within the fields of fine arts, architecture and performing arts. It also investigates global aesthetic norms, and the ways societies develop aesthetic values through a wide range of Palestinian, Arab, and international cultural productions. The politics behind the formation of public taste and aesthetics in modern and contemporary societies. Moreover, the history of design and the conceptual transformations in aesthetics’ culture in light of the advancement of technology, production and circulation, including: the importance of the industrial revolution, the reification of commodities, market monopoly and global cultures, and the process of reducing cultural production to consumption and its role in popular culture. Deconstructs the aesthetic centralism of the West and studying aesthetic models through methodologies that serve as epistemological defiance to that centralism, such as: subaltern studies, post-colonialism, settler colonialism, indigenous studies, decolonizing research, and the under commons.	

CCST7110	Field Visits to Cultural Institutions
Visiting cultural institutions, getting acquainted with their programs and policies. Preparing a report on selected topics in agreement with the course instructor, including content, policies, and cultural production.	
CCST7210	Academic and Critical Writing Skills
Accompanying students to prepare a research paper for the purposes of scientific publishing, through methodological and critical reading of the literature and theoretical framework. Locating the gaps and controversy within them. Preparing the research statement and the mechanisms required for the arguments. Determining journals for publication and the conditions for applying and setting up the paper for peer review.	

CCST7300	Formulating and Analyzing Cultural Policies
<p>The practical frameworks in which culture, its management and formulation become a part of governmental and non-governmental policies and programs. Simultaneously, it examines the role of various actors in the creation and design of cultural policies, and the ways culture is employed in national and international political relations. Furthermore, it seeks to offer practical knowledge in administrative cultural practices by addressing a group of cultural administrative techniques and skills through conducting field visits or hosting classes for cultural practitioners in cultural and artistic institutions in Palestine.</p>	
CCST7310	Palestinian Cultural Scene
<p>Prominent features of the Palestinian cultural scene, with a special focus on the liberatory dimensions in lieu of similar conditions in the global south. This includes investigating the Palestinian cultural scene in terms of: production, practices, and policies. Investigates theoretical debates in: landscape, culture, and liberation. The transformations of the Palestinian cultural scene at the levels of: the concept, the revolution, and the “state”. At the while centralizing the dilemmas of the historical formation of the Palestinian self and the Zionist other, and its connection to the relationship between the intellectual and the authority in the different geographies in which the Palestinians reside. Differentiations between authoritative and popular culture. Lastly, the representative models of Palestinian cultural production in verbal, written, visual, and performing arts, as well as recent studies on these productions, that will serve as introductions to the study of the cultural, social, and political history of Palestine.</p>	
CCST7310	Palestinian Cultural Scene
<p>Prominent features of the Palestinian cultural scene, with a special focus on the liberatory dimensions in lieu of similar conditions in the global south. This includes investigating the Palestinian cultural scene in terms of: production, practices, and policies. Investigates theoretical debates in: landscape, culture, and liberation. The transformations of the Palestinian cultural scene at the levels of: the concept, the revolution, and the “state”. At the while centralizing the dilemmas of the historical formation of the Palestinian self and the Zionist other, and its connection to the relationship between the intellectual and the authority in the different geographies in which the Palestinians reside. Differentiations between authoritative and popular culture. Lastly, the representative models of Palestinian cultural production in verbal, written, visual, and performing arts, as well as recent studies on these productions, that will serve as introductions to the study of the cultural, social, and political history of Palestine.</p>	

CCST7320	The Dialectic of Power and Resistance: An Anthology of Contemporary Art and Literature
<p>The concept of discourse and its various discursive systems; strategies of power and various means of imposing hegemony, “alterity” and its formation, forms of representation/reproduction of the idea of the savage and the civilized, the issue of acculturation and subalternity. The myriad classes of intellectuals and the discourses loyal/opposed between center and margins. Furthermore, deconstruct desires (colonial and otherwise), literary and commitment, and resistance using folklore and the culture of defeated nations. In addition, the idea of righteousness and mystifying liberation. Finally, transferring previous theoretical frameworks through selections from different discursive systems: novel, poetry, music, theatre, cinema among others.</p>	
CCST7330	Propaganda in The Information Age
<p>Propaganda through its printed, audio and visual productions in private, public and cyber spaces, combining historical, geographic and thematic divisions. It also delves into the political frameworks of propaganda in the fields of the visual arts, decolonizing research, crowd psychology, moral guidance, information warfare, and sociology. The art of lying, logical fallacies, wars of concealment and persuasion: self-deception, deception, and the decolonization of the senses. Public relation wars and propaganda campaigns. On propaganda related to Palestine in the last 100 years, supporting or opposing the Palestinian cause on the levels of: solidarity, boycott, ideological slander, propaganda of marginalized geography including: camp, prison, cemetery; literature of revolutionary discourse and information warfare: rhetoric, declarations, singing, etc., and visual materials such as: posters, caricatures, murals, graffiti, figurative art, labels, and others.</p>	
CCST7340	Colonial and Post-Colonial Studies: Ethnographic Approaches
<p>Concepts and practices related to colonialism and post-colonialism, particularly focusing on power relations found in such contexts. Exploring sources of different ethnographic nature (texts, films, photos, live testimonies...) to reach tangible experiences and practices for the purpose of critically analyzing them, and thus identifying the central daily and life issues faced in the context of colonialism and post-colonialism. These include resistance, adaptation, steadfastness, dependability and self-sufficiency, discourse and language, social and class formations, among others. Accordingly, contextualize these issues and experiences to oppose dominant colonial knowledge on the one hand, and the materiality of colonial presence on the other.</p>	

CCST7350	Selected Critical Readings from Africa and Latin America
The study of critical, intellectual, and literary texts tackling African and Latin American experiences, precisely those that focus on indigenoussness, resistance to colonialism, Négritude, racism, slavery, the theology of liberation, class struggle, and freedom from domination and dependence. These texts will be examined within two main dimensions: knowledge and its connection to the lived experience, and what these experiences entail, for instance: pain and suffering, loss, displacement, and alienation. Secondly, the texts will attempt to position the Palestinian experience within global liberatory context. This will be achieved by drawing on the works of Nyerere, Cesar, Senghor, Garvey, Lumumba, Kitterez, Bolivar, DelaCruz, and others.	
CCST7360	Nationalism, State, and Identity Politics
Theories of national construction (primitive, ethnic, and modern since the year 1492). the transition from the “existence by force” of people to the state of “actual existence” of nationalisms within the framework of the nation-state since the eighteenth century, taking into account the prevailing current in the study of the history of human societies, ordered in stages: the plow - the sword - the pen. Further, the impact of the collapse of the Ottoman Empire, the colonial divisions of the Arab region, the processes of formation of Arab nationalist intellectual and political movements as well as liberation from colonialism and the creation of Arab states. Various typologies of nationalisms are investigated including Arab nationalism, Palestinian nationalism, and other forms of expression of loyalty and belonging. Identity policies and its impact on political, cultural, social, and economic transformations within social formations with a focus on the Arab region, while also accounting for the effects of globalization and emergent imageries of identities.	
CCST7370	Selected Readings in Contemporary Critical Studies
Contemporary critical texts selected by the course lecturer. These texts deal with contemporary critical issues, whether intellectual, theoretical, or every day and practical.	
CCST7380	Special Topic
An advanced study of a topic approved by the department council, or the program committee based on the needs and available competencies. This course may be approved for the topic of study as an alternative to one of the second, third or fourth groups according to the decision of the program committee.	

CCST8300	Seminar 1
<p>An advanced study of a special topic approved by the department council or the program committee, entailing reading, analyzing, and discussing several research articles etc. published in refereed academic journals, presenting, and discussing the principles of scientific integrity and the ethics of scientific research. The student is required to write in-depth research on a specific topic, including reviewing a sufficient number of literature and presenting it for discussion with the lecturer and other students in the course, and working through drafts of their paper based on the discussion and feedback.</p> <p><i>Prerequisite: Complete no less than 15 credit hours from the program including CCST6300, CCST6310</i></p>	
CCST8310	Seminar 2
<p>An advanced study of a special topic approved by the department council or the program committee, entailing reading, analyzing, and discussing several research articles etc. published in refereed academic journals, presenting, and discussing the principles of scientific integrity and the ethics of scientific research. The student is required to write in-depth research on a specific topic, including reviewing a sufficient number of literature and presenting it for discussion with the lecturer and other students in the course, and working through drafts of their paper based on the discussion and feedback.</p> <p><i>Prerequisite: Complete no less than 15 credit hours from the program including CCST6300, CCST6310</i></p>	
CCST8600	Thesis
<p>Conducting academic research in the area of specialization in line with the instructions of the approved thesis.</p> <p><i>Prerequisite: Complete no less than 15 credit hours from the program including CCST6300, CCST6310, and program approval</i></p>	

Master Program in Arab-Islamic History

The [Department of History and Archaeology](#) offers an academic program that leads to a [master's degree in Arab-Islamic History](#). This program aims at preparing highly qualified researchers and instructors in this field, as well as encouraging and enhancing quality scientific research in the field of Arab-Islamic History. In addition, the program aims at preparing and developing a generation of historians that are able to deal with history in a scientific manner.

Admission Requirements

- Applicants must hold a bachelor's degree in History or in one of the social sciences. Applicants with a bachelor's degree in other fields may also be admitted in this program after the approval of the Program Council.
- Applicants are required to complete the remedial courses determined by the program.

Program Requirements

- The completion of all University requirements, as specified in the Graduate Studies Academic Regulations.
- Knowledge of English language; students must take the English language test specified by the University. According to the results of this test, the need to register for the remedial course in English language (ENGC530) will be determined. Students are required to complete this course before the end of their third semester in the program, according to the academic regulations pertaining to remedial courses.
- Completion of remedial courses required by the program.
- Completion of any other program requirements.

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (15) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
AMHI630	Methodologies of History	
AMHI631	Sources of Muslim History	
AMHI632	Sources of the Modern History of the Arab World	
AMHI633	Political Theories and Movements in Muslim History	
AMHI634	The West and Liberation Issues in the Modern Arab World	

Note: All students are required to complete AMHI630 within the first 15 hours of their registration in the program.

2. Elective Courses: (15) credit hours from the following

Course No.	Course Title	Prerequisite (s)
AMHI635	Sources of the Modern and Contemporary History of Palestine	
AMHI730	Palestine and Political Changes in the Modern and Contemporary Periods	
AMHI731	The Army and Military Structures in Muslim History	
AMHI732	The Arabs under Ottoman Rule	
AMHI733	Economic Systems in Muslim History	
AMHI734	Social History of the Modern Arab World	
AMHI735	Egypt and Syria in Muslim History	
AMHI736	Daily life in Muslim History	
AMHI737	The Development of Scientific Thinking in Muslim History	
AMHI738	Islam and Modernity	
AMHI739	Special Topic	

*** Students can substitute three of the above mentioned elective courses with three courses from another graduate program, after the approval of the Program Council.**

3. Track “A” or Track “B”: (6) Credit Hours; Thesis or two Seminars

Track	Track Title	Track Number	Prerequisite(s)
Track A	Thesis	AMHI860	Complete no less than 12 credit hours from the program, including AMHI 631 and AMHI632
Track B	Seminars	AMHI830 AMHI831	

4. Passing the Comprehensive Oral Exam

Arab-Islamic History Course Descriptions (AMHI)

AMHI630 Methodologies of History

The general concept of history, and its philosophy; theories as reflected in schools of history. Methodologies, sources, and the relation to other sciences; historical critical methodology; the development of the science of history since its inception in the ancient, medieval, and modern historical eras, focusing on the historical schools of the 19th and 20th centuries. Introduction to historical research, as well as the opportunities that computers provide in the field of historical research.

AMHI631 Sources of Muslim History

Historical writing in the early Islamic periods; oral history as a basis for written history, Arab history before Islam, the Prophet's biography, recording the *Hadith* and its effect on Islamic history, reflections of the universal message of Islam; on the written universal history, writing annalist history and monographs; history of leaders, history and anthropology, methods of criticizing and revising historical narratives, and Ibn Khaldun's theory.

AMHI632 Sources of the Modern History of the Arab World

Introduction to the sources and methodologies of the modern history of the Arab world: documents, written and oral history, historical writing in the early Ottoman era, orientalism and neo-orientalism, orientalism among Arab historians, Marxism vs. orientalism. Contemporary tendencies towards a critical arab methodology in the writing of history.

AMHI633 Political Theories and Movements in Muslim History

Introduction to the theories of governance in Islam: Sunni, Shi'i, Kharijite, and Mu'tazilite theory, the role of the hereditary system, military kings and sultans, the emergence of the Mamluk system, the philosophy of totalitarianism, Main sources for the study of political theory, such as al-Ya'qubi, al-Mas'udi, al-Ash'ari, and Ibn Khaldun.

AMHI634 The West and Liberation Issues in the Modern Arab World

The emergence of European colonialism and the economic, social, and political factors that affected its development. Competition between colonial powers and its effect on liberation movements, types of colonialism (settler, military, economic, etc). The emergence and shaping of liberation movements in the Arab World, organizations, parties and groups leading liberation movements. The political, economic, social and intellectual effects of European colonialism on the Arab Word, the West's alliance with minorities in the Arab world, the creation of weak political structures in the area.

AMHI635	Sources of the Modern and Contemporary History of Palestine
Principal historical sources on Palestine in the nineteenth and twentieth centuries; main schools, methodologies and intellectual directions of historians. Studying examples of the following sources: Islamic court records, church documents, Ottoman documents, archives of municipalities, British archives, Zionist archives, documents in the Palestine Exploration Fund and the German Palestine Association, oral history, and field visits.	
AMHI730	Palestine and Political Changes in the Modern and Contemporary Periods
The main political transformations in Palestine, in both modern and contemporary eras, local powers in Palestine: Dhahir al-‘Umar al-Zaydani and Ahmad Basha Al-Jazzar. The political, social and economic effects of the Egyptian rule of Palestine, early European penetration of Palestine, Jewish immigration to Palestine, the Western-Zionist alliance, the British Mandate and the establishment of Israel, Palestinian resistance movements and revolutions;, the formation of the Palestinian National Authority.	
AMHI731	The Army and Military Structures in Muslim History
The political and social role of Muslim armies, their influence on the social and economic structure of Muslim society; the beginnings of the formation of regular armies; the various forms of the <i>Diwan</i> in Islamic history. The emergence of military feudalism, the Mamluk army, modes of warfare and mobilization.	
AMHI732	The Arabs under Ottoman Rule
The relationship between Arabs and Turks from the beginning of Ottoman rule in the Arab World until its end at the start of the twentieth century. The role of Arabs in the Ottoman administration, the influence of religion as a factor in the nature of the relationship between the Arabs and the Turks, Arab movements and revolutions against the Turks, the emergence of Arab nationalism, the end of Ottoman rule in the Arab World.	
AMHI733	Economic Systems in Muslim History
Private property, state and <i>musha’</i> (common) property, public facilities, feudalism. Main sources of income: <i>Kharaj</i> , <i>Jizyah</i> , and other sources. Types of monetary exchange, tax reform, exemptions and those benefitting from them, investment in reclamation of land and related legislation. Comparing the Muslim economic system with other systems. Selection of a specific historical period for study and research.	

AMHI734	Social History of the Modern Arab World
The impact of economic transformations on kinship and class structures; changes in attitudes toward Arab women. The <i>Tanzimat</i> and reforms in the first half of the nineteenth century and their effect on social structures. The decline of nomadic life and development of urban and agricultural settlement; internal migration and class formation in Arab society, Dispute resolution mechanisms.	
AMHI735	Egypt and Syria in Muslim History
The centrality of Egypt and its relation with Syria as the basis of Umayyad rule, Abbasid rule and the idea of separation from the central authority in Baghdad; the Tulunids, the Ikhshidids, the Fatimid Caliphate and the transformation of Egypt into an important Shi'i center. The Ayyubids, and the resumption of links between Egypt and Syria.	
AMHI736	Daily life in Muslim History
Main aspects of social life in Muslim communities: visiting mosques and markets , scientific councils, storytelling, poetry and art gatherings, horseback riding, entertainment and singing, feasts and wedding parties, public and formal banquets, councils of princes and rulers, popular celebrations on holidays and feasts, <i>Eid al-Fitr</i> and <i>Eid al-Adha</i> celebrations, Ramadan nights, Ashura', Easter and Christmas. Persian feasts; Nowruz and the festival. The course may concentrate on a certain social phenomenon during a specific era.	
AMHI737	The Development of Scientific Thinking in Muslim History
Scientific orientation among Arabs before Islam, the study of astronomy, stars, signs and their relation to the seasons, topography and settlement in the desert environment, Islam and the development of geography, the emergence of transportation as a field of study and its relation to the <i>Hajj</i> , religious belief and its contradiction with philosophy. Translation of Greek and Indian science. The emergence of commerce and the science of navigation, mines and mining, in addition to natural sciences; mathematics, chemistry, medicine, plants and others.	
AMHI738	Islam and Modernity
The concepts of modernization and modernity and Islamists' view of these issues; roots of fundamentalism, political and cultural discourse among Islamists, the clash of civilizations, post-modernity, authenticity and modernity in Islamic thought.	
AMHI739	Special Topic
In-depth study of a special topic selected by the Program Council according to students' needs and available capacities.	

AMHI830 Seminar
Writing an advanced reasearch report of about 30 pages on a topic related to Islamic History, using scientific research methods. <i>Prerequisites: the completion of no less than 15 credit hours including AMHI631.</i>
AMHI831 Seminar
Writing an advanced reasearch report of about 30 pages on a topic related to Modern Arab History, using scientific research methods. <i>Prerequisites: the completion of no less than 15 credit hours including AMHI632.</i>
AMHI860 Thesis
Writing a thesis in the field of specialization according to the approved instructions for writing master's theses.
Comprehensive Oral Exam (for track B)
Upon completing all required courses (both Compulsory and elective courses), students must sit for a comprehensive oral exam, which aims at evaluating their knowledge in history. This exam is held twice a year at the end of each semester and supervised by a special committee.

Master Program in Geography

The [Department of Geography](#) offers an academic program that leads to a [master's degree in Geography](#). This program aims at providing students with theoretical and practical knowledge in the fields of physical and human geography to prepare them for work in the field of applied geography, and to assist them in finding careers in the fields of planning, environment, development, water, agriculture and education. The program also aims at developing the abilities, knowledge and skills of students to employ efficiently GIS, remote sensing techniques, and quantitative analysis in diverse geographic fields to contribute to the improvement and development of scientific knowledge and its application in developing society through inculcating a better understanding of integrated management and planning as the main basis for sustainable development.

Admission Requirements

- Applicants must hold a bachelor's degree in Geography or one of the following fields: earth sciences, environmental sciences, natural or engineering sciences, or regional and urban planning from a university recognized by Birzeit University, with a minimum assessment of "Good". Applicants with a bachelor's degree in other fields may also be admitted in this program upon the recommendation of the Program Council.
- Students admitted to this program who have a bachelor's degree in another field are required to complete the remedial courses determined by the program, from the following courses: 335 Introduction to Remote Sensing, 336 Geography of the Environment, 436 Geographic Information Systems (GIS). These courses will not count toward the credit hours required for the master's program and will not be included in the cumulative average of the Master's Program in Geography.

Program Requirements:

- Students are required to complete any required remedial course before the end of the third semester after admission.

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (21) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
GEOG630	Geographic Research Methods	
GEOG631	Advanced Cartography	
GEOG632	Quantitative and Spatial Analysis in Geography	
GEOG633	Geographic Information Systems	
GEOG634	Remote Sensing	
GEOG635	Advanced Studies in Human Geography	
GEOG636	Advanced Studies in Physical Geography	

Note: All students are required to complete GEOG630 within the first (15) hours of their registration in the program.

1. Elective Courses: (9) credit hours from the following

Credit Hours	Course No.	Course Title	Prerequisite (s)
Group One: 3 credit hours from each of the following courses	GEOG730 or UPLA631	Planning and Sustainable Development or Principles of Regional and Urban Planning	
	GEOG731 or WEEN734	Management of Natural Resources or Integrated Land and Water Management	
	GEOG732	Applied Environmental Geography	
Group Two: 3 credit hours from each of the following courses	GEOG733	Applications in Urban and Rural Geography	
	GEOG734	Applications in Population Geography and Modeling of Population Policies	GEOG632
	GEOG735	Geographical Modeling	GEOG632
Group Three: 3 credit hours from each of the following	GEOG736	Applied Geomorphology	
	GEOG737	Detailed Studies in Climate Geography	
	GEOG738	Applied Water Studies	

Students may take GEOG739 in place of one course from each of the three groups above after completing no less than 12 credit hours, including GEOG630 and GEOG632.

Track	Track Title	Track Number	Prerequisite(s)
Track A	Thesis	GEOG860	Complete no less than 12 credit hours from the program, including GEOG630 and GEOG632
Track B	Seminars	GEOG830 GEOG831	

2. Track “A” or Track “B”: (6) Credit Hours; Thesis or two Seminars

Geography Courses Description (GEOG)

GEOG630 Geographic Research Methods
The study of geographic research methods, systems and models, tools of geographic research, measurement tools, geographic research sources and the steps of geographic research beginning with the choice of subject, defining the research problems and hypothesis, and ending with the presentation of the results, their analyses and references. This will include acquainting the students with the writing skills necessary for the preparation of their thesis and evaluations. It requires the submission of a 40 page scientific research project using the geographic research methods.
GEOG631 Advanced Cartography
The study of the theoretical principles of surveying, mainly Geodesy, map surveying relation, geodetic systems & types of projection, applications using Global Position System GPS and relations to integrate principles of surveying, maps and cartography. This course will train students to use the programs and modern techniques & tools to enable them to integrate surveying and cartographic production. Geo-referencing of maps and aerial photos, data extraction and compilation, review of cartographic generalization, principles of cartographic design, Planning map content, map design, Typography writing on maps. Automated cartography, Geo-visualization, Web cartography, electronic atlas. advanced mapping project.
GEOG632 Quantitative and Spatial Analyses in Geography
Statistical Analysis for research questions, hypothesis testing, in research plan. Spatial analyses for human and natural geographic features. Descriptive statistics and correlations, standard deviation, Pearson and Spearman coefficients, Analysis of variance, parametric and none parametric tests of statistical significance, T-Test, F-Test, CHI square, simple linear and multivariate regression, factor analysis, time series. Students will be trained to use the SPSS program for data entry, statistical analyses and presentation of statistical results.
GEOG633 Geographic Information Systems
Students will study the theoretical basis of Geographic Information Systems (GIS) and their practical use. This includes GIS' scientific concepts, definitions, importance, sources and developments, and the uses of GIS applications in geographic planning. Students will learn about the components of GIS, natural modeling, spatial models, and the presentation and saving of the geographic information. Students will be trained to use some of the GIS programs for decision-making, and a GIS project will be completed focusing on one Palestinian institution (governmental or non-governmental).

GEOG634 Remote Sensing

Studying the main principles of remote sensing, interpretation of aerial photos and their uses in different applications, geometric and atmospheric correction of images, digital image analysis, change detection, radar satellites, and applied project.

GEOG635 Advanced Studies in Human Geography

This course offers advanced studies in the field of Political Geography from the theories of Mackinder, Mahan, Haushofer and Spykman to the theories of the 'End of History' and the 'Clash of Civilizations'. The intersection between these theories, American geopolitics and the Arab – Israeli conflict in the twentieth and twenty-first centuries will be explored, including the effects on the Arab world (and particularly Palestine) with regards to population, borders, water and settlement. Other advanced studies will be offered in Economic Geography and global economic dynamics through the pre-industrial period, the industrial revolution and the post-industrial period. This course will also focus on the spatial distribution of industry and agriculture across the globe, recent developments in tourism, and the role of the Palestinian and Arab world in the global economy of tourism, (understood through location theories in Industrial Geography).

GEOG636 Advanced Studies in Physical Geography

This course offers advanced studies in the theoretical and practical fields of Physical Geography, with a particular focus on Biogeography (Plants). Natural plant classification, its kinds, effecting factors and its relation to water, draught and geographic distribution. The bio-systems and biodiversity in Palestine and the Arab world. Soil survey and classification, the chemical and physical properties of soil and the agricultural effect, Land evaluation by land capability and suitability for different cultivation products, and land use classification and making related maps).

GEOG730 Planning and Sustainable Development

Studying planning of different levels (local, semi-regional, regional, national, international), the goals and interrelations of various types of planning (integrated, economic, urban, demographic). Examining the relation between planning and natural resources in terms of their type, quantity and distribution. Characteristics of human factors in terms of gender, age, labor power and educational level and their impact on planning process. Major planning theories with examples, planning and sustainable development, indicators and measurement techniques of the sustainable development in the planning process, legislations relevant to sustainable planning, examples of various types of planning , problems facing the planning process in its different stages (pre-, during and post-implementation).

GEOG731 Management of Natural Resources

Study the concept and importance of natural resources (environmentally and economically) and its relation to sustainable development. Degradation of natural resources, its types and causes in Palestine. Methods for the evaluation of degradation with special emphasis on land and water, within the Palestinian context. Evaluation of the suitability of existing resources (land and water). Ways of combating and monitoring degradation of resources with focus on those adopted in Palestine. The correlation of the current and future potential of natural resource usage (quantitatively and qualitatively) in Palestine as compared to its current and future needs, legislation for the conservation of natural resources, and land uses with focus on agricultural uses, examples on natural resource management and optimum use in Palestine.

GEOG732 Applied Environmental Geography

Students will study the environmental elements (soil, water, air) and their properties, the causes of environmental problems (pollution, erosion, degradation, desertification, desert sand creep, salty soil, draught, greenhouse phenomena, plant coverage problems, biodiversity, ozone problems, negative changes in public health), environmental legislation and law, environmental monitoring and the management of the environmental sources (used information, indicators of sustainable development, future environment prospected ions). Students will also be taught about environmental impact assessment (objectives, phases, required data, E.I.A. in the preparatory stage and post project implementation) with a focus on Palestine and the Arab world as a future regional system.

GEOG733 Applications in Urban and Rural Geography

This course offers an intensive study of village and city locations and their development. We will study the properties of urban and rural areas and the basis of Palestinian demographical accumulations, the relationships between urban and rural areas, and means of measuring urban phenomena with particular focus on Palestinian cities. Students will also cover analyses by urban professionals, urban gradation and related theories, and will study the problems of the cities in general and Palestinian cities in particular, including the suggested solutions. The course also explores changes in urban locations and land use, especially in the most populated areas of Palestine. The sorts and importance of new cities will also be studied, including the possibility of constructing the new cities in Palestine. This will also cover Bedouins in Palestine and the possibilities of incorporating them into rural communities.

GEOG734 Applications in Population Geography and Modeling of Population Policies

Students will conduct intensive studies of population structure and growth, the impact of demographic and planning policies in different countries, methods of measurement and the global directions of population change, in general and in the Arab world and Palestinian change in particular. Students will encounter concepts such as ideal population capacity (population threshold), explore the relationship between population and natural resources and apply measurements at different scales in the Arab world and Palestine. Students will also study future projections of population growth in Palestine, the Arab world and the rest of the world using computerized demographic models. This course will include a project focusing on the population of one geographic location in Palestine, applying statistical methods to examine its population policy.

Prerequisite: *GEOG633*

GEOG735 Geographical Modeling- Digital terrain modelling

This course will study the principles and definitions of geographical modeling and methodologies for data sampling, collection and the generation of numerical models for the geomorphology of the earth surface. Students will study different treatments of geographical data, (e.g. prospect ion analyses; optical presentations for the geographical and planning information), and the construction and application of numerical geographical models in urban studies (landscape, topography, water networks, hydrology, geology, geomorphology, communication systems). This course includes a practical project that will involve the construction of a numerical model and the application of optical presentation tools.

Prerequisite: *GEOG632*

GEOG736 Applied Geomorphology

Advanced studies of geomorphological processes, the tools and uses of modern technology for measuring these processes in the field and in the lab. Study hydrological applications in rivers and valleys, and their applications in engineering, e.g. roads, construction of dams, tunnel digging. Study the evaluation of natural disasters, how to manage their impacts and implementing possible solutions, using the Palestinian situation as a case study.

GEOG737 Detailed Studies in Climate Geography

Theories of climate change, abnormal climatic phenomena, e.g. El Nino, El Nina, global warming, weather disturbances, weather forecasting and maps reading and analysis. Applied studies on the effect of, meteorological and climatic elements anthropogenic activities, with focus on Palestine.

GEOG738 Applied Water Studies
Students will study the quantities and qualities of global water resources of surface and ground water and their effect on global, regional and local water policies. The technical effect of water harvesting projects on integrated water resource management will be studied. This course also examines the effect of non-conventional projects, such as the reuse of treated wastewater for agricultural and industrial uses, and their positive effect on both the water balance and climate change. Students will study water problems – both human and natural - and the suggested solutions. Study the best practice methods for water conservation after over-exploitation.
GEOG739 Special Topics
Students can choose to study a physical or human geographical topic to an advanced level, e.g. nature resources, their sustainability and their relation with human resources; technologies and methods of physical and human resources management for the qualification and sustainability of available resources. <i>Prerequisite: finish 12 credit hours including GEOG630 and GEOG632</i>
GEOG830 Seminar 1
Students taking this seminar will be required to write a detailed 40-page research paper on one topic in Human Geography. This must be written using scientific research methods, using data collected from the field or data that is already available, and analyses will be presented and discussed in class. <i>Prerequisite: finish 12 credit hours including GEOG630 and GEOG632</i>
GEOG831 Seminar 2
Students taking this seminar will be required to write a detailed 40-page research paper on one topic in Physical Geography. This must be written using scientific research methods, using data collected from the field or data that is already available, and analyses will be presented and discussed in class. <i>Prerequisite: finish 12 credit hours including GEOG630 and GEOG632</i>
GEOG860 Thesis
Students will write a research thesis on a geographical topic chosen with the help of one or more academic supervisors. The subject shall be related to the basic interests of the student and will help them to develop research and scientific writing skills. The thesis will fulfill the thesis legislation as laid down by the university. <i>Prerequisite: finish 12 credit hours including GEOG630 and GEOG632</i>

Master Program in Sociology
(Development, Social Policy, and Research)

The [Department of Social and Behavioral Sciences](#) offers graduate training leading to a [Master Degree in sociology \(development, social policies and research\)](#). The program aims to provide students with theoretical and applied knowledge in sociology, particularly in development and social policies. The program focuses on providing students with skills in critical analysis of theoretical and applied texts, and academic research through courses such as quantitative research methods, qualitative research methods and social statistics. This knowledge and skills qualify graduates to work in governmental and non-governmental organizations particularly, those interested in academic research and community development.

Admission Requirements

- First degree in Sociology or Anthropology. Holders of degrees in other fields can be admitted in special circumstances but may be required to complete remedial courses from the BA program in sociology.

Program Requirements

- Fulfilling the requirements for continuation in graduate programs at the University as set out in the Graduate Studies Regulations.
- Completing within the first year any remedial courses from the BA program as specified in the admission letter, provided they do not exceed (15) credit hours. Students will not receive credit for the preparatory courses.

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory courses: (15) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
SOCI6301	Theoretical issues in Sociology, Development, and Social Policy	
SOCI633	Methods of Quantitative Research	
SOCI634	Methods of Qualitative Research	
SOCI6351	Social Inequality, Social Stratification, and Social Classes	
SOCI735	Social Policy	

Note: All students must finish one of the methodology courses (SOCI633, SOCI634) within the first (15) credit hours.

2. Elective courses: (15) credit hours from the following

Course No.	Course Title	Prerequisite (s)
SOCI6361	The State, Law, and Society	
SOCI6371	Colonialism and Resistance	
SOCI6381	City in the Global South	

SOCI639	The Sociology of Work	
SOCI730	Population Studies	
SOCI731	Nationalism and Ethnicity	
SOCI7321	International Migration, Asylum, and Diaspora	
SOCI7331	Everyday Life Sociology	
SOCI734	Gender and Development	
SOCI736	Special Topic	
SOCI737	Readings in Development Research	
SOCI7391	Environmental Sociology	

Students may take up to courses from other graduate programs at the university to fulfill the departmental elective requirements upon approval of the Graduate Studies Council in the Department.

- Track A / Track B: (6) credit hours; either as thesis writing (Track A) or the two following seminars:

Track	Course No.	Course Title	Prerequisite(s)
Track A	SOCI860	Thesis	The completion of no less than 15 credit hours, including SOCI633, SOCI634, as detailed in the courses description.
Track B	SOCI830	Seminar 1	
	SOCI831	Seminar 2	

Sociology Courses Description (SOCI)

SOCI6301	Theoretical issues in Sociology, Development, and Social Policy
Critical analysis of contemporary sociological theories, especially theories of social and economic development that have developed concepts such as dependency and unequal exchange. Critical appraisal of concepts such as development, growth, de-development, and sustainable development; with a view to understanding the foundations of social policy and its impact on society. Examination of selected welfare states and their policies concerning family support, unemployment provisions, and healthcare for marginalized communities.	
SOCI633	Methods of Quantitative Research
Basic issues in research design and analysis of quantitative data. Methodological problems in the various stages of research: definition of the research problem, formulation of hypotheses, measurement, sampling, data collection and analysis, and presentation of research findings. The logic of linking theory with data. Descriptive and inferential statistics, data presentation techniques (graphs, tables, descriptive), correlation, regression models, hypothesis testing. Practical applications using the Statistical Package for the Social Sciences (SPSS).	
SOCI634	Methods of Qualitative Research
Basic issues in research design and the analysis of qualitative data. Methodological problems in the various stages of research from the definition of the research problem to the presentation of findings. Participant observation, content analysis, the case study, interviewing, discourse analysis, archival research, focus groups, and methods of rapid appraisal (PRA).	
SOCI6351	Social Inequality, Social Stratification, and Social Classes
A general survey of theories of stratification and inequality, with a focus on societies in the Global South and Arab societies. Determinants and indicators of inequality and its extent. The relation between social inequality and ethnicity, gender, and region. The effect of inequality as manifested in life chances and lifestyles, segregation, discrimination, and conflict. Class consciousness and its relation to other forms of consciousness such as ethnic and national consciousness. The determinants of social mobility. Issues of socio-economic hierarchies and the production and reproduction of social difference related to class, forms of capital, power, knowledge and distinction.	
SOCI6361	The State, Law, and Society
The social and historic foundations of law. The philosophy of law, and examination of theoretical debates on the relation between sociology and legal studies. Critical examination of the concepts of rights, social control, social movements and social change. Law and the state, law and colonial rule, law and violence, law as text and law in practice, and law in everyday life. The law as a profession. Law and social structures.	
SOCI6371	Colonialism and Resistance
The study of colonialism as a historical and contemporary phenomenon as manifested around the world. A focus on theorizing about colonialism, resistance, and the relation between the colonized and the colonizer: Marxist theories; Indian and Latin American subaltern studies; postcolonial approaches and their origins in liberation movements; feminist and indigenous studies approaches, and approaches that focus on disciplinary power. Examination of settler-colonialism in Palestine and elsewhere. Theoretical and methodological issues in decolonizing knowledge.	
SOCI6381	City in the Global South

The study of rapid urbanization, urbanism, and urban life in the Global South from a multidisciplinary perspective deriving from theorizations in political economy, sociology, geography, history and architecture, attempting to link the social and spatial domains. Study of selected historical and contemporary cases from the Global South in an effort to link theory to actual cases. Study of major social movements in the Global South in light of theorizations about the struggle over urban space, especially street politics.

SOCI639 The Sociology of Work

The study of issues such as the organization of labor, employment structures, occupational advancement, work satisfaction and work conditions, leisure time, and labor force characteristics. The social status of occupations, labor migration. Labor policies and legislation, labor disputes, and labor organizing.

SOCI730 Population Studies

Major issues and approaches in population studies. Age and sex structure of the population, determinants of population composition and size (fertility, mortality, and migration), population growth. Marriage and family formation. Urbanization. Social and economic characteristics of the population. Population policies. The comparative study of the relation between demographic change and social structure, with a focus on the differences between advanced industrialized and third world societies including Arab society.

SOCI731 Nationalism and Ethnicity

Theories of the nation state and ethnicity, with a focus on the third world and Arab society. The historical roots of nationalism and nationalist movements in the world. The formation of ethnic groups, and their solidarity and politicization. Patterns of relations between ethnic groups. Ethnic affiliation and its relation to national identity. Issues of identity, prejudice, segregation, stereotypes, conflict, coexistence, and integration.

SOCI7321	International Migration, Asylum, and Diaspora
An examination of patterns of international migration (voluntary and forced) and how they affect the development process in both the “sending, and the “receiving” countries. An exploration of different national and international policies towards international migration, and the ideological and political debate in “receiving countries.” A study of cases of immigration and asylum in different countries including the Palestinian refugees- inside and outside Palestine- which receives some more attention.	
SOCI7331	Everyday Life Sociology
Study of recent theorizing on everyday life as a sub-discipline of sociology. A focus on lived experience involving an analysis of conversation, acts, movements, and signs and other forms of communication and interaction. The study of everyday life on the street, in cafes, and other public places. Reading the everyday as text, and deconstructing lived experience according to prevailing classifications. Methods and techniques for studying the everyday and the discourse of everyday life.	
SOCI734	Gender and Development
Gender as one basis of social organization and differentiation, and as one dimension of analysis in the social sciences. Main theoretical and methodological approaches to the study of gender and development, with a focus on global experiences employing these approaches in the analysis and treatment of developmental issues such as poverty, political participation, labor force participation, education, structural readjustment policies, and the population question.	
SOCI735	Social Policy
The philosophical bases and historical development of social policy. The impact of socioeconomic development in the capitalist and third world countries on social policy in the areas of population, family, migration, and social welfare. Focus on the impact of social policies on social groups such as women, refugees, and children. The role of social policy in providing protection to citizens from poverty, unemployment, sickness, old age, and exile. The course will focus on selected cases in the Arab world.	
SOCI736	Special Topic
In-depth study of a sociological topic selected by the Program	
SOCI737	Readings in Development Research
Critical analysis of empirical research in development using qualitative and quantitative data. Methodological and theoretical issues arising from this literature, with a view to arriving at a critical understanding of the theoretical underpinnings of research, its methodologies, and its means of measurement.	

SOCI7391	Environmental Sociology
Study of the relationship between humans, culture, and nature. The relevance of sociological theories and concepts in analyzing a variety of relevant subjects such as the relationship between the environment and the economy, the consumption of energy and social change, environmental policies, lack of natural resources, global warming, natural disasters, wars...etc. An examination of the variation and significant differences in how humans deal with the environment that is based on social class, gender, country (rich versus poor countries)...etc.	
SOCI830	Graduate Seminar/Quantitative Research
Advanced study of a topic selected by the Program. Students carry out a piece of quantitative research. <i>Prerequisite: completion of not less than 15 hours in the Program, to include SOCI633 and SOCI634.</i>	
SOCI831	Graduate Seminar/Qualitative Research
Advanced study of a topic selected by the Program. Students carry out a piece of qualitative research. <i>Prerequisite: completion of not less than 15 hours in the Program, to include SOCI633 and SOCI634.</i>	
SOCI860	Thesis
Thesis on a topic approved by the Graduate Studies Council in the Department following the acceptance of the thesis proposal. <i>Prerequisite: completion of not less than 15 hours in the Program, to include SOCI633 and SOCI634.</i>	

Master Program in Community Psychology

The [Faculty of Arts](#) provides a study program that leads to a [Master's degree in community psychology](#). The program aims at introducing a more comprehensive multi-disciplinary approach to community mental health, based on investigating and comprehending the environmental variables that help or impede mental health, normal growth and psychological adaptation on both the individual and collective levels. This is to be achieved through the usage and implementation of a large battery of multifarious scientific research and community intervention methods that take into consideration the particular social-cultural-political context akin to the Palestinian society.

Community intervention departs from the need to redefine health problems in terms of the dialectical interaction between the various environmental and psychological factors, rather than considering them as illnesses or disturbances exclusively related to the individual according to the canon of “blaming the victim”. The program thus provides its students with a unique type of praxis that focuses on complementarity and dialectical interaction between academic research and applied work, and between theoretical research and community practice. The program also provides the students with specific skills that enable them to develop scientific intervention plans and programs, as well as the development, appraisal and implementation of intervention and prevention programs based upon the participation of the local community, with the intentions of evolving the local community's critical awareness as well as the invoking and promoting a liberating social change.

Admission Requirements:

- A Bachelor degree (BA) in psychology, or in a closely related subject of specialization such as sociology, social work, educational counseling and public health, in addition to any specialization with a Minor in psychology. The Bachelor graduation grade should be “Good” (70 or over). Applicants will be invited to a personal interview with the program's committee to evaluate their suitability for the program and for practicing community psychology after graduation.

Program Requirements:

- Applicants will be required to take a level test in the English language, assessing their need to take a supplementary course for improving their reading and comprehension skills in English.
- If the applicant's BA degree is not in psychology, the Program Committee has the right to specify one or more remedial courses in psychology to be completed by the applicant.

Fulfillment of at least (38) credit hours distributed as follows:

1. Compulsory Courses: (24) credit hours consisting of the following courses:

Course No.	Course Title	Prerequisite (s)
CPSY630	Introduction to Community Psychology	
CPSY631	Community Intervention Strategies	CPSY630
CPSY632	Quantitative Research Methods	
CPSY633	Qualitative Research Methods	
CPSY634	Palestinian Society: Culture and Mental Health	
CPSY635	Child and Adolescent Development in War Environment	
CPSY636	Applied Social Psychology	
CPSY637	Individual and Small Group Interventions	CPSY631

Note: All students must one of the methodology courses (CPSY632, CPSY633) within the first (15) credit hours they register to.

2. Elective Courses: (6) credit hours out of the following courses:

Course No.	Course Title	Prerequisite (s)
CPSY730	Educational Community Psychology	
CPSY731	Psychology and Gender Differences	
CPSY732	Ethnopsychology	
CPSY734	Special Topics in Community Psychology	

3. Compulsory fieldwork and praxis courses: (2) credit hours consisting of the following courses:

Course No.	Course Title	Prerequisite (s)
CPSY601	Professional Ethics Seminar	
CPSY811	Practicum 1	

CPSY812	Practicum 2	
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4. Track A / Track B: (6) credit hours; either as thesis writing (Track A) or the two following seminars:

Track	Course No.	Course Title	Prerequisite(s)
Track A	CPSY860	Thesis	CPSY632, CPSY633
Track B	CPSY830	Seminar 1	
	CPSY831	Seminar 2	

Community Psychology Course Description (CPSY)

CPSY601 Professional Ethics Seminar

This seminar will present and discuss the legal and ethical issues related to the professional practice of psychology, including confidentiality, ethical competence, non-judgmental supervision, and impartial treatment, licensure and certification. Areas of ethical conduct include, but are not limited to, the clinical, counseling, and school practice of psychology: research, teaching and supervision of trainees; public service; policy development; social intervention; development of assessment instruments; conducting assessments; educational counseling; organizational consulting; program design, evaluation and administration.

CPSY630 Introduction to Community Psychology

This is the first of two consecutive courses that provide an advanced introduction to the profession of community psychology and its historical development as a sub-discipline of psychology in various contexts (i.e., North America, Europe, Latin America, Australia, Asia, and Africa etc.). The course provides an introduction to the various paradigms of community psychology focusing on values, perspectives and theoretical traditions of the field. This course covers and appraises the basic theoretical community psychology modalities and approaches of intervention, treatment, and community research within the field of Western and Eastern community psychology. Topics include: stress and coping theory/research; social support and mutual help-intervention; prevention theory, research strategies; health promotion and other community/social change strategies; subjective and objective attributes of community as a basic socio-cultural unit of analysis and intervention.

CPSY631 Community Intervention Strategies

The course focuses on community assessment and intervention within the Palestinian context in particular. The course includes an overview of community psychology interventions such as: social interventions working with individuals and group on the macro level of analysis; and organizational and community level interventions. It examines how the ongoing occupation practices, military violence, and the systematic destruction of Palestinian infrastructure affect individuals and community mental health and psychological well-being. Context specific topics include, but are not limited to, disempowerment, poor community prevention, delinquency, child labor, high-risk behavior, aggression, domestic violence, school violence, substance abuse and many other psychological and mental health problems. In addition to theory of community psychology intervention the students will engage in community participatory action research project in which they emerge themselves in a community setting, gather data about a specific issue, analyze the data, develop a strategy of community intervention, and conduct the intervention.

Prerequisite: CPSY630

CPSY632 Quantitative Research Methods

The course builds on basic knowledge of quantitative research methodology and further develops and deepens the students' knowledge of the quantitative research paradigm in psychology and behavioral sciences. Topics covered include epistemological issues in quantitative paradigms, in-depth knowledge of scientific methodology, measurement, program evaluation, quantitative research design, and data collection, analysis, interpretation and generalization of the results. The course also introduces the students to the basics of statistical analysis and the utilization of computerized data analysis (SPSS). It intends to help students become efficient users of research and critical readers of psychological research reports. Emphasis is put on practical research skills and the ability to apply quantitative research methods in community psychology research.

CPSY633 Qualitative Research Methods

The course includes paradigm issues, qualitative epistemology, post-positivism, critical theory, constructivism, the relationship between truth, perception and reality, the position of various disciplines within the paradigm of qualitative research with special focus on psychology. Methods and strategies of qualitative inquiry include: ethnographic accounts, case study, content analysis, discourse analysis, projective technics, ethno-methodology, applied and action research, and clinically-based methodology. Fundamental questions to be addressed include: the role of the researcher, selecting a topic, negotiating access to the site, transforming ideas into researchable questions, ethical issues in qualitative research, and issues of credibility, reliability, validity, and generalizability. Methods of data collection in qualitative research methodology include: interview, observation, document/artifact, field notes, and critical review of descriptive and narration texts. Presenting and discussing the legal and ethical issues related to the professional practice of psychology, including confidentiality, ethical competence, non-judgmental supervision, and impartial treatment, licensure and certification. Areas of ethical conduct include the clinical, counseling, and school practice of psychology: research, teaching and supervision; public service; policy development; social intervention; development of assessment instruments; conducting assessments; educational counseling; organizational consulting; program design, evaluation and administration. The course includes reviewing and discussing literature and writing a research report.

CPSY634 Palestinian Society: Culture and Mental Health

This course provides future community psychologist with an opportunity to explore in depth a variety of critical issues in the socio-political structure of the Palestinian society; which intend to foster their professional work with individuals, groups and communities in this context. The course begins by providing the students with an overview of the way in which Palestinian society is organized, focusing on family, community, culture, social classes, and political processes. It then assists the students in developing the conceptual framework that can link Palestinian social dynamics and culture to an understanding of mental health in the local context. It ends by identifying the main differences in the way Palestinians perceive of their mental health, life quality, and well-being, compared to what is prevalent in the developed countries, and lays the foundation for a contextual understanding of mental health and wellbeing that is relevant for future practice in the local Palestinian context.

CPSY635 Child and Adolescent Development in War Environment

This course provides an overview of the particularities of human development, from birth through late adolescence, in a violence-ridden and war-torn environment. The major theories of human development are covered from a culturally informed, gender sensitive and critical perspective. The course is designed to promote critical thinking as to the specific development process and life-course formation during childhood and adolescence in Third World societies. This course will thus foster an understanding of emotional, social, personality, and moral/ethical development during the early elementary and adolescent years. It pays special attention to how commonly identified risk factors –such as poverty, single parenthood, loss of family members, political assassination, and political imprisonment, suppression of movement and deficient education- affect child and adolescent development. Students will be examining risk factors affecting large populations of children, in addition to the other factors that may shape and determine child's vulnerabilities, coping abilities and mental health well-being in general.

CPSY636 Applied Social Psychology

The course is designed to provide students with a solid base of knowledge through in-depth study of the relevant theories, concepts, methods, findings, and principles of social psychology, while allowing students to explore the applicability of all the above to their specific field of interest within the local Palestinian socio-cultural context. This course is designed to enable students to develop a social psychological perspective for studying the behavior and experiences of persons in a social context. Participants are expected to utilize social psychological knowledge for the improvement of the welfare of individuals, groups, organizations, and society as a whole. Social psychological topics covered in the course include: attitudes, social influence, social cognition, group dynamics, social identity, interpersonal and inter-group relations, and social problems in areas such as education, law, criminal justice, physical and mental health, organizational behavior and community discourses.

CPSY637 Individual and Small Group Interventions

This course includes basic counseling theory and practice on the individual and group levels of intervention. It provides students with fundamental culturally sensitive counseling skills necessary for developing a general framework for counseling Palestinian clients in the local socio-cultural and political context. The basic counseling theories and intervention strategies are covered. Furthermore, the course includes a comprehensive study of the major approaches, techniques and intervention measures utilized in group therapy. It covers the dynamics of group process, styles and stages of group formation, the application of major theoretical approaches of group therapy (i.e., Psychoanalytic, Gestalt, Person-centered, Existential, Behavioral, Psychodrama, and Rational Emotive). Classroom activities include: role-play and group therapy, communication and theoretical exercise, designing and utilizing multi-level group intervention, and composing assignments related to group psychotherapeutic relationship and group context.

Prerequisite: CPSY631

CPSY730 Educational Community Psychology

The course dwells on issues related to the application of the principles, theories, strategies and intervention measures of community psychology to the school setting as a community of learners. It is designed to expand conventional paradigms of educational psychology by diverting the focus from the students as an individual to the school and the classroom as an interactive community, which is in turn embedded in the larger local Palestinian community. The course uses community and school resources in order to address problems involving children and adolescents in the school system. Issues central to this course include: classroom discipline, cooperative learning, inclusion, creativity, academic achievement, educational resilience, school violence, substance abuse, education and collective identity.

CPSY731 Psychology and Gender Differences

This course is designed to acquaint participants with some of the most prominent psychological theories and issues relating to the psychology of gender differences, including factors influencing the development of girls and women in a variety of cultures and societies, with special emphasis on Third World societies in general and on the Palestinian society in particular. The purpose of this course is to investigate issues related to the lives and living conditions of girls and women, including themes such as gender stereotypes, the social construction of gender roles, gender comparisons, women and work, inter-sex relations, women's physical and mental health, violence against women, and women in later adulthood. The course will also account for the history of women in psychology, male-biased research, gender-based status differentiation and socio-cultural stratification, gender-based stigmatization, sexism in the classroom, gender and self-conception, achievement-related behavior among women, psychological phenomena unique to women's experiences, and gender comparisons in social and personality psychology

CPSY732	Ethno-psychology
<p>Ethno-psychology pertains to the socio-cultural relativity of the theoretical depiction, definition, interpretation, evaluation and understanding of mental and psychological phenomena. This approach questions the universalistic claims of classical psychology and criticizes its proclivity to universal generalizations. Ethno-psychology is based upon the assumption that every culture has its philosophy of human nature and the relationship between body and soul, the mental and the physical, thoughts and emotions, and self and other. Through a historical account of the development of Psychology and Ethno-psychology, the premises and principles of the Ethno-psychological approach will be elaborated in this course. This will be done while presenting major research works on emotions, cognition, identity and personality in various cultures throughout the world. Some methodological tools for the empirical study of native Ethno-psychologies will also be presented in this course, and the students will be trained to carry out Ethno-psychological field research in their own society and culture.</p>	
CPSY734	Special Topics in Community Psychology
<p>The course is designed in order to give the program's instructors as well as visiting professionals from other universities the opportunity to teach a one-time course on a special topic related to their specialization or area of interest. The content and course-plan of each course will be discussed and approved by the department.</p>	
CPSY811	Practicum 1
<p>The students will register for two semesters of supervised fieldwork in sites approved by the program of Community Psychology. The field supervisor together with the academic instructor will cooperatively monitor and assess the progress of the students during the field work. This practicum is intended to provide the students with an opportunity to put the theoretical material they study during their course work into application under close supervision in the field.</p>	
CPSY812	Practicum 2
<p>The students will register for two semesters of supervised field work in sites approved by the program of Community Psychology. The field supervisor together with the academic instructor will cooperatively monitor and assess the progress of the students during the field work. This practicum is intended to provide the students with an opportunity to put the theoretical material they study during their course work into application under close supervision in the field.</p>	
CPSY830	Seminar 1
<p>A consecutive seminar for training the students on the design of research projects, the application and usage of quantitative methods in fieldwork research, and the design and composition of quantitative research reports. The students are required to present and defend a written research report in the form of a scientific research paper. This work is evaluated and graded by the seminar instructor. <i>Prerequisite: CPSY632, CPSY633.</i></p>	
CPSY831	Seminar 2
<p>A consecutive seminar for training the students on the design of research projects, the application and usage of qualitative methods in fieldwork research, and the design and composition of qualitative research reports. The students are required to present and defend a written research report in the form of a scientific research paper. This work is evaluated and graded by the seminar instructor. <i>Prerequisite: CPSY632, CPSY633.</i></p>	

CPSY860 Thesis

Students choosing the thesis track select a topic for their research in coordination with a faculty member who agrees to serve as an advisor. A detailed research proposal is submitted in due time for approval by the department. The student carries out an original research project and writes a thesis not exceeding 200 pages. The final project is reviewed and evaluated by defense committee, and the student presents and defends his/her project in a meeting open to the public.

Prerequisite: CPSY632, CPSY633.

Master Program in Contemporary Arab Studies

The [Faculty of Arts](#) offers an academic program that leads to a [master's degree in Contemporary Arab Studies](#). This program aims at providing students with in depth and analytical knowledge of contemporary Arab issues from an Arab perspective; that is, how problems and their significance are articulated and debated in contemporary Arab discourse and in the writings of diverse Arab intellectuals. A major focus of the program is the challenges facing the Arab world at the present, including the historical background necessary to understanding the present and which may impact the future of the Arab world and its global position.

Admission Requirements:

- Applicants must hold a bachelor's degree from a university recognized by Birzeit University, with a minimum overall assessment of "Good". The Program Committee may require admitted students to take some remedial courses when necessary, in accordance with the Academic Regulations for the Master's Degree.
- Students must take the English language test specified by the University. According to the results of this test, the need to register for the remedial course in English language (ENGC 530) will be determined. Students are required to complete this course before the beginning of their third semester in the program, according to the academic regulations pertaining to remedial courses.

Program Requirements:

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (15) credits hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
ARST630	Research Methods in the Social Sciences and Humanities	
ARST631	Contemporary Arab Society: Social and Developmental Issues	
ARST633	Contemporary Arab Thought: Issues and Trends	
ARST634	The Arab Political System	
ARST635	Political Geography of the Arab World	

Note: All students are required to complete ARST630 within the first (15) credits of their registration in the program.

2. Elective Courses: (15) credit hours from the following

Course No.	Course Title	Prerequisite (s)
ARST636	Issues of Citizenship, Diversity and Integration in the Arab World	
ARST637	The Arab City	
ARST638	Education and Schooling in the Arab World	
ARST639	Issues in Development in the Arab World	
ARST730	The Economy of the Arab World	
ARST731	Women in Contemporary Arab Society	
ARST732	Globalization and the Arab World	
ARST733	The Arabs and Modernity	
ARST734	Contemporary Trends in Islamic Thought	
ARST735	Arab Nationalism, Pan-Arabism and Politics of Identity	
ARST736	Democracy and Political Movements in the Arab World	
ARST737	Zionism and the Arab World	
ARST7380	Studies in Contemporary Arab Literature	
ARST7381	Issues in Media and the Communication Revolution in the Arab World	
ARST7382	Orientalism and Occidentalism	
ARST7383	Studies in Arab Popular Culture	

Note: ARST739 can be calculated as an elective course instead of one of the elective courses from the above mentioned groups.

3. Track “A” or Track “B”: 6 Credit Hours; Thesis or two Seminars

Track	Course No.	Course Title	Prerequisite(s)
Track A	ARST860	Thesis	The completion of no less than (15) credit hours.
Track B	ARST830	Seminar 1	
	ARST831	Seminar 2	

Contemporary Arab Studies Course Descriptions (ARST)

ARST630 Research Methods in the Social Sciences and Humanities

The production of academic knowledge. Stages of research; topic selection, literature review, identifying research questions, formulating hypotheses, identifying research fields, selecting samples, data collection and analysis, and drafting a research report. Quantitative and qualitative data collection techniques. Methods of writing a thesis proposal, writing a thesis and defending it.

ARST631 Contemporary Arab Society: Social and Developmental Issues

The study of the social transformation in Arab societies, specifically in the following areas: the economy, class divisions, religion, kinship, and the impact of transformations in the public sphere on social structures. The study of conflicts between state and society, secularism and religious authority, urban and rural communities, the Arab majority and ethnic minorities. Study of the manifestation of and theories of development and underdevelopment. The study of development policies. Their application in Arab countries, as well as their social, economic and political consequences.

ARST632 Issues in Contemporary Arab Culture

The study of issues in contemporary Arab culture in diverse fields, including literature, architecture, music, and popular culture. Study of the contributions of these fields to cultural life, in addition to their critical and constructive interventions.

ARST633 Contemporary Arab Thought: Issues and Trends

Prominent schools, trends and issues in contemporary Arab thought since the 18th century. The emergence of intellectual movements concerned with Arabs, particularly during the decay of the Ottoman Empire and the division of what came later to be known as the Arab World among European colonial powers. The movements' positions on religion and nationalism, and the resulting doctrines of revivalism, reformism and revolutionary thought (religious or secular). The intellectual legacy of these movements and their impact on the formation of Arab nationalisms, their anti-colonial role, the establishment of the nation-state and its position on keys issues, such as secularism, democracy, dependency and globalization.

ARST634 The Arab Political System

Study of the development of the Arab political system between World War I and World War II and their aftermath, with a focus on the period that witnessed the establishment of the Arab League and the transformations and developments that followed its establishment, which in turn contributed to the reform of the Arab political system. The study of the Arab political system within the context of the international political system, with a focus on its role in defining the nature of intra-Arab relations, the Arab-Israeli conflict and “the peace process”. Study of the last two decades and the consequences of the US declaration of “a new world order”, and “the war on terrorism”, and their impact on the Arab-Israeli conflict and the Arab political system in general.

ARST635 Political Geography of the Arab World

The importance of the strategic and geo-political location of the Arab world globally. The development of Arab states’ political borders (land, sea and river borders) and with neighboring countries. Issues related to energy resources and their political and economic effects on the Arab world. Issues of water and food security and their political impact in the Arab world. Pan-Arab and regional systems (e.g. the Arab League, the Gulf Cooperation Council, the Maghrebi Union) and their role in the Arab world.

ARST636 Issues of Citizenship, Diversity and Integration in the Arab World

Factors of unity and integration in Arab society; ethnic, tribal and cultural pluralism, the classification of ethnic group according to a number of variables. Social movements, modalities of relationships between the Arab majority and ethnic minorities (integration, co-existence, segregation, and conflict), the impact of these relationships on social and political integration, in addition to other relevant concepts such as identity, dogmatism, tolerance and stereotypes.

ARST637 The Arab City

The Arab city from a socio-historical perspective employing major analytical frameworks for the study of cities. Major elements and forces that contributed to the foundation of the Arab city since the beginning of the twentieth century; debates about “the Islamic city,” colonial legacies, the ruralization of the city, marginality, the informal economy, construction projects and urban planning, the principles of class-and ethnic-based segregation in the contemporary Arab city; issues of the social and political production of urban space; and the unique characteristics of the Arab city compared to other cities.

ARST638	Education and Schooling in the Arab World
Mutual relations between educational systems and societies in the Third World with an emphasis on Arab countries and Palestine, through applying ideas and methodologies from several disciplines such as history, political science, sociology and economics. Factors affecting the historical development of educational systems in relation to current educational challenges, the impact of education on economic development and social justice, the impact of education on the individual and social structure, ideology and education in the Third World, power and its impact on educational systems, the prospects for reform, the role of education in development and relating curricula to national and pan-national objectives.	
ARST639	Issues in Development in the Arab World
Theories analyzing the reasons for under-development in the Arab World. Natural resources and dominant modes of production, distribution, and consumption; human resources and educational modes (and technical modes); social structure, cultural structure and development; political systems, civil societies and the prospects of development; the pan-national dimension and regional cooperation in the development process in the Arab World.	
ARST730	The Economy of the Arab World
General survey of Arab political economy and its multiple dimensions; introduction to political systems in the Arab World and their relation to dominant market formations, with emphasis on economic resources, population, Arab trade exchange, challenges to Arab economic integration, reasons for the dependency of Arab economies on the international economy and weaknesses accompanying this dependency, in addition to political and social measures necessary to overcoming these weaknesses.	
ARST731	Women in Contemporary Arab Society
The status of women in contemporary Arab societies; the position of women in the family and their role in formal and informal economies; the impact of modern Arab state policies and legislation on the status of women in the region; the role of Arab feminist movements in effecting change in the status and future of Arab women.	
ARST732	Globalization and the Arab World
Defining globalization as a continuous process involving economic, social and cultural dimensions; globalization's subjects and agents both in the center and the periphery; explanatory and critical theories of globalization; investigating the impact of globalization on Arab reality and the diverse Arab reactions to globalization.	

ARST733	The Arabs and Modernity
Arab debates about the relationship between Arabs and modernity, its different political, intellectual and cultural meanings; the Arab reaction to the Euro-centric project of modernity; the study of the Arab region as part of the colonized world, which the project of modernity targeted on the levels of representation, colonization, and hegemony; major intellectual, literary and aesthetic movements that internalized the project of modernity; the confusion of modernization with modernity, their relationship to Napoleon 's expedition in Egypt, and the resulting tension between tradition and modernity.	
ARST734	Contemporary Trends in Islamic Thought
Contemporary Islamic intellectual trends (conservative, fundamentalist, revivalist, mainstream and reformist) and their position on questions of political change, development and the relationship between Islamic societies and the world, particularly in the West; the stance of Islamic movements in relation to modernity, international relations and innovations in Islamic thought, and their proposed solutions for the present-day problems of the Islamic World.	
ARST735	Arab Nationalism, Pan-Arabism and Politics of Identity
Modes of expressing affiliation in the Arabic-speaking region since the eighteenth century, under the Islamic Caliphate. The emergence of nationalist movements and their impact on the nation-state in Europe; study of the social and economic transformations in human societies throughout the agricultural, industrial and technological stages (plough - sword -pen) employing European theoretical schools on nationalism. The decline of the Ottoman Empire and the colonial division of the Arab region, and its impact on the rise of Arab nationalist, intellectual and political movements which led the separation efforts from the Ottoman Empire; the formation of liberation movements and their role in the establishment of Arab nation-states; the impact of the Zionist colonization of Palestine on the rise of the Palestinian Arab identity and Arab unity and the impact of globalization, hegemony, and neo-colonialism on the idea of nationalism.	
ARST736	Democracy and Political Movements in the Arab World
The study of the thought of political movements in the Arab World in the last two decades in the aftermath of the collapse of the Soviet Union; analyzing the reasons beyond the unprecedented and increasing importance of democracy in the thought of these movements, compared to the era between WWI and the late 1980s. Examining the emergence of democracy in the thought of diverse Arab political parties as well as in the writings of Arab intellectuals which constitute a vehicle for political change. Examining the demand for democracy by Arab oppositional parties as a means for reforming local, regional, and international policies towards the Arab World; the utilization of democracy and transitions to democracy by different internal and external forces.	

ARST737 Zionism and the Arab World

The Zionist movement and its relationship with the Arab World and Palestine. The origins of Zionism, the Jewish Question, Jewish opponents of Zionism, state and religion in Israel, the Holocaust industry and post-Zionism. Zionism's position on the Arab World and pan-Arabism, including the Zionist project in Palestine and its borders, Zionism's perception of its relationship with the Arab World, Arab governments and Arab societies.

ARST7380 Studies in Contemporary Arab Literature

The study of diverse cultural and social milieus of contemporary trends in Arab literature, contemporary literary schools and the major intellectual and aesthetic changes affecting them, especially in the second half of the twentieth century, such as: the Iraq school, the modernity school and resistance literature. The major contemporary Arab literary genres: Arab poetry and the Arab novel.

ARST7381 Issues in Media and the Communication Revolution in the Arab World

The development of critical analysis of Arab media through the examination of contemporary media issues such as public opinion, media and society, the age of information and globalization, media and social development, consumer society and consumer advocacy associations, women in media, media ethics, news agendas, Arab media discourse, discourse as ideology, democracy and media culture and media and religion. The public communication revolution in the Arab world, with focus on print media, radio and television, the internet and the multimedia concept; the ramifications of this revolution on official and non-official media policies.

ARST7382 Orientalism and Occidentalism

The study of the knowledge/power relation and the resulting modes of presentation and representation in the East and the West, beginning from the eighteenth century; emphasis on the cultural context of the European colonial era, which produced western colonial forms of knowledge claiming the representation of the oriental colonized in the following fields: literature, fine arts, architecture, theater, music and cinema; the "Oriental" culturalist response consisting of forms of knowledge representing the colonizer from the standpoint of the colonized; the study of these trends utilizing seminal works on orientalism and Occidentalism; examining these concepts as critical methods for the representation of the other, its culture and civilization.

ARST7383 Studies in Arab Popular Culture

General and controversial definitions of culture, folklore, and popular literature from different theoretical perspectives; the study of major issues in Arab popular culture: “low/popular culture,” identity, dialects, colloquial and standard Arabic, politics of popular cultural production and consumption; the globalization and commodification of popular culture; the study of topics in popular culture, such as: popular odysseys, songs, laments, anecdotes and legends, proverbs, costumes, murals, market chants, nomadic theater, public space divisions; methods of collecting, studying and classifying popular culture: ethnography, case-study, and semiotics; the influence of concepts from modernity and globalization theories on popular culture and imagination.

ARST739 Special Topic

Advanced study of a specific topic related to the field of specialization, determined and approved by the Department Council or Program Committee according to the need and to the available resources. This course might be considered as a substitute for one of the courses in Groups two, three or four, according to the topic of the course and upon the approval of the Program Committee.

ARST830 Seminar

Advanced study of a topic related to field of study as determined by the Department Council or Program Committee. Writing a research report of about 30 pages.

Prerequisite: completion of not less than (15) hours in the Program.

ARST831 Seminar

Advanced study of a topic related to field of study as determined by the Department Council or Program Committee. Writing a research report of about 30 pages.

Prerequisite: completion of not less than (15) hours in the Program.

ARST860 Thesis

Writing a thesis in the field of specialization according to the approved instructions for writing master’s theses.

Prerequisite: completion of not less than (15) hours in the Program.

Faculty of Science

The [Faculty of Sciences](#) was established at the year 1976. At present, the number of academic departments in the Faculty Sciences is four, offering the following programs:

- [Master Program in Environmental Biology](#)
- [Master Program in Applied Chemistry](#)
- [Master Program in Mathematics](#)
- [Master Program in Physics](#)

Master Program in Environmental Biology

The [Master program in Environmental Biology](#) is committed to supply Palestine with excellent scientific cadres who are able to understand and solve the current and future challenges facing the Palestinian environment, in a manner that is sound scientifically and that fits with the accuracy and sensitivity of the balance of the environment. This message is consistent with the Palestinian national strategy to preserve the environment and raise its awareness, its practices and the sound environmental planning. Moreover, the message is also consistent with the mission of Birzeit University that requires excellence in the fields of scientific research and higher education, and community service.

This program is intended offer higher studies in environmental biology for holders of BA degrees in Life Sciences or workers in several biological areas. Thus the program strives to prepare specialists and researchers in the field of environmental biology to contribute to the advancement of scientific knowledge and the creation and development of environmental awareness and the importance of maintaining organisms, biodiversity, environment and natural resources from pollution.

Admission requirements:

Target group: holders of bachelor's degree in biology, agriculture, pharmacy, public health, and especially those working in biology education in private and public schools, and the ministries of agriculture and health.

- The applicant should have a bachelor degree from an accredited university in Biology, Agriculture, Pharmacy or Public health, with a minimal grade of “good”. In special cases, admission can be granted to students from other areas or specializations after getting the approval of the program’s committee, which has the right in this case to ask the student to complete remeial courses, as needed, but not to exceed nine credit-hours in total. These credits will not however be counted as part of the credit-hours required by the program.
- Minimum Grade of 65% in Tawjihi Exam (general Secondary Certification Examination).
- Any additional requirements stated in the University’s graduate Studied regulations.

Graduate Attributes:

The master's program in environmental biology strives to prepare its graduates:

- To contribute to the advancement of scientific knowledge in the field of environmental biology both locally and internationally through scientific research in different aspects of environmental biology.
- To find and enhance environmental awareness by stressing the importance of conserving natural resources, biodiversity and the environment, and fighting against pollution.
- To evaluate the human impact on the various components of ecosystems and to present scientific recommendations to overcome these problems.
- To deal with current and future challenges to the environment in Palestine and to formulate future strategies to halt the degradation of the environment.
- To cooperate with governmental institutions to establish new laws that protect the environment.
- To develop self-learning and self-knowledge in order to keep up with all that is new in the field of environmental biology.

Program completion requirements:

- The successful completion of (36) credit hours according to the program outline including mandatory courses (15) credit hours, elective courses (15) credit hours and (6) credit hours for thesis (track "A" students) or (6) credit hours for two seminar courses (track "B" students).
- The successful completion of any remedial courses that have been required by the student upon acceptance into the program, before the start of the third semester in the program. The remedial courses are not accounted within the required credit hours for the program and are not counted towards the cumulative average of the program.
- The cumulative average at graduation of at least 75%.

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (15) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
BIOL610	Research Methods	
BIOL620	Biostatistics	
BIOL630*	Environmental Biology	
BIOL631*	Environmental Microbiology	
BIOL632*	Ecophysiology	
BIOL633	Advanced Biological Techniques	

*The course includes practical part in the form of a small research project and / or a limited number of laboratory experiments and field visits.

2. Elective Courses: (15) credit hours from the following

Course No.	Course Title	Prerequisite (s)
BIOL634*	Biodiversity	BIOL630
BIOL635	Population Genetics	
BIOL636*	Bioinformatics	
BIOL637*	Environmental Pollution	
BIOL638*	Environmental Biochemistry	
BIOL639	Biological Evolution	BIOL630
BIOL730*	Animal Behavior	BIOL632
BIOL731	Environmental Virology	BIOL631
BIOL732*	Ecotoxicology	
BIOL733*	Molecular Environmental Biology	
BIOL734	Selected Topics	

*The course includes practical part in the form of a small research project and/or a limited number of laboratory experiments and field visits.

3. Track A / Track B: (6) credit hours; either as thesis writing (Track A) or the two following seminars:

Track	Course Title	Course No.	Prerequisite (s)
Track A	Thesis	BIOL860	Completion of at least 12 credit hours from the program
Track B	Two Seminars	BIOL830 BIOL831	

Environmental Biology Course Description (BIOL)

BIOL610	Research Methods
To teach student how to search literature, how to design scientific research, write a research proposal, write a scientific paper, and prepare of a scientific presentation. Introduce concepts of ethics and academic integrity.	
BIOL620	Biostatistics
To provide students with experience and training in advanced biological techniques. The major portion is designed to cover theory, techniques and instrumentation. Techniques include cells and tissue culture, ELISA, Western blotting, PCR, Gel Electrophoresis, AAS ...etc.	
BIOL630	Environmental Biology
Advanced topics in the ecology of populations: 1. Intraspecific like: properties, growth, competition and regulation. 2. Interspecific like: competition, predation, co-evolutionary interactions and human impacts on populations and predator-prey balance. Besides, topics related to communities like: structure, dynamics and succession of communities will be discussed. Characteristics of different ecosystems that are governed by environmental variability including grasslands, shrub lands, deserts and tundra in addition to freshwater and marine water ecosystems. Global environmental changes like greenhouse gases and global climate, sea level rise, plant production, and human health.	
BIOL631	Environmental Microbiology
Microbial functions, interactions, and diversity in natural and man-made environments. Applications of microbial activities in bioremediation, biodegradation, agriculture, health and environmental biotechnology. Most commonly used methods in Environmental Microbiology: Enrichment and isolation, isolation in pure culture; molecular (culture independent) analysis of microbial communities.	
BIOL632	Ecophysiology
Major topics in plant and animal physiology and their environmental effects and interaction. These topics will include physiological mechanisms that maintain homeostasis including the process of adaptation, acclimation and acclimatization of both plants and animals to their environmental and habitat conditions.	
BIOL633	Advanced Biological Techniques
Biochemical aspects of environmental issues. The effect of environmental agents on metabolic pathways, enzymatic and non-enzymatic antioxidant defenses, detoxification enzymes, free radical formation and reactions, lipid peroxidation and receptor-mediated effects.	
BIOL634	Biodiversity
Definition and measurement of biodiversity and the biodiversity hierarchy – community, species, genes. Global biodiversity hotspots, rates of biodiversity loss, maintaining biodiversity. Human impact on biodiversity and socioeconomic aspects. Biodiversity in Palestine and endangered species (Flora and Fauna). <i>Prerequisite: BIOL630</i>	
BIOL635	Population Genetics
Genetic constitution of population, frequencies of genes and genotypes, Hardy-Weinberg equilibrium, nonrandom mating, factors affecting gene frequency: migration, mutation, selection, genetic drift,	

polymorphism, Inbreeding, continuous variation, values and means, variance components, heritability, response to selection, crossbreeding, and quantitative trait loci.

BIOL636 Bioinformatics

Understanding pollution, types and sources and risks of pollutants, pollutants spread and contamination of biotic and abiotic parts of ecosystems, and pollution control. Pollutants include heavy metals, pesticides, solid wastes, wastewaters, PCBs and PAHs. Persistence, treatment, degradation, bioremediation and removal of these pollutants.

BIOL637 Environmental Pollution

Introduction to environmental biomonitoring: theory, technique and application quantification of biodiversity and monitoring of condition and ecological function of terrestrial, aquatic and soil ecosystems. Invertebrates, plants and birds as biomonitors in post-disturbance habitat; cutting-edge technologies in biological monitoring: non-invasive sampling and genetic monitoring using genotoxicity tests; assessment of natural water and soil quality; restoration, rehabilitation and management of degraded ecosystems.

BIOL638 Environmental Biochemistry

Sampling techniques and experimental design and randomization in environmental studies. Analysis of results of environmental studies using statistical tests (variance and covariance, regression, correlation) and applying these tests using computerized statistical packages.

BIOL639 Biological Evolution

Understanding the features of living things, from molecular biology and biochemistry to physiology, behaviors and ecology perspective. Evolution applications in the health science, agriculture, conservation, other human sciences like Anthropology, sociology and philosophy. Analyze the causes and mechanisms of evolution, which draw chiefly on the fields of paleontology, systematic, and genetics.

Prerequisite: BIOL630

BIOL730	Animal Behavior
Ethological concept of animal behavior, with attention to certain findings of comparative psychology and physiology and relating these to environmental, evolutionary and hereditary conditions. How to utilize animal behavior knowledge to conserve animals within their natural habitats and environment and to reduce human impact on natural hanitats, feeding, reproduction and migration of animals. <i>Prerequisite: BIOL632</i>	
BIOL731	Environmental Virology
Virus biology, pathogenesis, transmission and diagnosis of water contamination by viruses, virus types isolated from aquatic environments, methods for virus monitoring, water disinfection procedures to inactivate viruses, epidemiologic surveillance of waterborne virus diseases, phage biology-abundance and variety of bacteriophages, phage therapy, and phages in biotechnology. <i>Prerequisite: BIOL631</i>	
BIOL732	Ecotoxicology
Different aspects of toxicology. Types of ecotoxins, routes of toxins into living organisms, accumulation and mechanisms of toxicity to organisms, organs, cells or molecules. Methods of detoxification and toxicity testing concepts like lethal dose and sublethal dose.	
BIOL733	Molecular Environmental Biology
Introduction to the field of conservation biology and to conservation decision making at local, national and international level. Topics covered include: the impacts of solid wastes, wastewater, desertification, urbanization, global climatic change, species invasions, and habitat destruction, loss and fragmentation on biodiversity, strategies developed to combat these threats.	
BIOL734	Environmental Legislations and Ethics
Ethical issues and perspectives confronting society and environmental scientists and their influence on the development of environmental policy and regulation. Existing and proposed policies and regulations that are intended to protect natural resources and the environment and their ethical background.	
BIOL735	Applied and Industrial Ecology
Systematic analysis of global, regional and local material and energy flows and sustainable uses that are associated with products, processes, industrial sectors, and economies. Energy consumption, non-renewable and renewable materials consumption, air pollutant emissions, waterborne pollutant effluents and solid waste generation associated with human activities are tracked. Ecologically important industrial applications like: recycling industry, composting of organic matter, and wastewater recycling and reuse.	

BIOL736	Special Topics
An advanced course in environmental biology based on the interest of a faculty member.	
BIOL830	Seminar I
Presentation and discussion of scientific integrity and ethics of scientific research. An advanced study in the field of environmental biology that includes reviewing enough scientific papers and literature. Public presentation and discussion of the study that might end up with some corrections and modifications of the study. <i>Prerequisite: passing at least 12 credit hours.</i>	
BIOL831	Seminar II
Presentation and discussion of scientific integrity and ethics of scientific research. An advanced study in the field of environmental biology that includes reviewing enough scientific papers and literature. The study could be a continuation to that in Seminar I (830) or a different one. Public presentation and discussion of the study that might end up with some corrections and modifications of the study. <i>Prerequisite: passing at least 12 credit hours.</i>	
BIOL860	Thesis
Successfully submission and defense of a Master's thesis in a field of interest in an environmental context according to university regulations. <i>Prerequisite: Passing at least 12 credit hours and the permission of the department</i>	

Master Program in Applied Chemistry

The [Department of Chemistry](#) offers Master of Science [Master Degree in Applied Chemistry](#). This program aims to supplement the Palestinian industrial sectors with Competent Scientist who are able to take a leading and constructive role in contributing to the increase of production and improve its quality. This could be achieved through acquiring the scientific background necessary to engage in such professions in various industrial fields, such as pharmaceuticals, food and plastic industries. Moreover, they will be able to contribute to the finding of appropriate solutions for the various environmental problems. In addition to providing the Palestinian society with Academic people who are qualified to teach in secondary schools and higher institutions and universities, as well as to help the graduates to pursue their studies further towards their PhD.

Admission Requirements:

- A bachelor's degree in chemistry or in any other field closely related to chemistry from a recognized university with at least a good grade taking into account passing any remedial courses required.
- Two letters of recommendation from two undergraduate instructors or from those who are responsible for his/her work (or one letter of each type).
- A personal interview, if decided by the graduate acceptance committee .

Program requirements:

- Passing all remedial courses that assigned for students.

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (16) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
CHEM611	Scientific Research Methods	
CHEM639	Industrial Chemistry	
CHEM6312	Advanced Analytical Chemistry	
CHEM6321	Advanced Organic Chemistry	
CHEM6332	Advanced Physical Chemistry	
CHEM634	Advanced Inorganic Chemistry	

Note: All students should complete CHEM611 course among the first (16) credit hours in the program.

2. Elective Courses: (14) credit hours from the following

Course No.	Course Title	Prerequisite (s)
CHEM635	Applied Spectroscopy	
CHEM636	Pharmaceutical Chemistry	

CHEM637	Food Chemistry	
CHEM638	Environmental Chemistry	
BUSA639	Operations Management	
BUSA735	Project Management	
CHEM718	Special Topics I	Program Approval
CHEM728	Special Topics II	Program Approval
CHEM731	Drug Design	
CHEM732	Natural Product Chemistry	
CHEM7331	Applied Polymer Chemistry	
CHEM734	Bioinorganic Chemistry	
CHEM735	Radiochemistry and Radioanalytical Methods	
CHEM736	Chemical Toxicology	
CHEM738	Selected Topics III	Program Approval

3. Track A / Track B: (6) credit hours; either as thesis writing (Track A) or the two following seminars:

Track No.	Track Title	Course No.	Prerequisite(s)
Track A	Thesis	CHEM860	Passing not less than 15 credit hours
Track B	Research Seminar I Research Seminar II	CHEM830 CHEM831	

Note: Students can choose one of the elective courses instead of CHEM830 or CHEM831 after the Approval of the program committee. This condition is applied to the students enrolled in the program after 2008/2009.

Students can study relevant (9) credit hours from other graduate programs in the university instead of (9) elective credit hours from part B after the program committee Approval.

Applied Chemistry Course Descriptions (CHEM)

CHEM611 Scientific Research Methods

Strategies and approaches in chemical research. Literature search and evaluation of research publications.

CHEM6312 Advanced Analytical Chemistry

Advanced topics of quantitative analysis in analytical chemistry including figures of merit, sample preparation, quality control and quality assurance methods. Advances in modern instrumental techniques and research applications in electro analytical and chromatographic techniques.

CHEM6321 Advanced Organic Chemistry

Bonding and molecular structure, stereochemistry as applied to alkylation of nucleophilic carbon intermediates, reaction of carbonyl nucleophiles with carbonyl compounds, electrophilic addition to carbon multiple bonds, reduction of carbonyl and other functional groups. Concerted cycloaddition reactions, unimolecular rearrangements, and thermal elimination reactions are an integral part of the course; this includes cycloaddition reactions, electrocyclic reactions, sigmatropic rearrangement and cheletropic reactions.

CHEM6332 Advanced Physical Chemistry

Statistical thermodynamic principles. Molecular partition functions, probability, and statistics. Calculation based on Statistical thermodynamic for the Internal energy, Gibbs free energy, enthalpy, entropy, and chemical equilibrium constant. Reaction rates, complex mechanisms and deduction of reaction mechanisms. Transition state theory and microscopic reversibility, chain reactions, reactions insulation.

CHEM634 Advanced Inorganic Chemistry

Study of modern inorganic chemistry with the necessary skills to understand the theoretical basis of structure and bonding as well as the physical and chemical properties of inorganic compounds. Symmetry and point group theory and its applications in the field of vibration spectroscopy. Molecular orbital (MO) theory specifically applied to the coordination compounds (transition metal complexes). Fundamental concepts of organometallic chemistry and its applications in industry and bioinorganic chemistry. Application of hard/soft acid and base (HSAB) theory in coordination chemistry.

CHEM635 Applied Spectroscopy

Focus on advanced spectroscopic principles and techniques. Applications of NMR, mass spectrometry, electronic spectroscopy, photoelectron spectroscopy and Fourier transform infrared spectroscopy will be studied. Special emphasis is placed on understanding the theoretical basis of these instruments, operational techniques, the use of specialized methods to solve specific chemical problems, and the interpretation of spectral information.

CHEM636 Pharmaceutical Chemistry

An introduction to the chemical and physical properties of medicinal agents. Discussion of relationships of structural properties of drugs to pharmacological properties, absorption, distribution, metabolism profile and chemical stability with a detailed discussion of one or more prototypes of each drug class. At the completion of the course students will have a knowledge of the molecular basis of pharmacological activity, the mode of action of major classes and be familiar with rational approaches to drug design utilizing mechanistic approach.

CHEM637 Food Chemistry

Account of the chemistry of food substances present in larger amounts as carbohydrates, lipids, proteins, minerals and those occurring in smaller quantities as colours, flavors, vitamins, preservatives and both synthetic and natural toxins. It emphasizes the relationship between structure and function, highlights stability and bioavailability, thoroughly describes chemical changes during handling, storage, processing and cooking as well as related changes in nutritional value.

CHEM638 Environmental Chemistry

Study of sources, reactions, transport of organic and inorganic solids, liquids, gases, pollutants and hazardous waste. Their effects and fates in air, water, and soil. Their influence on living things. Investigation of local pollution problems such as residue of olive oil production, plastic and metal wastes, detergents and agricultural chemicals. Methods of determination and solution to environmental problems.

CHEM639 Industrial Chemistry

An overview of chemical industry, environmental considerations. Chemical equilibrium and kinetics. Basics of mass and energy balances. Process design and economics. Production of basic inorganic chemicals, production of basic organic chemicals, petroleum products. Examples of modern chemical industries.

CHEM718 Special Topics I

Recent topics based on contemporary studies in various fields in chemistry.

Prerequisite: Program Approval

CHEM728 Special Topics II

Recent topics based on contemporary studies in various fields in chemistry.

Prerequisite: Program Approval

CHEM731 Drug Design

Applications of chemical principles to the rational design of drugs. Topics include targets of biologically active molecules, approaches to studying liquid and target interactions, overview of drug discovery agents acting on specific targets, combinatorial chemistry, computational chemistry, and structure activity relationships. Modern molecular modeling methods and techniques as they pertain to molecular design and the simulation of molecular properties and interactions.

CHEM732 Natural Product Chemistry

The structure, biosynthesis, reaction and biomimetic synthesis of natural products with examples from each of the major classes of polyketides, shikimates, terpenoids, alkaloids, steroids, antibiotics and marine natural products. Reference to their occurrence, isolation, structure elucidation, group interconversion, synthesis and physiological importance of some products.

CHEM7331 Applied Polymer Chemistry

Polymer classifications in terms of; functionality, architecture, properties and uses. Polymer preparations reactions and mechanisms including kinetic controls parameters and adjustments. Polymer physical, chemical and mechanical structure and reactions involved in modifications of properties. Trends in polymer applications geared for industrial uses and specialty polymers special uses.

CHEM734 Bioinorganic Chemistry
Study of metalloproteins, their known structures, chemical and biological functions such as electron transfer, dioxygen binding and catalytic activities. Design and functions of some transition metal complexes as mimics (models of metalloproteins). The applications of these inorganic and bioinorganic model complexes, especially with some known drugs on medical, pharmaceutical and environmental science.
CHEM735 Radiochemistry and Radioanalytical Methods
Nuclear structure, types and rates of radioactive decay, interaction of radiation with matter and radiation measurement. Principles of radiochemical, tracer and nuclear methods used in analysis such as nuclear activation, isotope dilution and radioimmunoassay. Radiopharmaceuticals and industrial uses of radioisotopes.
CHEM736 Chemical Toxicology
A course in chemical toxicology dealing with both chemical hazards and exposure. Study of toxicity at the cellular level including formation of reactive intermediates and their interaction with enzyme systems, DNA and proteins. Initial events in enzyme induction and mutagenesis. Study of capabilities in the areas of structure–activity relationships and mechanisms of exposure to toxic chemicals.
CHEM738 Selected Topics
An in-depth coverage of aspects introduced in the required courses that are not covered by the other courses in the plan, according to faculty availability and interest. <i>Prerequisite: Program Approval</i>
CHEM830 Research Seminar I
Discussion of research ethics guidelines and honesty in scientific research. Discussion of advanced selected topics in applied chemistry through detailed review of the literature and various data bases in chemistry. Submission and presentation of a selected advanced topic in applied chemistry to the students and faculty members and resubmission of the paper as may be needed based on comments gathered through the presentation. <i>Prerequisite: Passing at least 16 credit hours</i>
CHEM831 Research Seminar II
Discussion of research ethics guidelines and honesty in scientific research. A continuation of the study in CHEM830 or a new advanced study in an applied area of chemistry. Submission and presentation of a selected advanced topic in applied chemistry to the students and faculty members and resubmission of the paper as may be needed based on comments gathered through the presentation. <i>Prerequisite: Passing at least 16 credit hours</i>
CHEM860 Thesis
Students in the thesis track must engage in an original research project approved by the director of the graduate program in an applied field of chemistry culminating in the submission and defense of a Master's thesis. <i>Prerequisite: Passing at least 16 credit hours</i>

Master Program in Mathematics

The [Department of Mathematics](#) offers an academic program that leads to a master's degree in Mathematics. This program aims at giving students holding a bachelor's degree in mathematics an opportunity to continue their studies in the different fields of mathematics and fulfill the Palestinian society's need for individuals specialized in the fields of mathematics and statistics.

Admission Requirements:

- Applicants must hold a bachelor's degree in the field of mathematics, statistics, applied mathematics, or other related fields, such as physics, from a university recognized by Birzeit University.
- Fulfilling the admission requirements mentioned in the Academic Regulations for Master's Degree.
- Two confidential recommendation letters from faculty members familiar with the applicant's work, or from administrators familiar with the work of the applicant, or one from each.
- The Program Committee may require personal interviews with applicants.
- The approval of the Program Council.

Program Requirements:

- The program committee may require prerequisite courses for students.

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (18) credit hours consisting of the following courses:

Course No.	Course Title	Prerequisite (s)
MATH610	Research Methodology	
MATH620	Matrix Theory	
MATH631	Abstract Algebra	
MATH633	Numerical Analysis	
MATH634	Real Analysis	
MATH635	Topology	
MATH638	Partial Differential Equations	

Note: All students are required to complete MATH610 within the first (15) hours of their registration in the program.

2. Elective Courses: (12) credit hours consisting of the following courses:

Course No.	Course Title	Prerequisite (s)
MATH632	Dynamical Systems	
MATH636	Complex Analysis I	

MATH637	Linear Statistical Models	
MATH730	Advanced Numerical Analysis	MATH633
MATH731	Advanced Partial Differential Equations	MATH638
MATH732	Rings and Module Theory	MATH631
MATH733	Experimental Design	
MATH734	Functional Analysis	MATH620, MATH634
MATH735	Mathematical Statistics	
MATH739	Special Topics	

Note: Students can substitute three of the above mentioned elective courses with three courses from one of the following graduate programs (Applied Statistics, Scientific Computation, and Economics) after the approval of the Program Committee.

In addition, and for graduation purposes, students can substitute one of the above mentioned courses with one fourth-year bachelor's level course provided they have not taken this course during their bachelor's degree studies, and after the approval of the Program Committee.

3. Track "A" or Track "B": (6) credit hours; Thesis or two Seminars

Track	Track Title	Track Number	Prerequisite(s)
Track A	Thesis	MATH860	Complete no less than (15) credit hours from the program
Track B	Seminars	MATH830 MATH831	MATH610 and complete no less than (15) credit hours from the program

Note: Students can substitute one of the above mentioned seminar courses with one elective course from the program after the approval of the Program Committee.

Mathematics Courses Description: (MATH)

MATH610	Research Methodology
The methods of scientific research and writing a report on a specific topic.	
MATH620	Matrix Theory
Vector spaces and linear transformations, Kronecker product, eigenvectors and eigenvalues, matrix algebra and matrix calculus, matrix diagonalization, the Kelly-Hamilton theorem, Hermitian matrices, Schur triangulization theorem, More-Penrose generalized inverse.	
MATH631	Abstract Algebra
Structured groups theorem, solvable groups, derived series, direct products and sums, free groups, p-groups and Sylow theorem, fundamental theorem on finite abelian groups, rings, polynomial rings, maximal ideals, power series rings, splitting fields.	
MATH632	Dynamical Systems
Discrete and continuous dynamical systems, linear and nonlinear systems, Equilibrium solutions, periodicity, dynamics of first order difference equations, linear difference equations of higher order, systems of difference equations, stability theory and chaos in one and n-dimensional maps, linearized stability, Liapunov functions, Poincare maps.	
MATH633	Numerical Analysis
Iterative techniques in matrix theory, numerical techniques for eigenvalue and eigenvector problem, initial and boundary value problems, numerical solution of ordinary and partial differential equations, stability, error estimates.	
MATH634	Real Analysis
Measurement space, abstract measure and integration, convergence theories, Lebesgue measure, L_p -spaces, Riesz representation theorem, inner product and orthogonality, product measures.	
MATH635	Topology
General topological spaces, product and quotient spaces, separation and countability properties, metric spaces, compactness and paracompactness, connectivity, metric spaces, nets and filters, applications on planes.	
MATH636	Complex Analysis
Analytic functions, power series, complex integration, Cauchy's Theorem, Cauchy's integral theorem. Open mapping theorem, Residue theorem, Taylor and Laurent expansions, max-modulus principle and its generalizations, Runge's theorem, elementary conformal mapping, mobius transformations, harmonic functions, Riemann theorem.	

MATH637 Linear Statistical Models
The Classical Multiple Regression Model, estimation, inference and prediction, functional form, nonlinearity and specification, Maximum Likelihood, generalized Method of Moments, Heteroskedasticity, Autocorrelation and Multicollinearity.
MATH638 Partial Differential Equations
Singular first order equations, solutions using helper functions, Chauchy and Laplace equations, Green's functions, partial differential equations for temperature and waves, Fourier transform, distributional functions and weak solutions, introduction to non linear partial differential equations.
MATH730 Advanced Numerical Analysis
Approximation by least squares, polynomials and orthogonality, Chebychev's polynomials, ratio and triangular approximation, convergence and stability, advanced methods for solving partial and differential equations, such as the Rayleigh-Ritz-Galerkin method and finite elements method. <i>Prerequisite: MATH633</i>
MATH731 Advanced Partial Differential Equations
First and second order partial differential equations, Cauchy and Laplace equations, redundancy, deficiency and equivalence equations. <i>Prerequisite: MATH638</i>
MATH732 Rings and Modules Theory
Basic definitions of rings and modules, direct sums and product, tensor products, direct sums, prime and semi prime modules, projective, injective, free and flat modules, decomposition of modules, Von-Neumann regular, Noetherian and Artinian rings and modules hereditary and semi-hereditary rings. <i>Prerequisite: MATH631</i>
MATH733 Experimental Design
Randomization, blocking, balanced incomplete block designs, Latin squares, factorial experiments, confounding and fractional replication, components of variance, orthogonal polynomials, response surface methods.
MATH734 Functional Analysis
Linear space topology, inner product metric spaces, Banach spaces, Hilbert spaces, Hahn-Banach theorem, linear functions, applications. <i>Prerequisite Math620, Math634.</i>

MATH735	Mathematical Statistics
Probability distributions of one and several variables, sampling theory, Fischer information, sufficient statistics, estimation of parameters, confidence intervals, analysis of variance, correlation, testing statistical hypotheses, random tests, effective tests and probability tests.	
MATH739	Special Topics
In-depth study of a special topic related to mathematics.	
MATH830	Seminar 1
Writing an advanced research report on a topic related to mathematics and presenting it in class. <i>Prerequisites: MATH610.</i>	
MATH831	Seminar 2
Writing an advanced research report on a topic related to mathematics and presenting it in class. <i>Prerequisites: MATH610.</i>	
MATH860	Thesis
Writing a thesis in the field of specialization according to the approved instructions for writing master's theses.	

Master Program in Physics

The [Department of Physics](#) offers an academic program that leads to a [master's degree in Physics](#). This program aims at giving students holding a bachelor's degree in physics or other related fields an opportunity to continue their graduate studies in the field, thus enriching their knowledge and developing their scientific research abilities in the various fields of physics, in addition to improving and developing physics teaching in secondary schools. This program is distinguished by its in-depth coverage of all fields of theoretical physics.

Admission Requirements:

- Applicants must hold a bachelor's degree in physics from a university recognized by Birzeit University. Applicants with a bachelor's degree in a closely related field, such as electronic engineering, electrical engineering, or mathematics minors in physics, with a "Good" average or above may also be admitted to the program.
- Fulfilling the admission requirements mentioned in the Academic Regulations for the Master's Degree.
- A personal interview, if required by the Program Committee.

Program Requirements:

- The completion of all required remedial courses.

The completion of no less than (36) credit hours distributed as follows:

1. Compulsory Courses: (15) credit hours consisting of the following courses:

Course No.	Course Title	Prerequisite (s)
PHYS610	Research Methodology	
PHYS621	Mathematical Physics I	
PHYS632	Classical Mechanics	
PHYS633	Electromagnetic Theory I	
PHYS635	Quantum Mechanics	
PHYS636	Statistical Mechanics	

Note: All students are required to complete PHYS610 within the first (15) credits of their registration in the program.

2. Elective Courses: (15) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
PHYS730	Electromagnetic Theory II	PHYS633
PHYS731	Mathematical Physics II	PHYS621
PHYS732	Atomic and Molecular Physics	
PHYS733	Solid State Physics	
PHYS734	Nuclear and Particle Physics	
PHYS735	Quantum Field Theory	PHYS632, PHYS635
PHYS736	Special Topics	

Note: Students may substitute three of the above mentioned elective courses with three courses from other graduate programs (such as Mathematics and Scientific Computation) after the approval of the Program Council. In addition, and for graduation purposes, students can substitute one of the above mentioned courses with one fourth-year bachelor's level course provided they have not taken this course during their bachelor's degree studies, and after the approval of the Program Council.

3. Track “A” or Track “B”: (6) credit hours; Thesis or two Seminars

Track	Course No.	Course Title	Prerequisite(s)
Track A	PHYS860	Thesis	Complete no less than (12) credit hours from the program.
Track B	PHYS830, PHYS831	Two Seminars	

Note: Students may substitute one of the above mentioned seminar courses with one elective course from the program after the approval of the Program Council. This procedure is applicable to students admitted to the program starting in 2008/2009.

Physics Course Descriptions (PHYS)

PHYS610	Research Methodology
Principles of scientific research, literature searches, scientific writing, accuracy and scientific integrity.	
PHYS621	Mathematical Physics I
Vector and tensor analysis, diagonalization of matrices, functions of a complex variable, calculus of residues, Sturm-Liouville Theorem, gamma and beta functions.	
PHYS632	Classical Mechanics
Variational principle, Lagrangian mechanics, constraints, symmetry and conservation laws, non-potential forces, scattering, linear oscillations, Hamiltonian formulation, canonical transformations, Poisson brackets.	
PHYS633	Electromagnetic Theory I
Electrostatics, boundary value problems, multipole expansions, microscopic model of matter, magnetostatics.	
PHYS635	Quantum Mechanics
Mathematical formulation of quantum theory, simple harmonic oscillator, theory of angular momentum, the hydrogen atom, time-independent and time dependent perturbation theory, identical particles, scattering theory.	
PHYS636	Statistical Mechanics
Statistical basis of thermodynamics, micro-canonical, canonical and grand canonical ensembles. Classical statistical mechanics, quantum statistical mechanics, theory of the density matrix, fluctuations, noise, irreversible thermodynamics. Transport theory, application to gases, liquids and solids.	
PHYS730	Electromagnetic Theory II
Maxwell's equations, potentials and gauge transformations, electromagnetic waves, wave guides, electromagnetic radiation, relativistic electrodynamics. <i>Prerequisite: PHYS633</i>	
PHYS731	Mathematical Physics II
Partial differential equations, Green's function, Bessel functions, Legendre functions and the spherical harmonics, Hermite and Laguerre functions, Fourier series, group theory. <i>Prerequisite: PHYS621</i>	

PHYS732	Atomic and Molecular Physics
Atomic structure, Hartree-Fock approximation, Thomas-Fermi model, Stark and Zeeman effects, fine and hyperfine structures of atomic spectra, molecular structure and spectra, the interaction of atoms and radiation, first-order and higher-order radiation processes, laser theory, Bose-Einstein condensation.	
PHYS733	Solid State Physics
Structure of condensed matter and scattering of various particles, electronic band structure of solids, motion of band electrons in external fields, superconductivity, magnetism, dielectric properties of materials.	
PHYS734	Nuclear and Particle Physics
Nuclear stability and the structure of nuclei, the Shell model and nuclear excitations, the Parton Model and Feynman diagrams, cross-sections, high-energy scattering processes and particle production, elementary particles and the forces between them, Quarks and Leptons, weak, electromagnetic, and strong interactions, symmetries and different flavors, classification of particles, introduction to different experiments built to study particles and the techniques used.	
PHYS735	Quantum Field Theory
Classical fields, conservation laws, Lorentz and translation symmetry, Lagrangian and Hamiltonian formulations, field quantization, relativistic wave equations and their solutions, bosons and fermions, Dirac equation and fields, scalar, vector, tensor and spinor fields and their associated particles, applications of Quantum Electrodynamics (QED) and introduction to non-abelian gauge field theories. <i>Prerequisite: PHYS632 and PHYS635</i>	
PHYS736	Special Topics
In-depth study of a special topic related to physics.	
PHYS830	Seminar 1
Advanced study of a topic related to physics, as determined by the Program Council. Writing a research report and presenting it in class. This course is offered to track "B" students. <i>Prerequisite: completion of no less than 12 credit hours.</i>	
PHYS831	Seminar 2
Advanced study of a topic related to physics, as determined by the Program Council. Writing a research report and presenting it in class. This course is offered to track "B" students. <i>Prerequisite: completion of no less than 12 credit hours.</i>	

PHYS860 Thesis

Writing a thesis in the field of specialization according to the approved instructions for writing master's thesis.

Faculty of Business and Economics

The Faculty of Commerce and Economics (now the [Faculty of Business and Economics](#)) was established in the year 1978. Currently, the number of academic departments in the Faculty is four departments, offering the following programs:

- [Master Program of Accounting and Auditing](#)
- [Master Program in Economics](#)
- [Master Program in Business Administration](#)
- [Master Program in Executive Business Administration](#)
- [Master Program in Supply Chain Management](#)

Master in Accounting and Auditing

The [Accounting Department](#) offers an academic program that leads to a [master's degree in Accounting and Auditing](#). This program is designed to equip graduates with an in-depth knowledge, skills and competencies to be well-informed and experienced accounting and auditing professionals in an increasingly complex financial and regulatory environment. The program also seeks to provide graduates with opportunities to develop critical thinking, research, analytical ethical decision-making, communication, problem solving, and discipline-specific skills.

Admission Requirements:

1. Applicant must hold a bachelor's degree from a university recognized by Birzeit University in accounting or other related disciplines (management information systems, economics, finance and banking, business administration, public administration, actuarial sciences) with a minimum overall assessment of "Good."
2. Two confidential recommendation letters from faculty members familiar with the applicant's work, or from administrators familiar with the work of the applicant, or one from each.
3. Applicant should pass an acceptance exam and / or the interview conducted by the program committee.
4. Remedial courses may be required in certain cases.

Program Requirements:

2. Students should pass successfully remedial courses, if any, required by the program. Remedial course credits and grades are not included in the student's total hours or in the calculation of the cumulative average.
3. Students have to complete successfully 36 credit hours, as follows:
 - a) **Compulsory courses:** 21 credit hours as follows:

Course No	Course Title	Prerequisite(s)
ACCA6300	Accounting and Auditing Research Methodology	
ACCA6310	Advanced Managerial Accounting	

ACCA6320	Studies in International Financial Reporting Standards	
ACCA6330	Advanced Accounting Theory	
ACCA7300	Advanced Auditing and Assurance Services	
ACCA7310	Internal Auditing and Corporate Governance	
ACCA7320	Professional Ethics	

b) **Elective courses:** 9 credit hours as follows:

Course No	Course Title	Prerequisite(s)
ACCA6340	Advanced Accounting Information Systems	
ACCA6350	Tax Issues	
ACCA6360	Contemporary Issues in Accounting	
BUSA7308	Advanced Financial Management	
BUSA7309	Financial Statement Analysis	
ACCA7330	Fraud Examination	
BUSA732	Financial Institutions	
BUSA7330	Financial Markets	
BUSA636	Managerial Economics	
JURI7312	Banking and Securities Law	

c) 6 Credit Hours for thesis track or seminar track.

Track	Track Title	Track Number	Prerequisite(s)
Track A	Thesis	ACCA8600	Completion of 15 credit hours, including ACCA6300
Track B	Seminars	ACCA8300 ACCA8310	Completion of 12 credit hours, including ACCA6300

Accounting and Auditing Course Description (ACCA)

ACCA6300	Accounting and Auditing Research Methodology
Problem identification, research design, literature review and hypothesis development, data collection method, statistical models and analyses in accounting and auditing, findings presentation, ethical considerations in research.	
ACCA6310	Advanced Managerial Accounting
Types of cost-accounting systems, patterns of cost behaviour, budgeting and control, variance analysis, transfer pricing, capital budgeting and investment decision-making, inventory management, and strategic processes and balanced scorecards.	
ACCA6320	Studies in International Financial Reporting Standards
Conceptual framework for financial reporting, studies on the significance of international financial reporting standards, major issues such as fair value, property, plant and equipment, revaluation, intangibles, leases, revenue recognition, investment property.	
ACCA6330	Advanced Accounting Theory
Development of accounting theories, the utilization of accounting theories to understand reporting practices of reporting entities, understand thoroughly accounting conceptual framework and its importance, discussion of important issues such as measurement, determination of income, and ethics.	
ACCA6340	Advanced Accounting Information Systems
Developing, documenting, and monitoring the effectiveness of accounting information systems, design and implementation of system controls, contemporary technology and applications, internal control concepts and procedures, auditing of information systems, internets, and intranets.	
ACCA6350	Tax Issues
Types of taxes and tax systems, understanding and interpreting relevant tax laws and legislations and the applications of these laws, discussion of ethical issues pertinent to tax practices such as tax evasion and avoidance, taxation and corporate financial decision making, impact of international dimension on taxes.	
ACCA6360	Contemporary Issues in Accounting
Advanced accounting concepts and policies, business combinations, consolidated financial statements, measurement approaches, fair value accounting, corporate governance, social and environmental accounting, earnings management, financial indicators of corporate collapse.	
ACCA7300	Advanced Auditing and Assurance Services

International regulatory frameworks for audit and assurance services, audit quality control, audit planning and conducting an audit of financial information, fraud risk and evaluation of internal controls, audit sampling, audit procedures and tests, audit reporting and required communications, legal liabilities of auditor, other assurance and non-assurance services, current developments in auditing and assurance services.

ACCA7310 Internal Auditing and Corporate Governance

Overview of corporate governance, models and mechanisms of corporate governance, board of directors, audit committee, best practices of corporate governance, internal audit function in the governance process, internal audit role and objectives, internal audit approaches, planning internal audit work, risk management, control evaluation, testing, sampling and working papers, internal audit reporting process, quality control of internal audit.

ACCA7320 Professional Ethics

Overview of ethics in a accounting and auditing professions, divergent ethical systems, code of professional conduct in accounting and auditing, conceptual framework of professional ethics, threats and safeguards of professional ethics, ethical conflict of interests and professional ethics, principles of professional conduct, applications of professional ethics framework to specific situations.

ACCA7330 Fraud Examination

Presentation of fraud methods, principles and methodology of examining and detecting fraud and reducing the possibility of its occurrence, relationship between accounting principles and fraud, computer fraud, preventing fraud through an effective internal control system, recently issued laws and regulations in order to prevent fraud and how to deal with it, analysis of practical cases in fraud.

ACCA8300 Seminar 1

Collectively read, analyze and discuss a number of peer-reviewed and published journal articles about topics in the area of specialization. Each student is required to conduct individual research on a relevant topic. The course discusses the principles of scientific integrity and the ethics of scientific research.

Prerequisite: 12 credit hours including ACCA6300

ACCA8310 Seminar 2

Collectively read, analyze and discuss a number of peer-reviewed and published journal articles about topics in the area of specialization. Each student is required to conduct individual research that is either different from or complementary to what has been presented in Seminar I. The course discusses the principles of scientific integrity and ethics of scientific research.

Prerequisite: 12 credit hours including ACCA6300

ACCA8600 Thesis

Completion of scientific research in the concentration area in accordance with the approved thesis instructions.

Prerequisite: 15 credit hours including ACCA6300

Master Program in Economics

The [Department of Economics](#) offers an academic program that leads to a [master degree in Economics](#). In addition to the general [master degree in Economics](#), students can choose a Political Economy concentration.

This program aims at training qualified instructors and scientific researchers, in addition to professionals in economic management, needed by private and public organizations. Furthermore, it aims at encouraging scientific research in the different fields of economics through the courses and seminars offered in this program. Students will work on analyzing economic problems facing Palestinian society through conducting research on these issues.

Admission Requirements:

- Admission will be based on the applicant's academic performance in the bachelor's degree, either in Economics or in other fields approved by the Program Council.
- Applicants are required to complete the remedial courses determined by the program. Students are required to take the English language test specified by the program. According to the results of this test, the need to register for a remedial course in English language (ENG530) will be determined. Students are required to complete this course before the beginning of the third semester, according to the applied academic regulation related to remedial courses.

Program Requirements:

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (15) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
ECON6310	Microeconomic Theory	ECON6330
ECON6320	Macroeconomic Theory	
ECON6330	Mathematical Economics	
ECON6340	Econometrics	
ECON6350	Scientific Research Methodology	

Note: All students are required to complete ECON6350 within the first (15) hours of their registration in the program, taking into consideration the above mentioned point.

2. Elective Courses: (15) credit hours from the following or (15) credit hours from the Political Economy concentration:-

- General Track: (15) credit hours

Course No.	Course Title	Prerequisite (s)
ECON6311	Advanced Microeconomic Theory	ECON6310
ECON6321	Advanced Macroeconomic Theory	ECON6320
ECON6341	Advanced Econometrics	ECON6340
ECON6360	Agricultural Economics	
ECON6370	History of Economic Thought	
ECON6380	Special Topics	
ECON6390	The Analytical Palestinian Economy	
ECON7310	Public Finance	
ECON7320	Industrial Economics	
ECON7340	Labor Economics	
ECON7350	Economics development	
ECON7360	Agricultural Economics	
ECON7370	International Finance	
ECON7380	Monetary Theory	ECON6320
ECON7390	Political Economy	

- Political Economy concentration: (15) credit hours

Course No.	Course Title	Prerequisite (s)
ECON6372	Political Economy of Growth and Development	
ECON6392	Political Economy of Palestine	
ECON7310	Public Finance	
ECON7331	Comparative Political Economy	
ECON7340	Labor Economics	
ECON7360	International Trade	
ECON7362	Political Economy of Oil and Energy	
ECON7392	Political Economy of Institutions	

Beginning in 2009/2010, BUSA636 will not be counted towards fulfillment of program requirements. Students may substitute two of the above mentioned elective courses with two courses from another graduate program, after the approval of the Department or Program Council, taking into consideration the above mentioned point regarding BUSA636.

3. Track A / Track B: (6) credit hours; either as thesis writing (Track A) or the two following seminars:

Track	Course Title	Course No.	Prerequisite(s)
Track A	Thesis	ECON8600	ECON6350 Complete no less than (15) credit hours from the program
Track B	Seminar in Microeconomics	ECON8300	ECON6310, ECON6340
	Seminar in Macroeconomics	ECON8310	ECON6320 or, ECON6340

Economics Course Description (ECON)

ECON6310 Microeconomic Theory
Consumer preferences and utility, utility maximization and constraints, demand relationships and their elasticities, game theory, production and costs, market structure (competitive and non-competitive).
<i>Prerequisite: ECON6330</i>
ECON6311 Advanced Microeconomic Theory
Uncertainty (in consumption and production), resource markets (labor and capital), asymmetric information, externalities and public goods, general equilibrium theory.
<i>Prerequisite: ECON6310</i>
ECON6320 Macroeconomic Theory
Theories of national output determination; employment, and inflation, aggregate supply and aggregate demand and inflation, analysis of policies (fiscal and monetary) for stabilization and growth in the closed and open economy.
ECON6321 Advanced Macroeconomic Theory
Theories of consumption, investment, inflation unemployment, growth demand for money and supply for money, the overlapping generations model, money, economic fluctuations, goods, labor and credit markets. Monetary and fiscal policies and financial crisis.
<i>Prerequisite: ECON6320</i>
ECON6330 Mathematical Economics
Functions and economic models, linear algebra, integral and differential calculus, optimization (unconstrained and constrained with equality and inequality), comparative statics, economic dynamics, difference equations and mathematical programming
ECON6340 Econometrics
Simple regression, multiple regression, dummy variables, forecasting and model selection, multicollinearity, heteroscedasticity, autocorrelation.
ECON6341 Advanced Econometrics
Panel data models, simultaneous equations, limited dependent variable models (Logit, Probit, Tobit models), Introduction to time series analysis.
<i>Prerequisite: ECON6340</i>
ECON6350 Scientific Research Methodology
Scientific Methodology in economic research, problem statement construction, literature review and survey, theoretical framework, hypothesis testing, data gathering and testing, referencing and quotation, proposal and full research writing, database and statistical packages.

ECON6360 Agricultural Economics
The nature and characteristics of agriculture, the agricultural sector in Palestine and its contribution to production and employment, the demand for agricultural products, the economics of agricultural production, the cost of agricultural production, the concept of food security, and the role of agriculture in economic development.
ECON6370 History of Economic Thought
A review and analysis of the developments of economic theories, a survey of the important schools of thought: The mercantilists, physiocrats, classical economists, Marxism, utilitarianism, new-classicals, institutionalism, Keynesianism and new-Keynesianism.
ECON6372 Political Economy Of Growth And Development
The political economy of the South; capitalism across time and space; financial globalization and changes in the economic systems; global commodity chains, labor and FDI; international trade agreements; foreign aid and structural adjustment policies.
ECON6380 Special Topics
A deep study on chosen economic subjects.
ECON6390 The Analytical Palestinian Economy
The roots of the Palestinian economy (British Mandate, Jordanian & Egyptian Era, Israeli occupation), natural resources, human resources, national income accounts, major economic sectors, public finance, foreign economic relations, prospects and requirements of development in Palestine.
ECON6392 Political Economy of Palestine
Public goods' theory, public budget of the state, public expenditure, public revenues, tax system, tax policies, tax influence on productivity and efficiency.
ECON7310 Public Finance
Public goods' theory, public budget of the state, public expenditure, public revenues, tax system, tax policies, tax influence on productivity and efficiency.
ECON7320 Industrial Economics
The structure-behavior-performance model, volumes distributions, the market structure limitations, vertical and horizontal integration, obstacles to entry, industrial concentration, Merger, Product discrimination, Research and development, Price discrimination, Strategic behavior, non-price competition and information publicity, economical laws.
ECON7331 Comparative Political Economy
Interest-based analysis; institutional analysis; ideational analysis; industrial relations, labor unions and preferences for public policy; the politics of regulation; liberal capitalism and the role of the state; political economy of immigration; political economy of social policy and welfare states.

ECON7340 Labor Economics
Labor force, labor market, wages and incomes, the nature and causes of unemployment, labor relations, Trade union organization and its effects, collective negotiations, Government controls for trade union work, Human Capital, exodus of brains.
ECON7350 Economics development
The development concept, The development theories, Economic development strategies, development models in some of Third World countries, developmental institutions, The role of different economic sectors in development, External trade role, direct foreign investments role, indebtedness, income distribution, technological changes.
ECON7360 International Trade
International trade bases, The classical relative advantage theory, Hecksher ohlen' Theory, contemporary theory, contemporary theories, International trade theories examination, The international trade effect on welfare, international trade and economic growth, forms of economic integration, international economic blocs, applications on the Arabic World, International Trade Organization.
ECON7362 Political Economy of Oil and Energy
The determinants of oil and gas policies in developing countries; oil dependence and development; oil wealth and authoritarianism; property rights and institutions; institutions and wealth distribution.
ECON7370 International Finance
International monetary system, Foreign exchange markets, options markets, The relationship between prices levels, exchange rates and balance of payments.
ECON7380 Monetary Theory
Money market: the money supply and the theories of demand; bond market: supply and demand, bond prices and interest rates; tools of monetary policy; classical theory, new-classical, and Keynesian; aggregate supply and aggregate demand: the mutual relations between the interest rate and the level of prices and stock prices. <i>Prerequisite: ECON6320</i>
ECON7390 Political Economy
Governance structure, legislative process, the behavior of interest groups, government legislation and the incentive structure of the legislators, the differential impact of legislation on various classes
ECON7392 Political Economy of Institutions
The relationship between institutions and development; institutions versus geography; colonialism and post-colonial development; the market as an institution; inequality; violence, conflict and development; capital, labor and the nation state; labor market institutions under settler colonialism and slavery; political regimes, social classes and development; good governance and institutional reforms; Washington Consensus and the role of New Institutional Economics; Society and markets under neoliberalism.

ECON8300 Seminar in Microeconomics
Writing research proposal in the field of microeconomics and implementing the study based on it; identify the problem of the study, its objectives, importance, and methodology, data sources: primary and secondary data; data presentation: table and graphics; data analysis, interpretation of results; and suggesting recommendations. <i>Prerequisite: ECON63 10 and ECON63 40</i>
ECON8310 Seminar in Macroeconomics
Writing research proposal in the field of macroeconomics and implementing the study based on it; identify the problem of the study, its objectives, importance, and methodology, data sources: primary and secondary data; data presentation: table and graphics; data analysis, interpreting results; and suggesting recommendations. <i>Prerequisite: ECON63 20 and ECON63 40</i>
ECON8600 Thesis
"Obligatory for students of path A". The students choose the subject of his/her thesis by consulting the advisor. <i>Prerequisite: ECON6350, Finished hours 15</i>

Master Program in Business Administration

This program consists of 36 credit hours some of them are Compulsory and others are elective. In addition to the general [master program in business administration](#), students can choose one of three concentration areas including “Entrepreneurship and Innovation”, “Finance and Banking” and “Accounting”. The master program in business administration student has two alternatives to follow either submit a thesis or conduct two seminars in the area of concentration for those who choose one of the two available tracks as shown below. Courses of this program provide the student with the appropriate theoretical and applicable knowledge in addition to the skills and information considered necessary to fulfill managerial and leadership positions in local and regional organizations at both private and public sectors. Moreover courses concentrate on studying and analyzing related virtual cases and aim to provide students with understanding to the surrounding and global business environment, and encourage them to innovate and establish small businesses and think in an analytical, profound, and strategic approaches when making decisions.

Admission Requirements:

- Based on undergraduate performance, work experience and passing the stated GMAT score or other equivalent measures stated and conducted by the master program in business administration.
- Students whose background other than commerce or economics should finish 4 credit hours course **BUSA540**. However, these 4 hours are not counted from the total 36 credit hours, and must be completed before starting graduate courses.

Program Requirements:

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (21) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
BUSA631	Managerial Accounting	
BUSA632	Financial Management	
BUSA633	Marketing Management	
BUSA635	Strategic Management	BUSA633 and either BUSA631 or BUSA632
BUSA636	Managerial Economics	
BUSA637	Statistics and Research Methodology	
BUSA639	Operations Management	

Notes:

1. BUSA637 is equivalent to ECON635
 2. BUSA637 should be completed within the first 15 credit hours
 3. BUSA635 should be taken during the last year before graduation
2. Electives Courses: 9 credit hours out of all program courses for those participating in the general program, and 9 credit hours should be in the area of concentration for those who choose to concentrate.
 - The general MBA students may take 6 credit hours, (two courses) as a maximum from other master programs Birzeit University upon receiving MBA program permission.

Concentration Areas:**▪ Entrepreneurship and Innovation concentration:**

Two Compulsory courses (6) credit hours including:

Course No.	Course Title	Prerequisite (s)
BUSA7393	Entrepreneurship and New Venture Establishment	
BUSA7394	Innovation Management	

One of the following courses (3) credit hour:

Course No.	Course Title	Prerequisite (s)
BUSA7397	Managing Family Business	
BUSA7398	Entrepreneurial Finance	
BUSA7399	Corporate Entrepreneurship	

▪ Finance and Banking concentration:

Two Compulsory courses (6) credit hours including:

Course No.	Course Title	Prerequisite (s)
BUSA733	Financial Markets	
BUSA7309	Financial Statements Analysis	

One of the following courses (3) credit hour:

Course No.	Course Title	Prerequisite (s)
BUSA732	Financial Institutions	
BUSA7307	Commercial Bank Management	
BUSA7308	Advanced Financial Management	
BUSA7316	Portfolio Management	
BUSA7333	International Financial Management	

▪ **Accounting concentration**

Two Compulsory courses (6) credit hours including:

Course No.	Course Title	Prerequisite (s)
BUSA731	Financial Accounting	
BUSA7312	Accounting Theory	

One of the following courses (3) credit hour:

Course No.	Course Title	Prerequisite (s)
BUSA7309	Financial Statement Analysis	
BUSA7313	Auditing	BUSA731
BUSA7314	Fraud Examination	BUSA7313
BUSA7315	Tax Issues	BUSA731

3. Track A / Track B: (6) credit hours; either as thesis writing (Track A) or the two following seminars, both A and B should be in the area of concentration in case students like to concentrate.

Track	Course No.	Course Title	Prerequisite(s)
Track A	Thesis	BUSA860	12 credit hours including BUSA637 Research Methodology
Track B	Seminars	BUSA830	
		BUSA831	

Business Administration Course Descriptions (BUSA)

BUSA540	Introduction to Administrative and Financial Sciences
Concepts of business administration, types of businesses, interaction with the surrounding environment, organizations structure, human resource management, employees' behavior, incentives system, and entrepreneurship, accounting formulas and equations, types of interest rates, risk and return, accrual vs. cash basis, preparation and use of financial statements, time value of money, financial planning.	
BUSA631	Managerial Accounting
Cost behavior, profit and cost analysis, management planning and controlling, using accounting tools for making short-term decisions, estimating and actuating budgets, and capital budgeting.	
BUSA632	Financial Management
Managing current assets and current liabilities, cost of capital, investment budgets and projects evaluation, capital frame theory, long-term and short-term financing decisions, profits allocation policies, financing alternatives.	
BUSA633	Marketing Management:
Environmental and market analysis, management of marketing transactions, marketing mix factors, (goods, pricing, distribution routes, advertisement and announcements), planning and designing marketing strategies, and marketing applications.	
BUSA634	Organization Behavior:
Organizing behavior of individuals, groups and organizations, leadership and group installment, manager's role, organization skills, motives, values, performance, modifications, transactions and reframing organizational structure and conflict management.	
BUSA635	Strategic Management:
Analysis of the internal environment of the organization, analysis of the external environment surrounding the organization (opportunities and threats), Firms strategies, the strategic prospective of the organization frame, strategic censorship, strategic behavior, strategic management in not for profit organizations, case studies.	
<i>Prerequisite: two courses BUSA633 and either BUSA631 or BUSA632</i>	
BUSA636	Management Economics
Demand estimation and analysis, forecasting, production, cost estimation and analysis, market frame (perfect competition, monopoly, monopolistic competition, and oligopoly), pricing policies, government's role in the market, making decisions under uncertain conditions, capital budgets.	
BUSA637	Statistics and Research Methodology
Scientific research tools, data gathering and analysis, results interpretation, virtual applications.	

BUSA638	Human Resource Management
The outgrowth of the human resource management concept, responsibilities of human resource management, labor relationships, task analysis, human resource planning, recruitment and selection, nomination, training, developing skills and abilities, performance evaluation, the relationship between human resources and labor unions, job tasks relationships, case studies.	
BUSA639	Operations Management
Production and its relationships with the other jobs in the firm, applying quantitative and statistical techniques for planning, censorship and decision making, economics of the factory location, materials management, quality censorship.	
BUSA730	E- Business
Introduction to E-business, business transactions and commercial trades through the internet, the relationship between firms, and planning the firm's resources. It also include managing public relations with customers, sales phases management.	
BUSA7301	Leadership
Various theories and styles of leadership, the concept of leadership, the general principles of leadership and contingency leadership approaches and processes, different situations of leadership and characteristics of the leader, motivating and guiding the team. The difference between successful and unsuccessful leadership, transactional and transformational leadership, building trust.	
BUSA7302	Ethical and Legal Aspects in Business
The impact of the legal system on business. The legal framework for companies, alternatives to resolve conflicts between companies, the laws of human resources management including appointment and termination of service and performance measurement, contracts, legal responsibility of the product, licensing, environmental laws, patent and invention laws, the laws of equality and non-discrimination, ethical decisions in management and social responsibility.	
BUSA7307	Commercial Bank Management
An overview of the banking sector, the role of commercial banks in finance and banking, services offered, organizational structure, monitoring and organizing banks activities, introduction to banks financial statements, evaluation of outcomes, portfolio management, capital adequacy, liquidation and lending.	
BUSA7308	Advanced Financial Management
Applying the financial theories by comparing risk assessment to return on investment, the impact of various financial decisions, dividend policies, assets value, corporate debts, financing methods, profit distribution relationship to corporate market value, merger and acquisition.	
BUSA7309	Financial Statement Analysis
Analysis of financial statements and its various items and its role in showing the company's performance to investors, analysts, and creditors, predicting the financial future of the company and future strategies. Interpretation of financial statements, identifying criteria for measuring the financial performance of companies, the various financial statements, assessment of the efficiency of project management and its short-term and long-term financial position.	

BUSA731 Financial Accounting
Financial statements and reports, accounting cycles, revenues, cost of goods sold and remaining inventory, long term assets, liabilities and owners' equity, income statement, cash flow statement, financial statements' analysis.
BUSA7312 Accounting Theory
The emergence and development of accounting, theoretical aspects of the principles and concepts of accounting procedures, questions raised about the theoretical aspects of accounting applications, definition of accounting theories, accounting concepts and principles that form the theoretical framework of accounting, financial statements' objectives and preparation, income concepts and its measurement, revenue and expenses, profits and losses, research in the nature of accounting problems associated with elements of the balance sheet.
BUSA7313 Auditing
Basic concepts and principles of auditing financial statements, auditing standards, independent auditor's reports, ethical and legal rules of the auditing profession, basis of the independent auditor's work and procedures, responsibilities of the auditor, assessing the internal control system, types of samples used and their characteristics, the use of computers in the auditing process, analysis of practical cases in auditing. <i>Prerequisite: BUSA731</i>
BUSA7314 Fraud Examination
Presentation of fraud methods, principles and methodology of examining and detecting fraud and reducing the possibility of its occurrence, relationship between accounting principles and fraud, computer fraud, preventing fraud through an effective internal control system, recently issued laws and regulations in order to prevent fraud and how to deal with it, analysis of practical cases in fraud. <i>Prerequisite: BUSA7313</i>
BUSA7315 Tax Issues
Presentation of the basis of taxation, direct and indirect taxes and its types, tax laws in force, presentation and analysis of tax issues related to taxes on individuals and various companies, analysis of practical cases in taxation. <i>Prerequisite: BUSA731</i>
BUSA7316 Portfolio Management
Portfolio management theory, concepts, building and managing an optimal investment portfolio, investment environment, assessing investment tools, risk analysis, global and regional financial markets, international portfolio, market efficiency theory.
BUSA732 Financial Institutions
The economic role of the financial system, bank sector, pension funds, banks' services, mutual funds, brokerage firms, leasing corporations, and local, regional and world financial institutions.

BUSA733	Financial Markets
The role of money and capital markets in financing the private and public sectors, local, regional and international financial markets, principles of dealing with the stock market, investment data, indicator measures of the local and international markets, the goodness of capital markets, returns and bonds' prices, interest rates, liabilities funding, and international bonds .	
BUSA7330	Financial Markets
The role of money and capital markets in financing the private and public sectors, local, regional and international financial markets, principles of dealing with the stock market, investment data, indicator measures of the local and international markets, the goodness of capital markets, returns and bonds' prices, interest rates, liabilities funding, and international bonds .	
BUSA7333	International Financial Management
Financial management of multinational corporations, policies, and approaches. Foreign exchange markets, international financing theories, risk management of foreign investment, direct and indirect foreign investment, derivative risk management, investment decisions in international financial markets, analysis of foreign financing sources.	
BUSA734	International Marketing
Analytical tools for markets evaluation, strategies for entering international markets, new markets penetration, special topics related to marketing mix in world markets, distribution partners, policies related to goods, international pricing, executing international marketing program.	
BUSA735	Organization Theory
The outgrowth of organization theory, organization frames, organization quality, environmental influences in an organization.	
BUSA736	Public Administrations
The outgrowth of public administration, management tools in the public sector, the managers' role in public institutions, identifying the ethical values, standards, managerial responsibilities and public interest, political and legal environment, managerial tasks and organization frames in public institutions.	
BUSA737	Management Information Systems
The frame of management information systems, developing MIS, files manipulation, perfect data base, data communication, and taking decision using computers.	
BUSA738	International Businesses
Analyzing and making decisions related to international business, evaluating the chances of entering money markets, environmental and organizational factors that influence the business of multinational corporations (political, cultural, legal and economical environment), the role of government and international commerce unions in trading transactions, international strategies, and international task management (marketing, production, accounting , financing, human resource).	
BUSA739	Special Topics

Profound studies of special topics related to management selected by the programs' board according to students' needs and available capacities.

BUSA7393 Entrepreneurship and New Venture Establishment

Opportunity recognition, find and analyze the feasibility of a specific project idea, convert the idea into a commodity or service, marketing, elements of developing and preparing a business plan for new projects. Planning processes from the viewpoint of the entrepreneur and the investor. Market research and financial analysis, finding capital, organizational structure, operational processes and preparation of human resources and other resources needed for the project. Identify the challenges faced by the entrepreneur.

BUSA7394 Innovation Management

Understand the definitions and concepts of innovation, invention and research and development, main models of innovation, the use and application strategies, techniques and tools for innovation management, relevant skills to manage innovation at both strategic and operational levels. Examples and experiences of leading organizations.

BUSA7395 Project Management

Introducing project management from the standpoint of a manager, organizing, planning, implementing, and controlling tasks to achieve organization's performance objectives. Emphasizing tools and concepts such as project charter, scope statement, work breakdown structure, cost estimation, scheduling, quality management, risk management, monitoring and evaluation, procurement management, and sustainability. Using Microsoft Project software to manage a project from start to deployment.

BUSA7397 Managing Family Business

Family owned and operated business, personal and interpersonal work-related issues, the competitive strengths and weaknesses in a family firm, dynamics of family interactions, family business culture, conflictive resolution, estate planning, planning for succession and continuity.

BUSA7398 Entrepreneurial Finance

Analyzing the financial needs of new ventures, including working capital management and capital budgeting, risk analysis, sources of financing, valuation, and exit strategies.

BUSA7399 Corporate Entrepreneurship

Alternative approaches that existing firms use to innovatively generate new products, new services, new businesses and new business models. Evaluate innovations and business models for development in a corporate setting. Various kinds of internal corporate ventures and multiple external collaborative approaches that include corporate venture capital investments, licensing and different types of alliances and formal joint ventures. Skills needed to promote and manage corporate entrepreneurship, including opportunity recognition, selling an idea, turning ideas into action, developing metrics for venture success and strategies for aligning corporate entrepreneurial projects with company strategies and growth opportunities.

BUSA830 Seminar

Collectively read, analyze and discuss a number of papers published in peer reviewed journals about advanced and selected topics in the overall program or the area of concentration determined by the program and the seminar professor. Each student is required to conduct an advanced research of a selected topic in

the general program or depending on the specialization of the student from within the courses offered by the program and based on the different orientations of students. Students need to write an in-depth research report and present results in class. The course includes discussion of the principles of scientific integrity and ethics of scientific research.

Prerequisites: 12 credit hours including BUSA637 Research Methodology

BUSA831 Seminar

Collectively read, analyze and discuss a number of papers published in peer reviewed journals about advanced and selected topics in the overall program or the area of concentration determined by the program and the seminar professor. Each student is required to conduct an advanced research that can be different from or complement what has been selected in BUSA 830. The selected topic could be from the general program or depending on the specialization of the student from within the courses offered by the program and based on the different orientations of students. Students need to write an in-depth research report and present results in class. The course includes discussion of the principles of scientific integrity and ethics of scientific research.

Prerequisites: 12 credit hours including BUSA637 Research Methodology

BUSA860 Thesis

Completion of a scientific research in the concentration area in accordance with the approved thesis instructions.

Prerequisites: 12 credit hours including BUSA637 Research Methodology

Master Program in Executive Masters of Business Administration

Why The BZU EMBA?

In today's fast paced world, business knowledge and innovation are dynamic requiring constant vigilance with recent shifts in fields related to business and management. In the Palestinian context, where a variety of challenges contribute to continuous change in the business environment, rethinking the traditional role of university education becomes paramount to adding value to the Palestinian economy, and society at large.

The [Faculty of Business and Economics](#) proudly presents its newly established [Executive Master's in Business Administration \(EMBA\) program](#). The program is tailored for professionals with extensive executive experience in the Palestinian marketplace with the purpose of enhancing their collective business acumen through a series of specialized courses to meet their ever changing needs.

For those professionals that aspire to further their knowledge, skills, networks, and competencies, the EMBA program represents an excellent opportunity to learn and develop in a manner that doesn't disrupt your professional or personal life. The program is designed to be completed over a period of 24 months utilizing a modular-based method that allows all participants to achieve a good balance between coursework and class times.

Program Design:

The two-year part time EMBA is designed to stimulate creative management thinking and to meet the needs of candidates. The modules are offered every other month, extending between 10 to 15 days. In the interest of being more efficient while taking into consideration the busy nature of the Palestinian professional's lifestyle, the modules will be offered in late afternoon/evening sessions. Candidates will be exposed to a versatile setting that prepares them to effectively operate in the global business environment. The learning approach for the modules will consist of case study analysis, simulations, and critical thinking as well as problem solving to emphasize the role of active participation by the candidates. In most modules, the content and deliverables will require both individual and team-based efforts. A well-diversified pool of distinguished international and local professors will be administering the modules to the candidates.

Requirements:

The main prerequisite for admission to the BZU EMBA Program is a solid academic background, a proven career track record and a desire for self-development. To meet the criteria for admission, applicants must possess:

- No less than a Bachelor's degree from a recognized university.
- Proficiency in the English language.
- A minimum of seven years' experience in an executive/managerial position.

Program Requirements:**Fulfillment of at least (36) credit hours distributed as follows:**

1. Compulsory Courses: (21) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
EMBA631	Managerial Accounting	
EMBA632	Financial Management	
EMBA633	Marketing Management	
EMBA635	Strategic Management	EMBA633 and either EMBA631 or EMBA632
EMBA636	Managerial Economics	
EMBA637	Statistics and Research Methodology	
EMBA830 or EMBA831	Seminar	12 credit hours including EMBA637 Research Methodology

2. Elective Courses: (15) credit hours from the following

Course No.	Course Title	Prerequisite (s)
EMBA634	Organization Behavior	
EMBA638	Human Resource Management	
EMBA639	Operations Management	
EMBA730	E- Business	
EMBA7301	Leadership	
EMBA7302	Ethical and Legal Aspects in Business	
EMBA7307	Commercial Bank Management	
EMBA7308	Advanced Financial Management	
EMBA7309	Financial Statement Analysis	
EMBA731	Financial Accounting	
EMBA7312	Accounting Theory	
EMBA7313	Auditing	EMBA731
EMBA7314	Fraud Examination	EMBA7313
EMBA7315	Tax Issues	EMBA731
EMBA7316	Portfolio Management	
EMBA732	Financial Institutions	
EMBA733	Financial Markets	
EMBA7333	International Financial Management	
EMBA734	International Marketing	
EMBA735	Organization Theory	
EMBA736	Public Administrations	
EMBA737	Management Information Systems	
EMBA738	International Businesses	
EMBA739	Special Topics	
EMBA7393	Entrepreneurship and New Venture Establishment	
EMBA7394	Innovation Management	
EMBA7395	Project Management	
EMBA7397	Managing Family Business	
EMBA7398	Entrepreneurial Finance	

EMBA7399	Corporate Entrepreneurship	
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Executive Masters of Business Administration Course Descriptions: (EMBA)

EMBA631 Managerial Accounting
Cost behavior, profit and cost analysis, management planning and controlling, using accounting tools for making short-term decisions, estimating and actuating budgets, and capital budgeting.
EMBA632 Financial Management
Managing current assets and current liabilities, cost of capital, investment budgets and projects evaluation, capital frame theory, long-term and short-term financing decisions, profits allocation policies, financing alternatives.
EMBA633 Marketing Management
Environmental and market analysis, management of marketing transactions, marketing mix factors, (goods, pricing, distribution routes, advertisement and announcements), planning and designing marketing strategies, and marketing applications.
EMBA634 Organization Behavior
Organizing behavior of individuals, groups and organizations, leadership and group installment, manger's role, organization skills, motives, values, performance, modifications, transactions and reframing organizational structure and conflict management.
EMBA635 Strategic Management
Analysis of the internal environment of the organization, analysis of the external environment surrounding the organization (opportunities and threats), Firms strategies, the strategic prospective of the organization frame, strategic censorship, strategic behavior, strategic management in not for profit organizations, case studies. <i>Prerequisite: two courses EMBA633 and either EMBA631 or EMBA632</i>
EMBA636 Management Economics
Demand estimation and analysis, forecasting, production, cost estimation and analysis, market frame (perfect competition, monopoly, monopolistic competition, and oligopoly), pricing policies, government's role in the market, making decisions under uncertain conditions, capital budgets.
EMBA637 Statistics and Research Methodology
Scientific research tools, data gathering and analysis, results interpretation, virtual applications.
EMBA638 Human Resource Management
The outgrowth of the human resource management concept, responsibilities of human resource management, labor relationships, task analysis, human resource planning, recruitment and selection, nomination, training, developing skills and abilities, performance evaluation, the relationship between human resources and labor unions, job tasks relationships, case studies.

EMBA639 Operations Management

Production and its relationships with the other jobs in the firm, applying quantitative and statistical techniques for planning, censorship and decision making, economics of the factory location, materials management, quality censorship.

EMBA730 E- Business

Introduction to E-business, business transactions and commercial trades through the internet, the relationship between firms, and planning the firm's resources. It also include managing public relations with customers, sales phases management.

EMBA7301 Leadership

Various theories and styles of leadership, the concept of leadership, the general principles of leadership and contingency leadership approaches and processes, different situations of leadership and characteristics of the leader, motivating and guiding the team. The difference between successful and unsuccessful leadership, transactional and transformational leadership, building trust.

EMBA7302 Ethical and Legal Aspects in Business

The impact of the legal system on business. The legal framework for companies, alternatives to resolve conflicts between companies, the laws of human resources management including appointment and termination of service and performance measurement, contracts, legal responsibility of the product, licensing, environmental laws, patent and invention laws, the laws of equality and non-discrimination, ethical decisions in management and social responsibility.

EMBA7307 Commercial Bank Management

An overview of the banking sector, the role of commercial banks in finance and banking, services offered, organizational structure, monitoring and organizing banks activities, introduction to banks financial statements, evaluation of outcomes, portfolio management, capital adequacy, liquidation and lending.

EMBA7308 Advanced Financial Management

Applying the financial theories by comparing risk assessment to return on investment, the impact of various financial decisions, dividend policies, assets value, corporate debts, financing methods, profit distribution relationship to corporate market value, merger and acquisition.

EMBA7309 Financial Statement Analysis

Analysis of financial statements and its various items and its role in showing the company's performance to investors, analysts, and creditors, predicting the financial future of the company and future strategies. Interpretation of financial statements, identifying criteria for measuring the financial performance of companies, the various financial statements, assessment of the efficiency of project management and its short-term and long-term financial position.

EMBA731 Financial Accounting

Financial statements and reports, accounting cycles, revenues, cost of goods sold and remaining inventory, long term assets, liabilities and owners equity, income statement, cash flow statement, financial statements' analysis.

EMBA7312 Accounting Theory

The emergence and development of accounting, theoretical aspects of the principles and concepts of accounting procedures, questions raised about the theoretical aspects of accounting applications, definition of accounting theories, accounting concepts and principles that form the theoretical framework of accounting, financial statements' objectives and preparation, income concepts and its measurement, revenue and expenses, profits and losses, research in the nature of accounting problems associated with elements of the balance sheet.

EMBA7313 Auditing

Basic concepts and principles of auditing financial statements, auditing standards, independent auditor's reports, ethical and legal rules of the auditing profession, basis of the independent auditor's work and procedures, responsibilities of the auditor, assessing the internal control system, types of samples used and their characteristics, the use of computers in the auditing process, analysis of practical cases in auditing.

Prerequisite: EMBA731

EMBA7314 Fraud Examination

Presentation of fraud methods, principles and methodology of examining and detecting fraud and reducing the possibility of its occurrence, relationship between accounting principles and fraud, computer fraud, preventing fraud through an effective internal control system, recently issued laws and regulations in order to prevent fraud and how to deal with it, analysis of practical cases in fraud.

Prerequisite: EMBA7313

EMBA7315 Tax Issues

Presentation of the basis of taxation, direct and indirect taxes and its types, tax laws in force, presentation and analysis of tax issues related to taxes on individuals and various companies, analysis of practical cases in taxation.

Prerequisite: EMBA731

EMBA7316 Portfolio Management

Portfolio management theory, concepts, building and managing an optimal investment portfolio, investment environment, assessing investment tools, risk analysis, global and regional financial markets, international portfolio, market efficiency theory.

EMBA732 Financial Institutions

The economic role of the financial system, bank sector, pension funds, banks' services, mutual funds, brokerage firms, leasing corporations, and local, regional and world financial institutions.

EMBA733 Financial Markets

The role of money and capital markets in financing the private and public sectors, local, regional and international financial markets, principles of dealing with the stock market, investment data, indicator measures of the local and international markets, the goodness of capital markets, returns and bonds' prices, interest rates, liabilities funding, and international bonds .

EMBA7333 International Financial Management
Financial management of multinational corporations, policies, and approaches. Foreign exchange markets, international financing theories, risk management of foreign investment, direct and indirect foreign investment, derivative risk management, investment decisions in international financial markets, analysis of foreign financing sources.
EMBA734 International Marketing
Analytical tools for markets evaluation, strategies for entering international markets, new markets penetration, special topics related to marketing mix in world markets, distribution partners, policies related to goods, international pricing, executing international marketing program.
EMBA735 Organization Theory
The outgrowth of organization theory, organization frames, organization quality, environmental influences in an organization.
EMBA736 Public Administrations
The outgrowth of public administration, management tools in the public sector, the managers' role in public institutions, identifying the ethical values, standards, managerial responsibilities and public interest, political and legal environment, managerial tasks and organization frames in public institutions.
EMBA737 Management Information Systems
The frame of management information systems, developing MIS, files manipulation, perfect data base, data communication, and taking decision using computers.
EMBA738 International Businesses
Analyzing and making decisions related to international business, evaluating the chances of entering money markets, environmental and organizational factors that influence the business of multinational corporations (political, cultural, legal and economical environment), the role of government and international commerce unions in trading transactions, international strategies, and international task management (marketing, production, accounting , financing, human resource).
EMBA739 Special Topics
Profound studies of special topics related to management selected by the programs' board according to students' needs and available capacities.
EMBA7393 Entrepreneurship and New Venture Establishment
Opportunity recognition, find and analyze the feasibility of a specific project idea, convert the idea into a commodity or service, marketing, elements of developing and preparing a business plan for new projects. Planning processes from the viewpoint of the entrepreneur and the investor. Market research and financial analysis, finding capital, organizational structure, operational processes and preparation of human resources and other resources needed for the project. Identify the challenges faced by the entrepreneur.

EMBA7394 Innovation Management

Understand the definitions and concepts of innovation, invention and research and development, main models of innovation, the use and application strategies, techniques and tools for innovation management, relevant skills to manage innovation at both strategic and operational levels. Examples and experiences of leading organizations.

EMBA7395 Project Management

Introducing project management from the standpoint of a manager, organizing, planning, implementing, and controlling tasks to achieve organization's performance objectives. Emphasizing tools and concepts such as project charter, scope statement, work breakdown structure, cost estimation, scheduling, quality management, risk management, monitoring and evaluation, procurement management, and sustainability. Using Microsoft Project software to manage a project from start to deployment.

EMBA7397 Managing Family Business

Family owned and operated business, personal and interpersonal work-related issues, the competitive strengths and weaknesses in a family firm, dynamics of family interactions, family business culture, conflictive resolution, estate planning, planning for succession and continuity.

EMBA7398 Entrepreneurial Finance

Analyzing the financial needs of new ventures, including working capital management and capital budgeting, risk analysis, sources of financing, valuation, and exit strategies.

EMBA7399 Corporate Entrepreneurship

Alternative approaches that existing firms use to innovatively generate new products, new services, new businesses and new business models. Evaluate innovations and business models for development in a corporate setting. Various kinds of internal corporate ventures and multiple external collaborative approaches that include corporate venture capital investments, licensing and different types of alliances and formal joint ventures. Skills needed to promote and manage corporate entrepreneurship, including opportunity recognition, selling an idea, turning ideas into action, developing metrics for venture success and strategies for aligning corporate entrepreneurial projects with company strategies and growth opportunities.

EMBA830 Seminar

Collectively read, analyze and discuss a number of papers published in peer reviewed journals about advanced and selected topics in the overall program or the area of concentration determined by the program and the seminar professor. Each student is required to conduct an advanced research of a selected topic in the general program or depending on the specialization of the student from within the courses offered by the program and based on the different orientations of students. Students need to write an in-depth research report and present results in class. The course includes discussion of the principles of scientific integrity and ethics of scientific research.

Prerequisite: 12 credit hours including EMBA637 Research Methodology

EMBA831 Seminar

Collectively read, analyze and discuss a number of papers published in peer reviewed journals about advanced and selected topics in the overall program or the area of concentration determined by the program and the seminar professor. Each student is required to conduct an advanced research that can be different from or complement what has been selected in EMBA830. The selected topic could be from the general program or depending on the specialization of the student from within the courses offered by the program and based on the different orientations of students. Students need to write an in-depth research report and present results in class. The course includes discussion of the principles of scientific integrity and ethics of scientific research.

Prerequisite: 12 credit hours including EMBA637 Research Methodology

Master in Supply Chain Management

The [Master of Supply Chain Management program](#) seeks to qualify national cadres, academically and professionally, to meet the needs of the Palestinian, regional and global business environment, and to provide the market with distinguished graduates armed with the necessary knowledge and skills in the fields of supply operations by providing qualified graduates who are able to lead their organizations in procurement, transportation, warehousing, customs clearance and logistics. To contribute to building the competitiveness of Palestinian institutions.

Objectives:

- Provide students with an integrated view of the supply chain.
- Develop the necessary management skills to manage the supply chain.
- Develop key decision-making tools to improve logistics flows.
- Provide students with appropriate technological applications for supply chain needs.
- Introducing the challenges of global management of the supply chain and the most important international markets.
- Linking the supply chain to sustainable development.
- Knowing how to manage the supply chain in an ethical and socially responsible manner.

Admission Requirements:

- Bachelor's degree, from a university accredited by Birzeit University. All applicants must have earned a "Good" academic standing.
- Passing the stated GMAT score or other equivalent measures.

Program Requirements:

- Students should pass successfully remedial courses, if any, required by the program. Remedial course credits and grades are not included in the student's total hours or in the calculation of the cumulative average.

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (18) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
BUSA637	Statistics and Research Methodology	
MSCM6300	Supply Chain Management	
MSCM6310	Operations Research	
MSCM6320	Decisions Making and Risk Analysis	
MSCM6330	E-logistics and Enterprise Resource Planning	
MSCM7300 (Cross Listing with BUSA635)	Strategic Management	

2. Elective Courses: (12) credit hours from the following

Course No.	Course Title	Prerequisite (s)
MSCM6340	Logistics Strategies	
MSCM6360	Transportation Management Strategies	
MSCM6370	Customs Clearance	
BUSA738	International Business	
MSCM6380	Packaging Strategies	
MSCM6390	Customer Relationship Management	
MSCM7310	Warehouse and Inventory Management Strategies	
MSCM7320	Strategic Sourcing and Procurement	
MSCM7330	Business Analytics	
BUSA639	Operations Management	
MSCM7340	Project and Quality Management	
MSCM7390	Special Topic	

3. Track (A) / Track (B): (6) credit hours; either as thesis writing (Track (A)) or the two following seminars:

Track	Track Title	Track Number	Prerequisite(s)
Track (A)	Thesis	MSCM8600	Completion of 15 credit hours, including BUSA637
Track (B)	Seminar- I	MSCM8300	
	Seminar- II	MSCM8310	

Supply Chain Management Course Description (MSCM)

MSCM6300 Supply Chain Management

Provide an overview of the organization, its departments and control the supply and material flow processes of the organization, supply strategies and material supply relationships between the organization and suppliers, processing, storage and inventory control of goods, integration of the demand forecasting system, inventory management, distribution requirements planning, supply chain management, procurement networks, suppliers, supplies, transport networks and associated logistical operations, the comprehensive institutional systems and ways to improve production networks and service delivery processes.

MSCM6310 Operations Research

Linear programming, sensitivity analysis, transport problems, assignment problems, business networks, simulation, Markov chain and queues. Learn the basics of applying quantitative and qualitative research.

MSCM6320 Decisions Making and Risk Analysis

Decision-making tools and models, structuring the decision-making process, building decision models, assessing risks, and making decisions under uncertainty.

MSCM6330 E-logistics and Enterprise Resource Planning

Logistics and ERP services. Coordination of information and its flows across the supply chain, shopping and compliance, and e-commerce settlement and settlement. Create apps in accounting, sales, manufacturing, and Mon Business.

MSCM6340 Logistics Strategies

Flow of materials and products through the facility and through the supply chain to the market, the efficient and effective flow of storage goods, services and related information in the supply chain. Logistics and strategy planning, customer service, procurement, transportation, inventory, warehousing.

MSCM6360 Transportation Management Strategies

Explore the intermodal characteristics of transportation systems with a focus on shared assets and interactions between freight and passenger flows. Planning and operating passenger and vehicle transportation systems, potential impacts on freight movements. Transport management in the public and private sectors and investment decisions.

MSCM6370 Customs Clearance

Customs Legislation, Customs Tariff Classification, Customs Values, Duties on Tax Payable, Customs declarations and Carrier Release Documentation, Import and export procedures and forms, customs clearance procedures and forms, taxes, certificate of origin, Incoterms.

MSCM6380 Packaging Strategies

Packaging materials, uses, functions and production processes. Relevant applications as well as historical, societal, environmental and technological drivers for packaging. The product / package composition and the impact these choices have on the product's market success.

MSCM6390 Customer Relationship Management
Implementing strategies, practices and techniques aimed at gaining and retaining customers profitably and on a sound basis and best practices to achieve long-term profitability, how to shift from operating mode based on short-term customer transactions to long-term relationship mode and understanding the benefits of having strong customer relationships.
MSCM7300 Strategic Management
Capacity analysis (internal environment of the institution), analysis of the environment surrounding the institution (opportunities and constraints), business enterprise strategies, organizational structure from a strategic perspective, strategic control, strategic behavior, strategic management in non-profit institutions, practical cases .
MSCM7310 Warehouse and Inventory Management Strategies
All aspects of inventory and warehouse operation, traceability, handling and management issues of goods and materials held in stock. Control methods, demand planning as a tool to reduce obsolescence and redundancy, methods of dealing with diversity and proliferation, health and safety, etc. Use advanced technologies to reduce inventory, storage and handling costs associated with it.
MSCM7320 Strategic Sourcing and Procurement
Procurement operations in managing logistics and supply chains, basic components of procurement, different strategies for procurement operations and enterprise profitability, legal aspects of procurement operations, managing the relationship between suppliers and buyers, inventory management, supplies and manufacturing management, manufacturing resource planning, issues of contract management, negotiation and supplier relationship management, tenders and offers, contracting, negotiation skills and conflict resolution in procurement processes.
MSCM7330 Business Analytics
A set of modeling skills analyzing data on spreadsheets that enable them to tackle complex business problems. Basic and business-related spreadsheet technologies for their business. How to effectively develop spreadsheets about business, how to use data and information.
MSCM7340 Project and Quality Management
Defining project management, organizing, planning, implementing and controlling tasks in order to achieve the corporate goals, project document, project field, methods of division of work, cost estimation, project scheduling, definition of quality, total quality management, business excellence models, risk management, monitoring and evaluation, project sustainability.
MSCM7390 Special Topic
A study of a topic related to supply chain management selected according to students' needs and available capacities. An appropriate course title is assigned accordingly.
MSCM8300 SeminarI
Collectively read, analyze and discuss a number of peer-reviewed and published journal articles about topics in the area of specialization. Each student is required to conduct individual research on a relevant topic. The course discusses the principles of scientific integrity and the ethics of scientific research. <i>Prerequisite: Completion of at least 15 credit hours from the program's courses, including the BUSA637</i>

MSCM8310 Seminar II

Collectively read, analyze and discuss a number of peer-reviewed and published journal articles about topics in the area of specialization. Each student is required to conduct individual research that is either different from or complementary to what has been presented in Seminar I. The course discusses the principles of scientific integrity and ethics of scientific research.

Prerequisite: Completion of at least 15 credit hours from the program's courses, including the BUSA637

MSCM8600 Thesis

Completion of scientific research in the concentration area in accordance with the approved thesis instructions.

Prerequisite: Completion of at least 15 credit hours from the program's courses, including the BUSA637

Faculty of Engineering and Technology

The [Faculty of Engineering and Technology](#) was established in 1979, and, several years later, was merged with the Faculty of Information Technology. Currently, the number of academic departments in the Faculty is five departments, offering the following programs:

- [Master Program in Civil Engineering](#)
- [Master Program in Mechanical Engineering](#)
- [Master Program in Computer Engineering](#)
- [Master Program in Urban Planning and Landscape Architecture](#)
- [Master Program in Computing](#)
- [Master Program in Sustainable Engineering in Production](#)
- [Master in Software Engineering](#)
- [Master Program in Electrical Engineering](#)

Master Program in Civil Engineering

The [Faculty of Engineering and Technology](#) offers an academic program that leads to a [master's degree in Civil Engineering](#). The program emerged from the goals of the national development plan 2017-2022 that was developed by the Palestinian National Authority. This plan suggests the sustainable development with priorities to the education sector and the resilience of communities. The plan suggested programs that support the establishment and strengthening of long-term infrastructure projects that will provide the basic services for the people and meets the international standards. The proposed master program in civil engineering integrates the sustainability pillars of economy, environment, social and societal aspects within the suggested courses and study plan. Community resilience is also taken into account through supporting the research related to the mitigation of natural hazards in structural and infrastructure engineering, climate change, and planning and design of better infrastructure. The program enhances the qualification of engineers, increases their opportunity of employment and encourages them to pursue further research.

Admission Requirements:

1. The applicant for the master program of civil engineering must have a bachelor degree in engineering programs from a recognized university focusing on civil engineering, structural engineering, building engineering or programs that match the requirements of the master program. The program committee decides on the acceptance in the master program and may require remedial courses determined upon acceptance.
2. The applicant must have achieved a cumulative average equivalent to 78% from a recognized program
3. The applicant must provide letters of recommendation from two academic professionals or one from academic professional and one from applicant's employer

Program Requirements:

The Master in civil Engineering consists of 36 credit hours. The program comprises of 4 compulsory courses (12 credit hours), 6 elective courses (18 credit hours to be selected from Groups II and III), and 6 credit hours for thesis or two seminars. The student has the option to concentrate in either infrastructures or structures by completing 4 elective courses (12 credit hours) from the relevant course list provided in Group II.

A. Compulsory Courses (12 Credit Hours):

Course No.	Course Title	Prerequisite(s)
ENCE6310	Advanced construction management	
ENCE6331	Advanced concrete design	
ENCE6311	Pavement engineering	
ENCE6312	Scientific research methods	

- Concentrations: Elective Courses (12 credits)

A- Infrastructure Concentration:

Course No.	Course Title	Prerequisite(s)
ENCE6320	Managing public infrastructure projects	
ENCE6321	Application of geographic information systems for infrastructure	
GEOG632	Quantitative and spatial analysis	
ENCE7301	Design of infrastructure components	
ENCE7309	Evaluation of infrastructure projects and policies	
ENCE7310	Infrastructure planning	

B- Structures Concentration:

Course No.	Course Title	Prerequisite(s)
ENCE6330	Finite element analysis in structural mechanics	
ENCE6332	Structural dynamics	
ENCE7300	Earthquake engineering	
ENCE7302	Construction technology	
ENCE7303	Advanced steel design	
ENCE7307	Advanced geotechnical engineering	

C- General Elective Courses (6 credits):

Course No.	Course Title	Prerequisite(s)
ENCE6350	Traffic engineering	
ENCE7304	Nonlinear analysis of structures	
ENCE7305	Seismic rehabilitation of structures	
ENCE7306	Risk analysis	
ENCE7308	Remote sensing	
ENCE7311	Special topic in Civil Engineering	
GEOG731	Planning and sustainable development	
UPAL6342	Transportation planning	
WEEN639	Environmental impact assessment	
WESC631	Urban drainage and sewerage systems	
WESC734	Integrated management of water and earth	

4- Thesis or two seminars (6 credit):

Course No.	Course Title	Prerequisite(s)
ENCE830	Research Seminar 1	Finishing 18 credit hours from the program including ENCE6312
ENCE831	Research Seminar 2	
ENCE860	Thesis	Finishing 18 credit hours from the program including ENCE6312 with GPA more than 80%

Civil Engineering Course Descriptions (ENCE)

ENCE6310 Advanced Construction Management

Main drivers for change in the construction industry, managing the process, managing quality, managing value and waste, managing human resources, and managing time. The concepts of risk and hazard, principles and best practice, lessons learnt from construction disasters, treatments of construction project risks, project risk management tools and techniques, guidance in practical risk management and legal aspects.

ENCE6311 Pavement Engineering

Analysis of pavement stresses and deflections using the elastic theory approach for a multi-layer pavement system, different design approaches for flexible and rigid pavements, pavement evaluation and maintenance, pavement performance prediction approaches, and pavement management.

ENCE6312 Scientific Research Methods

Study of research methods, systems, and models, research tools, assessment procedures, research sources, research steps; starting from the stage of choosing the subject, identifying the problem, developing the hypotheses and displaying and documenting the results, students' training on how to assess and defend their ideas and theses, examination and analysis of scientific publications, principles of scientific integrity and ethics of scientific research. The course concludes with the student writing a paper on a chosen topic, that includes a review of a sufficient number of the literature, and discussing the paper in the class and re-drafting it based on the discussions and comments.

ENCE6320 Managing Public Infrastructure Projects

Legal and institutional framework for infrastructure projects, overall project cycle for infrastructures projects, design process, managers' training, site management, malfunctions, managers' role within the infrastructure projects, administration contract, action Plan.

ENCE6321 Applications of Geographic Information Systems for Infrastructure:

Theoretical basis of Geographic Information Systems (GIS) and their practical use. This includes GIS scientific concepts, definitions, importance, sources and developments, and the uses of GIS applications in geographic planning. Components of GIS, natural modeling, spatial models, and the presentation and saving of the geographic information. The use of the GIS programs for decision-making, and a GIS project will be completed in infrastructure planning.

ENCE6330	Finite Element Analysis in Structural Mechanics
Theoretical basics and practical application of finite element method in general and in structural analysis, elasticity problems in solid and structural mechanics, the virtual work basis for development of one, two and three dimensional structural elements mathematical description, the quality of FE solution. As FEA is a computational tool, this course also includes practical exercises using selected computer software.	
ENCE6331	Advanced Reinforced Concrete Design
Advanced problems in the analysis and design of concrete structures, design of slender columns and one- and two-way slabs, introduction to inelastic behavior of beams and columns; short- and long-term beam deflections; combined bending, shear, and torsion in beams; behavior under load reversals; analysis and design of retaining walls; analysis and design of shear walls, massive concrete structures such as dams and tanks, their crack propagation and ways to control and reduce cracks. The course involves practice on using professional software packages relevant to modeling and analysis of reinforced concrete structures.	
ENCE6332	Structural Dynamics
Equation of motion and solution of free and forced vibration of damped and undamped single degree of freedom systems, natural frequencies and normal modes of vibration for single and multi-degree of freedom systems, frequency and time domain analyses of multi-degree of freedom structural systems, generalized single-degree-of-freedom systems, dynamic structural response by modal superposition and time integration methods, equation of motion discussed in a matrix format and presented for free and forced vibrations of rods, beams, and frames.	
ENCE6350	Traffic Engineering
Elements of traffic engineering, principles of speed, traffic volume, accident studies, parking studies, capacity studies, traffic signs, marking and intersection signal timing design.	
ENCE7300	Earthquake Engineering
Introduction to seismology, solution of equation of motion for single and multi-degree of freedom systems, derives response and design spectrum for a seismic action, equivalent lateral force static analysis and modal response and time history analyses to determine design forces for a structure under seismic action, seismic design based on conventional code provisions of reinforced concrete and steel structures, introduction to non-conventional design procedures; e.g. base isolations and seismic performance based methods.	

ENCE7301	Design of Infrastructure Components
Planning and design of technical structures of the infrastructure facilities, e.g. bridges, water supply system, sewer system, and roadways, design examples, case studies.	
ENCE7302	Construction Technology
Waste composition, management and reduction in the construction industry, recycling and reuse, importance of waste and water disposal operations in construction sites. Introduction to the properties of concrete with particular emphasis on durability and concrete constituents and properties, cements and cement replacement concept of design life, and design for durability. Temporary works; types of formwork, scaffolding and falsework, loading and design consideration; management of temporary works.	
ENCE7303	Advanced Steel Design
Advanced and applied topics in the analysis, design, and detailing of steel structures; including plate girders, beam column elements, composite construction, bracing requirements, multi-story and long span systems. The course involves practice on the usage of professional software packages relevant to modeling and detailing of steel structures.	
ENCE7304	Nonlinear Analysis of Structures
Theory, computer implementation, and applications of methods of material and geometric nonlinear static analysis, applications within the course are related to two-dimensional and three-dimensional frame structures, matrix analysis of structures with material and geometric nonlinearities, P-D approximation, and stability of structures, introduction to nonlinear dynamic analysis.	
ENCE7305	Seismic Rehabilitation of Structures
Methods to decide on the status of structures and causes of deterioration of existing structures, strengthening techniques of bridges and buildings against seismic action, application of advanced materials in new structures and rehabilitation of existing ones.	
ENCE7306	Risk Analysis
Risk identification (definition of risk, typology of risks and the precautionary principle, uncertainties in engineering problems, probabilistic risk and reliability) risk quantification (stochastic approach, fuzzy set theory, time dependence and system risk, risk assessment, risk management (performance indices and figures of merit), objective functions and optimization, basic decision theory, elements of the utility theory, urban hazard mitigation), case studies.	

ENCE7307	Advanced Geotechnical Engineering
Introduction to geotechnical investigations and reports, site characterization and geotechnical aspects of the design and construction of foundation systems, foundation design, design of deep foundation, piled foundation, sheet piling construction, retaining wall construction, and soil improvements, main relations to calculate stresses and strains in soil structures and evaluate deformations in the soil due to excavation and foundation works.	
ENCE7308	Remote Sensing
Main principles of remote sensing, interpretation of aerial photos and their uses in different applications, geometric and atmospheric correction of images, digital image analysis, change detection, radar satellites, and applied project.	
ENCE7309	Evaluation of Infrastructure Projects and Policies
Problems (the size of cost overruns and benefit shortfalls, policy implications), causes (technical explanations, psychological explanations, political-economic explanations), cures (better methods: reference class forecasting, improved incentives: public and private sector accountability) toward better practices and policies.	
ENCE7310	Infrastructure Planning
Basics of physical planning, planning methods and techniques, sector planning and gap between planning and implementation. Planning of roads, water, and wastewater projects. Technical, financial and institutional components in infrastructure planning. Preparation of a technical and economic feasibility study by comparing alternatives in terms of environmental, technical and economic aspects.	
ENCE7311	Advanced Course: Special Topic In Civil Engineering
Study of a special topic in civil engineering.	
ENCE830	Research Seminar 1
Presentation and discussion of scientific integrity and ethics. The reviewing and discussion of scientific research papers published in refereed journals. Writing a substantial applied research paper on a topic related to the fields of structures and infrastructures' planning, design and management.	
ENCE831	Research Seminar 2
Presentation and discussion of scientific integrity and ethics. The reviewing and discussion of scientific research papers published in refereed journals. Writing a substantial applied research paper on a topic related to the fields of structures and infrastructures' planning, design and management	

ENCE860 Thesis

Writing a thesis in the field of specialization following the approved instructions for writing master's thesis.

Master Program in Mechanical Engineering

Admission requirements

- Bachelor degree from an accredited university in mechanical or mechatronics engineering. Other relevant engineering degrees (chemical, biochemical, bioengineering, material engineering, production, industrial, etc.) will need remedial courses to be decided by the program committee.
- The students must also satisfy the University admission requirements for higher studies.

Continuation Requirements

The academic rules and regulation for Masters' degree at Birzeit University are implemented.

Graduation Requirements

The student should successfully pass 36 credit hours for the master degree in mechanical engineering with a cumulative average of 80% or higher

Program Structure and Content

The [Master in Mechanical Engineering](#) consists of 36 credit hours. The program comprises of 6 compulsory courses (18 credit hours), 4 elective courses (12 credit hours to be selected from List A or List B), and 6 credit hours for thesis or two seminars. Students have the option to concentrate in either thermofluids or automation by completing 9 credit hours (3 courses) from the relevant elective course list (List A or B) and 3 credit hours from either lists A and B.

The study plan consists of credit hours distributed as follow:

1. Compulsory courses

Completing 18 credit hours (6 compulsory courses) as provided in the table below:

Course No.	Course Title	Prerequisite(s)
ENME6310	Research Methodology	
ENME6320	Finite Element Methods and Applications	
ENME6330	Advanced Heat Transfer	
ENME6340	Advanced Fluid Mechanics	
ENME6350	Advanced Dynamics	
ENME6360	Vibration Analysis and Applications	

2. Elective courses

Students are required to complete 12 credit hours (4 elective courses) from the two lists associated with the thermofluids and automation concentrations (List A and List B), respectively, as provided in the tables below:

a. Thermofluids concentration

Thermofluids elective courses (List A)

Course No.	Course Title	Prerequisite(s)
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ENME7311	Energy Efficiency	
ENME7312	Solar and Wind Energy	
ENME7313	Modern Refrigeration Systems	
ENME7314	Combustion Systems	
ENME7315	Steam Engineering	
ENME7316	Turbomachinery	
ENME7317	Computation Fluid Dynamics	
ENME7318	Special Topics in Thermofluids Engineering	

b. Automation concentration

Automation elective courses (List B)

Course No.	Course Title	Prerequisite(s)
ENME7321	Automation in Industrial Processes	
ENME7322	Advanced Robotics	
ENME7323	Autonomous Systems	
ENME7324	Multibody Dynamics	
ENME7325	Modal Analysis	
ENME7326	Optimal Control	
ENME7327	Special Topics in Automation	
ENSU6323	Advanced Manufacturing Process	

3. Concentration option

Students have the option to concentrate in either thermofluids or automation by completing 3 of the 4 elective courses from the same elective course list (List A or B), and the subject of the thesis or seminar courses must be in the same concentration area.

4. Thesis and seminars

The student can follow a thesis track or a non-thesis track. The table below provides relevant information about the thesis and seminar tracks.

Course Title	Course No.	Prerequisite(s)
Thesis	ENME8600	Completion of 15 hours from program requirements
Seminar I	ENME8300	Completion of 15 hours from program requirements
Seminar II	ENME8310	ENME830 Seminar I

Mechanical Engineering Course Descriptions (ENME)

ENME6310 Research Methodology

Qualitative and quantitative approaches in scientific research, experimental methods, mathematical modelling. Data collection, documentation and analysis. Using software for word processing and illustrating graphics. Funding proposal writing, engineering thesis proposal writing. Writing and reviewing scientific papers. Preparation of a scientific patent of a product. Scientific conference paper presentation.

ENME6320 Finite Element Methods and Applications

Conventional finite element analysis in engineering, domain discretization, interpolation and shape functions, element derivation and types, element stiffness and property equations, assembly procedure, boundary conditions, solution methods for algebraic equation system. Field problems described by the Laplace, and Poisson equations. Steps of the FE formulation. Mechanical engineering applications. Finite element software applications.

ENME6330 Advanced Heat Transfer

Transient conduction and multidimensional steady state conduction heat transfer. Enclosure convection heat transfer and two phase fluid convection heat transfer. Radiation from ideal and real surfaces. Radiative energy transfer between surfaces. Radiative energy transfer in enclosures. Multiple modes heat transfer. Heat exchangers design and performance, and heat transfer equipment.

ENME6340 Advanced Fluid Mechanics

Fundamental fluid mechanics concepts and principles, in addition to basic relations for continuous fluids; conservation of mass, the linear momentum and energy equations. Vorticity dynamics and circulation. Kelvin Helmholtz theorems. Navier-Stokes equations. The potential flow theory. Turbulence and oscillating flows.

ENME6350 Advanced Dynamics

Three dimensional kinematics: coordinate systems and transformation. Spatial rotations, and Euler angles. Relative velocity and acceleration relationships. Basics of Newtonian mechanics. Inertia tensor. Rigid body dynamics. Gyroscopic effects. Analytical mechanics: Hamilton's principle. Generalized coordinates and forces. Lagrange's equations. Lagrange multipliers and Lagrange's equations with constraints. Hamilton's equations.

ENME6360 Vibration Analysis And Applications

Theory of mechanical vibrations and response to dynamic forces. Design to reduce vibration of new and existing systems. Rotating equipment: their supports and foundations. Vibration absorbers, tuned mass dampers, vibration isolators, seismic vibrations, transportation vibrations. Active damping and isolation techniques of vibrations. Applications and case studies.

ENME7311 Energy Efficiency

Energy forms, resources, and conversion. Energy supply and demand. Energy audits: procedures and case studies. Thermal energy conservation and efficiency in residential, commercial, and industrial sectors. Electrical energies conservation and efficiency in residential, commercial, and industrial sectors. Energy management. Economic analysis of energy alternatives and energy technologies.

ENME7312 Solar and Wind Energy

Solar radiation calculations and measurements, Flat plate and concentrator solar collectors. Passive, active and hybrid buildings heating techniques. Solar thermal energy storage. Solar distillation and disinfection. Solar cooling and refrigeration. Industrial heat processing and high temperature applications. Solar electricity and Photovoltaics systems. Wind speed measurements and characterization, wind power calculations. Wind turbines: types, structures, specifications and wind energy calculations. Economic and environmental analysis of solar and wind energies.

ENME7313 Modern Refrigeration Systems

Refrigeration cycles and systems, functions and specifications of refrigeration equipment. The refrigerants. Multistage and Cascade Refrigeration cycles: single stage ideal refrigeration cycle, two stage ideal refrigeration cycle, and cascade refrigeration cycle. Multi-pressure and multi-temperature refrigeration. Absorption refrigeration, and VRV systems. Control of refrigeration systems. Engineering cooling and refrigeration applications.

ENME7314 Combustion Systems

Combustion theory, stoichiometry, enthalpy of reaction, equilibrium. Types of fuels and their effect on combustion. Combustion and energy. Burners design and types. Combustion control, safety, and regulations. Combustion in Petrol and Diesel engines. Air pollution and control of combustion systems. New combustion technologies.

ENME7315 Steam Engineering

Review of steam basic fluid and thermodynamics concepts. Steam generation, type of boilers: fire tube boilers and water tube boilers. Steam distribution systems. Steam condensate, trapping and recovery. Commercial and industrial applications. Steam turbines theory, reaction and impulse steam turbines. Improvements of steam cycle efficiency and performance. Modern steam applications.

ENME7316 Turbomachinery

Review of gas dynamics: energy, momentum and continuity equations. Two dimensional cascade, velocity triangles of the fluids through the turbomachine. Design and analysis of centrifugal compressors, axial flow compressors, radial flow turbines, axial flow turbines. Selection criteria of compressors and turbines. Jet propulsion.

ENME7317 Computation Fluid Dynamics

Conservation laws and the basic governing equations and their behavior. Navier-Stokes equations and Euler equation. Numerical methods, discretization schemes, finite difference, finite volume, and finite element methods. Classification of PDE and the semi discrete approach. Numerical techniques for solving the differential equations, time marching and relaxation methods. Numerical stability and accuracy.

ENME7318 Special Topics in Thermofluids Engineering

Study of contemporary issues in thermofluids engineering according to availability of instructors and student interest.

ENME7321 Automation in Industrial Processes

Smart and servo systems. Numerical, PLC and automatic control. Flexible and computer integrated manufacturing systems. Cranes hoists and positioning systems. Automatic assembly and installation of industrial systems. Robots for handling and manufacturing. Applications and case studies, practical experiments on automation and flexible manufacturing system.

ENME7322 Advanced Robotics

Concepts and advanced technologies related to the robot architecture. System identification techniques: kinematic calibration and dynamic parameters identification, sensors and vision techniques. Controller design with various strategies: centralized and decentralized. Control techniques: PID controller, compute-torque control, force control, and adaptive control. Path planning with obstacle avoidance techniques. Industrial robot programming languages.

ENME7323 Autonomous Systems

Basic knowledge related to concepts, technologies and components of the Autonomous Systems (AUS). Dynamic parameters identification, machine learning and computer vision to navigate AUS and advanced control. Dynamic parameters identification: stochastic processes, state estimation, Kalman filtering and Kalman state prediction. Machine learning techniques: genetic algorithms, evolutionary algorithms and neural networks. Diverse control techniques: nonlinear control, optimal control, fuzzy control, neural network control and neuro-fuzzy control.

ENME7324 Multibody Dynamics

Introduction to rigid body dynamics in 3D. Rotation matrix and its properties, quaternion matrix. Multibody kinematics, the generalized coordinates, constraints of interconnected bodies. Newton and Euler equations, Lagrange and virtual work methods. Analytical techniques. Deformable body dynamics and the finite element formulation.

ENME7325 Modal Analysis

Review of free and forced vibrations for single and multi-degrees of freedom. Theory of vibrations of the continuous systems using the finite element method with large number of DOFs. Theory of experimental modal analysis, frequency response functions, modal parameters estimation and excitation techniques, modal validation through laboratory experiments. Vibration monitoring using signal processing and experimental tests, result analysis and fault detection.

ENME7326 Optimal Control

Calculus of variations, principle of optimality, the necessary conditions and the sufficient condition for optimal control. Hamiltonian theory, Hamilton-Jacobi-Bellman equation, Pontryagin's minimum principle and state inequality constraint. Linear Quadratic Regulator (LQR) control and Linear Quadratic Gaussian (LQG) control for continuous and discrete systems. Model Predictive Control (MPC). Numerical applications in different fields: vibrations, energy, automotive, and aerospace.

ENME7327 Special Topic in Automation

Study of contemporary issues in automation engineering according to availability of instructors and student interest.

ENME8300 Seminar I

Discussing the scientific honesty principles and research ethics. Advanced study in the field of thermofluids or automation. Report writing or documentation of a research project. The subjects are selected according to the students' disciplines and amongst the courses taught in the program. The students can work individually or in teams on related projects. Study and analysis of journal papers related to thermofluids or automation.

Prerequisite: completion of 15 hours from program requirements.

ENME8310 Seminar II

Advanced study in the field of thermofluids or automation. Report writing or documentation of a research project. The subject to work on can be a follow up to the same subject in Seminar I (ENME8300) or the student can work on a new project. Study and analysis of journal papers related to thermofluids or automation.

Prerequisite: ENME8300.

ENME8600 Thesis

Scientific research in the fields of mechanical engineering according to the thesis instructions adopted by the university.

Prerequisite: completion of 15 hours from program requirements.

Master Program in Computer Engineering

The [Faculty of Engineering and Technology](#) offers an academic program that leads to a [master's degree in Computer Engineering](#). The Master in Computer Engineering (MSCE) program aims to help the development and application of computer engineering, and to contribute to the advancement of the Palestinian society by providing technical, scientific knowledge, and research skills to engineers in order to prepare them for leadership in the fields of hardware design, intelligent systems, and networks and security. It also aims to meet the needs of local, regional and global markets, as well as enabling the program student to resume their higher education.

Admission Requirements

Admission to the program is based on the following conditions:

1. Applicants should have a Bachelor degree from an accredited university in Computer Engineering or a related field, (e.g. Electrical Engineering, Information Technology, Computer Science...).
2. Provide two sealed recommendation letters from professors or work supervisors.
3. Personal interview with the program committee may be required.

Graduation Requirements

1. Complete any remedial courses requested from the student when accepted into the program.
2. Complete at least 36 credit hours distributed as follows:

Remedial courses

The program committee will determine the remedial courses for accepted students based on the student's assessment of the extent to which they achieve the knowledge aspect of the admission requirements, provided that the student takes a maximum of three courses from the following courses:

Course No	Course Title	Prerequisite (s)
COMP133	Computer and Programming or equivalent	
ENCS2380	Computer Organization and Microprocessor or equivalent	
COMP2421	Data Structures and Algorithms or equivalent	
MATH234	Introduction to Linear Algebra or equivalent	
ENEE2307	Probability and Engineering Statistics or equivalent	
ENEE2360	Analog Electronics or equivalent	
ENCS3320	Computer Networks or equivalent	

Core courses

B.1 Students must finish the course Research Methodology, Tools and Ethics

Course No	Course Title	Prerequisite (s)
MSCE6301	Research Methodology, Tools and Ethics	

B.2 Students must finish four courses, one course from each discipline (category): Computer Architecture, Hardware, Intelligent Systems, and Computer Networks and IT Security as shown in the tables below:

Computer Architecture Courses

Course No	Course Title	Prerequisite (s)
MSCE6311	Computer Architecture and Design	
MSCE6312	Advanced Computer Architecture	
MSCE6313	Advanced Operating Systems Theory	

Hardware Courses

Course No	Course Title	Prerequisite (s)
MSCE6321	VLSI System Design	
MSCE6322	SOC Design	
MSCE6323	Verification and Validation of Hardware	

Intelligent Systems Courses

Course No	Course Title	Prerequisite (s)
MSCE6331	Artificial Intelligence	
MSCE6332	Advanced Machine Learning	
MSCE6333	Information Retrieval and Web Search	

Computer Networks and IT Security Courses

Course No	Course Title	Prerequisite (s)
MSCE6341	Advanced Computer Networks	
MSCE6342	Network Security Protocol	
MSCE6343	Wireless Sensor Networks and Internet of Things	

Elective Courses

Students must take five elective courses from at least two disciplines as shown in tables below

Computer Architecture Courses 2

Course No	Course Title	Prerequisite (s)
MSCE7311	Embedded Systems and Special Architectures	
MSCE7312	Computing Performance Evaluation/Benchmarking	
MSCE7313	Superscalar Microprocessor Architecture	
MSCE6312	Advanced Computer Architecture	
MSCE6313	Advanced Operating Systems Theory	

Hardware Courses 2

Course No	Course Title	Prerequisite (s)
MSCE7321	VLSI Design Automation	
MSCE6322	SOC Design	
MSCE6323	Verification and Validation of Hardware	

Intelligent Systems Courses 2

Course No	Course Title	Prerequisite (s)
MSCE7331	Speech Processing and Applications	
MSCE7332	Image Processing and Applications	
MSCE7333	Natural Language Processing	
MSCE7334	Robotics and Machine Vision	
MSCE7335	Automatic Reasoning and Applications	
MSCE6332	Advanced Machine Learning	
MSCE6333	Information Retrieval and Web Search	

Computer Networks and Security Courses 2

Course No	Course Title	Prerequisite (s)
MSCE7341	Network and System Defense	
MSCE7342	Wireless and Mobile Networks	
MSCE7343	Modern Distributed Systems	
MSCE7344	Counter Hacking Techniques	
MSCE7345	Hardware Security	
SWEN7313	Secure Software Development	
MSCE6342	Network Security Protocol	
MSCE6343	Wireless Sensor Networks and Internet of Things	
MSCE6359	Special Topics In Computer Engineering	

Thesis or Two Seminars

Track A or Track B: 6 credit hours: either Thesis or two Seminars (Seminar I and Seminar II)

Track	Course Code	Course Title	Prerequisite (s)
Track A	MSCE86	Thesis	

Track B	MSCE830	Seminar I	
	MSCE831	Seminar II	

Computer Engineering Course Descriptions (MSCE)

MSCE6301	Research Methodology, Tools and Ethics
The scientific method; research resources: print and electronic; Intellectual Property Protection: copyrights and patents; research topic selection and proposal writing; reporting research results and writing skills; The publication cycle, presenting research results, publication venue selection and research evaluation. Computer-based research tools for scientific computing including LaTeX for typesetting. Research and research collaboration ethics.	
MSCE6311	Computer Architecture and Design
Traditional computer architectures, architecture of micro-programmed computer, pipeline systems, array systems, multi-processor systems, multi-computer systems, technology impact on computer system architecture, modular computers, adaptable architectures, parallel network processors associative processors, dedicated architectures, mixed architectures, mixed architectures, distributed processing, client-server systems, case studies.	
MSCE6312	Advanced Computer Architecture
Pipelining, Instruction level Parallelism (Tomasulo Algorithm, Reorder buffer, multiple issue, Dynamic branch prediction, Speculation, Super scalar processor), Data level Parallelism (Vector processors, SIMD, GPUs), Thread level Parallelism and multiprocessing, Cache design and optimization, Virtual memory.	
MSCE6313	Advanced Operating System Theory
Theoretical analysis of selected aspects of operating system design; topics include interaction of concurrent processes; scheduling and resource allocation; virtual memory management; access control. Focus on the basic research that led to the rise of modern operating systems.	
MSCE6321	VLSI System Design
Introduction to CMOS and MOSFETs, their characteristics and use in analog and digital circuit design, static and dynamic circuits, CMOS VLSI design methodology, full-custom design, circuit and system levels, extensive use of CAD tools for IC design, simulation and IC verification, specific techniques for designing high-speed, low-power, easily testable Circuits. Introduction to fault modeling, fault testing, fault location and testability.	
MSCE6322	SOC Design
Systems-on-Chip (SoCs) as the core of embedded computing and consumer devices: big servers, cell phones, media players and automotive, aerospace or medical electronics. Concepts, issues, and process of designing highly integrated SoCs following systematic hardware/software co-design & co-verification principles.	
MSCE6323	Verification and Validation of Hardware
Digital circuits testing and verification, digital circuit simulation, test pattern generation, design for testability, built-in-self-tests, and diagnosis. Algorithms for design verification. Compiled level logic simulation. Tools for HW verification and validation.	
MSCE7321	VLSI Design Automation
Design of algorithms and tools for solving cutting-edge VLSI design problems. VLSI CAD Flow, Brief Exposition of Logic Synthesis and Tech. Mapping, Chip Layout Styles, High-Level Synthesis, Algorithmic	

Approaches Commonly Used for VLSI CAD Problems and VLSI and Circuit Design Issues (power, delay analysis and minimization), Partitioning, Floor planning, Placement AND Global and Detailed Routing.

MSCE6331 Artificial Intelligence

Design and implementation of intelligent computer systems. Intelligent search, adversarial search and games, knowledge representation and reasoning, machine learning, elements of planning and elements of natural language processing.

MSCE6332 Advanced Machine Learning

Data science life cycle, exploratory data analysis, data visualization, data preprocessing, dimensionality reduction and feature selection, linear and polynomial regression, over fitting and regularization, logistic regression, neural networks. K-nearest neighbors, linear discernment analysis, support vector machines, ensembles methods, Bayesian networks, hidden Markov model, model selection and assessments, cluster analysis. K-means, hierarchical clustering, EM and mixture models – EM-GMM, cluster validation methods, reinforcement learning.

MSCE6333 Information Retrieval and Web Search

Text-based information systems: efficient text indexing; Boolean and vector space retrieval models; evaluation and interface issues; Web search including crawling, link-based algorithms, and Web metadata; text clustering, classification and text mining; cross-lingual aspects of information retrieval (CLIR) with emphasis on Arabic. Emphasis will be on recent developments in search engines, querying, and CLIR. Interaction between natural language processing and information retrieval tools. Tools for information retrieval.

MSCE6341 Advanced Computer Networks

Principles, architectures, and protocols used in modern networked systems such as IPv6, BGP, multicast, network management and monitoring, software defined networking, data centers, cloud computing and overlay networks. Network protocol design and analysis, performance evaluation, as well as simulation and measurement studies of different protocols.

MSCE6342 Network Security Protocols

Network and distributed systems security threat model, TCP/IP security attacks, Authentication protocols, Kerberos, e-mail security, Transport Layer Security (TLS), IPsec, Internet Key Exchange (IKE), Domain Name System security (DNSSEC), WLAN security, Cellular network security and Routing Security. Other topics; anonymity and privacy, electronic-identity (single sign on), Remote electronic voting.

MSCE6343 Wireless Sensor Networks and Internet of Things

Wireless sensor networks (WSNs) and Internet of Things (IoT). Specific issue in sensor networks such as localization, time synchronization, and energy and power management, Basics of networking and communication protocols in IoT, machine-to-machine networks, Interoperability in IoT, Introduction to SDN, Implementation of IoT with Microcontroller, IoT for smart cities and smart homes, Industrial IoT (IIoT). Case studies in agriculture, healthcare, Activity monitoring, and transportation.

MSCE6359 Special Topics in Computer engineering

Timely topics in computer engineering with research elements. The course is taught by faculty members with a research agenda in the topic of the course.

MSCE7311 Embedded Systems and Special Architectures

FPGA architecture, FPGA partial reconfiguration techniques, custom IP Cores modeling, testing and protection, analyzing real time constraints, Hardware/software co-design and partitioning, embedded bus architectures, building embedded systems using custom IP cores with single and multi-processors, Embedded and real time operating systems. Embedded Linux device drivers.

MSCE7312 Computing Performance Evaluation/Benchmarking

Issues in evaluating performance and power/energy of computers, measurement tools and techniques, trace driven and execution driven simulation, benchmarks, CPU-intensive. Commercial and database, web server, workload characterization (quantitative and analytical), characterization of emerging applications, statistical techniques for performance evaluation, trace generation and validation, synthetic traces, verification of simulators, design of experiments, analytical modeling of processors, statistical modeling, hybrid techniques-application of queuing.

MSCE7313	Superscalar Microprocessor Architecture
Definition of superscalar, super pipelined, SIMD and VLIW processors - Available parallelism in programs – Instruction Level Parallelism - Out of order instruction execution – Reservation Stations - Reorder Buffers - Exception handling in out of order processors - Branch Prediction techniques - Memory Systems for Superscalar Processors -Trace Caches - Memory Disambiguation and load/store reordering - Performance Evaluation of Superscalar Processors. Power and Energy consumption of processors. Comparison to Multicore processors.	
MSCE7331	Speech Processing and Applications
Speech production, hearing and perception, speech sounds (phonemes and phones), speech production models, short-time time-frequency analysis, basics features extraction, Mel-frequency Cepstral coefficients, linear predictive coding, audio pattern recognition, automatic speech recognition, hidden Markov models, Viterbi decoding and Baum Welch algorithms, speaker and dialect recognition, language identification.	
MSCE7332	Image Processing and Applications
Digital image processing review, contrast enhancement, image filtering spatial and frequency domain, de-noising, morphological operations, color models, feature extraction and representation, local features, color features, shape features, camera models and calibration, optical flow, motion model, and object tracking, image segmentation, object recognition, case studies in image processing applications.	
MSCE7333	Natural Language Processing
Basic and engineering aspects of natural language processing, text and speech, with heavy emphasis on Arabic. Modern quantitative techniques in natural language processing and their applicability to Arabic such as using large corpora, statistical models for acquisition, disambiguation, and parsing and the construction of representative systems. Natural language processing in Interface design, information Retrieval including cross lingual, language issues in text to speech (TTS) Systems and translation.	
MSCE7334	Robotics and Machine Vision
Fundamentals of kinematics, dynamics, and control of robot manipulators, robotic vision, and sensing. Principles on proximity, tactile, and force sensing, vision sensors, camera calibration, and motion detection. Current applications of robotics in autonomous vehicles, active perception, medical robotics. Design and fabricate robotic systems, group-based learning.	

MSCE7335	Automated Reasoning and Applications
Methods of automated deductive reasoning. Foundations of logical and probabilistic methods of automated reasoning. Implement algorithms for logical and probabilistic reasoning, the role of negation in inference and ways to define it. Propositional logic, predicate logic, resolution proof, production systems, Prolog, uncertain reasoning, Bayesian decision theory, exact inference, approximate inference, Non-monotonic reasoning and negation, reasoning with big data and applications like proving properties of programs and circuit verification.	
MSCE7341	Network and System Defense
Internet infrastructure security, denial of service attacks, Botnets, memory protection, file system security, firewalls and virtual private networks (VPN), deep packet inspection, Intrusion Detection and Prevention Systems, Authentication systems (passwords, biometrics), Authorization (Access control lists), attack tracing, backup and system recovery, and continuity of operation, wireless security and network security auditing tools, Security strategies and security policies (ISMS).	
MSCE7342	Wireless and Mobile Networks
Practical design aspects of mobile and wireless networks, wireless transmission fundamentals, digital modulation techniques, multiplexing techniques, channel coding, capacity and error control, radio propagation and propagation path-loss models, introduction to antennas and diversity, multiple access techniques, spread spectrum technology, channel allocation methods, cellular networks concepts and design, GSM architecture and design from 2G to 5G, WLANs, mobile Ad Hoc networks, mobility management in wireless networks, mobile IP, and wireless TCP.	
MSCE7343	Modern Distributed Systems
Principles of distributed systems: architecture, communication, synchronization, consistency and replication, and fault tolerance. Methodologies and paradigms for understanding and designing distributed applications. Powerful distributed approaches and their tradeoffs. State-of-the-art examples of distributed systems, such as Web, Web services, peer-to-peer systems, big-data processing frameworks, large-scale data storage. (3 credits).	
MSCE7344	Counter Hacking Techniques
Techniques for offensive or defensive goals in network, computer systems and applications in order to discover potential vulnerabilities and propose appropriate countermeasures. Topics covered include system memory organizations, CPU registers, assembly language fundamentals, development of local and remote Linux exploits, writing Linux shellcode, conducting stealthy attacks, network and wireless hacking techniques, metasploit framework exploits, fuzzing based security testing, and ethical and legal implications of cyber-attacks.	

MSCE7345	Hardware Security
Cryptographic processor and processing overhead analysis, physical and invasive attacks, side-channel attacks, physically unclonable functions, hardware-based true random number generators, watermarking of Intellectual Property (IP) blocks, FPGA security, passive and active metering for prevention of piracy, access control, hardware Trojan detection and isolation in IP cores and integrated circuits (ICs).	
MSCE8300	Seminar I in Computer Engineering
Reading in recent literature in the field of Computer Engineering resulting in substantial report that emphasizes best writing practices under the supervision of a faculty member.	
MSCE8310	Seminar II in Computer Engineering
Reading in recent literature in the field of Computer Engineering resulting in substantial report that emphasizes best writing practices under the supervision of a faculty member.	
MSCE8600	Thesis in Computer Engineering
Timely topics in computer engineering with research elements. The course is taught by faculty members with a research agenda in the topic of the course.	

Master Program in Urban Planning and Landscape Architecture

The [Faculty of Engineering and Technology](#) offers an academic program that leads to a [master's degree in Urban Planning and Landscape Architecture](#), which includes two concentrations; Urban Planning, and Landscape Architecture. This program aims at acquainting students with the developments in urban and regional sectors, their importance to the work environment, quality of housing, local environment and services offered to residents, in addition to information related to regional and urban rehabilitation.

Furthermore, the program aims at developing students' planning and designing skills in the fields of study, developing their abilities in evaluating the dynamic elements in the surrounding physical environment due to natural, social, economic and political changes in this environment and increasing students' awareness of the natural environment and its relationship with the planning and designing processes on the various levels of societal cooperation.

Moreover, this program aims at developing students' abilities in conducting scientific research and enabling them to use scientific methodologies in the field of urban planning and landscape architecture and comprehending the science, skills and means necessary for implementing them, improving students' planning and designing practices in the fields of urban planning and landscape architecture in Palestine, enabling Palestinian academic organizations to educate students and to provide them with the necessary skills in the fields of urban planning and landscape architecture, supporting Palestinian planning organizations on all levels to ensure the integration of all natural elements in the processes of urban planning.

Admission Requirements:

1. Applicants must hold a bachelor's degree in civil engineering, architectural engineering, landscape architecture or urban planning from a university recognized by Birzeit University, with a minimum overall assessment of "Good".
2. Knowledge in the field of Geographic Information Systems: Applicants should have successfully completed one course in the field of GIS. Students who have not completed this course are required to register for the GIS course offered by the Departments of Civil Engineering and Architectural Engineering; the course will be considered preparatory courses.
3. A personal interview, if required by the Program Committee.
4. Fulfilling the admission requirements according to the Academic Regulations for the Master's Degree.

Program Requirements:

The completion of no less than 36 credit hours distributed as follows:

- A. Remedial Courses:** The program committee might request that students register for no more than 6 credit hours of remedial courses, from undergraduate programs to ensure that students from all fields have a common knowledge base.

- B. Compulsory Courses (for both concentrations): (13 credit hours)**

Course No.	Course Title	Prerequisite(s)
UPLA621	Research Methods and Analysis	
UPLA623	History of Landscape	
UPLA631	Principles of Regional and Urban Planning	
UPLA632	Integrated Urban Development Project	
UPLA635	Policies and Theories of Planning and Social Issues	

Note: All students are required to complete UPLA621 within the first 15 credits of their registration in the program.

C. Concentration Courses: (11 credit hours distributed as follows)

Credit Hours	Course No.	Course Title	Prerequisite(s)
Urban Planning Concentration Courses (11 credit hours)			
Compulsory Courses (5 credit hours)	UPLA6332	Infrastructure Planning	
	UPLA6222	Regional and Urban Economics	
Urban Planning Concentration Elective Courses (6 credit hours; one course from each of the following groups)			
Group One: Transportation, environment and management of the urban environment	UPLA6342	Transportation Planning	
	UPLA7322	Management of the Urban Environment	
	UPLA7362	Photogrammetry and Mapping	
	UPLA7382	Special Topics in Urban Environment	
	UPLA7392	Land Management	
Group Two: Urban design and development	UPLA6372	Urban Development Models	
	UPLA6382	Urban Conservation and Rehabilitation	
	UPLA7332	Social Aspects in Housing Design	
	UPLA7342	Advanced Urban Design	
	UPLA7372	Special Topics in Urban Design	
Landscape Architecture Concentration Courses (11 credit hours)			
Compulsory Courses (5 credit hours)	UPLA6321	Landscape Ecology and Horticulture	
	UPLA6241	Landscape Design and Construction I	
Elective Courses (6 credit hours)	UPLA7311	Landscape Design and Construction II	
	UPLA7331	Virtual Reality in Landscape Architecture	
	UPLA7341	Design of Public and Residential Spaces	
	UPLA7351	Design of Open Spaces for Special Needs	
	UPLA7361	Design of Open Spaces for Infrastructural Needs	
	UPLA7371	Special Topics in Landscape Architecture	
	UPLA7381	Landscape Management	

D. Track “A” or Track “B”: 6 Credit Hours; Thesis or two Seminars

Track	Track Title	Course No.	Prerequisites
Track A	Thesis	UPLA860	Complete no less than 12 credit hours from the program
Track B	Two Seminars	UPLA830 UPLA831	

E. The completion of 6 credit hours chosen by the student from the two concentrations, or from another program, after the approval of the Program Committee.

Urban Planning and Landscape Architecture Course Description (UPLA)

UPLA621 Research Methods and Analysis

Introduction to quantitative and qualitative research methods and technologies used in scientific research in the field of architectural design and implementation, Development of hypotheses, data collection and analysis, presenting results, measuring them, and processing them graphically. Analytical models of random phenomena, Analysis of ratios and proportionality, designs based on risks, simple and multiple regression, correlation, statistical decision theory, benefit analysis, utilization of cost and price analysis, in addition to decision-making methods.

UPLA623 History of Landscape

The history of landscape architecture, the art of gardening with a focus on the Middle East, South-East Asia and Europe, and the development of methods for building historic gardens and its relationship to the historical character through lectures, field visits and projects.

UPLA631 Principles of Regional and Urban Planning

Basic introduction includes the main goals, principles, strategies and standards of regional and urban planning and their development. Principles of urban design and development, environmental issues, principles of housing and development of population and economy, international development and regional planning. The main factors that affect the form of urban development, such as: groups benefiting from markets, the public sector, private development systems, in addition to the incentives encouraging good design, legal and basic means and tools used in the development of urban and regional planning and methods of determining the image of cities in the future. A practical applied project.

UPLA632 Integrated Urban Development Project

A project or program supervised by the instructor that aims at identifying the existing problems in planning, analyzing them and finding suitable solutions. Group study of a particular planning problem in an integrated manner. (Two hours lecture, three hours lab)

UPLA635 Policies and Theories of Planning and Social Issues

The historical development of planning theory, the role of the state, private economy and civil society according to the different planning theories. Analytical critique of the planning principles applied in current Palestinian planning policies, the region and in other countries, from a historical perspective.

UPLA6222 Regional and Urban Economics

Application of economic theory in the field of regional and urban planning, evaluation of urban planning and its role in the market economy, theories of regional development and economic growth, balanced and unbalanced growth, income distribution and theories of the development of cities and their locations.

UPLA6332 Infrastructure Planning

Environmental issues related to urbanization and public networks, principles of infrastructure planning and development and their application, social and environmental effects of urbanization, development of cities, risk analysis and assessment of the environmental effects of urbanization.

UPLA6342 Transportation Planning
Principles of regional and urban planning used in transportation systems, the relationship between the use of land and adjacent roads, practical applications of the process of planning future trips and their distribution, road networks and different transportation methods, requirements for roads and transportation facilities. Project to incorporate and redistribute land for particular uses and to design an appropriate transportation network.
UPLA6372 Urban Development Models
Different views of cities, their design and development, architectural design models that were developed to meet the forces that form and affect cities, the emergence of each model, its current effect on the design and development in cities around the world, some concepts related to traditional cities, arts cities, effective cities, garden cities, safe cities, information cities and Utopia and the implementation of each form as an analytical study.
UPLA6382 Urban Conservation and Rehabilitation
The concept of protection, maintenance, reconstruction, reinforcing buildings, rehabilitation needs, properties of construction materials, permanence, the effect of natural factors on buildings, types of buildings, construction systems, defects in buildings, maintenance and reinforcement of construction elements, such as beams, pillars and foundation, planning, decision making, managing projects, urban and historical conservation and rehabilitation.
UPLA7322 Management of the Urban Environment
Introduction to environmental sciences related to cities and technology, main objectives and challenges required to protect the natural environment in Palestine, developing infrastructure on a durable environmental base, management, analysis, evaluation, organization, application and communication, selecting suitable means for environmental development, prevention, production of detergents, reducing, treating and disposing of waste, taking into consideration water, air and soil. Wastewater treatment, recycling and reuse of water and managing solid wastes. Laws and statistics related to the built environment.
UPLA7332 Social Aspects in Housing Design
Patterns and forms of housing in rural and urban areas. Examination and analysis of the locations of residential areas, the implications of housing design, management problems, requirements and objectives of regional policies and the study of other economic, social and cultural topics related to analysis based on gender. Land taxes, financing, construction processes, self-assistance and ownership of existing real estate.
UPLA7342 Advanced Urban Design
Advanced experiments in urban design; students develop proposals and technical plans for their own designs according to an actual problem or case of a vital urban design. (Two hours lecture, three hours lab)
UPLA7362 Photogrammetry and Mapping
Introduction to the basic principles of remote sensing, photogrammetry, cameras, films and photogrammetric calculations, functional disturbance, system errors and image processing, remote sensing platforms, methods of improving images and data classification, reading and understanding the details of maps and their uses. (Two hours lecture, three hours lab)

UPLA7372 Special Topics in Urban Design
Study of a special topic related to urban design, according to the preference of students and the instructor.
UPLA7382 Special Topics in Urban Environment
Study of a special topic related to the urban environment, according to the preference of students and the instructor.
UPLA7392 Land Management
Methods of monitoring and controlling land registration and land use on the local, regional and national levels. Land registration departments, methods of archiving documents and maps related to land, examination of current development and techniques of land management, in addition to reviewing investment methods and planning for services.
UPLA6241 Landscape Design and Construction I
Landscape design as a concept, elements, tools and methods used in landscape design and solving forms and problems related to space. Elements and tools used in common projects in landscape design and understanding the different stages of projects and methods of implementing and displaying them. Preliminary of survey and reading maps, formation of land and calculation of loads. Respecting the unique characteristics and spirit of specific locations. (Two hours lecture, three hours lab)
UPLA6321 Landscape Ecology and Horticulture
Introduction to the basics of ecology and horticulture in the field of landscape through field work and documentation of actual landscapes, landscape evaluation and measurement methods, methods of identifying plots and knowing their characteristics, such as its area, shape, borders and its connections to surrounding plots. Policies, patterns, processes and results of the use of landscapes for human habitation and the policies of urban environments, methods of defining urban environmental problems, identifying them and dealing with them through their relationship and effect on human health and environmental systems.
UPLA7311 Landscape Design and Construction II
Methods of handling construction and design challenges related to designing projects in gardens, parks and spaces, from the design to the details. The development of creative construction solutions and studying cases of such solutions from actual constructions and landscapes, in addition to comprehending architectural projects and understanding their different stages. Students are required to conduct on individual and/or group projects, in addition to conducting field visits. (Two hours lecture, three hours lab)
UPLA7331 Virtual Reality in Landscape Architecture
The use of virtual reality as a method of professional landscape design and digital communication as an effective tool for design. Virtual representation of landscapes using the computer and its application in the designing process, the ability to use modern technologies of virtual computing in landscape designs and applying them in a specific projects. Students are required to write a final paper explaining the use of virtual representation in a selected case. (Two hours lecture, three hours lab)

UPLA7341	Design of Public and Residential Spaces
The mutual relationship between modern architecture and landscape design, managing projects related to public parks and green spaces, starting from analyzing ideas and developing them up to the planning and decision-making stage in large projects. Methods used in different projects and ways of expressing them, conducting a project within a realistic perspective using advanced production programs, in addition to theoretical duties through group work. (Two hours lecture, three hours lab)	
UPLA7351	Design of Open Spaces for Special Needs
The design of open spaces for special needs, such as: sports playfields, school playgrounds, kindergartens, cemeteries ... etc., and the integration of these spaces into the surrounding urban fabric; evaluation, analysis and planning of these spaces taking into consideration their different needs and uses, developing awareness of the quality of open spaces for special needs and the ability to determine the appropriate requirements of these spaces. (Two hours lecture, three hours lab)	
UPLA7361	Design of Open Spaces for Infrastructural Needs
Open spaces for infrastructural needs and their effect on landscape design, the main challenges in the field of landscape architecture related to large sites, such as road networks, power lines, water channels, infrastructures of industrial areas, quarries ... etc. (Two hours lecture, three hours lab)	
UPLA7371	Special Topics in Landscape Architecture
Study of a special topic related to landscape architecture, according to the preference of students and the instructor.	
UPLA7381	Landscape Management
Professional and organizational challenges in the management of landscapes, evaluation of management principles and the integration of public and private sectors, basic knowledge required for conducting an independent evaluation for management principles and programs, including the renovation of existing green areas and activating administrative considerations. Developing a deeper understanding of the management process by enabling students and instructors to contribute in a practical project within a municipal council zone, along with other professionals in the field, including budgeting, evaluation of available spaces and cooperative methods for resolving conflicts. Independent project related to green areas and landscape design.	
UPLA830	Seminar
Writing a substantial applied research paper on a topic related to the fields of urban planning and landscape architecture; according to the students' concentration.	
UPLA831	Seminar
Writing a substantial research paper on a topic related to the fields of urban planning and landscape architecture; according to the students' concentration.	
UPLA860	Thesis
Writing a thesis in the field of specialization according to the approved instructions for writing master's thesis.	

Master Program in Computing

The [Faculty of Engineering and Technology](#) offers an academic program that leads to a [master's degree in Computing](#). This program aims at enriching research in the area of computing and information technology and its applications in other sciences. In addition, this program aims at developing the Palestinian technical sector through providing the community highly qualified individuals with advanced scientific knowledge and technical skills in the field of computing. In addition, the program aims at building computing tools and expertise to support scientific research in Palestine. The master in computing program not only covers computing disciplines, but also covers other natural sciences as the program includes two concentrations: “computer and engineering” concentration and “mathematics and natural sciences” concentration. The first concentrates on information and data retrieval, modeling, and processing while the second concentrates on modeling and simulation of natural scientific phenomena.

Admission Requirements:

1. Applicants must hold a bachelor's degree in one of the science or engineering fields from a university recognized by Birzeit University, with a minimum overall assessment of “Good”.
2. Applicants are required to have good knowledge and skills in computer programs and advanced programming languages, in addition to a background in applied mathematics.
3. Applicants are interviewed to determine their readiness and the strength of their academic backgrounds.

Program Requirements:

The program has two concentrations: “Computer and Engineering” concentration and “Mathematics and Natural Sciences” concentration. In both concentrations, students are required to complete no less than 36 credit hours distributed as follows:

- 12 credit hours of Compulsory courses
- 18 credit hours of elective courses
- 6 credit hours of either thesis track or seminar track in concentration area

A. Compulsory Courses (12 Credit Hours):

- “Computer and Engineering” Concentration Compulsory Courses:
Students in this concentration who did not study “Data structures” and “Advanced Programming” courses are required to register for these courses in their first semester (these courses will not be counted for those who studied them).
- Students are required to finish 12 credit hours of Compulsory courses as follows

Course No.	Course Title	Prerequisite(s)
MCOM6300	Computing 1: Design and Analysis of Algorithms	COMP231, COMP232
*MCOM6301	Computing 2: Principles of Computer Systems Engineering	

MCOM6304	Research Methodology and Tools	
MCOM6307	Probability, Queuing Theory and Statistics	
MCOM6308	Advanced Computer Networks	MCOM6301 or equivalent

*MCOM6301 (Computing 2) will not be counted for computer systems engineering students and those who have sufficient knowledge in that course. In this case, MCOM6308 is considered the Compulsory course replacement.

▪ **“Mathematics and Natural Sciences” Concentration Compulsory Courses:**

Students with a bachelor’s degree in computer science, biology or chemistry, who have not studied linear algebra and differential equations, are required to complete MCOM6305 within their first semester in the program, provided that it will not be counted for students who have taken the course previously.

- Students are required to finish 12 credit hours of Compulsory courses as follows:

Course No.	Course Title	Prerequisite(s)
MCOM6300	Computing I: Design and Analysis of Algorithms	COMP231, COMP232
MCOM6302	Mathematical Modeling and Simulation	
MCOM6304	Research Methodology and Tools	
MCOM6307	Probability, Queuing Theory and Statistics	

Note: All students are required to complete MCOM6304 within the first 15 hours of their registration in the program.

B. Elective Courses (18 Credit Hours)

Students are required to take 18 credit hours from the following elective courses

- “Computer and Engineering” Concentration Elective Courses:

Course No.	Course Title	Prerequisite(s)
MCOM6308	Advanced Computer Networks	
MCOM7321	Computational Fluid Mechanics	
MCOM7322	Real Time Systems	
MCOM7323	Information Theory and Coding	
MCOM7324	Digital Signal Processing (DSP)	
MCOM7325	Cryptography and Network Security	
MCOM7340	Software Engineering	
MCOM7341	Advanced Artificial Intelligence	
MCOM7342	Topic in Knowledge Management	
MCOM7343	Advanced Graphics and Visualization	
MCOM7348	Special Topics in Advanced Computer Science	

- “Mathematics and Natural Sciences” Concentration Elective Courses:

Course No.	Course Title	Prerequisite(s)
MCOM7312	Numerical Optimization	
MCOM7313	Introduction to Discrete Dynamical Systems and Chaos Theory	
MCOM7314	Statistical Design and Analysis Methods	
MCOM7330	Quantum Mechanics and Spectroscopy	
MCOM7331	Statistical Mechanics	
MCOM7332	Atomistic and Molecular Simulations	
MCOM7333	Computer Aided Molecular Design (CAMD)	
MCOM7334	Advanced Electronic Structure Theory	
MCOM7338	Special Topics in Computational Physical Sciences	

C. Track A or Track B: 6 Credit Hours : Thesis or Two Seminars in Concentration Area

Track	Track Title	Courses	Prerequisite(s)
Track A	Thesis	MCOM860	The completion of all Compulsory courses
Track B	Seminar	MCOM830 and MCOM831	

Computing Course Descriptions (MCOM)

MCOM6300 Computing 1: Design and Analysis of Algorithms

Analysis techniques, worst-case and average-case analysis, induction, recursion, recurrence relations, and divide-and-conquer design technique. Advanced topics such as Network flows, Advanced Data structures (e.g. Fibonacci heaps, splay trees, dynamic trees), Linear programming, approximation algorithms. Dealing with large data sets, other design techniques such as greedy-method and dynamic-programming, graph algorithms, and text processing algorithms.

Prerequisite: COMP232 and COMP231 or their equivalents.

MCOM6301 Computing 2: Principles of Computer Systems Engineering

Fundamentals of networks, security, and computer architecture. Internet architecture and layering, Internet algorithms and protocols such as TCP, UDP, application layer protocols and routing protocols. Cryptography, symmetric key and public key, Hash functions, digital signature, message authentication code, passwords and biometrics authentication. Instruction set architectures, addressing modes, register transfer notation, processor design and computer arithmetic, memory systems implementation, pipelining processing.

MCOM6302 Mathematical Modeling and Simulation

Derivation of mathematical models through algebraic equations, differential equations, input and output relations, and through creating diagrams for natural, architectural and modern systems and their programming. Simulation and its applications.

MCOM6303 Numerical Solution of Differential Equations

Iterative methods for systems of equations, approximation of eigenvalues and eigenvectors, numerical solution of initial and boundary value problems.

MCOM6304 Research Methodology and Tools

The scientific method of research, printed and electronic research resources and documentation methods, copyrights and patents, research topic selection, definition of problems and solutions, methods of proposal writing, methods of writing research findings, and research evaluation. Computer based research tools for computing, for typesetting, plotting packages, prototyping packages and symbolic and numerical math packages. Research ethics, introduction on laws and legislations in engineering and IT

MCOM6305 Linear Algebra and Differential Equations

Matrices and systems of linear equations, determinants, bases and dimension of vector spaces, linear transformations and matrix representations of linear transformations, inner products and norms, eigenvalues and eigenvectors. First order and first degree equations, homogeneous differential equations with constant coefficients, the method of undetermined coefficients, reduction of order, variation of parameters, series solutions. Laplace transforms, systems of linear differential equations, introduction to partial differential equations and the method of separation of variables.

MCOM6306 Finite Elements Methods

Formulation of physical problem, finite element modeling in generalized coordinates and natural (simplex) coordinates, numerical solution of the finite element equations in linear and nonlinear systems, solution methods for eigenvalue problems.

MCOM6307 Probability, Queuing Theory and Statistics

Review of fundamental rules of probability and distributions, Stochastic Processes, Monte Carlo Methods, Poisson and Exponential processes, Birth-Death Process, Markov chains. Topics in Queuing Theory: Simple Markovian queuing models, Finite population models, Network of queues: Burke theorem, Jackson theorem. Topics in statistical inference, Sampling Theory, Estimation Theory: Point Estimate, Interval Estimate, confidence Interval, Maximum Likelihood Estimation, Minimum Mean Squared Error Estimation, Curve Fitting and Linear Regression, Hypothesis Testing: Test of Means, Test of Variances, Bernoulli Tests, Nonparametric Tests.

MCOM6308 Advanced Computer Networks

Principles of network addresses and subnitting and focus on routing algorithms and protocols such as OSPF and BGP. The implementations for advanced networking services. Wireless and mobile networks, the principles of addressing and routing to mobile users. Multimedia networking, streaming stored audio and video. Network management.

Prerequisite: MCOM6301 or equivalent

MCOM7312 Numerical Optimization

Optimization problem and illustrative examples, convexity, optimality conditions and duality, linear and multidimensional search methods, penalty and barrier functions, methods of feasible directions, linear complementary problems, quadratic, separable, fractional and geometric programming.

MCOM7313 Introduction to Discrete Dynamical Systems and Chaos Theory

Stability and chaos in one and two-dimensional maps and an introduction to fractal geometry.

MCOM7314 Statistical Design and Analysis Methods

Random variables, random sampling, random variable distributions, correlation, linear and multiple regression, analysis of variance for simple and multiple regression, principles of experimental design, types of experimental designs, statistical analysis of various designs including single-factor and multiple-factor designs.

MCOM7321 Computational Fluid Mechanics

Dynamics of a body moving through a fluid medium, inviscid fluid flow, inverse methods applied to superposition of elementary flows, viscous fluid flow, self similar laminar boundary layer flows, pipe and open channel flows, instability in fluid flow, numerical solution of Navier-Stoke equations.

MCOM7322 Real Time Systems

An overview of real time systems and their applications, terminology, problems and architectures, sensors and actuators, modeling of real-time systems, real-time operating system kernels, architecture of micro-controllers, real-time communications, scheduling algorithms and their applications.

MCOM7323 Information Theory and Coding

Informetrics, information sources, entropy, source coding, unique optimal codes, discrete channel, mutual information, conditional entropy, channel capacity, continuous channel, Galois field, error detection and correction codes, transmission strategies, linear block, cyclic and convolution codes.

MCOM7324 Digital Signal Processing (DSP)

Signals, Gram-Schmidt orthogonalization, linear time invariant systems (LTI), the sampling theorem, modeling of discrete systems in t , z , and t -domain, design and implementation of FIR and IR digital filters, linear filtering methods algorithms, DFT discrete convolution, FFT-algorithms, spectrum estimation, multirate DSP, linear prediction, optimal filters, least square methods.

MCOM7325 Cryptography and Network Security

Introduction to basic number theory and theory of finite fields, encryption schemes, cryptanalysis, symmetric ciphers, block ciphers, public key ciphers such as RSA, ElGamal, cryptosystem, complexity, stream ciphers, affine ciphers, hash functions, digital signature algorithm (DSA), data encryption standards (DES).

MCOM7330 Quantum Mechanics and Spectroscopy

Standard methods of quantum mechanics, perturbation theories, approximation techniques for bound and scattering problems, eigenvalues and eigenfunctions. Soluble bound state and continuum state problem, spin and identical particles, atoms and molecules in time-dependent electric and magnetic fields.

MCOM7331 Statistical Mechanics

Thermodynamic equilibrium and statistical mechanics, ensemble theory, partition functions, applications to ideal gas and crystals, theories of simple liquids, Monte Carlo and molecular dynamics simulations and reaction dynamics from a microscopic viewpoint.

MCOM7332 Atomistic and Molecular Simulations

Potentials for atomistic simulations: pair potentials, Leonard-Jones potentials, embedded atom method, Monte Carlo simulations, classical and quantum molecular dynamics, and the applications of simulation methods to selected problems in various fields.

MCOM7333 Computer Aided Molecular Design (CAMD)

Computer graphics, realistic images, 3D objects, displaying molecular shapes (representation of structural and property shapes), access to experimental geometrical parameters (x-ray diffraction, NMR Cambridge Database, Brookhaven Protein data bank), empirical force field methods and molecular mechanics, Monte Carlo and molecular dynamics simulations, exploring conformation space model builders, quantum chemistry methods used in CAMD, modeling proteins and drug receptor interactions.

MCOM7334 Advanced Electronic Structure Theory

Methods for band structure calculations and their role in condensed matter research. Basic methods of calculation: Plane-waves. Localized-Orbitals: Tight-binding, Full calculations. Augmented functions: KKR, Augmented plane wave methods, linear methods.

MCOM7338 Special Topics in Computational Physical Sciences

In-depth study of a special topic related to physical science, selected according to the interest of faculty members and students.

MCOM7340 Software Engineering

Introduction to Software Engineering, Software life-cycle and process models. Project management, software cost estimation, software requirements, specifications and system models. Software design, organizational design, oriented design, UML, software testing and ensuring the availability of system requirements.

MCOM7341 Advanced Artificial Intelligence
Design and implementation of intelligent systems, study of selected topics in artificial intelligence such as efficient search, knowledge representation and automated reasoning, agents, robotics and pattern recognition. Learning and examples of learning. Artificial Neural Networks, fuzzy and probabilistic logic, the course will include a design project, and an independent study of some of the above topics.
MCOM7342 Topics in Knowledge Management
Databases, data mining and data analysis. Design and analysis of data bases, extracting knowledge from traditional database management systems, tasks and algorithms of data mining, the efficiency and measurement of the usefulness of extracted knowledge.
MCOM7343 Advanced Graphics and Visualization
Introduction to data visualization methods and tools, related graphics techniques, the use of graphics, animation, sound, visualization software, and methods of presenting information to the user, methods of presenting complex information to enhance comprehension and analysis, incorporation of visualization techniques into human-computer interfaces. Exploring a group of methods for representing data and developing appropriate forms and algorithms. Practical applications of graphic representation in the fields of engineering and biomedicine.
MCOM7348 Special Topics in Applied Computer Science
In-depth study of a special topic related to applied computer science, selected according to the interest of faculty members and students.
MCOM830 Seminar
Advanced study of a topic related to scientific computing concentration. Writing a substantial research report and presenting it in class. <i>Prerequisite: the completion of all Compulsory courses.</i>
MCOM831 Seminar
Advanced study of a topic related to scientific computing concentration. Writing a substantial research report and presenting it in class. <i>Prerequisite: the completion of all Compulsory courses.</i>
MCOM860 Thesis
Writing a thesis in the field of specialization according to the approved instructions for writing master's thesis.

Master Program in Sustainable Engineering in Production
(Joint Program with An-Najah University)

The [faculty of Engineering and Technology](#) in Birzeit University offers a joint [Master program of Sustainable Engineering in Production](#). This program is offered jointly in cooperation with the faculty of Higher Education in An-Najah National University. Sustainable engineering refers to the integration of social, environmental, and economic considerations into product, process, and their design methods. Sustainable engineering requires the consideration of the complete product and process lifecycle during the design phase. The intent is to minimize environmental impacts across the entire lifecycle (that includes material, production, usage and end of life of product) while simultaneously maximizing the benefits to social and economic stakeholders. Sustainable engineering is a way of engineering that meets the needs of the present, preserves the environment, and considers the possible needs of future generations.

Admission requirements

1. Bachelor degree in Engineering from accredited university. Remedial course could be required in certain cases.
2. Grade good or above

Program requirements

Students are to pass successfully 36 credit hours (CH), whereas, 15 compulsory credit hours, 15 elective credit hours and 6 credit hours for Master thesis or two seminars. Offered courses are within three topics of quality, production and sustainability, and are distributed as follows:

A. Compulsory courses: 15 credit hours as follows:

Course No. in Birzeit University	Course No. in An-Najah University	Course Title	Course Offered by:
ENSU631	523001	Research methodology and Scientific writing	Birzeit University
ENSU632	523002	Quality design and control	An-Najah University
ENSU634	523003	Manufacturing and factory planning	An-Najah University
ENSU635	523004	Sustainable Engineering	Birzeit University
ENSU636	523005	Energy efficiency and renewable energy in Production	Birzeit University

B. Elective courses: 15 credit hours as follows

Course No. in Birzeit University	Course No. in An-Najah University	Course Title	Course Offered by
ENSU6311	523021	Project management	An-Najah University
ENSU6312	523022	Quality management and techniques	An-Najah University
ENSU6313	523023	Special topics in Quality engineering	Birzeit and An-Najah Universities

ENSU6321	523024	Engineering cost and production economics	Birzeit University
ENSU6322	523025	CAD/CAM & Systematic production development	An-Najah University
ENSU6323	523026	Advanced manufacturing processes	Birzeit University
ENSU6324	523027	Experimental methods	Birzeit University
ENSU6326	523028	Modeling, Simulation and characterization	Birzeit University
ENSU6327	523029	Special topics in production engineering	Birzeit and An-Najah Universities
ENSU633	523030	Automation and production	An-Najah University
ENSU6331	523031	Life cycle analysis	An-Najah University
ENSU6332	523032	Clean production	An-Najah University
ENSU6333	523033	Water Efficiency and Water & wastewater Treatment Technologies in industry	Birzeit University
ENSU6343	523034	Special topics in sustainable engineering	Birzeit and An-Najah Universities
GADS639 *	523035	Development policies	Birzeit University
ECON735 **	523036	Economic development	Birzeit University

*Master program Gender and Development Studies

**Master in Economics program

C. Remedial courses:

Determined according to the requirements of each student before admission.

D. Track “A” or Track “B”: 6 credit hours either a thesis or two seminars:

Track	Course No. in Birzeit University	Course No. in An-Najah University	Credit hours	Prerequisite
Track “A”	Thesis ENSU860	523006	6	Completing Compulsory Courses
Track “B”	Seminar 1 ENSU830	523007	3	Completing Compulsory Courses
	Seminar 2 ENSU831	523008	3	Completing Compulsory Courses

Sustainable Engineering in Production Course Description (ENSU)

ENSU631 (523001) Research Methodology and Scientific writing

Introduction to research methods. Qualitative and Quantitative approaches in research, experimental reporting of production process. Funding proposal writing. Engineering thesis proposal writing. Writing scientific paper, and reviewing scientific paper. Preparation of a scientific patent of a product. Using LATEX software for word processing. Using Corel Draw software, Citation and using library. Writing Ethics, Scientific Conference Paper presentation.

ENSU632 (523002) Quality Design and Control

Advanced topics in quality design and control including Analytical Quality and Decision and Planning tools, statistical process, process capability, reliability, design of experiment, and six sigma.

ENSU633 (523030) Automation and Production

Automatic control of servo systems. Actuators and sensors. Numerical control, PLC control. Flexible manufacturing systems. Assembly machine and mechanical systems, types and classifications of robots, applications and case studies, Experimentation on flexible manufacturing system.

ENSU634 (523003) Manufacturing and factory planning

Concepts and definitions of factory works. Factory types. Culture, man and automation, Work and technique, evaluation of techniques. Product and process innovation. System theory, Simulation of production equipment. Factory planning, location planning, planning of layout and material flow. Planning of operation facilities. Planning of industrial buildings and their elements. Launching of operations. Concepts of control, Recycling engineering.

ENSU635 (523004) Sustainable Engineering

Global changes and challenges. Sustainability concept. Earth support systems and natural resources. Agriculture and productivity. Industrial ecology, eco systems and ecosystem health. Introduction to green engineering. Assessing sustainability.

ENSU636 (523005) Energy efficiency and renewable energy in production

Energy statistics, prices and indicators, energy conversion and energy efficiency. Electric energy efficiency in lighting, motors and power factor. Energy efficiency for pumping and compressed gas systems. Efficiency for combustion, furnaces, boilers and process heat systems, and cooling systems. Solar water heating. Combined heat and power. Electricity from renewable energy resources. Economic assessment for energy alternatives.

ENSU6311 (523021) Project Management

Classification of engineering projects, project organization, project budgeting, project scheduling techniques (Network Techniques: CPM, PERT and Gantt charts), resources allocation, cost control, project termination and auditing.

ENSU6312 (523022) Quality Management and Techniques

Total quality management, the requirements and the implementation of quality and environmental management systems for organizational excellence such as ISO 9000 and ISO 14000. Conducting quality audits, excellence models, quality function deployment, assessment of quality programs. Lean manufacturing

ENSU6313 (523023) Special topics in quality engineering

Study of special topic in quality engineering according to availability of instructors and student interest.

ENSU6321(523024) Engineering cost and production economics

Cost management concept, activity-based costing, product costing. Budgeting, Standard costing, Activity-based management. Cost of quality. Productivity. Feasibility study, capital investment, inventory management.

ENSU6322 (523025) CAD/CAM and Systematic production development

CAD/CAM technology in a systematic production development such as: Systematic Production Development, Product Planning Solution finding methods, selection and evaluation methods, Developing size range and modular products. Rules of Embodiment Design. Design for Minimum Costs. Design for quality and quality examination. Design for Manufacturing and Assembly. CAD/CAM implementation.

ENSU6323 (523026) Advanced manufacturing processes

Manufacturing processes techniques such as casting, sheet metals, non-conventional machining, and nanotechnology. Group Technology. Rapid Prototyping. Production Lines, Micro-fabrication technologies. Lean manufacturing system. Nontraditional machining and thermal cutting processes.

ENSU6324 (523027) Experimental methods	
Introduction to measurements and measuring systems, three phase stage measurement, measurement sensors, filters, amplifiers and signal generators, Digital signal acquisition and A/D - D/A conversions, data processing and power spectral, Fourier transform, error calculation.	
ENSU6326 (523028) Modeling, Simulation and Characterization	
Physical systems (Mechanical, Electrical, Fluid, Thermal), Direct and indirect process characterization. Block diagrams and analysis. Mathematical models (input, output, transfer function), Time domain analytical modeling. Frequency domain analytical modeling & Laplace transform. State space approach. Numerical Simulation (MATLAB – SIMULINK)	
ENSU6327 (523029) Special topics in production engineering	
Study of special topic in production engineering according to availability of instructors and student interest.	
ENSU6331 (523031) Life cycle analysis	
History and framework for life cycle analysis. Life cycle approach. ISO104040 standards. Process flow diagrams and process flow charts, material and energy balances. Life cycle costing. Life cycle impact assessment. Life cycle analysis tools.	
ENSU6332 (523032) Clean production	
Concept of clean production. Introduction to life cycle analysis. Industrial emissions and their impact on environment. Pollution mitigation measures and technologies, standards & regulations for industrial pollution. Reuse, recycling and remanufacturing concepts. Design for environment.	
ENSU6333 (523033) Water Efficiency and Water and wastewater Treatment Technologies in industry	
Water supply and demand and water challenge. Water use in manufacturing. Reducing water consumption. Reuse and recycling of water. Water saving mechanisms. Water and wastewater treatment. Water efficiency and energy efficiency issues. Economic analysis of water conservation. Water auditing.	
ENSU6343 (523034) Special topic in sustainable engineering	
Study of special topic in sustainable engineering according to availability of instructors and student interest.	

ENSU830 (523007) Seminar 1

Advanced study in the fields of production, sustainability or quality engineering. Report writing or documentation of a research project.

Prerequisite: Passing all compulsory courses successfully

ENSU831 (523008) Seminar 2

Advanced study in the fields of production, sustainability or quality engineering. Report writing or documentation of a research project.

Prerequisite: Passing all compulsory courses successfully.

ENSU860 (523006) Thesis

Scientific research in the fields of sustainability, production or quality engineering according to the thesis instructions adopted by the university.

Prerequisite: Passing all compulsory courses successfully

Master Program in Software Engineering

The mission of the [Master Program in Software Engineering \(MScSE\)](#) is to provide a quality education in software engineering, to prepare students, in Palestine, to become professional software engineers, entrepreneurs and leaders that are able to develop competitive solutions that are innovative yet reliable so that they may contribute to developing the software industry in the country and/or pursue a more advanced research degree by providing them with advanced concepts, knowledge, skills including global virtual teamwork skills, best practices, and the ability to continue to advance professionally in the global software engineering discipline.

Admission Requirements:

Applicants should have BSc in one of the following areas computer science, computer engineering, electrical engineering or related fields. Also BSc degrees in other areas with related working experience might be considered.

Applicants should have background in the following topics: data structure, object-oriented programming, database (first university course), statistical (first university course). Applicants that lack knowledge in any of background topics have to take undergraduate courses as Prerequisite courses.

In addition to the general requirements of the university.

Program Requirements:

A student should successfully finish 36 credit hours credit hours to fulfil the requirements for the degree of Master in Software Engineering. The program structure is divided into three categories: 18 credit hours of Compulsory courses, 12 credit hours of elective courses, in addition to either 6 credit hours for thesis or two seminars 3 credit hours each, depending on the chosen path. Path A is the thesis path while Path B is the seminar path.

A. Compulsory Courses: 18 credit hours of courses include the following:

Course No.	Course Title	Prerequisite(s)
SWEN6301	Software Construction	
SWEN6302	Research Methods in Software Engineering	
SWEN6303	Software Requirements Engineering	
SWEN6304	Software Design and Architecture	
SWEN6305	Software Engineering Management	
SWEN7301	Software Testing and Quality Assurance	SWEN6301

B. Elective Courses: 12 credit hours from the following:

Course No.	Course Title	Prerequisite(s)
SWEN6306	Global Software Engineering Team	SWEN6305
SWEN6307	Service-Oriented Software Engineering	
SWEN6308	Software Engineering of Internet-based Application	
SWEN7303	Software Engineering for Distributed Systems	
SWEN7305	Human Computer Interaction (HCI)	SWEN6303

SWEN7304	Software Maintenance and Evolution	SWEN6301
SWEN7306	Software Engineering in Mobile Computing	
SWEN7307	Data Mining and Knowledge Discovery	
SWEN7308	Special topics	Program Committee Approval
SWEN7309	Independent Study	Program Committee Approval
SWEN7310	Knowledge Engineering	
SWEN7311	Advanced Research Topics in Software Engineering	SWEN6302
SWEN7312	Software Engineering Team Project	
SWEN7313	Secure Software Development	

C. Path A or B: 6 credit hours: either Thesis or two Seminars

Track	Course Title	Prerequisite(s)
Track A	SWEN860	As instructed by the academic regulations for Graduate Studies in force in the university
Track B	SWEN830	Successful finish 15 credit hours of the compulsory courses including the SWEN6302 course
	SWEN831	

Remedial courses: The student to take a maximum of 9 hours from the following courses

Course No.	Course Title
STAT231	Introduction to Statistic
COMP231	Advanced Programming
COMP232	Data Structure
COMP333	Database Management Systems

Conditions continue in the program

Fulfill the continuation conditions as stated by the university academic regulations

Software Engineering Course Descriptions (SWEN)

SWEN6301 Software Construction

In-depth study of software construction, software construction fundamentals (minimizing complexity, anticipating change, constructing for verification and standards in construction), managing construction (construction models, construction planning and construction measurement) and practical considerations (construction design, construction languages, coding, construction testing, reuse, construction quality, configuration management, automation, and integration). This course aims to provide students with comprehensive understanding of concepts and techniques in software construction, analysis of practical considerations and applied use of code verification, configuration management tools and conventions through a team project work.

SWEN6302 Research Methods in Software Engineering

Research Methods applicable to Software Engineering: definition of scientific research, scientific research approaches: inductive, conductive and deductive; bibliography and citations, ethical principles in research, qualitative and quantitative methods; action research, analytic research, define and collect appropriate software metrics, introduction to empirical research methods and techniques, and statistical analysis. The course will cover general techniques applicable to any research project, including formulating research questions, theory building, data analysis, building evidence, assessing validity, and publishing. The course aims to provide students with comprehensive understanding and analysis of research methods and apply these methods through relevant case studies and research investigation in software engineering research questions.

SWEN6303 Software Requirements Engineering

The state-of-the-art and state-of-the-practice in software requirements engineering are explained. Topics include how to determine, specify and validate the requirement (both functional and non-functional) of a software system. In-depth coverage of requirement engineering methods, techniques, tools, notations, or validation techniques for the analysis and specification of software requirements. The course aims to develop comprehensive understanding in requirements engineering techniques and methods, and apply them through case studies, team project work and research investigations.

SWEN6304 Software Design and Architecture

Advanced concepts about software design and software architecture. Design patterns, Architectural structures and styles, Methods for creating and analyzing software architecture, interaction between quality attributes and software architecture, software architecture validation and documenting architecture, in depth study of current software architecture research topics such as Services Oriented Architecture (SOA). The course aims to provide students with comprehensive knowledge of system design and architecture evaluate and apply architecture designs through team project work and research investigation.

SWEN6305 Software Engineering Management

Lifecycle and process models, process metrics, planning for a software project, mechanisms for monitoring and controlling schedule, budget, quality, productivity, leadership, motivation, and team building. Quantitative models of the software lifecycle, cost-effectiveness analysis in software engineering, uncertainty and risk analysis, software cost estimation, and software engineering metrics. The course also will cover professional skills: professional, ethical, legal aspects, within individual and team contexts. The course is aims to provide students with a comprehensive understanding and analysis of the concepts and techniques for project management, risk assessment and effort estimations, and apply project management techniques and tools through case studies and team project work with emphasis on observing code of conduct, professional, ethical, and legal concerns.

SWEN6306 Global Software Engineering Team

This course covers the principles and techniques for Distributed Software Development: outsourcing phenomenon, outsourcing models, global software development models: component-based models, function-based models, implementation-based models; virtual teams factors: team building, resource allocation, human factors-distance, time and cultural differences; globally-distributed projects, Collaborative tools and environments for global software development, Requirements engineering for distributed projects, Process models especially agile methods, Software project management for distributed projects and Assessing coordination risk. The course aims to provide students with advanced understanding of concepts and methods of distributed team work, analyze and evaluate differences in distributed project configurations, and apply and use collaborative tools through distributed team project work and research investigations, with emphasis on observing distance, time and cultural differences.

Prerequisite: SWEN6305

SWEN6307 Service-Oriented Software Engineering

State-of-the-art coverage of service-orientation engineering principles. It includes an in-depth coverage of key concepts of service orientation, service models, and service standards. The course will also study service design methodologies, business service modelling, service development; service-based technologies (cf WSDL Services, RESTful services); The course will focus on the software engineering methods in service-orientation with applied skills on service design and modelling. The course aims to provide students with advanced and in-depth understanding and analysis of service-oriented engineering methods and techniques, and apply these techniques through team project work and research investigations.

SWEN6308 Software Engineering of Internet-based Application

Advanced engineering techniques of internet-based applications. It includes an in-depth coverage of topic on internet applications as a domain: users, context, accessibility, business-orientation; characteristics and requirements of internet-based applications: e.g. aesthetics, spontaneity, ubiquity, compatibility, security, scalability, usability, portability, multilingualism, globalism. Also the state-of-the-art coverage of web engineering web applications development process models, web development frameworks; web architectures (cf. web platform architectures, web application architectures), web application modelling: web design models. The course aims to provide students with advanced and in-depth understanding and analysis of the software engineering methods and techniques of internet-based applications for web design and modeling, and apply these techniques through team project work and research investigation.

SWEN7301 Software Testing and Quality Assurance

Concepts and techniques for testing software and assuring its quality: software testing types: unit, module, subsystem, and system levels tests; testing plan generation, testing plan validation: automatic and manual techniques for generating and validating test data; the testing process: static vs. dynamic analysis, functional testing, inspections; software quality testing: such as reliability, performance, security and robustness, vs quality metrics validation. The course is aims to provide students with a comprehensive and in-depth understanding and analysis of the concepts and techniques for testing software and assuring its quality, and apply various testing methods to implement a testing plan through team project work and research investigation.

Prerequisite: SWEN6301

SWEN7303 Software Engineering for Distributed Systems

Design and engineering principles of distributed systems. It includes in-depth study on how large-scale, distributed computational systems are designed and built, and mechanisms to evaluate them and the design considerations of Distributed Systems: Scalability, Openness, Heterogeneity, Concurrency, Fault-tolerance, Transparency, Performance and Management, It covers distributed software architectures, including transaction oriented, message oriented, with focus on design mechanisms and approaches for remote invocation, naming, synchronization, consistency and replication, and fault tolerance. The course places focus on the engineering of distributed systems and their applications within the context of real world distributed systems, including cloud and grid computing. The course aims to provide students with advanced understanding and analysis of engineering methods and techniques of distributed systems, and apply these techniques through team project work and research investigations.

SWEN7304 Software Maintenance and Evolution

Introduction to software maintenance, defect management, corrective, adaptive and perfective maintenance. Evolution of legacy software systems. Program comprehension techniques, reverse engineering, restructuring, refactoring of software systems. Software re-engineering, data reverse engineering. Software reuse. Impact analysis, regression testing. This course aims to provide students with advanced understanding of concepts and techniques of software maintainability, and applied use of configuration management tools and reverse engineering through a team project work and research investigation.

Prerequisite: SWEN6301

SWEN7305 Human Computer Interaction (HCI)

Human Computer Interaction & User Interface Design. The course covers human-interactive models, usability design patterns and development methods that can be applied to the design and evaluation of interactive systems, including user-centered design, participatory design, usability engineering, task analysis, cognitive models and human perception, user interface design, internationalization and localization. The course aims to provide students with advanced understanding of the importance of human factors and design of interactive system, analysis and evaluation of usability, and apply interactive designs through team project work and empirical research investigation.

Prerequisite: SWEN6303

SWEN7306 Software Engineering in Mobile Computing

This course covers software design and development of mobile computing. It covers advanced concepts related to engineering methods of mobile applications development including; location aware technologies; mobile web services; and integrated sensors such as touch- and gesture-based UIs. The course covers recent development integrated environments, mobile architectures, operating systems and mobile applications testing approaches. The course aims to provide students with advanced understanding and analysis of concepts and methods mobile computing, analyze and evaluate user interface design techniques, and apply these techniques through team project work and empirical research exercise.

SWEN7307 Data Mining and Knowledge Discovery

An advanced and up-to-date knowledge in the field of Knowledge discovery process. Designing & Implementing data-warehousing. Tasks and algorithms of data mining. Classification methods including Decision trees (building, pruning, evaluation), Rule-based, Nearest Neighbor, Bayesian. Feature selection and Frequent item sets and association methods: Apriori, Compact Representation, FP trees. Clustering methods: k-means, Bisecting k-means, Agglomerative. The course also covers topics in Web-mining techniques and methods. The course aims to provide students with advanced and in-depth understanding and analysis of the data mining methods and techniques in knowledge discovery, and apply these techniques through team project work and research investigation.

SWEN7308 Special topics

Selected topics in the field of Software Engineering or Computer Science of interest to both faculty members and students.

Prerequisite: Program Committee Approval

SWEN7309 Independent Study

Independent study or research conducted by the student under the guidance of staff member. A written report is required.

Prerequisite: Program Committee Approval

SWEN7310 Knowledge Engineering

The course will cover modeling and representations of the state-of-art knowledge-based systems. The course consists of three modules:

- (i) Conceptual analyses of applications' business logic using Object Role Modeling, business rules, contradiction and implication between rules, optimization and re-engineering.
- (ii) Formal specifications languages: description logic, and OWL
- (iii) Modern knowledge-based applications, including smart data integration and interoperability of networked systems, Digital Libraries design, Semantic-based Web Services, among others.

This course aims to enrich students with theoretical and practical skills in modeling, representation, and management of business rules and building of knowledge-based systems and research investigation in these topics.

SWEN7311 Advanced Research Topics in Software Engineering

Advanced research topics and methods in Software Engineering. It includes an in-depth coverage of Empirical research methods and techniques, advanced statistical analysis; methods for research development, conducting literature reviews and advanced skills in writing research for publishing research. The course focuses on the application of advanced research techniques in software engineering focusing on selected topics, with applied skills on research proposal development, research methods selection and research method evaluation. The course aims to provide students with in-depth critical analytical skills in research development and advanced research methods, techniques and apply these through a substantial critical analysis and research investigation.

Prerequisite: SWEN6302

SWEN7312 Software Engineering Team Project

The state-of-the-art in project team formulation and conduction practices using modern software engineering development tools. Unified modelling tools, agile development processes and best practices for technical report writing will be covered. The course will encompass the actual running of a substantial team software project, in which students will apply the learned software engineering methods and techniques, and practice their software development skills and tools. The students will apply and experience all the stages of developing a complex software system: feasibility analysis requirements engineering, design, implementation, testing and validation. The course aims to provide students with advanced applied and analytical skills of software engineering methods and techniques with strong emphasis on team building, communication and leadership through team project work.

SWEN7313	Secure Software Development
Secure software development concepts and methods. Memory-based attacks, such as buffer overflow, code injection, format string attacks. Defenses against memory-based attacks, such as memory safety, type safety, control-flow integrity and secure coding. Web security including SQL injection, session hijacking, cross-site scripting. Designing and building secure software by including security in all phases of software development lifecycle. Automated code review with static analysis and symbolic execution.	
SWEN830	Seminar 1
Review, analyze and discuss a number of research published in scientific journals in the field of software engineering, presentation and discussion of the principles of scientific integrity and ethics of scientific research, writing a scientific paper in a specific topic chosen by the student include a review of a sufficient number of literature and presented for discussion with the teacher and students of the course and re-drafting of the paper on the basis of discussion and observations. <i>Prerequisite: Successful finish 15 credit hours of the compulsory courses including the SWEN6302 course.</i>	
SWEN831	Seminar 2
Read, analyze and discuss a number of research published in scientific journals in the field of software engineering, presentation and discussion of the principles of scientific integrity and ethics of scientific research, writing a scientific paper in a specific topic chosen by the student include a review of a sufficient number of literature and presented for discussion with the teacher and students of the course and re-drafting of the paper on the basis of discussion and observations. <i>Prerequisite: Successful finish 15 credit hours of the compulsory courses including the SWEN6302 course.</i>	
SWEN860	Thesis
Students in the Master program choosing the thesis track must submit and successfully defend a Master thesis in a field of interest in software engineering. The program council must have approved the topic of the thesis. (For students with thesis track only.)	

Master Program in Electrical Engineering
(Joint Program with Palestine Polytechnic University)

The [Faculty of Engineering and Technology](#) at Birzeit University offers a joint [Master program in Electrical Engineering](#). This program is offered jointly in cooperation with the Faculty of Graduate Studies and Research at Palestine Polytechnic University.

Admission requirements

1. Bachelor degree in relevant Engineering Disciplines from accredited university. Remedial course may be required in certain cases.
2. Grade good or above

Program requirements

1. Students are to pass successfully 36 credit hours, whereas, 15 compulsory credit hours, 15 elective credit hours and 6 credit hours for Master thesis.

The program offers two concentrations; Communications, and Power. The program courses are distributed as follows:

A. Compulsory courses:

A.1. Concentration of Communication Compulsory Courses 15 credit hours as follows:

Course No	Course Title	Prerequisite(s)
JMEE6301	Research methodology and Professional Ethics	
JMEE6302	Mathematical methods in Electrical Engineering	
JMEE6303	Data Networks and Protocols	
JMEE6304	Mobile Communication Systems	
JMEE6305	Advanced Telecommunication Networks	

A.2. Concentration of Power Compulsory Courses 15 credit hours as follows:

Course No	Course Title	Prerequisite(s)
JMEE6301	Research methodology and Professional Ethics	
JMEE6302	Mathematical methods in Electrical Engineering	
JMEE6306	Power Electronic Converters and Applications	
JMEE6307	Power Systems Planning	JMEE6302
JMEE6308	Renewable Energy and Grid Integration	JMEE6306

B. Elective courses:

B.1. Concentration of Communication Elective Courses 15 credit hours as follows:

Course No	Course Title	Prerequisite(s)
JMEE7301	Advanced Wireless Communications	JMEE6302
JMEE7302	Multimedia Networking	JMEE6303
JMEE7303	Sensor Networks	JMEE6303, JMEE6305
JMEE7304	Digital Signal Processing	JMEE6302
JMEE7305	Advanced Antenna Systems	
JMEE7306	Advanced Digital Communications	JMEE6302
JMEE7309	A Special Topic in Communications Engineering	Program Committee Approval

B.2. Concentration of Power Elective Courses 15 credit hours as follows

Course No	Course Title	Prerequisite(s)
JMEE7311	Power Systems Operation and Management	JMEE6302
JMEE7312	Smart Grids	
JMEE7313	Advanced Motor Drives and Applications	JMEE6306
JMEE7314	Power Quality and Standards for MicroGrids	
JMEE7315	Modern Control	JMEE6302
JMEE7319	A Special Topic in Power Engineering	Program Committee Approval

C. Remedial courses:

Determined according to the requirements of each student before admission.

D. Thesis: 6 credit hours thesis:

Course No	Course Title	Credit Hours	Prerequisite(s)
JMEE860	Master Thesis	6	Completing compulsory courses

Electrical Engineering Course Descriptions (JMEE)

JMEE6301 Research Methodology and Professional Ethics

Definition of scientific research, scientific research approaches: inductive and deductive; bibliography and citations, ethical principles in research, qualitative and quantitative methods; action research, analytic research, define and collect appropriate software packages, introduction to empirical research methods and techniques, and statistical analysis. General techniques applicable to any research project, including formulating research questions, theory building, data analysis, building evidence, assessing validity, and publishing.

JMEE6302 Math Methods in Electrical Engineering

Linear Algebra using Eigen expansions, Sturm-Liouville problems and orthogonal functions in orthogonal coordinate systems, separation of variables, Fourier series, solution of boundary value problems for Laplace's equations, the heat diffusion equation and the wave equation in different coordinate systems, the Fourier integral, Bessel functions and Fourier-Bessel series, Legendre polynomials and Fourier-Legendre series.

JMEE6303 Data Networks and Protocols

Review of basic IP Network Concepts. Principles of Information Theory; source coding theorem, channel coding theorem, joint source-channel coding theorem, elements of rate-distortion theory. Function of the physical-layer, Lossless and lossy source coding algorithms and applications, Channel coding and applications. Function of the MAC-layer, ALOHA and Slotted-ALOHA, CSMA, CSMA/CD, and CSMA/CA, Ethernet, Scheduling, Performance analyses and quality of service. Function of the network-layer, Elements of queuing theory and quality of service.

JMEE6304 Mobile Communication Systems

System Architecture and Physical and Data link layer protocols for mobile systems such as Global System for Mobile Communications (GSM), Universal Mobile Telecommunications System (UMTS), 4G networks, 5G Networks, Long term evolution (LTE) and WiFi Networks, 3GPP standards such as W-CDMA and HSPA, HSCSD, GPRS, EDGE. Mobility management, Data Management, Mobile Ad Hoc and Sensor Networks, Resource Management, Cross-Layer Design.

JMEE6305 Advanced Telecommunication Networks

Methods and Techniques for the Design, Operation, and Performance Evaluation of Telecommunication Networks. Network Performance analysis, Protocol Design and assessment, Virtual Networks, Software Defined Networks (SDN), Self-maintainable and Self-Organized Networks, Cloud Computing, Network Programming.

JMEE6306 Power Electronic Converters and Applications

An introduction to power electronic devices and converters; characteristics and operational principles. DC-DC choppers; topologies and principle of operation. Fundamentals of loss-less switching techniques. Modeling and analysis of Resonant Converters. DC-AC inverters and Multilevel inverters. Characteristics and principles of Modulation Techniques. Applications: Switch mode power supplies, motor drives, and power utility related applications.

JMEE6307 Power Systems Planning

Mathematical methods and modern approaches to power system planning. Demand forecasting. Generation, Transmission and Distribution planning: deterministic and probabilistic methods, heuristic and stochastic methods, system layout, and choice of components. Route selection: environmental and economic considerations. Quantitative methods of long and short term planning.

Prerequisite: JMEE6302

JMEE6308 Renewable Energy and Grid Integration

Generation of renewable energy from various sources; with emphasize on photovoltaic and wind energies technologies. Storage elements' characteristics and technologies. Maximum efficiency techniques and algorithms. Generators for wind energy systems; construction and operation principle. Power Electronic Converters for energy conversion. Design of Hybrid and distributed power generation systems, and grid integration; technical challenges, practical understanding and limitations. Introduction to economics of renewable energy.

Prerequisite: JMEE6306

JMEE7301 Advanced Wireless Communications

Models of wireless channels (flat/frequency-selective fading, Rayleigh/ Rician/ Nakagami fading, and Jake's fading channel simulator). Orthogonal Frequency Division Multiplexing (OFDM), and Orthogonal Frequency Division Multiplexing Access (OFDMA), Spread Spectrum Communications, Space-time coding, MIMO wireless communication systems, Wireless cooperative and relay networks, Wireless sensor networks, Cognitive radio networks.

Prerequisite: JMEE6302

JMEE7302 Multimedia Networking

Speech coding, characteristics of speech coding, quantization techniques, adaptive differential pulse code modulation, voice coders, linear predictive coders, speech codes for mobile communications. Multimedia streaming and compression concepts, video encoding and decoding, operational rate-distortion theory, video traffic models, quality-of-service, joint source-channel coding, error control, rate control, traffic shaping, transcoding, scalable video coding, cross-layer design, multi-user resource allocation and fairness, multiple description coding and path diversity.

Prerequisite: JMEE6303

JMEE7303 Sensor Networks

Deployment of sensors networks, ranging and localization, MAC and routing protocols for sensor networks, energy harvesting, operating systems for wireless sensor networks, Power control and management, design methodologies and security issues, technology trends, emerging sensor/actuator/mobile platforms, Software tools, and software used for modern sensor network research, time synchronization.

Prerequisite: JMEE6303, JMEE6305

JMEE7304 Digital Signal Processing

Realization of FIR and IIR systems, robust digital filters, prediction and estimation as applied to statistical signal processing, multirate signal processing (sampling rate alteration), multidimensional signal processing, filter banks, wavelets, adaptive filters, digital signal processors, alternative algorithms for DFT computation. Different application examples and projects using MATLAB

Prerequisite: JMEE6302

JMEE7305 Advanced Antenna Systems

Method of moments, Geometrical theory of diffraction, microwave horn antennas, microstrip and low profile antennas, reflector antennas, lens antennas, dielectric and leaky-wave antennas, Smart antennas and beam forming antennas, Numerical techniques required for understanding advanced antenna topics, modern trend in modelling and application of various antenna systems, design considerations of using antennas in wireless communication systems. Radio Propagation in the Atmospheric Troposphere and Ionosphere.

JMEE7306 Advanced Digital Communications

Detection and estimation, Parameter estimation, Least-square, mean-square, and minimum-variance estimators, Maximum A Posteriori and Maximum-Likelihood (ML) estimators. Bayes estimation, Channel estimation, Propagation models, M-ary signalling and systems, System Performance in Fading channels, Diversity Techniques, Equalization.

Prerequisite: JMEE6302

JMEE7309 A Special Topic in Communications Engineering

Study of a particular subject related to advances in Communications Engineering depending on students' needs and instructors interests. Prerequisite: Program Committee Approval

JMEE7311 Power Systems Operation and Management

Operation and management of electrical power system: Mathematical methods and tools applied to power system operation. Characteristics of power generation units. Economic dispatch of generating units and methods of solution. Transmission system effects. Unit commitment, dynamic programming, Heuristic

methods. Hydrothermal coordination. Maintenance scheduling. Power interchange production cost models. Generation control. Reactive power dispatch and allocation. Optimal power flow using intelligence algorithms.

Prerequisite: JMEE6302

JMEE7312 Smart Grids

Cross-disciplinary subjects on smart grids that relate to energy generation, transmission, distribution, and delivery as well as theories, technologies, design, policies, and implementation of smart grids. Smart sensing, communication, and control in energy systems; advanced metering infrastructure; energy management in buildings and home automation; smart grid applications to plug-in vehicles and low-carbon transportation alternatives; cyber and physical security systems; microgrids and distributed energy resources; demand response and real time pricing and intelligent and outage management systems.

JMEE7313 Advanced Motor Drives and Applications

Introduction to AC motor drives. Review of AC motors and AC motor drives. Salient and non-salient pole AC machines. Open/closed loop variable speed AC drives and applications. Concept of space vectors. Direct and Quadrature axes representation of AC machines. Dynamic equations of AC machines. Direct and indirect flux orientation. Implementation of indirect vector control; speed, torque and flux control. Sensorless vector drives. Self-tuning techniques. Brushless DC and AC drives. Applications of motor drives.

Prerequisite: JMEE6306

JMEE7314 Power Quality and Standards for MicroGrids

Definitions and standards of power quality, kinds of power quality problems and different load types and electrical power generation affecting the power quality in MicroGrids. Study and analysis of grid frequency response, resonance, ferroresonance, and electromagnetic interference. Modeling and transient analysis of power quality improvement through advanced, static, hybrid and active power filters and compensators. Introduction to engineering economic issues related to power quality.

JMEE7315 Modern Control

State equations. Linearization of nonlinear systems. State space equation solution. Controllability and observability. Popov tests for controllability and observability. Minimality and Stability. State variable feedback design. Optimum design and the Ricatti equation. Digital controller design. Pole-assignment design and state-estimation. Linear quadratic optimal control. Intelligent control strategies: Expert systems, Fuzzy logic control, and Neural networks.

Prerequisite: JMEE6302

JMEE7319 A Special Topic in Power Engineering

Study of a particular subject related to advances in Power Engineering depending on students' needs and instructor's interests.

Prerequisite: Program Committee Approval

JMEE860 Thesis

Prerequisite: As instructed by the academic regulations for the Joint Master Program.

Faculty of Law and Public Administration

The [Faculty of Law and Public Administration](#) was established in 2004. The Faculty currently runs three BA programs, offering the following programs:

- [Master Program in Law](#)
- [Master Program in Public Law](#)
- [Master Program in Private Law](#)
- [Master Program in Law and Economics](#)
- [Master Program in Government and Local Government](#)

Master Program in Law

The [Faculty of Law and Public Administration](#) offers an academic Program leading to a [master's degree in Law](#). This Program gives students the opportunity to choose between three concentrations: public law, private law and economic and financial law.

In order to achieve the above mentioned objectives, the Program opens the door to students' interaction with faculty members and visiting professors, in both the Faculty of Law and Public Administration and the Institute of Law. Moreover, the academic environment at the University allows graduate students to utilize from theoretical and applied research papers available at the Faculty of Law and Public Administration and in the University's institutes, such as the Institute of Law and Ibrahim Abu-Lughod Institute for International Studies. The University provides a specialized law library, which is the first and largest of its kind in Palestine, in addition to electronic databases that include the Palestinian Legal and Judicial System "Al-Muqtafi", West law, and East law etc. The Program gives students the ability to complete some of the theoretical courses or practical training outside of Palestine and provides students with incentives and helps them in pursuing their Ph.D. studies abroad. For this and other reasons, the Program is interested in improving students' capacities in foreign languages, including English and French.

Objectives of the Master Program in Law

The Program aims at graduating highly qualified jurists by developing the following foundations:

1. Developing students' legal methodology, critical analysis and legal thinking through focusing on comparative law in all concentrations' courses.
2. Enhancing students' skills in legal research, legal drafting and analyzing judicial verdicts by linking theoretic knowledge to reality.
3. Providing a variety of specializations in the areas of public, private, economic and financial laws, with a focus on the following fields: civil law, commercial law, international public law, constitutional law and economic and financial law.
4. A master's degree in law gives students better opportunities and necessary foundation for pursuing graduate studies at the Ph.D. level in foreign universities in order to contribute to university teaching and scientific research.

Admission Requirements:

1. Applicants must hold a bachelor's degree in law from a university recognized by Birzeit University.
2. Students must successfully pass an exam that aims at assessing students' legal knowledge and analytical skills.
3. A personal interview with the Program Committee.

Program Requirement

In this Program, students are required to complete 36 credit hours, divided into three groups:

- 15 credit hours, compulsory courses for all concentrations;
- 9 credit hours, compulsory courses for each concentration; and
- 6 credit hours, elective courses in one of the concentrations chosen by the student from a set of courses.
- In order for students to graduate, they are required to successfully pass graduation requirements by choosing one of the two available options: (a) a thesis or (b) two seminars, in one of the three concentrations

A. Courses of the Program (Compulsory and elective)**5.1 Compulsory Courses of the Program (all concentrations)**

Course No.	Course Title	Prerequisite(s)
JURI630	Research Methods and Legal Drafting	
JURI631	Evolution of the Constitutional System in Palestine	
JURI632	Advanced Studies in Civil Law	
JURI635	Advanced Studies in Public International Law	
JURI633	Competition Law	

1.2 Compulsory Courses of each concentration**5.2.1 Public Law Concentration**

Course No.	Course Title	Prerequisite(s)
JURI639	Constitutional Review	
JURI731	International Human Rights Law	
JURI637	Advanced Studies in Criminal Law	

5.2.2 Private Law Concentration

Course No.	Course Title	Prerequisite(s)
JURI638	Advanced Studies in Company Law	
JURI730	Advanced Studies in Private International Law	
JURI636	Intellectual Property	

5.2.3 Economic and financial Law Concentration

Course No.	Course Title	Prerequisite(s)
JURI7312	Banking and Securities Law	
JURI7315	Financial Leasing and Mortgage Laws	
JURI732	Economic Analysis of Law	

1.3 Elective Courses of each concentration (6) credit hours form the following lists:

1.3.1 Public Law Concentration

Course No.	Course Title	Prerequisite(s)
JURI7313	Public Freedoms and Fundamental Rights	
JURI7323	Administrative Law/Administrative Responsibility	
JURI7333	Political Parties	
JURI7343	Comparative Parliamentary Systems	
JURI7314	International Humanitarian Law	
JURI7324	Diplomatic and Consular Law	
JURI7334	International Criminal Law	
JURI7344	International Organizations	
JURI7392	Selected Topics in Public Law	
JURI7361	Crimes against State Security	
JURI7362	Advanced Studies in Criminal Procedure Law	
JURI7363	Advanced Studies in Criminology and Penology	
JURI7364	Civil Service	
JURI7365	Administrative Contracts	
JURI7366	Advanced Studies in Administrative Judiciary	

1.3.2 Private Law Concentration

Course No.	Course Title	Prerequisite(s)
JURI7311	International Trade Law	
JURI7321	Civil and Commercial Procedure	
JURI7331	Land Law	
JURI7341	Tort Law in Palestine	
JURI7351	Legal Transactions in Islamic Law	
JURI7332	Specialized Commercial Contracts	
JURI7342	International Commercial Arbitration	
JURI7391	Selected Topics in Private Law	
JURI634	Comparative Contracts Law	
JURI7322	Bankruptcy	
JURI7326	Insurance Law	
JURI7327	Real Rights	
JURI7328	Commercial Papers Law	
JURI7329	Advanced Studies in Labor Law	

1.3.3 Economic and financial Law Concentration

Course No.	Course Title	Prerequisite(s)
JURI7325	Customs and Taxation Law	
JURI7335	Palestinian Economic Agreements	
JURI7345	International Economic Law	
JURI7352	Specialized Commercial Contracts	
JURI7353	Consumer Protection Law	
JURI7354	Investment Law	
JURI7355	Islamic Finance	
JURI7393	Selected Topics in Economic and Financial Law	

B. Prerequisites/Economic and financial Law Concentration

Course Title	Notes
Principles of Economics	The committee of the Master Program will assign this course for students who did not enroll in it during the Bachelor or Master grades

C. Track “A” or Track “B”: 6 Credit Hours; Thesis or two Seminars in the field of the concentration

Track	Track Title	Course No.	Prerequisite(s)
Track A	Thesis	JURI860	Complete no less than 15 credit hours from the Program
Track B	Two Seminars	JURI8301- JURI8311 JURI8302- JURI8312 JURI8303- JURI8313	

Master Program in Public Law

Admission Requirements

- Applicants must hold a bachelor's degree in law from a university recognized by Birzeit University.
- Students must successfully pass an exam that aims at assessing students' legal knowledge and analytical skills.
- A personal interview with the Program Committee.

Program Requirement

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (18) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
JURI630	Research Methods and Legal Drafting	
JURI631	Evolution of the Constitutional System in Palestine	
JURI635	Advanced Studies in Public International Law	
JURI637	Advanced Studies in Criminal Law	
JURI639	Constitutional Review	
JURI7323	Administrative Law/Administrative Responsibility	

2. Elective Courses: (12) credit hours from the following

Course No.	Course Title	Prerequisite (s)
JURI731	International Human Rights Law	
JURI7313	Public Freedoms and Fundamental Rights	
JURI7314	International Humanitarian Law	
JURI7333	Political Parties	
JURI7334	International Criminal Law	
JURI7343	Comparative Parliamentary Systems	
JURI7344	International Organizations	
JURI7361	Crimes against State Security	
JURI7362	Advanced Studies in Criminal Procedure Law	
JURI7363	Advanced Studies in Criminology and Penology	
JURI7364	Civil Service	
JURI7365	Administrative Contracts	
JURI7366	Advanced Studies in Administrative Judiciary	
JURI7392	Selected Topics in Public Law	

3. Track (A) / Track (B): (6) credit hours; either as thesis writing (Track (A)) or the two following seminars:

Track	Code, and Course No.	Course Title	Prerequisite(s)
Track (A)	JURI860	Thesis	Complete no less than 15 credit hours from the Program
Track (B)	JURI8302 JURI8312	Two Seminars	

Master Program in Private Law

Admission Requirements

- Applicants must hold a bachelor's degree in law from a university recognized by Birzeit University.
- Students must successfully pass an exam that aims at assessing students' legal knowledge and analytical skills.
- A personal interview with the Program Committee.

Program Requirement

Fulfillment of at least (36) credit hours distributed as follows:

1. Compulsory Courses: (15) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
JURI630	Research Methods and Legal Drafting	
JURI634	Comparative Contracts Law	
JURI638	Advanced Studies in Company Law	
JURI7311	International Trade Law	
JURI7341	Tort Law in Palestine (Comparative Approach)	

2. Elective Courses: (15) credit hours from the following courses:

The student has the right to complete (6) credit hours from the Masters of Economic and Financial Law Program if approved by the committee of Master's Program.

Course No.	Course Title	Prerequisite (s)
JURI636	Intellectual Property	
JURI730	Advanced Studies in Private International Law	
JURI7321	Civil and Commercial Procedure	
JURI7322	Bankruptcy	
JURI7326	Insurance Law	
JURI7327	Real Rights	
JURI7328	Commercial Papers Law	
JURI7329	Advanced Studies in Labor Law	
JURI7311	International Trade Law	
JURI7331	Land Law	
JURI7342	International Commercial Arbitration	
JURI7351	Legal Transactions in Islamic Law	
JURI7352	Specialized Commercial Contracts	
JURI7353	Consumer Protection Law	
JURI7391	Selected Topics in Private Law	

3. Track (A) / Track (B): (6) credit hours; either as thesis writing (Track (A)) or the two following seminars:

Track	Course No.	Course Title	Prerequisite(s)
Track (A)	JURI860	Thesis	Complete no less than 15 credit hours from the Program
Track (B)	JURI8301 JURI8311	Two Seminars	

Course Description (JURI)

JURI630	Research Methods and Legal Drafting
Legal thinking and analytical skills, application of these skills to legal texts, jurisprudential opinions and judicial decisions. Scientific methodology for conducting legal research and its components and contents from practical perspective. Study of actual cases and legal advisories. Methods of legal drafting: stages, characteristics and components, in addition to practical application in the field.	
JURI631	Evolution of the Constitutional System in Palestine
The development of the constitutional system in Palestine from the Ottoman era to the present day, with regard to the legislative, executive and judiciary powers, and the application of the principle of the separation of powers and the rule of law. Focus on the current Palestinian constitutional system in comparison with other systems in the world, such as the American, French, English, German, Swiss, Jordanian and Egyptian constitutional systems.	
JURI632	Advanced Study in Civil Law
Sources of obligation, especially contracts and their components; wrongful acts and the unilateral will; legitimate means for ensuring execution; modalities of obligation (conditions and terms); advanced study of negotiated contracts, contracts of adhesion, and model contracts; stages of concluding the contract and the principles that govern them; focus on some forms of modern contracts such as electronic and consumer contracts, in terms of appearance, their problematic aspects and legal regulation.	
JURI633	Competition Law
This course explains the emergence, development, and philosophy of competition law on a Palestinian and International levels. It tackles the importance of competition in an economy and the necessity of prohibiting monopolies. The course also emphasizes the aim of competition law worldwide, its relationship to economic policies, its scope of implementation, and its integrity in business relations. In particular, the course concentrates on horizontal and vertical agreements, abuse of dominant position and corporate mergers and acquisitions.	
JURI634	Comparative Contracts Law
Formation of a contract, defects of consent, contractual negotiations, standard terms, performance of the contract, hardship, termination, contractual liability, compensation, specialized and comparative study of some of the nominal contracts.	
JURI635	Advanced Studies in Public International Law
Deepen the knowledge of the foundations of public international law, with a focus on practical applications of non-traditional sources of international law. The rights and duties of States and international responsibility, peaceful and non-peaceful means of resolving international disputes, the position of international law on liberation movements, empirical studies in international treaties, including the legal rules governing the law of treaties and eligibility of States, international organizations and liberation movements, with focus on the Palestinian context.	

JURI636	Intellectual Property
Intellectual property, its legal nature and means of protection. National and international norms governing intellectual property and its major three elements: copyright and related rights, industrial property, trademarks and commercial property. Intellectual property protection in Palestine and its adequacy, methods of developing it in accordance with legal and technical developments around the world.	
JURI637	Advanced Studies in Criminal Law
Criminal responsibility, will, knowledge, error, criminal intent, motive to commit the crime, perception and negligence. Deepen the knowledge of Penal law in terms of criminal philosophy applied in the Palestinian law and comparative law. Criminal policy, the general theory of crime and its elements. The penal policy for certain crimes and ways to develop the Palestinian law in accordance with new developments in this area.	
JURI638	Advanced Studies in Company Law
Types of companies; their legal provisions, establishment, management, termination and restructuring, with a focus on the study of public shareholding companies, the principles of corporate governance and ways of developing its theoretical and practical aspects in Palestine. Social and environmental responsibilities of companies, and the legal regulation of insolvency and liquidation.	
JURI639	Constitutional Review
The power of courts to review the constitutionality of laws in the various regimes. This includes the prior control of constitutional review such as the control effectuated by a ‘Constitutional Council ’ or the control effectuated after the entry into force of the law, whether by ordinary judges or by specialized Constitutional Courts. Focus on the manner constitutional review takes place in Palestine: the status of the Supreme Constitutional Court and its role in the Palestinian political and legal systems, the various methods of review and the procedures followed to review the constitutionality of laws and regulations, in comparison with other legal systems.	
JURI730	Advanced Studies in Private International Law
The concept of the conflict of laws and its legal framework. Focus study on characterization, reference rules and their applications in various subject matters, referral, authorization, impediments to the application of foreign law and methods of proving and explaining them. Applicable law and the competent court in e-commerce disputes. Substantive rules in terms of concept, sources and applications. International conflict of jurisdiction, enforcement of foreign judgments and linking it to the Palestinian context.	
JURI731	International Human Rights Law
Legal treatment and examination of human rights in accordance with the International Bill of Human Rights and the most significant international conventions. Protection mechanisms at the international and local levels, and the oversight committees responsible for ensuring respect of human rights as internationally protected (such as the Committee on the Elimination of Racial Discrimination, Committee against Torture, and Committee on the Elimination of Discrimination against Women). Regional committees and courts related to human rights protection.	

JURI7311 International Trade Law

International trade relations, introduction of international organizations concerned with the codification of international trade law. United Nations Convention on Contracts for the International Sale of Goods (Vienna 1980), its general underlying principles and its relationship with the principles of UNIDROIT on international commercial contracts, the contract of international sales and its implications, the WTO law; trade in goods, services and trade-related aspects of intellectual property rights.

JURI7312 Banking and Securities Law

This course addresses the local and comparative rules, standards and regulations, prudential and non-prudential, which govern the licensing and supervision of banks and specialized lending institutions. Other topics discussed in this course include Basel Committee on Banking Supervision, central banks and their functions, with specific emphasis on monetary policies and their direct impact on money supply. The course also deals with the organization of the Palestine Stock Exchange, depository, clearing and property transfer, brokerage firms and their operations, the supervisory role of the Capital Market Authority, and the rules governing the listing and trading of stocks, bonds and derivatives in accordance with national legislation and international standards.

JURI7313 Public Freedoms and Fundamental Rights

Fundamental rights and freedoms according to the Palestinian constitutional system. A comparison between the Basic Law and the draft constitution. The process and mechanisms of constitutional protection of those rights and freedoms and the inconsistencies of laws or regulations with those rights and freedoms. The extent to which fundamental rights and freedoms are consistent with international law, and different ways available to activate protection mechanisms for those freedoms and rights locally.

JURI7314 International Humanitarian Law

International humanitarian law: its concept, characteristics, its relationship to public international law, and its sources. The categories covered by the protection and the scope of this protection. The Fourth Geneva Convention for the Protection of Civilian Persons in Time of War and the Additional Protocols to the Geneva Conventions specializing in the protection of victims of international armed conflicts and international non-armed disputes, in terms of protected rights, the binding force of its provisions, the rules of international responsibility in accordance with the rules of international humanitarian law.

JURI7315 Financial Leasing and Mortgage Laws

The course deals with various aspects relating to financial leasing including the substance of the concept and its philosophy, the main pillars, conditions and provisions of leasing contract in line with national, international and model laws and regulations. The course also addresses mortgage, at which the concept, philosophy, provisions and regulations of mortgages are illustrated including formal mortgage of movable property to promote microfinance industry. Finally, the course explores the oversight mechanism of Palestine's Capital Market Authority towards both leasing and mortgage sectors, in accordance with national and comparative legislations.

JURI732 Economic Analysis of Law

Introduction to the fundamental economic concepts related to the legal regulation. Economic crises, financial stability, theories of risk, credit and efficiency. Mechanisms to measure the regulatory impact of economic phenomena under regulation, ex-ante and ex-post evaluation of legislations from an economic perspective. Methodology of selecting the most economically efficient legislation, which contribute to the decent selection of legal provisions in the legislation in question, and to the stability of phenomena under consideration.

JURI7321 Civil and Commercial Procedure

Theoretical study of the independence of the judiciary; the proper functioning of courts; human dignity and integrity of judges; the single judge and the panel of judges; focus on the basic principles of litigation: the rights of defence, confrontation between litigants; equality of litigants; litigation at two degrees; public trial; fast-track litigation; types of courts; jurisdiction rules, theory and practice of filing a case; regular and shortened procedures; judicial decisions; regular and special means of appeals.

JURI7322 Bankruptcy

Merchant bankruptcy regime, its reasons, nature, conditions, and types. Expected scenarios of termination of bankruptcy state (Preventive composition, simple composition and combination of creditors) Management of the assets of the bankrupt Merchant, its liquidation, distribution of the assets between creditors, the role of the court and its assigned judge, and syndic. The judgment declaring bankruptcy; its consequences on political and civil rights of the bankrupt, merchant rehabilitation; its provisions, types, and consequences.

JURI7323 Administrative Law/Administrative Responsibility

History of the emergence of administrative responsibility in the French system and discussion of some of the decisions taken by the French Council of State. The content and nature of administrative responsibility, and what distinguishes it from political responsibility. The separation of civil and administrative jurisdictions, and methods of resorting to the administrative judge. Assessment of the administrative situation in Palestine and in some Arab countries that adopt similar administrative systems.

JURI7324 Diplomatic and Consular Law

Introduction of the rules and provisions of diplomatic and consular law, the concept of diplomatic and consular work, diplomacy of conferences; states' special missions and envoys to international organizations. A practical study of diplomatic and consular missions in terms of tasks, configuration, immunities, the impact of a state of peace and war on diplomatic and consular missions.

JURI7325 Customs and Taxation Law

This course addresses custom policies and systems within the national economy framework. Its ties customs with international economy and explains the elements of import and export customs, the entry and exit of products, customs clearance stages, exemptions, as well as Israeli customs procedures. This course sheds light on the Kyoto agreement, the World Customs Organization and Palestine's efforts to join this international body, as well as the national project to computerize custom procedures (Skoda). Moreover, this course sheds light on direct and indirect taxations such as income taxations, property taxes, and the value added tax (VAT), clearing bill and tax refund claims.

JURI7326	Insurance Law
The concept of insurance; its types, philosophy, importance and functions. The legal regulation of insurance in Palestine, institutional and organizational structure of the insurance sector in Palestine. The insurance contract and its nature and implications, study of theoretical and practical aspects of insurance law, in particular the provisions of remedies and compensation.	
JURI7327	Real rights
Primary and accessory real rights: ownership and subordinate rights, possessory pledge, mortgage, guaranty deed, and prerogative rights, both in Palestine and comparative law. Study these rights in terms of their nature, underlying reasons, legal protection, limitations thereon, and methods of resolving disputes associated with them.	
JURI7328	Commercial Papers Law
Commercial papers and its significance, characteristics, evolution and types, as well as provisions and purposes. Formation of commercial papers, its circulation and guarantees of the fulfillment of their value, problematic matters, and the expiration of the obligations contained therein.	
JURI7329	Advanced Studies in Labor Law
principles of labour law, individual and collective labour relationships, with a focus on the legal aspects of individual labour contract, means of settling individual and collective disputes, selected topics from social security laws, with comparison to international and Arab labour standards.	
JURI7331	Land Law
Provisions related to land ownership of all kinds: private property, <i>miri</i> , absentee land, <i>waqf</i> , and public, whether covered by the official registration and settlement or not. Acquisition of property, registration, land in common and ways of use and removal of common ownership; public and private restrictions listed on real estate property. Legal regulation of ownership of real estate in Palestine and problematic concerns since the Ottoman period; real rights, whether indigenous or associated rights, as is applicable in Palestine.	
JURI7332	Specialized Commercial Contracts
This course illustrates the main concepts of consumer protection laws and consumer rights. It focuses on the Palestinian consumer protection law and regulations passed there under, especially its scope of application and the basis of consumer protection. This course also addresses preventive, curative, and supervisory means of consumer protection, as well as responsible bodies for implementing this law, and the interference of this law with other relevant laws, including Law of Palestinian Specifications and Standards, Public Health Law and the Penal Code.	
JURI7333	Political Parties
Political parties and pressure groups, the role of political parties in public life and the types of political parties. The principles and purposes of political pluralism against those of one-party systems and the necessity to establish them. Regulation of political parties in light of comparative law. Political pluralism in Palestine, its foundation, inception, nature and ideology.	

JURI7334 International Criminal Law

Introduction to international criminal law and its development. The meaning of international crime, its elements and forms: war crimes, crimes against humanity, the crime of genocide, crimes against peace and human security, individual criminal responsibility for international crimes. International criminal tribunals, especially the International Criminal Court in terms of: composition, nature, characteristics, the applicable law, the crimes within its jurisdiction, and the mechanisms of enforcement of international rulings.

JURI7335 Palestinian Economic Agreements

This course reflects on the signed trade agreements between Palestine and Israel, in accordance with the Paris Protocol, and between Palestine and other states (Euro-Mediterranean Partnership agreements, Turkey, Jordan, Egypt, the United States, Canada, Russia...etc) from a theoretical and practical perspectives. The course also analyses the significance and impact of these agreements on Palestine's national economy, and illustrates the relation between such agreements and World Trade Organization (WTO) regulations.

JURI7341 Tort Law in Palestine (Comparative Approach)

In-depth study of the British mandate Civil Wrongs Law and its amendment, still in force in Palestine, with a statement of the basis it adopted for tort, in comparison with the Latin and Islamic schools. Based on case studies, examination of the extent to which this law adopts personal or objective tendencies. The draft Palestinian Civil Law and the trend adopted therein concerning regulation of liability for wrongful acts and infringement of rights; an evaluation of its success and shortcomings and ways to improve it, in view of scientific and international developments in this regard.

JURI7342 International Commercial Arbitration

International commercial arbitration, its characteristics and types. Distinguishing commercial arbitration from mediation, conciliation and expertise. The arbitration agreement, its forms, conditions and problematic issues. Determining the applicable law in traditional and electronic arbitration in both private and institutional arbitrations. Arbitration proceedings and the essential safeguards underpinning them, arbitration decisions, appeals and enforcement. Advanced study of electronic arbitration.

JURI7343 Comparative Parliamentary Systems

Comparative parliamentary models and systems, their types and the nature of their work, and their regulatory and legislative role. The legislative process in general, parliamentary oversight and questioning, parliamentary oversight of treaties, parliamentary immunity; by-laws and the internal working of its committees; methods of decision-making. The Palestinian parliamentary experience in light of internationally recognized norms.

JURI7344 International Organizations

Introduction to international organizations in terms of: concept, nature, acquisition and loss of membership. The League of Nations and the United Nations. United Nations' dependence on and independence from member States, and its organizational structure. Activities of the United Nations in maintaining international peace and security, decolonization, and sustaining growth and protection of human rights. Introduction to regional organizations, such as the League of Arab States, the European Union, the Organization of African Unity and the Organization of American States.

JURI7345 International Economic Law

This course addresses the basis of International Economic Law, including its sources and categories. The course also explains aspects relevant to the International Monetary Law and the International Development Law, while discussing these laws in context with the operations of the World Bank and the International Monetary Fund. Additionally, the agreements of the World Trade Organization (GATT, GATS & Trips) are illustrated in this course.

JURI7351 Legal Transactions in Islamic Law

In-depth study of the theory of ownership in Islamic jurisprudence; the study of some nominal contracts (such as sale, lease, power of attorney, deposit, donation, sponsorship, transfer of rights and debts, mortgage and pledge); contemporary Islamic financial transactions, the rules of Islamic jurisprudence, jurisprudence codified in the *majalla*.

JURI7352 Specialized Commercial Contracts

Franchising, factoring, business licenses and know-how contracts. Addressing these contracts in terms of their importance, legal nature, legal rules, elements and conditions, the obligations of parties, their implementation, arguable legal and practical issues.

JURI7353 Consumer Protection Law

This course illustrates the main concepts of consumer protection laws and consumer rights. It focuses on the Palestinian consumer protection law and regulations passed there under, especially its scope of application and the basis of consumer protection. This course also addresses preventive, curative, and supervisory means of consumer protection, as well as responsible bodies for implementing this law, and the interference of this law with other relevant laws, including Law of Palestinian Specifications and Standards, Public Health Law and the Penal Code.

JURI7354 Investment Law

This course explains the national investment law in terms of its philosophy, its impact on the national economy, the advantages and waivers the investor enjoys, as well as direct and indirect foreign investment. The course also sheds light on the role of Palestine's Investment Promotion Agency at supporting domestic investments as well as stimulating direct foreign investment. The alternative dispute resolutions are also tackled.

JURI7355 Islamic Finance

This course delves into the financial philosophy of Islamic law. It sheds light on the different types of finance in Islamic jurisprudence including the stance on interest-bearing, sharing, and economic speculation, financial derivatives, Islamic bonds, and Islamic banking. The course also reflects on Islamic financial dynamics by bringing forth current models from states that adopt Islamic financial policies to discuss their roles in financial stability.

JURI7361 Crimes against State Security

Types of crimes against state security; its substance and elements . Provisions of attempt to commit, and participating in committing a crime, and contraindication punishment for each of the external state security crimes, namely: treason, offenses against international law, espionage, communication with the enemy for illegal purposes and undermining the prestige of the state. In addition to internal state security crimes, which are: felonies committed against the constitution, the grabbing of political or civil powers, or military leadership, sedition, terrorism, crimes that undermine national unity or disturb the serenity among elements of the nation, and crimes that undermine the financial status of the state.

JURI7362 Advanced Studies in Criminal Procedure Law

Introduction to the parties to the criminal lawsuit, investigative procedures, the consequence of violation of these procedures, with a focus on judgments in this regard. Clarification of the procedures followed before the penal courts in its various tiers. In-depth study of the procedures of means of challenging judgments, in particular the extraordinary means of challenge.

JURI7363 Advanced Studies in Criminology and Penology

Introduction to criminology and schools that address it such as the classical, Italian, and social schools. Crimes concepts and types, causes of crime, criminal statistics and combat against crime. Penology and its goals in the public and private deterrence. The victimology; and how to involve the victim in resolving the dispute and take his/her interests and opinion into consideration.

JURI7364 Civil Service

The historical development of the concept of civil service; its legal regulation, the legal status of public servants, whether those serving in the public sector, local bodies or in public institutions. Focus on practical aspects in Palestine and comparative models; through an analytical and critical study of judgments released by the administrative judiciary.

JURI7365 Administrative Contracts

The emergence and development of administrative contracts, its types, characteristics, rules of its conclusion, effects, the powers of administration and the rights of contractors. Theories that govern the financial equilibrium of administrative contracts, the competent judiciary of settling its disputes through handling the national and comparative legislative frameworks and judicial rulings. Arbitration in administrative contracts disputes in terms of its definition, types, nature, advantages and disadvantages, debatable trends thereon, the reality of application of the arbitration disputes on administrative contracts in Palestine.

JURI7366 Advanced Studies in Administrative Judiciary

The emergence and development of the administrative judiciary in Palestine and comparative models, formation and jurisdictions of the Supreme Court of Justice in comparison to the unified and dual judiciary systems. Focus on the principle of legitimacy in terms of its concept, sources, guarantees and exceptions. Oversight of public administration's acts, either political or administrative, in particular the judicial oversight concluded in the cancellation lawsuit in terms of conditions of admissibility of the case, the reasons for the challenge, procedures followed before the Supreme Court of Justice, jurisdictions of this court in handling the lawsuit, the effects of binding force of the judgment and its enforcement.

JURI7391	Selected Topics in Private Law
Advanced study of a topic related to private law, selected from emerging topics in the field according to the preference of students and the instructor.	
JURI7392	Selected Topics in Public Law
Advanced study of a certain topic related to public law, selected from the emerging topics in the field, according to needs of the students and the preference of instructors.	
JURI7393	Selected Topics in Economic and Financial Law
Advanced study of a certain topic related to economic and financial law, selected from the emerging topics in the field, according to needs of the students and the preference of instructors.	
JURI8301	Seminar 1
Scientific integrity standards and scientific research ethics, preparing an advanced research paper in a distinctive topic in the field of economic and financial law. Discussion of themes and subthemes extracted from the chosen research topic, as well as discussion of readings, scientific papers, and literature review pertaining to the assigned research topics. <i>Prerequisite: completion of 15 hours from program requirements.</i>	
JURI8302	Seminar 1
Scientific integrity standards and scientific research ethics, preparing an advanced research paper in a distinctive topic in the field of public law. Discussion of themes and subthemes extracted from the chosen research topic, as well as discussion of readings, scientific papers, and literature review pertaining to the assigned research topics. <i>Prerequisite: completion of 15 hours from program requirements.</i>	
JURI8303	Seminar 1
Scientific integrity standards and scientific research ethics, preparing an advanced research paper in a distinctive topic in the field of private law. Discussion of themes and subthemes extracted from the chosen research topic, as well as discussion of readings, scientific papers, and literature review pertaining to the assigned research topics. <i>Prerequisite: completion of 15 hours from program requirements.</i>	
JURI8311	Seminar 2
Scientific integrity standards and scientific research ethics, preparing an advanced research paper in a distinctive topic in the field of economic and financial law. Discussion of themes and subthemes extracted from the chosen research topic, as well as discussion of readings, scientific papers, and literature review pertaining to the assigned research topics. <i>Prerequisite: completion of 15 hours from program requirements.</i>	
JURI8312	Seminar 2
Scientific integrity standards and scientific research ethics, preparing an advanced research paper in a distinctive topic in the field of public law. Discussion of themes and subthemes extracted from the chosen research topic, as well as discussion of readings, scientific papers, and literature review pertaining to the assigned research topics.	

Prerequisite: completion of 15 hours from program requirements.

JURI8313 Seminar 2

Scientific integrity standards and scientific research ethics, preparing an advanced research paper in a distinctive topic in the field of private law. Discussion of themes and subthemes extracted from the chosen research topic, as well as discussion of readings, scientific papers, and literature review pertaining to the assigned research topics.

Prerequisite: completion of 15 hours from program requirements.

JURI860 Thesis

Writing an original scientific thesis in the field of private law, after obtaining the approval of the programme committee, in accordance with the approved instructions for writing master's thesis.

Prerequisite: completion of 15 hours from program requirements.

Master Program in Law and Economics

The [Faculty of Law and Public Administration](#) offers an academic Program leading to a [master degree in Law and Economics](#)

Admission Requirements

1. Applicants must hold a bachelor's degree in law either in Economics or in other fields approved by the Program Council from a university recognized by Birzeit University.
2. Students must successfully pass an exam that aims at assessing students' legal knowledge and analytical skills.
3. A personal interview with the Program Committee.
4. Applicants are required to complete the remedial courses determined by the program. Students are required to take the English language test specified by the program. According to the results of this test, the need to register for a remedial course in English language ENGC 530 will be determined. Students are required to complete this course before the beginning of the third semester, according to the applied academic regulation related to remedial courses.

Program requirement

Students are required to complete no less than 36 credit hours distributed as follows

- A. The remedial course must be taken before the third semester of enrolment in the Program, in accordance with the rules and regulations of the School of Graduate Studies at Birzeit University

B. Compulsory Courses 18 credit hours

Course No.	Course Title	Prerequisite(s)
LECO630	Research Methodology	
LECO631	Microeconomic Analysis of Law	
LECO632	Macroeconomic Analysis of Law	
JURI633	Competition Law	
JURI7312	Banking and Securities Law	
JURI7315	Financial Leasing and Mortgage Laws	

C. Elective Courses 12 credit hours

Course No.	Course Title	Prerequisite(s)
ECON732	Industrial Economy	
ECON734	Labor Economics	
ECON735	Economic Development	
JURI7325	Investment Law	
JURI7332	Specialized Commercial Contracts	
JURI7335	Palestinian Economic Agreements	
JURI7345	International Economic Law	
JURI7353	Consumer Protection Law	
JURI7354	Customs and Taxation Laws	
JURI7355	Islamic Finance	
LECO713	Special Topic LECO7131, LECO7132, LECO7133	
LECO730	Microfinance	
LECO731	Economic Crimes	
LECO732	Selected Topics in Law and Economics	

B. Track “A” or Track “B” 6 Credit Hours; Thesis or two Seminars

Track	Track Title	Course No.	Prerequisite(s)
Track A	Thesis	JURI860	Complete no less than 15 credit hours from the program
Track B	Seminars	LECO830 LECO831	

Law and Economics Course Description (LECO)

LECO630 Research Methodology
This course offers a systematic study of the scientific preparation of research that links between law and economics. To achieve this goal, data-collection and measurement abilities, analytical skills, as well as writing and presentation aptitudes are developed and applied within the context of certain economic and legal phenomena.
LECO631 Microeconomic Analysis of Law
Microeconomic theory, consumer and producer preferences theory, efficiency, supply and demand, market equilibrium, market failure, private property theory, economic theory of contracts, economic theory in tort law, as well as mechanisms to measure the regulatory impact of economic regulations.
LECO632 Macroeconomic Analysis of Law
Gross National Product, employment, aggregate supply and demand, inflation, policy analysis of economic stability fiscal and monetary and its impact on unemployment and growth, economic fluctuations, goods and labor markets, financial crises, tax increase, free market economy and its implications, specifications of ideal legislation, determining factors in legislative drafting, economic feasibility of legislation, methodology of selecting the most economically efficient legislation, as well as mechanisms to measure the regulatory impact of economic regulations.
LECO713 Special Topic
This course offers an in-depth study of a certain topic in law and finance, equivalent to one credited hour that satisfies students' needs and faculty members' interests.
LECO730 Microfinance
This course tackles issue related to microfinance in Palestine in terms of concept and reality, challenges, prospects for development, targeted client-base, goals and philosophy, role of microfinance sector in the social inclusion of low-income earners in the context of the inclusive financial system and jobs creation, as well as small- and medium-sized enterprises in terms of funding and role in the national economy. The courses sheds light on microfinance institutions, with emphasis on organization, role, the legislative, regulatory and supervisory frameworks, and the relevant international best practices.

LECO731 Economic Crimes

This course offers a comprehensive understanding of economic crimes it covers definitions, the significance, the main pillars, and the assigned penalties pertaining to numerous economic crimes. It also addresses the various types of practiced crimes such as, smuggling, tax evasion, money laundering, as well as crimes that relate to consumer protection, and violation of standards and specifications of goods and services. Financial corruption is also discussed in this course, especially corruption that relates to deceptive trade advertisements.

LECO732 Selected Topics in Law and Economics

This course offers an in-depth study of a certain topics in law and economics. It is selected among the emerging themes according to student needs and faculty interests. Students who enroll in this course will earn one hour of course credit per special topic. Accordingly, to earn the regular 3 course credits, students who intend on joining this course must study three special topics.

LECO830 Research Seminar I

This seminar requires students to conduct research in accordance with scientific integrity standards and scientific research ethics. Students are expected to prepare an advanced research paper in a distinctive topic in the field of law and economics. In addition to submitting the research paper, students are expected to discuss themes and subthemes from their research initiative, as well as readings and literature utilized in completing their research.

LECO831 Research Seminar II

This seminar requires students to conduct research in accordance with scientific integrity standards and scientific research ethics. Students are expected to prepare an advanced research paper in a distinctive topic in the field of financial economics and law. In addition to submitting the research paper, students are expected to discuss themes and subthemes from their research initiative, as well as readings and literature utilized in completing their research.

Master Program in Government and Local Government

This [Faculty of Law and Public Administration](#) offers a [master in Government and local Government Program](#) which is an academic program that seeks to cover the gap in the Palestinian public service and non-governmental market by providing both sectors, and also their partners from the private sector, with experts who own knowledge, practical skills and experiences. The program addresses capacity building, research skills, analytic and planning skills of public servants and nongovernmental organizations' leaders. The program specifically addresses the topic of good governance and national development planning, local development and sustainability.

Admission Requirements:

1. Applicants must hold a bachelor's degree in law either in political science, economics, public administration, or in other fields approved by the Program Council from a university recognized by Birzeit University.
2. Students are required to take the English language test specified by the program. According to the results of this test, the need to register for a remedial course in English language ENGC 530 will be determined. Students are required to complete this course before the beginning of the third semester, according to the applied academic regulation related to remedial courses.
3. A personal interview with the Program Committee.
4. Applicants are required to complete the remedial courses determined by the program.

Program Requirement:

Students are required to complete 36 credit hours distributed as follows:

1. Compulsory Courses (21 Credit Hours)

Course No.	Course Title	Prerequisite(s)
GOVS633	Public Policy Principles (policy design, implementation, and evaluation)	
GOVS630	Scientific Research Approaches in Social Sciences	
GOVS634	Comparative Public Law	
GOVS635	Local Governance and Local Municipalities	
GOVS736	Financial Management & Analysis in the Public Sector	
GOVS737	Strategic Planning in Local Government	
GOVS7341	Statistics in the Social Sciences	GOVS630

2. Elective Courses

Elective course aim at meeting students different research interests. These are two categories:

- (1) 6 credit hours offered within courses of the Masters of Government and Local Government itself,
- (2) up to 3 credit hours offered within other programs in Birzeit University

A. Elective Courses within the Program (6 credit hours)

Course No.	Course Title	Prerequisite(s)
GOVS631	State Theory	
GOVS730	Sustainable Development Policy Implementation	GOVS633
GOVS731	Ethics in Public Service	
GOVS732	Political Communication	
GOVS733	Contemporary trends in Public Administration	GOVS500
GOVS734	Program Evaluation in Public and Nonprofit Organizations	
GOVS735	Economics for Public Decision-Making	
GOVS738	Decision Making in Government and Administration	
GOVS739*	Leadership theories and Skills	
GOVS7340	E-government	
GOVS7342	Legal Development of Local Government in Palestine	GOVS634
GOVS7343	Community Participation in Local Government	GOVS635
GOVS7344	Land Management and Rural and Urban sustainable Planning	
GOVS7345	Special topic 1	
GOVS7146	Special Topic 2	

*This course can be substituted with BUSA7301 Leadership

B. Elective Courses within other programs (3 credit hours)

Course No.	Course Title	Prerequisite(s)
Master of International Studies (INST)		
INST7311	Negotiations and Diplomacy	
INST7314	International Development	
INST6334	Principles of International Law	
INST7361	Regional studies	
Master Program in Law (JURI)		
JURI631	Evolution of the Constitutional System in Palestine	
JURI639	Constitutional Review	
JURI7313	Public Freedoms and Fundamental Rights	
JURI7323	Administrative Law/ Administrative Responsibility	
JURI635	Advanced Studies in Public International Law	
JURI731	International Human Rights Law	
JURI7333	Political Parties	
JURI7343	Comparative Parliamentary Systems	
JURI7314	International Humanitarian Law	
JURI7324	Diplomatic and Consular Law	
JURI7334	International Criminal Law	
JURI7344	International Organizations	
Master Program in Democracy and Human Rights (DMHR)		
DMHR6331	International Human Rights Law	
DMHR6184	Human Rights and Current Laws in Palestine	
Master Program in Gender and Development(GADS)		
GADS635	Gender Analysis and Gender Planning	
GADS731	Applications of Modern Approaches to Gender and Development	
Master Program in Business Administration(BUSA)		
BUSA7301	Leadership	

- C. Track “A” or Track “B”: 6 Credit Hours; Thesis or two Seminars in addition to Practical Internship and a Comprehensive Exam

Course No.	Course Title	Prerequisite(s)
GOVS860	Thesis	
GOVS830	Seminar 1	
GOVS831	Seminar 2	
GOVS801	Practical Internship	
GOVS806	Comprehensive Exam	

Government and Local Government Course Description (GOVS)

GOVS500 Introduction to the science of state (Remedial Course)

Introduction to Politics, Introduction to Administration, Introduction to Law. This course is an introduction to the fields of public law, political science, and public administration. It will cover the basic concepts in the field of law, its origins, its subdivisions and branches, and its relation to other sciences. It will also discuss the basics of political science, and the emergence of this science as an area specialist, its development, and its relationship to other sciences. The emergence of public administration, and the most important concepts and basic rules associated with it.

GOVS630 Scientific Research Approaches in Social Sciences

This course explains the role of scientific research in the evolution of human knowledge and the different schools in Epistemology. Research Methodology and scientific tools used in the field of social sciences. Linkage between theoretical frameworks and knowledge in scientific research with hands-on training on the formulation of the problem and research questions, and hypotheses and its determinants and its variables and models, the choice of the scientific method appropriate to the nature of the search of his choice. Skills documented scientific research and ethics, and the difficulties faced by researchers and the restrictions and limitations that govern scientific research in general.

GOVS633 Public Policy Principles (policy design, implementation, and evaluation)

The course will introduce the concept of public policy cycle and the difference between it and political science, and law. It will explain the theories of public policy thoroughly, and the types of public policies, levels, stages of the most important actors in public policy-making, and in the application, and evaluation of public policies.

GOVS634 Comparative Public Law

This course deals with the historical development of constitutional law, administrative law and contemporary constitutional movement, with an emphasis on the comparison between the different legal systems, and the constitutional and administrative principles that manage the work of the administration. The course will explain the principles that govern the written constitutions such as separation of powers, fundamental rights, and control over the legality and constitutional separation of powers and the rule of law, the administrative division of the State of (centralized and decentralized), and forms of government (presidential, parliamentary and "semi-presidential" system and Assembly), with the explanation of the Palestinian political system in the light of the former experiences with different models that resemble the relationship of the ruler and the ruled.

GOVS635 Local Governance and Local Municipalities

The aim of this course is to promote local governance, and the different models in the range of services that can be provided by governments and local bodies, and the financial and administrative independence of the local bodies, and the power granted to them in comparison with other systems. It also aims at reviewing the experiences of different countries and how does the distribution of powers functions between the central government and other levels of government decentralization (regional and local), and the diagnosis of the best practices in the field of decentralization and devolution of powers. The definition of the types of centralization and decentralization and their patterns (the distribution of powers “de-concentration”, “delegation”, and “devolution”, and the administrative, financial and political consequences for each style of these patterns). In addition to that reality of centralization and decentralization in the Palestinian context and diagnosis and possible defects will be examined in pursuit of upgrading it.

GOVS631 State Theory

The course will show the various theories that discuss the state, especially modern and contemporary ones and most importantly both classical and liberal theories, theories of state sociology, theory of pluralism and elite, classical Marxism, neo-Marxist, anarchist and feminist theories.

GOVS730 Sustainable Development Policy Implementation

This course helps make links between the concept of sustainable development and implementation of public policies, through addressing first the concept of sustainable development that is based on economic development, environmental development, and social development. It also introduces the most important outcomes of global summits on the identification of the goals of sustainable development, or what needs to be done globally, regionally and locally. It also deals with the most important challenges facing the process of turning goals into realistic policies, such as the challenge of population, environment, energy, health, education and others. In addition to that the course then addresses the role of public policy in the implementation of the goals of sustainable development on the international and domestic levels. The student is given an opportunity during this course to do an analysis of the magnified image of sustainable development from a global perspective, and local perspective and how each person can contribute to the achievement of sustainable development.

GOVS731 Ethics in Public Service

A review of the most important topics and issues related to the ethics of public service. View of the theoretical framework which forms the basis for the best behaviors and practices. Review of the most important principles that govern the ethics of administrative work, such as integrity, transparency and acceptance of others. Showing the core values that every public employee should abide by, and a set of basic principles that govern his vocational performance. The implications of the commitment to these principles and their importance, to improve job performance and organizational excellence and the implications of a breach of these principles that could cause corruption or others. Coverage of the most important responsibilities and duties of the public employee and linking it to the legal points of reference (Palestinian Civil Service Law). Methods and tools to strengthen the commitment to support the ethics of public office, such as codes of conduct, codes of conduct between the institution and the public citizen and their role in promoting the values of integrity and transparency in public office at the individual, collective and institutional levels. Illustrate the role played by related parties (employee / Director / PE / citizen) to promote work and commitment to the values of public office.

GOVS732 Political Communication

The course deals with the study of the political media (tools, methods and forms) and its role in the democratic process and political development. As well as looking at the evolution of political messages offered for public consumption and functions of the media message in the political and social context, and their impact on the policies and the internal security issues and international relations, including the language of political campaigns, political debate and policy statement. The course will also focus on theories and methodologies most commonly used in the science of political communication.

GOVS733 Contemporary trends in Public Administration

Review of the evolution of public administration as a field of knowledge, starting with the classical theories in the late nineteenth century to the latest trends and theories applied in industrialized countries and developing countries. Getting to know the impact of these trends on the management of organizations and industry policy. The technological developments and the spread of democracy and globalization has had a significant impact on the role of the modern state, and on how to manage public affairs, and to satisfy the desires of the citizens. The course aims to expose students to the latest theories and best practices from different countries of the world in the field of public administration, in order to draw conclusions and lessons that can be developed and adapted in line with the Palestinian context. The course deals with, among other things, the subject-oriented governance and partnerships with the public and private sectors, and the use of technology in government administration, and administrative reform and governance management and restructuring of the administrative organization of government (reinventing government). The course connects between the theoretical frameworks and application of it through the review and study of case studies from different countries in dealing with contemporary issues facing public administration.

GOVS734 Program Evaluation in Public and Nonprofit Organizations

Defining the concept of monitoring and evaluation, and ways to follow-up the output and the initial results and impact. Exposure to different types of program evaluation, including needs analysis, formative assessment and final assessment. The course distinguishes between different types of assessment including impact assessment, survey and preliminary results, in addition to the multiple types of assessment. The course offers a range of activities and experiences in the process that contribute to the development of the theory of change, the general framework of the follow-up through the development of performance indicators, and the development of the general framework for evaluation, curriculum development and evaluation, which includes experimental studies and quasi-experimental quantitative and qualitative studies.

GOVS735 Economics for Public Decision-Making

This course introduces students to the concepts and basic principles of the macro and micro economic, with a focus on the use of economic concepts and tools to understand and analyze economic changes, economic growth, unemployment, and inflation. This course provides an overview of economic instruments owned by the state to influence the economy. The course also offers the students the traditional economic theory, and encourages them to think critically about the right performance of the market against the need for government intervention necessary to achieve the desired results. Students will also learn how to apply economic thinking for a number of policy areas, including taxes, spending on social programs, and the economic impact of environmental policies / energy, and policies of the minimum wage, monetary policy, and economic stimulus.

GOVS736 Financial Management & Analysis in the Public Sector

Provide students with the theoretical and practical knowledge in finance and accounting in government units, and its properties and components and how it differs from the private units, and the mechanisms and tools for preparing the budget in governmental units and control over the application, the skill of cost analysis and their use in decision-making, and the adoption of the scientific method integrated in the preparation of budgets, and linked to strategic planning and national development plans. Also learn the skill of the financial analysis for financial statements in accordance with the international standards and practices. Study in detail the different types of revenue and public expenditure, and how they can repair and raise the efficiency of public revenue

GOVS737 Strategic Planning in Local Government

Conceptual framework for strategic planning and its models, its sub-concepts such as strategic objectives, Vision, Mission, threats and opportunities of Foreign Affairs and the strengths and the internal weaknesses. The challenges of strategic planning in the local government sector and the ability of institutions to make and implement and evaluate strategic plans of their own, and linking planning to public budgets, and control over the implementation of the general plans. Analyzing case studies of the process of strategic planning for the local Palestinian organizations to learn more about the challenges facing the realistic process of building strategic plans, implementation and evaluation.

GOVS738 Decision Making in Government and Administration

This course teaches the decision-making process from the scientific and practical standpoint. It focuses on the various theories that attempt to analyze the decision-making process within the science of management and the tools needed to improve the process. Other than that there will be a display and a study prepared about a range of cases that cover the decision-making process within different contexts and how they respond with decision makers.

GOVS739 Leadership theories and Skills

This course will offer the students a unique opportunity to learn about the concept of leadership, the most important theories of leadership, and the practical side of the concept including leadership skills such as the skill of listening, analysis, communication, team-building, networking and influencing others. The course allows the student the opportunity to study the cases of global, regional and national leaders who have succeeded, and to identify the type of leadership and personal aspects of each student.

GOVS7340 E-government

Review of topics covering aspects of e-government, such as the levels of e-government, and the types of e-government, its function, strategies and solutions. The knowledge of the best practices through case studies and global and regional experiences, and receipts for services and information to citizens and considerations of information security and legal aspects and process re-engineering (Reengineering), including the authorization power and confirmation of the identity of the recipients of the service, infrastructure and payment systems and e-procurement. And focus on how to build and work e-government system.

GOVS7341 Statistics in Social Sciences

This course will provide the experimental methods and tools developed in the field of statistics, econometrics, and geographical information systems and policy analysis, including descriptive and analytical statistics, and standard economic econometrics. As well as giving students the skill of dealing with quantitative and statistical studies and the skill of reading and analyzing critically, in addition to the ability to design and implement a quantitative research.

GOVS7342 Legal Development of Local Government in Palestine

This course explains the most important stages of the legal development of the local bodies under successive eras in Palestine since the days of the British Mandate, and the relationship of these bodies with the central authorities in the State through the review and analysis of the legal provisions governing such bodies, to determine the extent of the evolution of these bodies through that period. The emergence of the Palestinian Authority, the central authority, and the constitutional principles that govern the relationship with the local bodies in light of the adoption of decentralization and administrative system pursued by these principles with regard to various legislations applicable (local government or local administration). In addition to that, the course explains the differences between the two models considering comparative experience and the impact of both models on the nature of the relationship between local authorities and the central government on the one hand and on the extent of the involvement of local bodies in the administrative decision-making on the other. The course also deals with legislation and judicial decisions relevant to local bodies, elections for membership of their boards or those related to the way they work.

GOVS7343 Community Participation in Local Government

The course will review the basic concepts of decentralization and its relationship with the local administration, In order to demonstrate the importance of community participation as one of the pillars of good governance and the requirements of a democratic application of judgment. It will also attend to the relationship between community participation and community development, and how the community participation will improve the performance of local bodies and enable them to play their roles better. The students will also learn how to have a role for local bodies in the activation of community participation, and to find mechanisms and methods in which they can activate the community participation in local administration. In addition to the responsibilities and duties of the different partners in the local administration in promoting and raising the level of community participation. Palestinian reality and challenges of community participation. And a review of the Palestinian, Arab and global experiences of the process.

GOVS7344 Land Management and Rural and Urban sustainable Planning

This course addresses the design criteria and general trends of the components of land use on the local and national levels, such as standards of design of the industrial facilities and their relationship to the land and the environment, design criteria of residential and public facilities and public safety conditions, administration and planning of public transportation and related infrastructure and standards of sustainability. Analysis of case studies of the Palestinian reality, such as building industrial cities and suburban residential and others. This course is aimed at employees of governmental departments and local public and private licensed facilities employees.

GOVS7345 Special Topic (1)
This is a course that allows for flexibility to manage the program and to add a new course or keep pace with the developments of modern scientific trends, or to take advantage of the presence of visiting specialist teachers in subjects to serve the vision, mission and objectives of the program. It also allows the program to respond to the needs of students who may need to take a specific course after the program starts, or to meet emergency needs in government work. It also allows the program of government and local government to be handled in depth and specialization, through taking extra courses in modern related topics.
GOVS7146 Special Topic (2)
This is a course that allows for flexibility to manage the program and to add a new course or keep pace with the developments of modern scientific trends, or to take advantage of the presence of visiting specialist teachers in subjects to serve the vision, mission and objectives of the program. It also allows the program to respond to the needs of students who may need to take a specific course after the program starts, or to meet emergency needs in government work. It also allows the program of government and local government to be handled in depth and specialization, through taking extra courses in modern related topics.
GOVS830 Seminar (1)
Advanced study in public policy. Reading and discussing at least three peer-reviewed articles on the topic of the seminar. Students should prepare an advanced research under the supervision of the instructor. Research paper should follow methods of scientific research, concerning the method, the individualization of research problem, hypothesis, and citation. Student should present his/her research in class.
GOVS831 Seminar (1)
Advanced study in local government. Reading and discussing at least three peer-reviewed articles on the topic of the seminar. Students should prepare an advanced research under the supervision of the instructor. Research paper should follow methods of scientific research, concerning the method, the individualization of research problem, hypothesis, and citation. Student should present his/her research in class.
GOVS801 Practical Internship
Students in track B who do not have practical experience shall undertake a practical internship for a total of 300 hours in a public institution, agreed upon by the program administration.
GOVS806 Comprehensive Exam
Students in track B shall undertake a comprehensive exam.
GOVS860 Thesis
Students in track A shall write a thesis based on the regulations of Birzeit University and the program.

Faculty of Pharmacy, Nursing and Health Professions

[Faculty of Nursing and Allied Health Professions](#) was established in 2008, which was later renamed the Faculty of Pharmacy, Nursing and Health Professions. The Faculty currently has four departments, offering the following programs:

- [Master program in in Clinical Laboratory Science](#)
- [Master Program in Industrial Pharmaceutical Technology](#)
- [Master Program in Oncology Nursing](#)
- [Master Program in Women's Health](#)

Master Program in Clinical Laboratory Science

The [Faculty of Pharmacy, Nursing and Health Professions](#) offers an academic program that leads to a [master's degree in Clinical Laboratory Science](#). This program aims at improving the quality of clinical laboratory services through linking theoretical knowledge with practical training. In addition, the program aims at providing the society with highly qualified graduates knowledgeable and skilled in utilizing modern laboratory techniques and equipment and using them for diagnostic purposes, in accordance with the plans of the Ministry of Health in Palestine. In addition to the general program, the program offers a concentration in Microbiology and Immunology.

Admission Requirements:

- 1 Applicants must hold a bachelor's degree from a university recognized by Birzeit University.
- 2 Applicants must hold a bachelor's degree in one of the following fields: medical laboratory science, general medicine, clinical laboratory, science major with a concentration in clinical laboratory, or any other related field after the approval of the Program Council. In addition, students are required to complete any remedial courses specified by the Program Council.
- 3 Fulfilling the admission requirements according to the Academic Regulations for the Master's Degree.
- 4 A personal interview, if required by the Program Council.

Program Requirements:

The completion of no less than 36 credit hours distributed as follows:

A. Compulsory Courses for all students: 15 credit hours including the following courses:

Course No.	Course Title	Prerequisite(s)
MCLS6211	Management and quality assessment in clinical laboratories	
MCLS6310	Hematology	
MCLS637	Diagnostic microbiology	
MCLS731	Molecular biology	
MCLS6221	Research methods	
MCLS6222	Biostatistics	

Note: All students must complete MCLS636 within the first 15 credit hours of registration in the program.

B. Electives for the general program: Completion of 15 credit hours from the following courses:

Course No.	Course Title	Prerequisite(s)
MCLS633	Clinical chemistry	
MCLS632	Immunology	

MCLS622	Blood banking	
MCLS630	Diagnostic parasitology	
MCLS732	Advanced techniques in immunology	
MCLS634	Microbial pathogenesis	
MCLS735	Microbial genetics	
MCLS634	Food microbiology	
MCLS635	Virology	
MCLS733	Diagnostic mycology	
MCLS721	Pathophysiology	
MCLS722	Endocrinology	
MCLS730	Toxicology	
MCLS726	Special topic	

C. Compulsory and elective courses for concentrations:

First: Concentration in Microbiology and immunology: students must study 9 credit hours (compulsory) and 6 credit hours (elective) from the following lists:

Course No.	Course Title	Prerequisite
Compulsory courses (9 credit hours)		
MCLS632	Immunology	
MCLS732	Advanced techniques in immunology	
MCLS734	Microbial pathogenesis	
Elective courses (6 credit hours)		
MCLS735	Microbial genetics	
MCLS630	Diagnostic parasitology	
MCLS734	Food microbiology	
MCLS635	Virology	
MCLS733	Diagnostic mycology	
MCLS721	Pathophysiology	
MCLS722	Endocrinology	
MCLS730	Toxicology	
MCLS726	Special topic	

Second: Concentration in Hematology and blood banking: students must study 9 credit hours (compulsory) and 6 credit hours (elective) from the following lists:

Course No.	Course Title	Prerequisite
Compulsory courses (9 credit hours)		
MCLS6312	Genetic disorders of blood	
MCLS6321	Blood group antigens and antibodies	
MCLS6322	Blood transfusion science	
Elective courses (6 credit hours)		
MCLS7211	Blood homeostasis and coagulation	
MCLS7212	Hematological malignancies	
MCLS7213	Management of blood transfusion service	
MCLS7214	Stem cells and human development	
MCLS632	Immunology	
MCLS721	Pathophysiology	
MCLS722	Endocrinology	
MCLS730	Toxicology	
MCLS726	Special topic	

D. In addition to a Thesis or two Seminars in the field of concentration.

Track “A” or Track “B”: 6 Credit Hours; Thesis or two Seminars

Track	Track title	Track no.	Prerequisite
Track A	Thesis	MCLS860	Completion of at least 15 credit hours from the program
Track B	Seminar	MCLS830	
		MCLS831	

Clinical Laboratory Science Course Descriptions: (MCLS)

MCLS530 Hematology and Blood Banking
Principles of hematology and hematopoiesis of the different cell lineages as well as their structure and function. The formation of the hemoglobin molecule and its function, blood coagulation, blood groups, blood collection and transfusion, the different tests performed in blood banks and various human blood abnormalities. (Two hours lecture, three hours lab)
MCLS6211 Management and quality assessment in clinical laboratories
Exploring and enhancing the administrative skills of students and orienting it towards managing human resources, financial issues and providing appropriate environment that fosters the performance of laboratory staff. Discussion of principles of quality assessment schemes, its technical and administrative requirements and its association with licensing and accreditation of clinical laboratories locally and internationally. (Two hours lecture)
MCLS622 Blood Banking
Advanced concepts in modern blood banking in light of developments in blood preservation processes and preparation of various blood components, transfusion of platelets, leukocytes, hemopoietic cells and plasma components. Investigation of the modern technologies available for identification of antibodies for the various blood groups, safe transfusion practices and associated risks. The uses of blood products in therapy and forensic medicine. (One-hour lecture, three hours lab).
MCLS6221 Research methods
Research methods in clinical laboratory sciences, skills needed to conduct scientific research, develop research questions and hypothesis, select appropriate study design and the type of data needed. Interpretation of the research data statistically and objectively and consideration of ethical aspects of scientific research. (Two hours lecture)
MCLS6222 Biostatistics
Principles and applications of fundamental and advanced statistical tests, Discussion and selection of appropriate statistical design that suits the research data and interpretation of statistical results. Hands on training on statistical software. (Two hours lecture)

MCLS630	Diagnostic Parasitology
Introduction to parasites, their scientific classification, all possible clinical specimens, and recognizing their structures using the electronic microscope. The life cycle of parasites, methods of transmission to humans and the development of disease. The role the immune system plays against parasitic infection and new non-microscopic technologies used to diagnose these parasites, treatment with different anti-parasitic drugs. Methods for developing protective vaccines. (Two hours lecture, three hours lab)	
MCLS6310	Hematology
The process of hematopoiesis, its development and the factors that affect it and the stem cell theory. Anemias, especially anemia due to iron deficiency and other types of nutritional anemia. Hematological changes in chronic diseases. Laboratory diagnosis of hematologic diseases, analyzing results of laboratory tests and their medical significance. Internal and external quality control in the hematology lab. (Two hours lecture, three hours lab)	
MCLS6312	Genetic disorders of blood
Advanced concepts of hemolytic anemia and immune and non-immune related hemolytic anemia, genetic disorders of hemoglobin including hemoglobin variants and thalassemia, polycythemia and anemia due to bone marrow failure, with emphasis on laboratory diagnosis of such diseases. (Three hours lecture)	
MCLS632	Immunology
The normal functions of the immune system, abnormalities in the immune system and the ways to detect these abnormalities. Diagnostic methods for certain diseases of the human immune system. (Two hours lecture, three hours lab)	
MCLS6321	Blood groups and their serology
Advanced concepts of red blood cell antigens, their biochemical structure, genetics and molecular biology and analysis of different blood group systems. Antibodies to different red blood cell antigens, their development and clinical significance. Laboratory methods for detection and identification of red cell antigens and their antibodies. (Three hours lecture)	
MCLS6322	Blood transfusion science
Methods for blood donors' recruitment and qualification, collection and preparation of different blood products. Therapeutic applications of blood products, adverse effects of blood transfusion, compatibility testing and implementation of quality assessment in blood bank. (Three hours lecture)	

MCLS633 Clinical Chemistry
Biochemical processes associated with health and disease and the ways to properly obtain specimens and measure the analytes present in body fluids and tissues to facilitate the diagnosis of diseases. (Two hours lecture, three hours lab)
MCLS634 Food Microbiology
Factors that affect the growth of microorganisms in food, microorganisms that cause food spoilage and foodborne diseases, food fermentation, food safety, food preservation and microbiological examination of food. Hazard Analysis Critical Control Point system (HACCP) and its relation to food safety, food laboratory accreditation, and proper food inspection in factories, hotels and restaurants. (Two hours lecture, three hours lab)
MCLS635 Virology
Classification of viruses, their structure and lifecycle, starting from adherence to susceptible cells until production of progeny. Role of the immune system in fighting viral infections, utilizing advanced techniques for diagnosis, treatment and methods for developing protective vaccines. (Three hours lecture)
MCLS637 Diagnostic Microbiology
Recovering pathogenic bacteria from clinical specimens and identifying bacteria using conventional and advanced methods. Diagnosing various infectious diseases in the laboratory, collecting relevant information, analyzing and interpreting such information. Modern technologies and their use in laboratories. Choosing the proper type of antibiotics for bacteria, diagnosing them and the treatment of bacterial diseases. (Two hours lecture, three hours lab)
MCLS7211 Blood homeostasis and coagulation
Advanced concepts in blood homeostasis and bleeding disorders including bleeding disorders due to coagulation factor deficiency and platelets disorders. Genetic and acquired thrombophilia. Laboratory diagnosis and monitoring of coagulation disorders. (Two hours lecture)
MCLS7212 Hematological malignancies
Molecular biology and classification of leukemia and lymphomas. Analysis of selected types of leukemia and lymphomas. Laboratory diagnosis and monitoring of malignant blood diseases including genetic mutations, chromosomal aberrations and immunophenotyping. (Two hours lecture)

MCLS7213 Management of blood transfusion services
Principles of management of blood transfusion services within the frame of local and international guidelines and regulations. Management of human resources and first-time and regular blood donors' with emphasis on hemovigilance. (two hours lecture)
MCLS7214 Stem cells and human development
Principles, development and molecular biology of stem cells, laboratory methods for preparation and culture of stem cells. Research and therapeutic applications of stem cells. (Two hours lecture)
MCLS721 Pathophysiology
Understanding changes to the physiology of organs and tissues that take place in disease states. Diseases discussed include blood disorders, metabolic disorders, endocrine disorders, diseases of the immune system as well as diseases caused by microorganisms. Students will learn the relationship among these disorders and the interpretation of laboratory tests that facilitate accurate diagnosis of these disease. (Two hours lecture)
MCLS722 Endocrinology
Endocrine glands and their secretions (hormones). Study the types and locations of cell surface receptors that interact with hormones. Principles of ligand-receptor interactions and the consequent reactions leading to cell response to these signals. Study the different ways for activation and inhibition of receptors. (two hours lecture)
MCLS726 Special Topic
In-depth study of a special topic related to the field of clinical laboratory science selected by the Program Council according to students' needs and available resources. (Two hours lecture)
MCLS730 Toxicology
Fundamental principles of toxicology, some types of toxins, drugs and chemicals of pharmacological importance, their interaction and their biological effects. Different analytical techniques and methodologies used in clinical laboratories to identify such toxicants and their concentration in different samples. (Three hours lecture)
MCLS731 Molecular Biology
The molecular structure of chromosomes, DNA replication and concomitant proofreading, translation and transcription of mRNA, and the organization of the nucleic acid bases on chromosomes and genes, DNA cloning, molecular hybridization and gene expression. The laboratory experiments will help the students understand these topics. Molecular basis of cancer, changing the structure of some elements (such as bacteria) and gene therapy. (Three hours lecture)
MCLS732 Advanced Techniques in Immunology
Advanced technologies and techniques utilized for the diagnoses of immunological diseases and research. Training the students on these technologies through Immunoassays, Western blotting, protein electrophoresis, Hybridoma and other techniques. (Two hours lecture, three hours lab)
MCLS733 Diagnostic Mycology
Opportunistic fungi and their ability to cause disease to humans, identifying fungi using conventional and modern methods; serological methods and molecular techniques used for diagnosing fungal infections. and unknown methods. The student will become familiar with perfect fungi and the different ways known to predict

the possible existence of sexual reproduction in imperfect fungi (Two hours lecture, three hours lab)	
MCLS734 Microbial Pathogenesis	
A comprehensive overview of the emergence and development of microbial diseases, effects of the environment on microbial genes and their ability to change the structure of microbes that cause diseases, the structure and functions of toxins produced by microorganisms, bacterial adhesion to cells, growth inside these cells and spread to adjacent cells. (Three hours lecture)	
MCLS735 Microbial Genetics	
Train the students to use molecular methods in studying microorganisms (bacteria, fungi, parasites and others). Detection of spontaneous mutations, transformation and other ways of DNA transfer from one bacterial species to another. Training on different molecular techniques. (Two hours lecture, one-hour lab)	
MCLS830 Seminar	
Presentation and discussion of scientific integrity and ethics of scientific research. An advanced study in the field of clinical laboratory sciences that includes reviewing enough scientific papers and literature. Public presentation and discussion of the study that might end up with some corrections and modifications of the study. <i>Prerequisite: Passing At Least 15 Credit Hours.</i>	
MCLS831 Seminar	
Presentation and discussion of scientific integrity and ethics of scientific research. An advanced study in the field of clinical laboratory sciences that includes reviewing enough scientific papers and literature. The study could be a continuation to that in Seminar I (830) or a different one. Public presentation and discussion of the study that might end up with some corrections and modifications of the study. <i>Prerequisite: Passing At Least 15 Credit Hours.</i>	

MCLS860 Thesis

Writing a thesis in the field of specialization according to the approved instructions for writing master's theses.

Prerequisite: Passing At Least 15 Credit Hours.

Master Program in Industrial Pharmaceutical Technology

The [Department of Pharmacy](#), offers an academic program that leads to a [master degree in Industrial Pharmaceutical Technology](#) . This program aims to prepare staff of scientific competencies specialized in industrial technology, through documenting the relationship between the pharmaceutical industry and academic institutions. In addition to the general [master degree in Industrial Pharmaceutical Technology](#), students can choose Industrial Pharmaceutical Technology with concentration on **Cosmetic Technology**.

The program aims to improve the section of industrial pharmaceutical technology along with the governmental section through graduating students specialized for work in local pharmaceutical factories or related government institutions, and make the required change and development in the pharmaceutical industry in Palestine and quality control through:

1. Provide training opportunities at the university's state-of-the-art pharmaceutical factory with the latest technology in the pharmaceutical industry.
2. Provide specialized training courses of high quality for the development of workers in the pharmaceutical industry
3. To strengthen the relationship between the industrial sector and academic and research institutions
4. Acquiring the skills of using industrial and analytical techniques used in the field of pharmaceutical industries.

Admission Requirements:

1. Applicants must hold a bachelor's degree from a university recognized by Birzeit University in one of the following fields: pharmacy, chemical engineering, chemistry, or any other related field after the approval of the Program Council. In addition, students are required to complete any remedial courses specified by the Program Council.
2. Fulfilling the admission requirements according to the Academic Regulations for the Master's Degree.
3. A personal interview, if required by the Program Council.

Program Requirements:

A. Compulsory Courses: 16 credit hours of the following courses:-

Course No.	Course Title	Prerequisite(s)
MIPT6210	Research Methodology and Biostatistics	
MIPT6320	Industrial Unit Operations	
MIPT6360	Quality Management Systems and Regulatory Affairs	

Course No.	Course Title	Prerequisite(s)
MIPT6440	Pharmaceutical Technology 1	MIPT6320
MIPT6450	Pharmaceutical Technology 2	MIPT6440

B. Elective Courses: 14 credit hours from one of the two concentrations:-

Concentration Name	No. Credit Hours	Course No.	Course Title	Prerequisite(s)
Industrial Pharmaceutical Technology	9 cr. hr.	MIPT6250	Pharmaceutical Validation	
		MIPT6280	Management in The Pharmaceutical Industry	
		MIPT6290	Pharmaceutical Biotechnology	
		MIPT6330	Pharmaceutical Microbiology	
		MIPT7110	Advanced Topic	
		MIPT7250	Pharmaceutical Stability Studies	
		MIPT7260	Pharmaceutical Nanotechnology	
		MIPT7270	Pharmaceutical Facility Design	
		MIPT7310	Design and Development of Novel Drug Delivery Systems	
		MIPT7320	Pharmaceutical Lab Quality Systems and Operations	
		MIPT7330	Special Topic	
		MIPT7340	Pharmaceutical Marketing	
		MIPT7350	Advanced Pharmaceutical Analytical Techniques	
		MIPT7360	Quality By Design And Risk Management	
	5 cr. hr.	MIPT Program level 6 and above		
Cosmetics	9 cr. hr.	MIPT6240		
		MIPT7110		
		MIPT7210		
		MIPT7370		

		MIPT738 0		
		MIPT739 0		
	5 cr. hr.	MIPT Program level 6 and above		

C. Track A or Track B: 6 credit hours, Master thesis or two seminars

Track	Course No.	Course Title	Prerequisite(s)
Track A	MIPT8600	Master thesis	Completion of at least 18 credit hours from the program courses
Track B	MIPT8300 MIPT8310	Two seminars	

Industrial Pharmaceutical Technology Course Descriptions (MIPT)

MIPT6210 Research Methodology and Biostatistics

The applications of experimental design techniques and statistical methods in health care and pharmacy; the concepts of scientific research designs and principles in pharmacy practices, including topics such as hypothesis testing, contingency tables, correlation, analysis of variance, and regression. (2 Credit hours)

MIPT6240 Cosmetic Laboratory

A practical course that guides the student to the development of various cosmetic products, including sunscreen, emulsion, creams, skin moisturizers, anti-aging, anti-acne products, and other preparations using synthetic and natural ingredients. (2 Credit Hours: 1 class hour and 3 practical hours)

MIPT6250 Pharmaceutical Validation

The different concepts of validation in pharmaceutical industry such as the responsibilities for validation, validation versus qualification, the regulatory requirements regarding validation in pharmaceutical industry, the relation between validation and Good Manufacturing Practice (GMP) and the fundamentals and essentials for validation; cleaning validation, process validation for different dosage forms, types of process validation and validation of analytical procedure; the validation documentation requirements and responsibilities and practical case studies in validation. (2 Credit hours)

Prerequisite MIPT644

MIPT6280 Management in the Pharmaceutical Industry

Planning and organizing business processes, motivating and leading employees, decision making, implementation, monitoring and controlling functions, scheduling and executing of projects in the pharmaceutical industry within time and cost constraints; managing human and financial resources, physical resources and technology and understanding interdependence among core processes and functions. (2 Credit hours)

MIPT6290 Pharmaceutical Biotechnology

Recent advances and challenges in biotechnology application; biotechnological techniques, such as rDNA technology, DNA cloning and expression of cloned DNA, DNA sequence information, new biological targets for drug development and novel drug screening strategies; novel biological agents such as antibodies, antisense gene therapy, oligo-nucleotide therapy (PNA), gene therapy, new multivalent vaccines, insulin production, monoclonal antibodies, biologic immune response modifiers; biological systems used in commercial production of biopharmaceuticals and their applications. (2 Credit hours)

MIPT6320 Industrial Unit Operations

Advanced operations used in the manufacture of pharmaceutical products, unit operations of blending, granulation, fluidized bed operations, milling, capsule filling, compaction, tablet compression, coating, solution, suspension, creams, and ointments; the importance of scheduling and sequencing unit operations; deviations and failures, scale-up pharmaceutical unit operations, troubleshooting, and optimization. (3 Credit hours)

MIPT6330 Pharmaceutical Microbiology
The extent of allowed level and significance of existence of bacteria, yeasts, molds, viruses and toxins in raw materials, intermediates and finished products and the environment of pharmaceutical product or facility; the various modes of action of different types of antimicrobial agents, mechanisms of drug resistance and the need for use of preservatives in some pharmaceutical preparations; the concept of sterilization, sterility assurance, preservation of pharmaceuticals, sterile and non-sterile manufacturing environments . (3 credit hours: 2 class hours and 3 practical hours)
MIPT6360 Quality Management Systems and Regulatory Affairs
A detailed overview of Pharmaceutical Quality Management Systems and Regulatory Affairs through evaluating local and international regulations and guidelines; the development and management of total Quality Systems that meet regulatory guidelines; development, management and maintenance of Standard Operating Procedures (SOPs), Deviation/Non-conformance Systems, Corrective and Preventative Action Systems, current Good Manufacturing Practice, (cGMP), Good Laboratory Practice (GLP), Total Quality Management (TQM) ; the function and purpose of International Conference on Harmonization, pharmaceutical regulations in European countries, Japan and USA as well as the regulations in Palestine and other Arab countries; evaluation of Current Pharmaceutical Quality System (ICH Q10). Regulation and licensing of pharmaceutical biotechnology products. (3 Credit hours)
MIPT6440 Pharmaceutical Technology 1
Discussion and presentation of the principles of designing a solid dosage forms and their effect on drug absorption; the merge of the scientific and technological aspects of solid dosage forms design which includes properties of solid dosage forms, the excipients used in these preparations and the physicochemical principles involved in formulating stable solid dosage forms guarantee high quality products in Pharmaceutical Industry; conventional and specific techniques and machines of industrial pharmacy, including direct compression, wet and dry granulation, microencapsulation, fluid bed and coating operations, tableting machine, compaction machine, capsules filing machines and techniques for evaluating solid dosage forms. (4 credit hours: 3 class hours and 3 practical hours) <i>Prerequisite MIPT6320</i>
MIPT6450 Pharmaceutical Technology 2
The principles, methods and technology involved in the production of safe, effective and stable liquid, semi-solid, aerosols and sterile dosage forms; the properties of liquids, semi-solids, aerosols and sterile dosage forms, the excipients used in their preparation and the physicochemical principles involved in formulating stable dosage forms and their effect on absorption of the drug; the design, manufacturing and requirements for packaging of the dosage forms; conventional and specific techniques and equipment's used for manufacturing and their evaluation ;the different methods of sterilization, aseptic processing, environmental monitoring and media fills. (4 credit hours: 3 class hours and 3 practical hours) <i>Prerequisite MIPT6440</i>
MIPT7110 Advanced Topic
The intellectual abilities of the students through a discussion of recent scientific research or hosting specialists in Advanced Topics in Pharmaceutical Industry. (1 credit hour)

MIPT7210 Special Topics in Cosmetology
Up-to-date aspects and topics in cosmology. (2 Credit hours)
MIPT7250 Pharmaceutical Stability Studies
A comprehensive and up-to-date knowledge of stability testing for quality control and quality assurance of pharmaceutical products; different regulations and guidelines regarding stability testing adopted by FDA, WHO and International Conference on Harmonisation (ICH); new approaches to stability testing including "Accelerated Stability Assessment Program" (ASAP) and QbD; chemical stability, physical stability and photo stability, advantages and limitations of accelerated stability testing and routes of accelerated degradation. (2 Credit hours)
MIPT7260 Pharmaceutical Nanotechnology
Basic features of nanoscience, synthesis strategies of nanostructures, nanomaterials applied in pharmaceutical technology like nanospheres, nanotubes, nanoparticles, and molecular nanostructures; the integration of nanoscale phenomena in pharmaceutical sciences; nanoscale drug formulations currently under development or usage. (2 Credit hours)
MIPT7270 Pharmaceutical Facility Design
Basic knowledge of the challenges faced by engineers and designers when designing a pharmaceutical manufacturing facility; the sterile manufacturing facility design model, and other types of Pharmaceutical facilities; pharmaceutical facilities required to meet Good Manufacturing Practices (GMP) regulations; compliance to governing codes, laws and regulations. (2 Credit hours)
MIPT7310 Design and Development of Novel Drug Delivery Systems
Principles and concepts of different controlled release drug delivery systems; the potential advantages and limitations as well as drugs candidates for different oral controlled release drug; descriptive analysis of the different concepts applied in the design, formulation and development of controlled release products; the concept of drug targeting and its therapeutic significance, various biopharmaceutical pharmacokinetic and clinical aspects of controlled release products as well as official in-vivo and in-vitro tests used to evaluate controlled release drug delivery systems. (3 Credit hours)
MIPT7320 Pharmaceutical Lab Quality Systems and Operations
Fundamentals of quality control systems and operations in pharmaceutical industry along with principles of quality control, statistical evaluation of the data obtained, statistical methods of analysis relevant to QC activities and regulatory requirements for laboratory operations; the essential aspects of Good Laboratory Practices (GMP) and pharmacopoeia requirements for raw materials sampling and testing, process control, inspection, sampling procedures, finished product release and methods to prevent product failures. (3 credit hours: 2 class hours and 3 practical hours)
MIPT7330 Special Topic
The up-to-date aspects and topics in Pharmaceutical Technology and Pharmaceutical Manufacturing. (3 credit hours)

MIPT7340 Pharmaceutical Marketing
Evolution of marketing within the pharmaceutical industry as a viable field, environmental and market analysis, market research including qualitative techniques like focus groups, and quantitative techniques like surveys and experimental design, the challenges pharmaceutical companies face nationally and internationally while trying to meet the changing needs of the different stakeholders including clients and regulators, patient, physician and drug stores satisfaction; product, promotion, pricing and distribution strategies; the holistic marketing concept as part of today's marketing plan including internal, performance, integrated and relationship marketing. (3Credit hours)
MIPT7350 Advanced Pharmaceutical Analytical Techniques
A comprehensive overview of modern instrumental techniques and major methods available for pharmaceutical analysis while covering the principles, advantages, limitations and applicability of each method; the current instrumental methods of analysis and sound experimental techniques covering electrochemical methods, absorption and emission spectroscopy, UV-Vis spectrophotometry, Raman spectroscopy, Gas chromatography, High-performance liquid chromatography, NMR, IR and mass spectrometry. (2 credit hours theory and 3 hours practical)
MIPT7360 Quality by Design and Risk Management
Understanding the challenges faced by pharmaceutical and healthcare industries; aspects of modern product development and manufacturing solutions that conform to current industry best practices and modern Quality by Design principles; an insight into the key principles of QbD covering quality risk management, formal experimental design and process analytical technology (PAT). (3 Credit hours)
MIPT7370 Cosmetic Technology 1
Anatomy of the skin, lips, and nails; methods for evaluation of the skin, skin color, sunscreens, skin moisturizers, anti-aging, ingredient selection, product design, formulation development, preparation, product testing for skin cleansers, skin moisturizers, anti-acne and anti-aging products, lips, eyes, face, and nails. (3 Credit hours)
MIPT7380 Cosmetic Technology 2
Morphological and macromolecular structure of hair, hair growth, physical properties of Hair, product design, formulation development, preparation, product testing for shampoos, hair conditioners, hair styling, hair coloring, hair removal, baby care, and sunless tanner products. (3 Credit hours)
MIPT7390 Natural and Organic Products in Cosmetics
Natural cosmetic ingredients, extraction methods, and using natural ingredients in cosmetic preparations. (3 Credit hours)
MIPT8300 Seminar 1
The scientific advancement relevant to industrial pharmaceutical technology, code of ethics and research ethics; practical experience applicable to industrial pharmaceutical technology; writing and defending a research proposal. (3 Credit hours) <i>Prerequisite: Completion of at least 18 credit hours from the program courses</i>

MIPT8310 Seminar 2

A Complementary to MIPT 830; carrying out the actual research proposed in MIPT 8300; writing a detailed report (mini-thesis) and defending it. (3 Credit hours)

Prerequisite: Completion of at least 18 credit hours from the program courses

MIPT8600 Thesis

Scientific research project in the major field of study in accordance with guidelines and instructions of the university. (6 Credit hours)

Prerequisite: Completion of at least 18 credit hours from the program courses

Master Program of Oncology Nursing

The [Faculty of Pharmacy, Nursing and Health Professions](#) offers an academic program that leads to a [master degree in oncology nursing](#). This program aims at preparing and graduating committed, specialized nurses who are able to provide holistic and advanced nursing care for patients with cancer, and their families and communities. Furthermore, the graduates will be equipped to promote professional nursing through various nursing roles such as clinicians, managers, educators, and / or researchers.

Admission Requirements

A student is eligible to be admitted to Master Program of Oncology Nursing if he / she fulfills the following requirements for graduate studies:

- The student should have a bachelor's degree in nursing from BZU or its equivalent degree from another recognized university or institution.
- The student should have an average good or above.
- The student should pass BZU entrance exam in English or provide equivalent evidence.
- The student should have a valid license in nursing practice.
- The student should have two-year experience in nursing. Preference will be given for those who have experience in a relevant field.

Program Requirements

Fulfillment of at least (36) credit hours distributed as follows:

- Compulsory Courses: (24) credit hours consisting of the following courses

Course No.	Course Title	Prerequisite (s)
ONCN6110	Advanced Health Assessment	
ONCN6120	Advanced Pathophysiology	
ONCN6130	Advanced Pharmacology	
ONCN6140	Introduction to Cancer Disease and Oncology	ONCN6110, ONCN6120, ONCN6130 or concurrent
ONCN6310	Professional Nursing Issues	
ONCN6320	Cancer Diseases and Therapies	
ONCN7110	Research and Biostatistics	
ONCN7210	Oncology Nursing (Clinical I)	ONCN6320 or concurrent
ONCN7220	Nursing Interventions	
ONCN7330	Palliative Care and Symptoms Management	ONCN6320 or concurrent
ONCN7240	Oncology Nursing (Clinical II)	ONCN7330 or concurrent
ONCN7250	Advanced Practice and Oncology Emergencies	ONCN6320
ONCN7260	Oncology Nursing (Clinical II)	ONCN7250 or concurrent
ONCN8000	Clinical Residency	ONCN7210, ONCN7240, ONCN7260
ONCN8010	Comprehensive Exam	Successfully completed 27 credit hours

One Clinical/lab credits = 4 hours of practicum each week

- **Elective Courses: (6) credit hours from the following**

Course No.	Course Title	Prerequisite (s)
ONCN6210	Therapeutic Communication	ONCN6140 or concurrent
ONCN6220	Children with Cancer	ONCN6140 or concurrent
ONCN6230	Continuum of Cancer and Proactive Measures	
ONCN6240	Quality and Informatics in Healthcare	
ONCN6250	Special Topic	
ONCN6260	Multidisciplinary Management of Cancer	ONCN6140 or concurrent
ONCN6270	Clinical Management	

- Track (A) / Track (B): (6) credit hours; either as thesis writing (Track (A)) or the two following seminars (Track (B)):

Track	Course No.	Course Title	Prerequisite(s)
Tack A	ONCN8600	Thesis	Successful completion of at least 15 credit hours
Track (B)	ONCN8300	Seminar 1	ONCN711 and Successful completion of at least 15 credit hours
	ONCN8310	Seminar 2	ONCN8300
	ONCN8010	Comprehensive Exam	Successfully completed 27 credit hours

Oncology Nursing Course Descriptions (ONCN)

ONCN6110 Advanced Health Assessment
Health assessment for patient with cancer. (1 credit theory).
ONCN6120 Advanced Pathophysiology
Advanced information on specific interruptions in normal function of the major human physiological systems, with emphasis on conceptual understanding of disease processes and common pathologies regarding cancer. (1 credit theory).
ONCN6130 Advanced Pharmacology
Advanced clinical pharmacology, focusing on principles and concepts of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics. Pharmacotherapeutics as it relates to nursing process, routes and techniques of drug administration and patient education with cancer diseases. (1credit theory).
ONCN6140 Introduction to Cancer Diseases and Oncology Nursing
Scientific and clinical aspects of cancer causes, pathology, pathophysiology, clinical features, possible investigations and treatments for cancers in general. Emphasis will be placed on health restoration and maintenance, health promotion, cancer prevention and screening. Additional knowledge and clinical skills to support patients diagnosed with Cancer and their families will be provided. (1 credit theory). <i>Prerequisite: Concurrent with (ONCN6110, ONCN6120 and ONCN6130)</i>
ONCN6210 Therapeutic Communication
Advanced knowledge and skills required to communicate effectively with cancer patients and families, with emphasis on advocacy, community campaigns, information technology, decision making in the multidisciplinary context, ethical and effective culturally sensitive communication. (2 credits theory). <i>Prerequisite: ONCN6140 or concurrent</i>
ONCN6220 Children with Cancer
Children hematology/oncology, pathophysiology, diagnosis, treatment, advanced assessment, interventions, clinical nursing care of children with cancer and their families, and identification of many challenges that may face the oncology nurse. (2 credits theory). <i>Prerequisite: ONCN 6140 or concurrent</i>
ONCN6230 Continuum of Cancer Care and Proactive Measures
Introduction to the continuum of cancer care from prevention, early detection, diagnosis, treatment, follow-up, palliation, bereavement and survivorship stage to recovery or end-of-life stage. (2 credit theory)
ONCN6240 Quality and Informatics in Healthcare
Concepts, principles, indicators, processes of quality, safety of healthcare, overview of health informatics and the use of technology in healthcare, identification of systems gaps and failures that result in ineffective care, errors and incidences and strategies to efficient and high quality of care. (2 credit theory)

ONCN6250 Special Topic
Knowledge on special issue/topic relevant to oncology nursing. It may emphasize new knowledge, or offer opportunity to increase the students' depth of knowledge or skill on certain relevant issue through special projects or case studies. (2 credit theory)
ONCN6260 Multidisciplinary Management Cancer
Inter-professional education and practice, team building, behaviors and competence, barriers exist that can discourage the implementation of interdisciplinary practice. (2 credit theory). <i>Prerequisite: ONCN6140 or concurrent</i>
ONCN6270 Clinical Management
Leadership competencies, supervision, critical thinking, decision-making, mentorship, resource management, multidisciplinary coordination and collaboration. (2 credit theory)
ONCN6310 Professional Nursing Issues
Ethics, nursing theories, principles of leadership, professional roles, self-development and mentorship, interprofessional communication, collaboration, and teamwork, quality of care, and healthcare delivery and systems. (3 credit theory)
ONCN6320 Cancer Diseases and Therapies
Basics of cancer development and the biological processes. Principles of cancer therapies, the application of multi- modality cancer treatment, safe administration of cancer therapies and the nursing interventions necessary to manage an adverse reaction to treatment. (3 credits theory)
ONCN7110 Research and Biostatistics
Research designs and methods in the nursing field, including principles of action-oriented and operational research, ethics and biostatistics. Basics of analysis using SPSS including frequencies, tables pairing, correlation, and testing hypothesis. (1 credit theory)
ONCN7210 Oncology Nursing (Clinical I)
Clinical training 8 actual hours each week. Transition of graduate nurses into practice demonstrating the concepts and principles of oncology nursing using the nursing process. Introduction to key clinical concepts that may shape the development of cancer services and get students familiar with the clinical role as an oncology nurse specialist at the clinical setting. (2 credit hours). <i>Prerequisites: ONCN6320 or concurrent</i>
ONCN7220 Nursing Intervention
Knowledge and skills required to holistically assess patients with cancer, cancer survivals, and their families using the nursing process approach, considering approaches of self-care, team approach, health promotion, necessary aspects of nursing care for cancer patients at different stages including signs, symptoms, treatment modalities i.e. surgery, chemotherapy, radiotherapy, palliative care, rehabilitation, home care and support, end-of-life stage and loss. (2 credit theory).

ONCN7240 Oncology Nursing (Clinical II)
Clinical training 8 actual hours each week. Exposure to different types of cancer including solid tumor and hematology. This exposure includes understanding the disease trajectories from diagnosis stage to prognosis and treatment stages and modalities. (2 credit).
<i>Prerequisite: ONCN7330 or concurrent</i>
ONCN7250 Advanced Practice and Oncology Emergencies
Knowledge and skills necessary to care and treat advanced disease phase, emergencies, co-morbidities, and consequences of cancer and its treatment. Exposure to the challenges may face oncology nurse while managing signs and symptoms throughout different transitional phases. (2 credits).
<i>Prerequisite: ONCN 6320</i>
ONCN7260 Oncology Nursing (Clinical III)
Clinical training 8 actual hours each week. Exposure and care for patients with cancer at various stages, and under different treatment modalities. Aspects of care include physical and psychosocial care, administration of pharmacological treatments and assisting them during the non-pharmacological treatment, and emergencies that might occur, participation in patients, families and community health education regarding cancer prevention. (2 credit).
<i>Prerequisite: ONCN7250 or concurrent</i>
ONCN7330 Palliative Care and Symptoms Management
Knowledge and skills required to support patients through treatment and symptom management into survivorship, advanced disease and quality of life. Palliative care (including psychological, social, and spiritual problems) versus curative measures. (3 credit theory).
<i>Prerequisite: ONCN 6320 or concurrent</i>
ONCN8000 Clinical Residency
An obligatory intensive clinical training period for 32 days (256 clinical training hours) at the end of the program. Enhancement of knowledge and skills in oncology nursing particularly to fill gaps due to insufficient training during various clinical allocations and facilitate role through providing necessary oncology care among multidisciplinary team, and within various cancer settings. (0 credit hours).
<i>Prerequisite: ONCN7210, ONCN7240, ONCN7260</i>
ONCN8010 Comprehensive Exam
Assessment of the student's knowledge and capacities earned during their graduate study before they start their clinical residency. (0 credit hours).
<i>Prerequisite: successfully completed 27 credit hours.</i>
ONCN8300 Seminar I
Conducting in-depth scientific research in selected nursing practice topics in various fields of students' interests, and consideration of principles of scientific integrity and ethics of scientific research. (3 credits theory).
<i>Prerequisite: ONCN 7110 and successfully completed at least 15 credit hours.</i>

ONCN8310 Seminar II

Conducting in-depth scientific research in selected nursing practice topics in various fields of students' interests, and consideration of principles of scientific integrity and ethics of scientific research. (3 credits theory).

Prerequisite: ONCN8300

ONCN8600 Thesis

Conduct a scientific research according to the Master's degree standards at Birzeit University. (6 credit hours).

Prerequisite: Successfully completed 15 credits hours

Master Program in Women's Health

Introduction:

The [Faculty of Pharmacy, Nursing and Health Professions](#) offers a study program leading to a [Master Program in Women's Health](#). The program aims to serve the Palestinian community through capacity development, and seeks to achieve excellence in teaching, learning and research and by transforming evidence-based knowledge to produce competent, committed professional leaders.

The program seeks to raise the level of health services provided to women at all stages of their lives (using a lifelong-approach) by building capacities based on scientific evidence, strengthening scientific research, critical thinking and analysis for workers in areas related to women's health, including aspects of adolescent health and women's health during pregnancy. Childbearing and beyond, reproductive health and women's health during menopause.

The program targets all health workers in the fields of women's health, whether providing health care in the governmental, private and private sectors or working in international institutions and those working at policy level from various health disciplines (medicine, nursing, midwifery, nutrition, pharmacy, physical therapy, laboratory analysis).

Admission Requirements:

1. Applicants should have a bachelor's degree with a grade of good or above.
2. The bachelor's major can be in one of the following specializations: human medicine, dentistry, nursing, midwifery, nutrition, pharmacy, physical therapy, medical/laboratory sciences, and any other specialization that the program board deems appropriate.
3. Preference will be given to health care providers currently working in the area of Women's health workers or those with experience in this field.

Study Language: English

Program Requirements: 36 credit hours

A. Compulsory courses: (18) credit hours consisting of the following courses:

Course Number	Course Name	Prerequisite
HLTH6330	Research Methods and Data Collection	
HLTH6340	Health Statistics	
WOHE6310	Sexual and Reproductive Health	
WOHE6320	Maternal Health	
WOHE6330	Well Women Health	
WOHE7320	Adolescent Health	

B. Elective courses: (12) credit hours out of the following courses:

Student must study at least 6-7 credit hours from the first group, and 6 credits from the second group.

Group 1		
Course Number	Course Name	Prerequisite
ONCN6240	Quality and Informatics in Healthcare	
WOHE7210	Special Topic 1	
WOHE7310	Global Women's Healthcare	
WOHE7330	Gender-Based Violence	
WOHE7340	Health Promotion	
WOHE7350	Communication and Counseling	
WOHE7360	Special Topic 2	

Group 2		
Course Number	Course Name	Prerequisite
GADS630	Concepts and Issues in Gender and Development	
GADS634	Qualitative Research Methods for Gender and Development	
GADS635	Gender Analysis and Gender Planning	
HLTH6201	Principles of Primary Health Care	HLTH6301
HLTH6230	Classical Epidemiology	
HLTH626	Family Health	
HLTH632	Health Planning and Management	
HLTH635	Health Policy and Planning	HLTH632 or program approval
HLTH733	Health Economics	BUSA636
HLTH7350	Population and Development	
ONCN6230	Continuum of Cancer Care and Proactive Measures	
ONCN6270	Clinical Management	
ONCN6320	Cancer Diseases and Therapies	

C. Track A or Track B: 6 credit hours.

Track	Course Number	Course Name	Prerequisite
Track A	WOHE8600	Thesis	Completed at least 15 credit hours including HLTH6330
Track B	WOHE8300	Seminar I	
	WOHE8310	Seminar II	

Women's Health Course Description (WOHE)

WOHE6310	Sexual and Reproductive Health
Theoretical knowledge and evidence-based clinical practice for sexual and reproductive health problems including abortion, infertility, family planning, sexually transmitted infections. (Lecture 3 hours).	
WOHE6320	Maternal Health
Updates on preconception, antenatal, intrapartum care and postnatal care focusing on their impact on maintaining a healthy pregnancy and reducing maternal morbidity and mortality. Causes of maternal mortality and related challenges. Enhancement of knowledge of evidence-based practices and international guidelines within the frameworks of quality of care and human rights. (Lecture 3 hours).	
WOHE6330	Well Women Health
Physical, sexual and emotional changes in a woman's life span peri and after menopause. Evidence-base basic principles and practice of menopause care; including aging and life style, screening for reproductive cancers, namely breast and cervical cancers. Enhancement of knowledge and clinical competence at providing menopause related basic healthcare. (Lecture 3 hours).	
WOHE7310	Global Women's Healthcare
The concept of global health; woman global health in the context of SDGs. Health inequities and challenges and solutions related to maternal and child health and global health burdens and policies. The interdisciplinary nature of woman global health research, critical analysis of global health challenges and policies; development of research questions and themes related to woman global health issues. (Lecture 3 hours).	
WOHE7320	Adolescent Health
Physical and emotional development of youth during adolescence, the adolescent rights, risks and solutions (i.e. WHO response) related to mental and menstrual health, early marriage, pregnancy and childbirth, sexual transmitted infections such as HIV. (Lecture 3 hours).	
WOHE7330	Gender-Based Violence
The concept of gender-based violence (GBV); the various forms of GBV (sexual, physical and psychological) and the underlying causes. The existing frameworks and laws related to GBV in Palestine. Measures for the prevention of GBV. (Lecture 3 hours).	

WOHE7340	Health Promotion
Health promotion concepts, theories and social determinants of health (income, education, equity, etc.). The theoretical and practical World Health Organization (WHO) guideline for health promotion. The different models of health promotion and the political, ethical and cultural dimensions. (Lecture 3 hours).	
s	
WOHE7350	Communication and Counseling
Enhancement of principles and practices of communication and counseling skills that build trust and demonstrate respect for women. Emphasis on applying skills of helping relationships for women of different ages and in variety of settings in a supportive, constructive and culturally sensitive manner. (Lecture 3 hours).	
WOHE7210	Special Topic 1
Study of special issue/topic relevant to women's health. (Lecture 2 hours).	
WOHE7360	Special Topic 2
Study of special issue/topic relevant to women's health. (Lecture 3 hours).	
WOHE8300	Seminar 1
A continuation of the scientific research from 8300 or planning new in-depth scientific research in selected women's health issues related to students' interests, and consideration of principles of scientific integrity and ethics of scientific research. (3 credit hours).	
<i>Prerequisite: completed at least 15 credit hours including HLTH6330</i>	
WOHE8310	Seminar 2
Planning for an in-depth scientific research in selected women's health issues related to students' interests, and consideration of principles of scientific integrity and ethics of scientific research. (3 credit hours)	
<i>Prerequisite: completed at least 15 credit hours including HLTH6330</i>	
WOHE8600	Thesis
Conduct a scientific research according to the Master's degree standards at Birzeit University. (6 credit hours)	
<i>Prerequisite: Successfully completed 15 credits hours including HLTH6330</i>	

Faculty of Education

The [Faculty of Education](#) was established in 2010. Currently, the Faculty offers the following programs:

- [Master Program in Education](#)
- [Master Program in Physical Education and Sports Science](#)

Master Program in Education

The [Master Program in Education](#) and in line with the societal needs in Palestine, aims to prepare qualified educators to work in different fields of the education system, namely; teachers, supervisors, administrators, and researchers and other education fields that are related to the local context.

The program consists of 36 credit hours, 30 credit hours in the form of academic courses in the foundation courses and the focus areas (Science Education, Math Education, and Teaching English as a Foreign Language, Education Administration, and Education Supervision). The remaining 6 credit hours address the thesis or two seminars in two different semesters.

- **Admission Requirements**

1. Applicants should have at least one year of work experience in their fields.
2. Priority is given to applicants with teaching diploma.

- **Program Requirements: (36 credit hours):**

- A. Compulsory Courses: All master candidates are required to complete the following courses (15 credit hours):

Course No.	Course Title	Prerequisite(s)
EDUC6100	Introduction to Educational Research and Academic Writing	
EDUC621	Education and Society in Arab Countries	
EDUC6300	Quantitative Methods in Educational Research	EDUC6100 or Concurrent
EDUC632	Psychological Foundations of Education	
EDUC633	Curriculum Development and Instruction	EDUC632
EDUC6390	Qualitative Methods in Educational Research	EDUC6100 or Concurrent

All master candidates are required to complete (EDUC6390, EDUC6100, EDUC6300) within the first 15 credit hours

B. Focus Area Courses: (12 credit hours from one of the following six concentrations)

Concentration Name	Credit Hours	Course No.	Course Title	Prerequisite
Mathematics Education Concentration	12 Credit Hours	EDUC7301	Foundations of Teaching Mathematics	
		EDUC7311	Recent Trends in Teaching Mathematics	EDUC7301
		EDUC735	Recent Research on Teaching	EDUC6300, EDUC6100, EDUC6390
		EDUC8381	Special Topics in Teaching Mathematics.	EDUC6300, EDUC6100, EDUC6390
Educational counseling Concentration	12 Credit Hours	EDUC7390	Principles of Educational Counseling	
		EDUC7391	Evaluation and Diagnosis in Educational Counseling	EDUC7390
		EDUC7392	Contemporary Issues in Educational Counseling at Schools	EDUC7390
		EDUC7393	Practical Applications in Educational Counseling 1	EDUC7390
Science Education Concentration	12 Credit Hours	EDUC7302	Foundations of Teaching Science	
		EDUC7312	Recent Trends in Teaching Science	EDUC7302
		EDUC735	Recent Research on Teaching	EDUC6300, EDUC6100, EDUC6390
		EDUC8382	Special Topics in Teaching Science.	EDUC6300, EDUC6100, EDUC6390
Teaching English as a Foreign Language (TEFL)	12 Credit Hours	EDUC7303	Foundations of Teaching English	
		EDUC7313	Recent Trends in Teaching English	EDUC7303
		EDUC735	Recent Research on Teaching	EDUC6300, EDUC6100, EDUC6390
		EDUC8383	Special Topics in Teaching English.	EDUC6300, EDUC6100, EDUC6390
Educational Administration	9 Credit Hours	EDUC732	Principles of Educational Administration.	
		EDUC733	Educational Leadership.	
		EDUC734	Strategic Planning in Education.	
	3 Credit Hours	EDUC832	Program Planning and Evaluation	EDUC6300, EDUC6100, EDUC6390
		EDUC835	Educational Supervision	
Instructional Supervision	12 Credit Hours	EDUC736	Leadership and Instructional Supervision	
		EDUC737	Analysis of Instructional Supervision Models	EDUC835
		EDUC835	Educational Supervision	
		EDUC836	Applications of Instructional Supervision Models.	EDUC737

Special Education	12 Credit Hours	EDUC634	Learning and Instruction in Special Education 1	EDUC738
		EDUC635	Learning and Instruction in Special Education 2	EDUC634
		EDUC738	Introduction to Special Education	EDUC6300, EDUC6100, EDUC6390
		EDUC837	Assessment and Counseling in Special Education	EDUC738

C. Additional 6 credit hours: Track A (Thesis) or Track B (Two Seminars).

Track	Track Title	Course No	Prerequisite(s)
Track A	Thesis	EDUC860	It is required to complete at least 15 credit hours from the program courses
Track B	Seminar 1	EDUC830	It is required to complete at least 18 credit hours from the program courses
	Seminar 2	EDUC831	It is required to complete at least 18 credit hours from the program courses

Note: Some Master applicants may be required to take remedial courses.

D. Focus Area Courses: (12 credit hours from one of the following six concentrations)

Concentration Name	Course No.	Course Title	Prerequisite(s)
Mathematics Education	3 Credit Hours from another concentration		
Educational counseling Concentration	CPSY730	Educational Community Psychology	
	EDUC738	Introduction to Special Education	
	EDUC7394	Practical Applications in Educational Counseling 2	EDUC7393
Science Education	3 Credit Hours from another concentration		
Teaching English as a Foreign Language (TEFL)	3 Credit Hours from another concentration		
Educational Administration	3 Credit Hours from another concentration		
Instructional Supervision	3 Credit Hours from another concentration		
Special Education	3 Credit Hours from another concentration		

Courses Description: (EDUC)

EDUC530	Introduction to Education
Basic concepts about learning, behavioral and constructivist learning theories, educational objectives, teaching strategies and new trends in teaching subject matter, measurement and evaluation principals, various types of tests, validity and reliability in testing, educational research, design and hypothesis, quantitative and qualitative approaches, data collocation methodologies.	
EDUC6100	Introduction to Educational Research and Academic Writing
Ontological and Epistemological foundations of research in education, research proposals, academic writing and citation using American Psychological Association (APA), literature review, ethics of research, academic writing for publication, peer-reviewed journals in education.	
EDUC621	Education and Society in Arab Countries.
A study of the relationships between educational systems and societies of Arab world, and Palestine, in particular. The Influence of education on economic development and social justice. The impacts of education on the individual and social levels. Ideology and education. Globalization and Education. Educational reform, and the role of education in development.	
EDUC6300	Quantitative Methods in Educational Research
Characteristics and contexts of quantitative research. Planning for quantitative research, including issues of sampling, validity, reliability, and types of quantitative data. Types of quantitative research and research design, including descriptive, correlational, causal, experimental and quasi-experimental studies, etc. Data collection tools including questionnaires and tests. Methods for processing and analyzing quantitative data, including principles of descriptive statistics, hypothesis testing, T-test, and ANOVA. Introduction to using available statistical software such as SPSS	
<i>Prerequisite:</i>	<i>EDUC6100</i>
EDUC632	Psychological Foundations of Education.
Historical review of learning theories development. Cognitive trends, constructivism, social and cultural approaches for learning. Learns' cognitive, social, language, emotional development. Learning, transformation and its implications for teaching. Motivation, individual differences, and diversity. Instructional design for learning various disciplines. Using technology to support learning. Teachers learning.	
EDUC633	Curriculum Development and Instruction
Basic concepts and terminology of curriculum. Foundations of curriculum design including psychological, social, cognitive aspects. Experts and standardized curricula. Models of curriculum design including the technical critical. Curricula as educative materials for teacher's professional development. Curriculum design for teaching various subjects, decision-making for teaching subject matter in lights of modern theories. Factors that influence curriculum implementation; the context, learner's characteristics, assessment of students' learning. New trends in curriculum assessment and analysis.	
<i>Prerequisite:</i>	<i>EDUC632</i>

EDUC634	Learning and Instruction in Special Education 1
Principles and theories associated to: learning difficulties and behavioral problems, diversity in classrooms, dealing with diversity in inclusive classrooms, the role of the special education teachers. Designing, implementing, and assessing an educational program in special needs, in primary and secondary schools, and managing such programs.	
<i>Prerequisite:</i>	<i>EDUC738</i>
EDUC635	Learning and Instruction in Special Education 2
Designing and implementing educational programs for special needs students in the elementary stage, with a focus on learning and teaching Arabic language and mathematics. Modifying and differentiating curriculum in a way that meets the needs of those students, studying certain cases, with conducting observations and training in schools.	
<i>Prerequisite:</i>	<i>EDUC634</i>
EDUC636	Recent Issues in Administration and Educational Leadership
Educational recent topics that enhance the leadership role of those who are working and interested in the educational administration, reviewing recent educational issues (profession ethics, school management, crisis management in education, self-management, team leadership, knowledge and negotiation management, quality assurance, and creative management, organizational culture).	
EDUC637	Quantitative Research Methods in Education
Quantitative educational design, samples and surveys, validity and reliability, research instruments, data analysis using descriptive and inferential statistics, introduction to factorial analysis, correlation and linear regression models, and practical applications using Statistical Package for Social Sciences (SPSS)	
<i>Prerequisite:</i>	<i>EDUC6300, EDUC6100, EDUC6390</i>
EDUC6390	Qualitative Methods in Educational Research
Introduction to educational research, focusing on qualitative research, comparison between the Qn and Ql approaches. The Ql approach paradigms and context, planning and designing, with identifying the research characteristics (Sample/ participants, validity and reliability , methodologies (natural, ethnographic, documents, self and case studies), data collection strategies (interviews, focus groups, content analysis, document and discourse analysis... etc.) ,and data analysis using coding and grounded theory accompanied with writing the research report / proposal.	
<i>Prerequisite:</i>	<i>EDUC6100</i>
EDUC7301	Foundations of Teaching Mathematics
Studying the nature of certain disciplines and scientific research (historical, philosophical, social, and epistemological aspects). The relationships between the discipline and society. Cognitive development and the psychological foundations of learning and teaching certain specialties. Development of teaching and learning theories and curriculum of each disciple.	
EDUC7302	Foundations of Teaching Sciences
Studying the nature of certain disciplines and scientific research (historical, philosophical, social, and epistemological aspects). The relationships between the discipline and society. Cognitive development and the psychological foundations of learning and teaching certain specialties. Development of teaching and learning theories and curriculum of each disciple.	

EDUC7303	Foundations of Teaching EFL
Studying the nature of certain disciplines and scientific research (historical, philosophical, social, and epistemological aspects). The relationships between the discipline and society. Cognitive development and the psychological foundations of learning and teaching certain specialties. Development of teaching and learning theories and curriculum of each discipline.	
EDUC7311	Recent Trends in Teaching Mathematics
Displays recent research in teaching disciplines in terms of: the objectives of learning, school curriculum from different countries, learning and teaching methods, learners' characteristics, teachers' attitudes and beliefs, assessment and general research in teaching certain disciplines	
<i>Prerequisite:</i>	EDUC7301
EDUC7312	Recent Trends in Teaching Sciences
Displays recent research in teaching disciplines in terms of: the objectives of learning, school curriculum from different countries, learning and teaching methods, learners' characteristics, teachers' attitudes and beliefs, assessment and general research in teaching certain disciplines	
<i>Prerequisite:</i>	EDUC7302
EDUC7313	Recent Trends in Teaching EFL
Displays recent research in teaching disciplines in terms of: the objectives of learning, school curriculum from different countries, learning and teaching methods, learners' characteristics, teachers' attitudes and beliefs, assessment and general research in teaching certain disciplines	
<i>Prerequisite:</i>	EDUC7303
EDUC732	Principles of Educational Administration
Theoretical foundations of administrative development approaches, and the institutional functioning, the organizational context and culture. Organizational, cultural atmosphere of institutions, administrative processes, and their related theories: Motivation, leadership, decision – making, communication, the educational system and policy, methods of understanding and analyzing the institutional functions, the duties of the educational administration, with giving particular focus on the school principal's duties, the educational directors and councils, and its relation with the local community. The school principals' role in the curriculum and curriculum development, teaching and learning development, the educational funding and budget, and the educational system and rules.	
EDUC733	Educational Leadership
The school's role in the social change, types and different concepts of change, educational change stages and its relationship with enhancing the efficiency of the educational institutions and its programs. Characteristics and the indicators of the effective and ineffective schools, and their influence on learning-teaching process. The institutional change with the implementation challenges/ problems, individual and group change methods, transformative educational leadership, the role of the teacher, student, school principal, director of education and the society in the changing educational leadership. Challenges that face achieving the change goals, which are resulted from the developmental programs of the teaching and the administrative staff. Principles of achieving the effectiveness of such programs, and focuses on studying different experiences in the educational change and its relation to the requirements of the local educational needs.	

EDUC734	Strategic Planning in Education
Intellectual foundations of the educational planning, types of plans, its models and processes. The first part of the course highlights the planning policies: the educational planning policy, changing and implementing processes in the programs, institutions, and system. Issues that are related to the educational planning such as: internal and external efficiency, justice and the educational results. The focus of the second part in this course is the strategic planning in the educational institutions, by focusing on the intellectual framework of this type, and its role in dealing with the social and economic changes in society, in addition to the strategic planning stages, dimensions, patterns, methods, and its evaluation and implementations.	
EDUC735	Research on Teaching
Recent research on the teaching field. Theories and research methods related to teaching. The social and the institutional framework of teaching, individual differences research. It also highlights some research on teaching certain specializations in different teaching stages.	
<i>Prerequisite:</i>	<i>EDUC6300, EDUC6100, EDUC6390</i>
EDUC736	Leadership and Instructional Supervision
Intellectual developments of the educational leadership, the role and the responsibilities of the educational leader in diverse and changing environment where teachers work. Educational leadership, the role of the of the supervisor as a leader in improving teachers' abilities, building relationships, working in a team, establishing professional learning communities, Supporting school settings for change and development, educational leader's ethics at time of accountability and change.	
EDUC737	Analysis of Instructional Supervision Models
Discussing variety models of educational supervision in which students take a part in the analysis of cases in different instructional systems all around the world. Focusing on the effective skills used in evaluating teachers' performance, with enhancing the effective discussion between the supervisor and the teacher in order to improve the educational plans and the teaching methods. It also provides criticizing and analyzing the pros and cons of the discussed models in order to suggest ideal educational supervision methods.	
<i>Prerequisite:</i>	<i>EDUC835</i>
EDUC738	Introduction to Special Education
An introduction in the field of special education and the basic concepts in this field: (types of handicaps and their effect on the individual and society, definitions of learning difficulties, justification of inclusive learning practices, the causes of learning difficulties and problems, displaying different systematic services that offer a convenient instructional methods and services for those students, with reflecting that on special education in Palestine).	
<i>Prerequisite:</i>	<i>EDUC6300, EDUC6100, EDUC6390</i>
EDUC7390	Principles of Educational Counseling
Educational counseling, roots, development, philosophical cognitive foundations. Significance of educational counseling in the instructional process. Goals of educational counseling, personal and professional characteristics of the educational counselor. Theoretical trends in educational counseling, Main skills in educational counseling. Evaluation and diagnosis in educational counseling. The educational counselor employment fields, Methods and tools used in educational counseling.	

EDUC7391	Evaluation and Diagnosis in Educational Counseling
The importance of evaluation and diagnosis in educational counseling, evaluation instruments such as: interviews, observations, case study, and tests. Developing educational and psychological tests, characteristics of the good test. Creating, applications and training in using testing and different evaluation instruments. Identification of learners' needs, capabilities and readiness, and potential difficulties they might face. Individual differences in the evaluation process	
<i>Prerequisite:</i>	EDUC7390
EDUC7392	Contemporary Issues in Educational Counseling at Schools
The nature of educational counseling at schools; principles, functions and its importance. The role educational counselor at schools. Ethics of the educational counselor, the relationship between educational counselor and teachers, students, principals, and parents. Dealing with the school management hierarchy. The educational counseling in multi-cultural society. Educational counseling in the technology era. Educational counseling with students in danger, and those with special needs. Student educational problems at schools such as violence, school dropout, bullying, and addiction	
<i>Prerequisite:</i>	EDUC7390
EDUC7393	Practical Applications in Educational Counseling 1
Planning for individual educational counseling and implementation in schools. Training on the creation of a case study in schools. Initial diagnosis of the individual case problem. Short and long term interventions, Case management. Application of the counseling skills on real cases that includes interviewing, data collection, verbal and non-verbal communication, questioning, reinforcement, rehearsal and summarization. Emotional expression, wait time and resistance of clients, confronting, interpretation, closing up the case. The professional relationship between the counselor and supervisor. Individual supervision of individual cases by supervisor. Providing the counselor with support and feedback by the supervisor	
<i>Prerequisite:</i>	EDUC7390
EDUC7394	Practical Applications in Educational Counseling 2
Planning for group counseling and implementing it in schools. Application of community awareness meetings in different topics such as adolescence, addiction, sexual education, school dropout, identity, self-management, communication, social responsibility, life skills, trauma and crises management, dealing with emergent cases, problem solving, social adaptation, planning for group guidance sessions. Planning, implementing and evaluation of educational and vocational guidance	
<i>Prerequisite:</i>	EDUC7393
EDUC830	Seminar in Education
Seminar in education with focus on selected educational issues that reflect students' fields of specialization and interest with the aim of studying and analyzing the issues in depth. Students are required to prepare and submit a high-quality research study carried out under the instructor's supervision.	
<i>Prerequisite:</i>	Program approval and finishing at least 18 credit hours.
EDUC831	Seminar in Education
Seminar in education with focus on selected educational issues that reflect students' fields of specialization and interest with the aim of studying and analyzing the issues in depth. Students are required to prepare and submit a high-quality research study carried out under the instructor's supervision.	
<i>Prerequisite:</i>	Program approval and finishing at least 18 credit hours.

EDUC832	Program Planning and Evaluation
Principles of program planning and evaluation in education, introducing of program evaluation, and its relation to measurement and scientific research. Models of educational evaluation programs, types and sources of information, methods of data collection, analysis, interpretation, appropriate decision-making or introducing of recommendations and reports. Problems/obstacles which confront planning, evaluation, and the implementation of educational programs. Case studies in program planning and evaluation, applications.	
<i>Prerequisite:</i>	<i>EDUC6300, EDUC6100, EDUC6390</i>
EDUC833	Applications in Educational Administration
Different applications in educational administration which include: application and evaluation of administrative skills such as problem analysis, decision-making, organization, leadership, communication, and motivation. Computer applications in educational administration, such as organizing files, data entry and retrieval, manipulation and calculation of data, and making necessary administrative decisions including report writing. Field visits which include limited administrative work, interviews and observations of administrative work, depending on the background and needs of students.	
EDUC835	Principles of Educational Supervision
Studying Educational supervision concepts and development, its relationship to evaluating and development of educational staff. Designing, implementing, and assessing of supervision. Various models of educational supervision, with more concentration on the clinical supervision, and developing a system for instructional supervision, and staff evaluation for teachers professional development	
EDUC836	Applications of Instructional Supervision Models
Applying a model adopted by students, as a result of their study of the previous courses. Writing and discussing reflective reports throughout their experiences (Planning, implementing, and evaluating), with exchanging their experiences, identifying the difficulties and challenges so that they suggest solutions and alternatives to face such challenges. Preparing a portfolio to document students' professional development.	
<i>Prerequisite:</i>	<i>EDUC737</i>
EDUC837	Assessment and Counseling in Special Education
Assessment tools to identify special needs students, needs assessment for children from early childhood to adulthood. Formal and informal methods in identifying those students' needs, collecting data, monitoring their development, and writing reports. Correlating the counseling and the intervention plans with evaluation.	
<i>Prerequisite:</i>	<i>EDUC738</i>
EDUC8381	Special Topic in Teaching Mathematics
Special and advanced topics in TEFL, mathematics education science education, and education administration, depending on instructor and students' interests and needs. Focusing on identifying, defining, investigating important local educational / instructional issues and problems.	
<i>Prerequisite:</i>	<i>EDUC6300, EDUC6100, EDUC6390</i>
EDUC8382	Special Topic in Teaching Sciences
Special and advanced topics in TEFL, mathematics education science education, and education administration, depending on instructor and students' interests and needs. Focusing on identifying, defining, investigating important local educational / instructional issues and problems.	
<i>Prerequisite:</i>	<i>EDUC6300, EDUC6100, EDUC6390</i>

EDUC8383	Special Topic in Teaching EFL
Special and advanced topics in TEFL, mathematics education science education, and education administration, depending on instructor and students' interests and needs. Focusing on identifying, defining, investigating important local educational / instructional issues and problems.	
<i>Prerequisite:</i>	<i>EDUC6300, EDUC6100, EDUC6390</i>
EDUC839	Special Topic in Education.
Advanced topics in education. (Topics that approved by the program committee according to students interests).	
EDUC860	Thesis
Selecting this track requires writing a thesis on an important topic, based on the regulations for thesis writing.	
<i>Prerequisite:</i>	<i>Finishing at least 15 credit hours.</i>

Master Program in Physical Education and Sports Science

- **Introduction:**

The [Master Program in Physical Education and Sports Science](#) aims to enrich the knowledge related to the experiences and skills of students studying in the program and it links between sports sciences and physical activity. The program also seeks to build knowledge for sports cadres with applied research and administrative capabilities in the field of physical education, and also seeks to network and partner with local community institutions, academic institutions, clubs, sports federations and sports media to achieve development in various sports fields.

- **Admission Requirements:**

The requirements for admission as follows:

1. Obtaining a bachelor degree in physical education or any related discipline that the program committee deems compatible with the requirements from a university accredited by Birzeit University, provided that the certificate's GPA is not less than good. Students with a satisfactory GPA may be accepted by a decision of the Academic Council based on the recommendation of the Physical Education Department Council, or the Program Committee at the Faculty of Education.
2. Submit two written letters of recommendation from two faculty members who taught the student during his previous university studies, or from officials who supervised his work, or one letter of each type.
3. Passing the specialized interview conducted by the Physical Education Department with each student according to his specialized orientation in the sport field.

- **Study Language:** Arabic

- **Program Requirements:**

a) Compulsory courses: (15) credit hours consisting of the following courses:

Course No.	Course Name	Prerequisite
PHED6300	Research curricula in sport science and physical activity	
PHED6200	The Physiology of Sport training and Exercise	
PHED6210	Theories in training and sport sciences	
PHED6220	Advanced studies in the psychology of training and competitions	
PHED7200	Use of technology in physical activity	
PHED6240	Teaching planning and curriculum design in physical education	
PHED7220	Motor control	

b) Elective courses: (15) credit hours out of the following courses:

Course No.	Course Name	Prerequisite
PHED6310	Modern management systems in sports management	
PHED6320	Applications in sports sociology	
PHED7240	Scientific applications in the principles of kinesiology	
PHED6230	Rehabilitation of the musculoskeletal system	PHED6200
PHED6250	Issues in competitive sport	
PHED7210	Special sports nutrition programs	
PHED7300	Investing and Economics in Sport	
PHED7230	Professional preparation in the field of sports	
PHED7310	Fitness and Health Programs	
PHED6260	Studies in the philosophy of physical education	
PHED6330	The foundations of using kinetic analysis programs	
PHED7320	Educational approaches and guidelines for people with disabilities in the field of sports	
PHED7250	Sport Legislation and Laws	
PHED7260	Special topic	
PHED7270	Supervision and Guidance in the Sports Field	
PHED7330	Sports Injuries and Physical Therapy in the Sports Field	

c) Track A or Track B: 6 credit hours.

Track	Course No.	Course Name	Prerequisite
Track A	PHED8600	Thesis	Finishing 15 credit hours and PHED6300
Track B	PHED8300	Seminar 1	Finishing 15 credit hours and PHED6300
	PHED8310	Seminar 2	Finishing 15 credit hours and PHED6300

Courses Description: (PHED)

PHED6200	The Physiology of Sport training and Exercise
Physiological responses and adaptations to sports training and exercise on different body organ systems and the ability to use field and laboratory metrics to measure them. (2 credit hours).	
PHED6210	Theories in training and sport sciences
Selected theories in sport training and sport sciences, design of applied programs in sport training, the stages of modern training, the development of instruments and tools used in training. (2 credit hours).	
PHED6220	Advanced studies in the psychology of training and competitions
Psychological procedures during training units and competitions, leader coach, role of sport psychologist, study in some psychological behaviors such as sport bullying, ambition, psychological stresses and their impact on sport achievement. (2 credit hours).	
PHED6230	Rehabilitation of the musculoskeletal system
The musculoskeletal system, its functions and components (nerves, muscles, bones and joints), treatment of diseases and disorders that affect each of them. Designing sports rehabilitation programs and appropriate ways to implement them. Developing therapeutic and orthopedic exercises that improve motor functions. (2 credit hours).	
<i>Prerequisite: PHED6330</i>	
PHED6240	Teaching planning and curriculum design in physical education
The use of advanced and modern teaching methods in physical education, and the employment of life skills in schools. Designing sport education curricula and programs at various educational levels. (2 credit hours).	
PHED6250	Issues in competitive sport
Athletic achievement, professionalism and naturalization of players, sports relationship with politics, sponsorship of sport talents, doping and sports prohibitions, and sports formula.(2 credit hours).	
PHED6300	Research curricula in sport science and physical activity
Quantitative and qualitative scientific research in sport science and physical activity. Comparing quantitative and qualitative research and how to design and collect their data. (3 credit hours).	
PHED6310	Modern management systems in sports management
The concept of modern administrative systems in sports education, modern basic theories and concepts in the management and analysis of sports institutions, the preparation of reports, records and administrative calendar processes, time management and personnel management programs, and the management of local, continental and international sport events. (3 credit hours).	
PHED6320	Applications in sports sociology
Recent topics in the foundations and theories of sport sociology (socialization, sport and social mobility, sport retirement), the role of sport institutions in the social welfare of athletes. (3 credit hours).	

PHED6330	The foundations of using kinetic analysis programs
Scientific methods in mechanical applications on the performance of the human movement in order to promote athletic achievement and protect the player from injury by analyzing different physical skills in the field of sport and knowing the best model in motor performance. (3 credit hours).	
PHED7200	Use of technology in physical activity
Technological applications in physical activity, the use of digital technology and some equipment to promote physical activity and change in exercise pattern in order to achieve objectives, the development of computerized educational software and its employment in the service of sport sciences. (2 credit hours).	
PHED7210	Special sports nutrition programs
Balanced food, the level of daily needs of basic nutritional elements, methods for measuring and interpreting body composition, Preparation of special food programs for athletes in proportion to the activity practiced. (2 credit hours).	
PHED7220	Motor control
The scientific basis for skill acquisition, control through neuromuscular coordination and the impact of feedback theories of all kinds. (2 credit hours).	
PHED7230	Professional preparation in the field of sports
Professionalization of sports as an existing system with its objectives, specifications and requirements, information, knowledge and experiences about the various sports professions, Determine the standards, attributes, certifications and professional competencies that qualify individuals to be able to specialize in various sports professions in the Labor market. (2 credit hours).	
PHED7240	The foundations of using kinetic analysis programs
The basic concepts of analyzing human movement in the environment in which he lives, whether in the office, factory, home or in the practice of sport, To prevent injury, promote effective and efficient delivery, and provide a picture of advanced, simple analytical thought for motor research. (2 credit hours).	
PHED7250	Sport Legislation and Laws
Defining the concept of sport law, identifying sources of commitment (sport contracts), sport legislation from laws, regulations, and instructions, the functioning of judicial bodies within sport federations, sports legal arbitration and mediation. (2 credit hours).	
PHED7260	Special Topic
Advanced study of a topic in the field of sports chosen by the program committee according to the need and available capabilities. (2 credit hours).	
PHED7300	Investing and Economics in Sport
Definition and objectives of sport investment, concepts and management of sport investment, in addition to defining the concepts of sports industry, excellence and creativity in public relations and increasing employment opportunities, knowledge economy in the field of sports. (3 credit hours).	

PHED7310	Investing and Economics in Sport
The theoretical and applied framework for building thoughtful and health-related fitness programs and their scientific applications in fitness centers for all age groups in order to promote public health. (3 credit hours).	
PHED7320	Educational approaches and guidelines for people with disabilities in the field of sports
Concepts of adaptation and suitability to modify human and environmental trends. Disability and sports from a gender perspective. The World Paralympic Movement and its approach to Palestine. The reality of disabled sport in Palestine its courses and games. (3 credit hours).	
PHED7220	Supervision and Guidance in the Sports Field
This course introduces the theories and concepts of modern sports educational supervision, types of supervision and development, and the supervisory competencies that the educational supervisor must possess. The course also focuses on discussing the varieties of sports educational supervision and their relationship to theories related to educational supervision in the sports field. Further, the course emphasizes the development of teacher's competences and improving his / her efficiency in the field, the relationship between the supervisor and the mentor teacher pertaining to students learning. Finally, the course also introduces the sources of authority in the sports supervision process. (2 credit hours)	
PHED7330	Sports Injuries and Physical Therapy in the Sports Field
This course focuses on the common injuries in the sports field in terms of their definitions, types, causes and symptoms. It also discusses the most important rehabilitation methods of sports injuries, the therapeutic means used in treatment and how to use them. Further, this course introduces students to the use of modern methods, therapeutic and massage exercises in the rehabilitation process. (3 credit hours)	
PHED8300	Seminar 1
Seminar on selected subjects in a field of sport science. The course includes presenting and discussing the principles of Scientific Secretariat and the ethics of scientific research and reading, analyzing and discussing a number of researches published in reliable scientific journals. Each student, in agreement with the course teacher, selects one of the subjects for consideration, including reviewing, studying and analyzing a sufficient number of the subject's literature and presenting the results of his/her research to the course committee and students, and redrafting it based on discussion and observations. <i>Prerequisite: Finishing 15 credits hours and PHED6300</i>	
PHED8310	Seminar 2
Seminar on selected subjects in a field of sport science. The course includes presenting and discussing the principles of Scientific Secretariat and the ethics of scientific research and reading, analyzing and discussing a number of researches published in reliable scientific journals. Each student, in agreement with the course teacher, selects one of the subjects for consideration, including reviewing, studying and analyzing a sufficient number of the subject's literature and presenting the results of his/her research to the course committee and students, and redrafting it based on discussion and observations. <i>Prerequisite: Finishing 15 credits hours and PHED6300</i>	
PHED8600	Thesis
Writing an authentic scientific letter in a field of sport science and approved by the program committee after the approval of the draft letter. Under the approved letter instructions. (6 credit hours). <i>Prerequisite: Finishing 15 credits hours and PHED6300</i>	

Doctor of Philosophy Programs

- [Doctor of Philosophy in Social Sciences](#)
- [Doctorate in Computer Science](#)
- [Doctor of Philosophy in Mathematics](#)
- [Doctorate Program in Educational Development](#)

Doctor of Philosophy in Social Sciences

The [Faculty of Graduate Studies](#) offers an interdisciplinary program leading to the [Ph.D. degree in social sciences](#). Interdisciplinary is a growing trend in the social sciences and humanities across the world, and is based on the idea that traditional disciplines are increasingly unable to provide the analytical tools necessary for understanding complex social and cultural processes and phenomena. The main objective is to establish a strong academic program that will nurture the emergence of a new generation of social scientists and researchers capable of producing new knowledge about the Arab region from an Arab and Palestinian location. The program requires the completion of required and elective courses, the qualifying examination, and the dissertation.

Ph.D. Program Requirements:

The completion of 54 credit hours as follows:

- 24 credit hours of courses.
- 6 credit hour's electives.
- Qualifying Examination, taken upon the completion of all required courses (no credit).
- Dissertation: 24 credit hours.

Assessment of Students' Work

A variety of assessment criteria and methods are used in the courses depending on the nature of each course. The assessment tools include:

- Oral presentations consisting of critical commentaries on course readings.
- Short response papers on course readings.
- Critical reviews of the relevant literature.
- Critique of colleagues' work.
- Research design for course papers.
- Research paper at the end of the course (mandatory in all courses).
- Examinations

Program Requirements

1) The completion of no less than 30 credit hours distributed as follows:

A. Required Courses: 24 credit hours of courses include the following:

Course No.	Course Title	Prerequisite(s)
PHSS9300	Research Methods in the Social Sciences	
PHSS9310	Reading and Writing Seminar	
PHSS9320	Dissertation Research Seminar	
PHSS9321	Major Theoretical Debates in the Social Sciences, the Study of the South and the Arab Region	
PHSS9330	Studies in Colonialism and Imperialism	
PHSS9331	Philosophy of the Social Sciences	
PHSS9350	International Political Economy	
PHSS9380	Conceptualizing Modern Palestine	

B. Elective Courses: 6 credit hours from the following:

Course No.	Course Title	Prerequisite(s)
PHSS9322	Quantitative Research Methods	
PHSS9340	Institutions and Development	
PHSS9360	The Social and Political History of Oil in the Arab Region	
PHSS9370	Key Transformations in the Arab Region	
PHSS9381	Gender in History	
PHSS9382	Social and Spatial Inequalities	
PHSS9383	The Environmental History of the Arab Region	
PHSS9384	The Global and the Local: Social, Cultural and Geographical Perspectives	
PHSS9385	Issues of Development in the Arab Region and Palestine	
PHSS9390	The History of Economic Thought	
PHSS9391	Late Industrialization	
PHSS9392	The Agrarian Question	
PHSS9394	Special Topic In the Social Sciences	

- 2) Qualifying Examination (PHSS9090): 0 credit hours**
- 3) Dissertation (PHSS9990): 24 credit hours.**

Doctor of Philosophy in Social Science Course Descriptions (PHSS)

PHSS9300	Research Methods in the Social Sciences
Defining the research question, survey of literature, choice of method of inquiry, and the development of basic research arguments. Ontological and epistemological presuppositions in qualitative and quantitative research. Explanation, reflexivity and objectivity in the social sciences. Research ethics and the responsibility of the researcher. Survey of different modes of inquiry: ethnography, participant observation, interviewing, focus groups, textual and conversation analysis, discourse analysis, oral history, network analysis, and content analysis. The use of archives and personal papers. Student preparation of research design.	
PHSS9310	Reading and Writing Seminar
An intensive seminar devoted to the critical reading of key texts on a theme of interest to the program, and the writing and presentation of response essays by students. Students critique each other's' work and sharpen their analytical and writing skills.	
PHSS9320	Dissertation Research Seminar
Preparation for conducting research by engaging with theoretical and methodological issues and applying them to a particular research topic of the student's choosing. Major debates on epistemological and ontological issues in research, and an examination of research logic and strategies. A comparison of quantitative and qualitative research. The role of the researcher in the research process, and ethical issues in research. Preparation of proposals that can be the basis of the future dissertation, based on class discussion.	
PHSS9321	Major Theoretical Debates in the Social Sciences, The Study of the South and the Arab Region
Critical examination of key debates in the social sciences relevant to the study of the Global South and the Arab region. Universalism versus cultural specificity; essentialism and culturalism; agency versus structure, objectivism versus subjectivism; critiques of modernity; the cultural turn in the social sciences and humanities. Debates about post-colonialism, colonial modernity, and pre-colonial traditions; the role of violence in the making of political communities in post-colonial contexts; debates about the state; theories of revolution.	
PHSS9322	Quantitative Research Methods
Acquisition of basic analytical and technical skills to understand, design and conduct basic quantitative research in the social sciences. The epistemology of research, the logic of quantitative research, issues concerning data collection, sources of data, data presentation techniques (graphs, tables, descriptives), regression models, hypothesis testing, and some probability theory and statistical distributions. Blending quantitative research approaches where desirable/required; the strengths and weaknesses of quantitative research approaches in varying circumstances; understanding quantitative research and interpreting the findings of empirical studies.	

PHSS9330	Studies in Colonialism and Imperialism
Close reading of key texts on colonialism, post-colonialism, postmodernism, decolonization, and imperialism. A comparative study of nationalist and anti-imperialist thought in the Global South. Contemporary debates on nationalist and post-colonial thought and the response to imperialism. Critical assessment of postcolonial and postmodern theory, particularly as it pertains to the history of colonialism and struggles for decolonization in the Arab region and in Palestine. Conceptualizing contemporary Palestine: critical examination of the paradigms used to study Zionist settler-colonialism	
PHSS9331	Philosophy of the Social Sciences
Introduction to the major epistemic shifts in the social sciences; epistemology and the possibility of knowledge, the nature, sources, and limits of knowledge, the relation between the epistemology and ontology of social reality, the relation between epistemology and methodology, the role of language in understanding social reality. Key concepts include: description, reflexivity, doubt, causality, explanation, interpretation, critique, positionality, interdisciplinarity. Major approaches: positivism, neo-positivism, phenomenology, the hermeneutic approach, the linguistic turn, structuralism, discursive traditions, philosophy of practice, critical tradition, pragmatism, situated knowledge.	
PHSS9340	Institutions and Development
A critical examination of the economic problems of countries of the South and the role of national institutions in economic development. A survey of the work of both practitioners and researchers in the field of development economics. Macroeconomic and microeconomic approaches to development economics. The role of national institutions in economic development (governments, central banks, capital and money markets). Neoliberal models of development and the role of the nation-state; the issue of foreign aid.	
PHSS9350	International Political Economy
Overview of the history of the field and introduction to the main analytical frameworks and methods of inquiry. The state-market interaction and the unequal power between states in the era of globalization. Foreign aid and development. Review of analytical tools for understanding and critiquing the outcome of the interface between domestic institutions, international politics, policymaking, and the welfare of people. A survey of classical and pioneering research in International Political Economy; global trade; regional and international money markets and fiscal policies; international labor regimes.	
PHSS9360	The Social and Political History of Oil in the Arab Region
The history of oil and its central impact on the development of Arab society, the Arab state and Arab economies over the course of the twentieth and twenty-first centuries. Distortions in Arab development as a result of colonial interventions related to oil. The emergence of new regional powers as a result of oil. Migration to the oil states of the Gulf and its impact on the sending societies. The impact of oil on Palestinian society and politics and economic development in Palestine.	

PHSS9370	Key Transformations in the Arab Region
A study of major transformations in the Arab region during the twentieth and twenty-first centuries, primarily those that have had lasting effects on society and polity in the colonial and post-colonial periods. The impact of colonialism on indigenous societies. Anti-colonial movements, Arab nationalism, and state formation. Modern Islamist movements. Major transformations in class structure. Transformations in agrarian relations. Urbanization and urban culture. Changing gender relations. The social and economic impact of neoliberal policies. Contemporary social and political movements.	
PHSS9380	Conceptualizing Modern Palestine
An in-depth examination of issues that pertain to analytical frameworks and concepts used for studying (and theorizing) Palestine in the modern period. An examination of the concepts of settler colonialism, colonialism, apartheid, and occupation; a systematic investigation of the usefulness and relevance of these concepts at different periods in Palestine's modern history. Other concepts that will be critically examined include class, ethnicity, race, religion, indigeneity, the state, civil society, community, mode of production, diaspora, and modernity.	
PHSS9381	Gender in History
A study of key texts on in the study of patriarchy and the articulation of gender, class, ethnicity and nation in different historical contexts. The implications of current debates for the study of Arab/Muslim societies. Key non-Western studies of development of the concept of gender. The debate on patriarchy: Is it universal or particular? The debate on social inequality: relations between gender, class, ethnicity and nation. The study of gender in colonial and neo-colonial contexts, especially in the Arab region.	
PHSS9382	Social and Spatial Inequalities
Interdisciplinary perspectives on social and spacial inequality from sociology, anthropology, urban studies, architecture, and political economy. Mapping and visualizing inequalities, with a special focus on the importance of space on the global and local levels. Segregation, deprivation, economic and educational inequalities, global inequality; urban and regional inequalities in the Global South and North; Special attention to urban dynamics such as gentrification, neoliberal restructuring of cities, social movements and the right to the city.	
PHSS9383	Environmental History of the Arab Region
The theory and methodology of environmental history. The pre- and post-colonial environmental history of the Arab region; Resource use; overgrazing and wildlife conservation; forests and forestry history; soil erosion and conservation; drought and desertification; nature reserves. The environmental history of Palestine beginning with Zionist colonial settlement. Examining claims that the Arab region/the Middle East is a region plagued by desertification, drought, overpopulation and pollution. Population and environmental change, soil and agriculture, wildlife, forests, nature reserves and recreation areas.	

PHSS9384	The Global and the Local: Social, Cultural and Geographical Perspectives
Central issues examined include how places are simultaneously a part of the global and the local; why and how places continue to have meaning; and how places and people are mutually constituted. Insights into concepts such as difference, identity, meaning, representations and social practice, as well as empirical-oriented research objectives linked to these (the significance of class, gender, sexuality, rurality, urbanity, race, and ethnicity). The image of the local as part of the global and their interaction. Case studies from Palestine.	
PHSS9385	Issues of Development in the Arab Region and Palestine
A critical examination of the theory and practice of development in the Arab region and in Palestine. Discussion of various theoretical frameworks, such as world system theory, dependency theory, and neoliberal theories and their relevance for understanding the history and modalities of development. The practice of development in selected Arab countries. De-development under conditions of colonialism in Palestine. Critiques of development theory. The legacy of colonialism and settler colonialism. The political economy of international aid. Inequality and poverty. Neoliberal development models.	
PHSS9390	The History of Economic Thought
An introduction to key theoretical paradigms in economic theory beginning with classical political economy to Marxist political economy, welfare economics, neo-classical rational choice, Keynesian and post-Keynesian theory, dependency theory, and other theories. Islamic economic thought.	
PHSS9391	Late Industrialization
A comparative study of different phases of late industrialization: Germany and the USA (19 th century); the USSR (early 20 th century); and Brazil, India, China, and South Korea (late 20 th century). Industrialization theories and development; possibility of non-European models of industrialization. The giants of the globalized industrial future: geographical expansion, population size and the role of the state. The post industrial period: IT, the new media, and their social implications.	
PHSS9392	The Agrarian Question
Comparative study of various agrarian transitions. Distinctions between agrarian transitions from above versus from below, and those based on large plantation or capitalist agriculture versus those based on small peasant or community-based agriculture. Agrarian transition and the state; policies and management (land fragmentation, mineral extraction issues, conservation easement, water rights). Zionist settler colonialism in Palestine and its impact on the structure and organization of Palestine's land tenure system and the agriculture-food system. The political economy of agriculture under Israeli occupation since 1967.	
PHSS9394	Special Topic in The Social Sciences
In-depth examination of a special topic chosen by the program, offered as a seminar.	
PHSS9090	Qualifying Examination (no credit)
An assessment of students' mastery of the core themes covered in the program. Written responses to a set of questions in the program's core areas, taken upon the completion of all required courses.	

PHSS9990	Dissertation
The completion of an original scholarly work based on primary sources and/or research-generated empirical data written under the close supervision of the dissertation advisor. The maximum dissertation length is 400 pages or 80,000 words, all inclusive.	

Doctor Program in Computer Science

The [PhD program in Computer Science](#) aims to enrich Palestinian researchers with competitive state-of-the-art knowledge in Computer Science and complementary relevant research skills, and enable them to develop new innovative AI and software systems research-driven solutions and applications designed and localized towards national and regional needs. It also aims to equip the Palestinian workforce with new R&D skills for more knowledge-empowered decisions and policy making capabilities.

• Ph.D. Program Requirements:

The program consists of 54 credit hours, including 30 credit hours of coursework, and 24 credit hours for the doctoral dissertation. The program will focus on two Computer Science research areas: Artificial Intelligence and Software Systems. To qualify in the program, a student must satisfy a breadth requirement that includes courses from both areas. Dissertation research in one of these two areas requires an additional depth requirement in the chosen area.

a) Program Requirements:

1. Mandatory courses (12 credit hours) Students must successfully complete these courses.

Course No.	Course Title
COMP9303	Directed Study in Computer Science
COMP9304	Research Work in Computer Science
COMP9305	Dissertation Pre-candidacy
COMP9306	Research Methods

2. Elective Courses (18 credit hours) Successful passing 18 credit hours from the following elective courses, at least one course from each of the two areas, below:

a) Artificial Intelligence Area: 15 credit Hours at least 3 credit hours from Software

Systems Area

Course No.	Course Title
COMP9311	Advanced Algorithm Design
COMP9312	Natural Language Processing
COMP9313	Speech Processing and Applications
COMP9314	Advanced Information Retrieval
COMP9315	Automated Reasoning and Applications
COMP9316	Data Engineering and Big Data Technologies

COMP9317	Advances in Knowledge Engineering
COMP9318	Machine Learning Technologies
COMP9319	Neural Networks and Deep Learning
COMP9320	Computer Vision
COMP9321	Digital Image Processing and Applications
COMP9322	Medical Image Computing
COMP9323	Special Topics in Artificial Intelligence

b) Software Systems Area: 15 Credit Hours at least 3 credit hours from Artificial Intelligence Area

Course No.	Course title
COMP9330	Distributed Systems
COMP9331	Software Methodology and Engineering
COMP9332	Methods of Software Requirements Engineering
COMP9333	Advances in Software Design
COMP9334	Advances in Secure Software Development
COMP9335	Search-based Software Engineering
COMP9336	Modern Mobile Software Development
COMP9337	Cloud Computing
COMP9338	Data and Business Process modeling
COMP9339	Human Computer Interaction
COMP9340	Special Topics in Software Systems

c) PhD Candidacy Requirements

Students become PhD candidates after completing the following:

1. Successfully passing the coursework requirements.
2. Successfully passing the Qualifying Exam.
3. Successful defense and acceptance of a PhD Dissertation Proposal.

d) Complete dissertation research (24 credit hours):

After successfully passing the PhD candidacy requirements and becoming a PhD candidate, students can register for the Doctoral Dissertation, which spans over at least three semesters, with 8 credit hours each semester. Students will be granted the PhD degree after a successful defense of their Doctoral Dissertation.

Course No.	Title
COMP9802	Doctoral Dissertation

Doctor Program in Computer Science Course Descriptions (COMP)

COMP9000	Qualifying Exam
Evaluation of the students' mastery of knowledge in the topics of the program's focus areas as defined by the Program Committee, based on the student's achieved coursework. Students can apply for the exam after passing at least 24 credit hours of coursework.	
COMP9303	Directed Study in Computer Science
A guided study, under the supervision of a faculty advisor, on a topic from the Program's main areas. Involves critical literature review, synthesis of ideas, a written report summarizing the study's findings, and a public presentation to the Computer Science faculty and students.	
COMP9304	Research Work in Computer Science
A short-term project intended to develop the skills necessary for conducting doctoral research in Computer Science, including, problem definition, survey of related work, data analysis, conclusions, and open problems. This project can, but does not have to, be a continuation of the study conducted in COMP9303. Results of this project should be documented in a conference-quality research paper.	
COMP9305	Dissertation Pre-Candidacy
Guided research on doctoral dissertation before candidacy. Prepare in writing and orally present a dissertation proposal, which should specify the research problem, goals and motivation, methodology, data and experiment design, theoretical background, and the methods and literature needed to conduct the doctoral research. This can, but does not have to, be a continuation of the research conducted in COMP9303 and COMP9304.	
COMP9306	Research Methods
Inductive and deductive inquiry, empirical research methods, qualitative and quantitative research, Experimental research design, including hypothesis generation, randomization, and significance tests, statistical analysis, ethical concerns in research, use of theory in research. Advancing a process and framework for literature review including writing styles, visual maps, writing good abstracts, and systematic literature review process.	
COMP9311	Advanced Algorithm Design
Advanced data structures, algorithms complexities, online algorithms, maximum-flow, linear programming, approximation algorithms, dynamic programming, Markov Chain Monte Carlo, graph algorithms, text processing algorithms, and algorithms for large data sets, randomization, probabilistic analysis, eigenvalues, and random walks.	
COMP9312	Natural Language Processing
Applied and state-of-the-art topics in natural language processing. Language encoding, orthography, morphology, syntax, text processing, probabilistic language modeling, text classification, part-of-speech tagging, and lexical semantics, autocomplete, morphological analyses, named entity recognition, chatbots, smart search, sentiment analysis, and event discovery.	

COMP9313	Speech Processing and Applications
Speech production technologies, hearing and perception, speech sounds (phonemes and phones), speech production models, short-time time-frequency analysis, features extraction, Mel-frequency Cepstral coefficients, linear predictive coding, audio pattern recognition, automatic speech recognition, hidden Markov models, Viterbi decoding and Baum Welch algorithms, speaker and dialect recognition, language identification.	
COMP9314	Advanced Information Retrieval
Indexing, ranking and optimization, learn-to-rank, search results clustering and classification. Indexing methods for scalable retrieval, personalized search results, scalable IR systems, NLP methods in IR, cross-lingual information retrieval with emphasis on Arabic.	
COMP9315	Automated Reasoning and Applications
Automated reasoning and theorem proving, representations, propositional, predicate logic, semantics. Inference rules and resolution, unification, equational reasoning, combinatorial explosion, search algorithms, non-monotonic reasoning, satisfiability, applications of automated reasoning such as hardware verification, expert systems, deductive databases, legal reasoning.	
COMP9316	Data Engineering and Big Data Technologies
New trends used to design, organize, access, and manage open and big data, data interoperability, and e-services. Graph data models and semantics, graph databases, system and data integration, Big Data indexing, in addition to new trends and applications in data engineering.	
COMP9317	Advances in Knowledge Engineering
Theoretical knowledge and practical skills in modeling, representation, and management of knowledge-based systems. State-of-the-art research in conceptual analysis, applications' business logic, formal specifications languages, description logic languages, and modern knowledge-based applications.	
COMP9318	Machine Learning Technologies
In-depth and research-focused topics in machine learning and statistical pattern recognition. Exploratory data analysis, supervised learning, unsupervised learning, and computational learning theory. Recent technologies and applications in the field of Machine Learning including applications in data mining, predictive analytics, and Data science.	
COMP9319	Neural Networks and Deep Learning
Theoretical and practical skills in artificial neural networks and deep learning algorithms. Design of different neural network architectures such as feedforward networks, convolutional networks, recurrent networks, recursive networks, input encoding, and training techniques.	
COMP9320	Computer Vision
Up-to-date knowledge and practical skills for extracting useful information (e.g., objects, motion, shape, location) from images. Concepts of constructing various computer vision systems such as surveillance, medical images, robotics, and other related fields.	

COMP9321	Digital Image Processing and Applications
Digital image processing review, contrast enhancement, image filtering, spatial and frequency domain, de-noising, morphological operations, color models, feature extraction and representation, local features, color features, shape features, camera models and calibration, optical flow, motion model, object tracking, image segmentation, object recognition, case studies in image processing applications.	
COMP9322	Medical Image Computing
Computational methods, data-driven approaches, and mathematical modeling to accelerate scientific discoveries and to improve diagnosis, treatment, and understanding of diseases through medical imaging. Data acquisition, biosignal/image processing, feature representation and extraction, data interpretation and visualization of biomedical images.	
COMP9323	Special Topics in Artificial Intelligence
Special and in-depth topics in Artificial Intelligence may be offered that differ from year to another.	
COMP9330	Distributed Systems
Design and development of distributed systems. Principles and techniques behind the design of modern, reliable, and high-performance distributed systems. Server design, network programming, naming, concurrency and locking, consistency models and techniques, security, and fault tolerance. Modern techniques and systems employed at some of the largest Internet sites (e.g., Google, Facebook, Amazon) will also be covered.	
COMP9331	Software Methodology and Engineering
Methods and techniques in software engineering and information systems, requirements engineering, software design, program analysis, software testing, program comprehension and empirical methods, software generation, formal methods, software project management and software development models.	
COMP9332	Methods of Software Requirements Engineering
Requirements engineering techniques and methods for moderns distributed and mobile application systems, literature-based case studies, team project work and research investigations. Carefully selected case studies from the industry in requirements elicitation and validation. Tools and notation languages in requirements specification and validation.	
COMP9333	Advances in Software Design
Object-oriented design principles, OO design patterns, selected case studies from literature for architectural structures and styles, methods for creating and analyzing software architecture, software architecture validation, documenting architecture, Case studies of software architecture design and validation for distributed and mobile applications.	
COMP9334	Advances in Secure Software Development
State-of-the-art methods and techniques for analyzing software vulnerabilities. Developing advanced secure computer systems, security services, security models such as determining security requirements, designing secure software architecture, verifying security requirements, secure coding principles, practices, and methods including least privilege, threat modelling, static analysis, common vulnerabilities, hacking techniques and attack types, encryption, authentication, digital signature, access control, internet security, and security protocols and tools.	

COMP9335	Search-based Software Engineering
Meta-heuristic search algorithms used in Software engineering. Genetic Algorithms, Differential Evolution, and Particle Swarm Optimization, problem representations, fitness functions, evolutionary operators, and multi-objective optimization.	
COMP9336	Modern Mobile Software Development
Concepts and methods in mobile software analysis and design, team project work and empirical research exercise. Integration with web services, asynchronous programming, design and validation of fluid user interfaces, life cycle models, mobile architectures, case studies from the literature in modern testing methods and frameworks.	
COMP9337	Cloud Computing
Cloud computing frameworks, RESTful Web services, cloud-based messaging and workflow services to develop new applications. Migration of existing applications into the cloud, creation of a private cloud; attaching, in a secure fashion, private cloud, and public cloud, provisioning and maintaining resources in the public cloud. Load balancing, caching, distributed transactions, identity and authorization management, and data encryption, introduction to Hadoop and Big Data services in the cloud.	
COMP9338	Data and Business Process modeling
Conceptualizing and engineering data, business rules, and business processes. Conceptual data modeling, integrity and derivation rules, contradictions and implications between rules, business process management, modeling notations and languages, process identification, optimization and (re-)engineering, as well as process implementation.	
COMP9339	Human-Computer Interaction
Design and evaluation of modern user interfaces. Human information processing and their effect on the design of user interfaces; the principles, guidelines, and specification languages for designing good user interfaces; various interface evaluation methodologies. World Wide Web design principles and tools, computer-supported cooperative work, multimodal and "next generation" interfaces, speech and natural language interfaces, and virtual reality interfaces. Creation and implementation of original user interface designs, and the evaluation of user interfaces created by others.	
COMP9340	Special Topics in Software Systems
Special and in-depth topics in Software Systems may be offered that differ from year to another.	
COMP9802	Doctoral Dissertation
An original contribution advancing the world's knowledge in a specific area, which entails regular meetings with the supervisor and dissertation committee, as well as research presentations and public seminars.	

Doctorate in Mathematics

Introduction

Based on the goals of Birzeit University in the fields of enriching knowledge and developing scientific research and the university's distinction in research fields, the [department of mathematics](#) seeks to develop a program in postgraduate studies leading to the award of a [PhD degree in mathematics](#). In addition, a large section of the educational staff currently present in the Department of Mathematics at Birzeit University participates in teaching Master's courses in Mathematics as well as supervising theses in the fields of applied mathematics (numerical analysis, differential equations, difference equations), algebra, topology, number theory, Real and functional analysis, complex analysis, game theory, stochastic differential equations, in addition to statistics, and therefore the department staff has sufficient experience to teach advanced courses in mathematics. The department has already contacted experts from abroad to teach in program and to supervise students.

The department will offer scholarships for the PhD students that will cover the tuitions in addition to a monthly stipend.

Program Objectives

The program aims to open the way for holders of a master's degree in mathematics working in Palestinian high schools, universities and colleges who wish to pursue their higher studies in mathematics to provide a program that meets their ambition.

Program Mission

Providing high quality PhD holders to teach and conduct research in both pure and applied mathematics and building up their reasoning and analytical skills. This is to achieve the experience necessary to conduct research in Mathematics and other related fields.

Conditions for admission to the PhD Mathematics program:

1. A master's degree (thesis track) from an accredited university with at least a "very good" average in mathematics, or a subject area related to the program area (to be determined by the Program Committee). In the absence of a master's thesis, it requires publishing at least one research in a journal or in an arbitrary book.
2. A bachelor's degree from a recognized university with at least a "good" average.
3. General secondary school certificate with a minimum average of 65%.
4. Prove that 80% of the credit hours for the Bachelor's and Master's degrees are obtained on a regular basis.
5. Passing the proficiency exams determined by the university in the Arabic and English languages according to the criteria determined by the program.
6. Pass any cognitive exam in the field of specialization required by the program when submitting the application. Students who do not pass the required examination are required to study remedial courses from the university's masters programs, as specified in the admission letter, during the first year of the program only, and the remedial courses are treated as prerequisite requirements for the required courses in the program.
7. Submit an integrated research proposal.

Graduation Requirements

First: Completion of at least 54 credit hours distributed as follows:

A - Compulsory Requirements: Completion of 18 credit hours as in the next table:

Course Code	Course Name
MATH9310	Partial Differential Equations
MATH9311	Numerical Methods for Ordinary Differential Equations
MATH9312	Abstract Algebra
MATH9313	Complex Analysis
MATH9314	Real Analysis
MATH9315	Topology

B - Optional requirements: Completion of 12 credit hours from the following courses:

Course Code	Course Name
MATH9316	Functional Analysis
MATH9317	Coding Theory
MATH9318	Module Theory
MATH9319	Finite Element Methods
MATH9320	Dynamical Systems
MATH9321	Inverse Problems
MATH9322	Algebraic Topology
MATH9323	Convex Analysis
MATH9324	Differential Geometry
MATH9325	Commutative Algebra
MATH9326	Category of Rings and Modules
MATH9327	Stochastic Differential Equations
MATH9328	Advanced Ordinary Differential Equations
MATH9329	Axiomatic Set Theory
MATH9330	Probability Theory
MATH9331	Mathematical Statistics
MATH9332	Mathematical Physics 1
MATH9333	Mathematical Physics 2
MATH9399	Topics in Mathematics

It is permissible to take 6 hours from the Master level courses, if the student has not studied them previously

Second: Success in the cognitive aptitude test (a qualifying exam) PHSS9090.

Third: Successful completion of the doctoral thesis MATH9990.

Fourth: Publication of at least a research paper in a journal with an influence coefficient, as well as another research paper sent for publication in a journal with an impact coefficient

Fifth: The student must obtain a score of no less than 72 on the TOEFL exam for the English language or an equivalent exam.

Doctorate in Mathematics Course Descriptions (MATH)

MATH9000	Seminar
A weekly presentation either by students or a faculty member or by a visitor. (0 credit hours).	
MATH9310	Partial Differential Equations
Cauchy-Kowalewski theorem, initial boundary value problems for parabolic and hyperbolic equations, energy methods, boundary value problems for elliptic equations, potential theory, Green's function, maximum principles, Schauder's method. (3 credit hours).	
MATH9311	Numerical Methods for Ordinary Differential Equations
Single and multiple step methods of ordinary differential equations, stability, consistency of convergence, error estimation, and step size selection, stiff systems, boundary value problems. (3 credit hours).	
MATH9312	Abstract Algebra
Review of rings, division rings, prime and maximal ideals in a ring, nil radical, rings of quotients of domains, ID's, PID's, UFD's, the Wedderburn- Artin theorem, Hilbert basis theorem, polynomial rings, irreducible polynomials, Eisenstein criterion, algebraic extension of fields, algebraically closed fields, splitting fields, normal and separable extensions, finite fields, fixed fields. (3 credit hours).	
MATH9313	Complex Analysis
Max-modulus principle and its generalizations, Runge's theorem, open mapping theorem, Riemann mapping theorem, Monodromy theorem and analytic continuation, Weierstrass and Mittag-Leffler's factorization theorems, harmonic functions, and Dirichlet problem. (3 credit hours).	
MATH9314	Real Analysis
General measure, Representations and decomposition theorems in measure theory; Fubini's theorem; L^p spaces; differentiation of the integral; change of variable of integration. (3 credit hours).	
MATH9315	Topology
Product and quotient spaces, separation, countability properties, compactness and paracompactness, connectivity, metrization, completely regular spaces, fundamental group and covering space, function spaces, uniform spaces. (3 credit hours).	

MATH9316	Functional Analysis
Normed linear spaces, Banach spaces, Hilbert spaces, Banach Algebras, Hahn-Banach extension theorems, Banach-Steinhaus theorem, bounded linear operators, convex sets, linear functionals, duality, reflexive spaces, weak topology and weak convergence, Banach fixed point theorem, uniform boundedness principle, open mapping theorem, closed graph theorem, representation of functionals on Hilbert spaces (Riesz Representation Theorem. (3 credit hours).	
MATH9317	Coding Theory
Encoding and decoding, vector spaces over finite fields, linear codes, parity check matrices, syndrome decoding, families of linear codes: Hamming, cyclic, Golay, BCH, and Reed- Solomon cods, convolution codes. (3 credit hours).	
MATH9318	Module Theory
Modules, submodules, direct sums, prime and semiprime modules, Projective, injective, free and flat modules, decomposition of modules, Noetherian, Artinian, Perfect, semiperfect, and semisimple rings. (3 credit hours).	
MATH9319	Finite Element Methods
Finite difference method, methods of lines, finite element methods for ordinary and partial differential equations, Gradient discretization method, Finite volume method, Spectral methods, Meshfree methods, Domain decomposition methods, Multigrid methods. (3 credit hours).	
MATH9320	Dynamical Systems
Continuous dynamical systems, trajectories, periodic orbits, invariant sets, structure of alpha and omega limit sets, applications to two-dimensional autonomous systems of ODE's, Poincare-Bendixson theorem, discrete dynamical systems, infinite dimensional dynamical systems. (3 credit hours).	
MATH9321	Inverse Problems
An introduction to inverse problems, ill-posed problems and regularization, uniqueness and stability in the Cauchy problem, elliptic equations, parabolic equations. (3 credit hours).	
MATH9322	Algebraic Topology
The fundamental group and the Van-Kampen theorem, homology of complexes, exact sequences, polyhedra and CW-complexes, simplicial and singular homology and cohomology, applications to Euclidean spaces (the Jordan theorem, the Brouwer fixed point theorem, topological invariance of open sets), covering spaces, fibrations and cofibrations, higher homotopy groups, manifolds and Poincare duality. (3 credit hours).	
MATH9323	Convex Analysis
Convex sets, separation of convex sets, convex functions, characterization of convex functions, normal cone, tangent cone, Caratheodory, Radon, Helly theorems, Farkas lemma, continuity and differentiability of convex functions, subgradients and subdifferential, Fenchel conjugate, convex optimization, optimality conditions, constraint qualification. (3 credit hours).	
MATH9324	Differential Geometry

Differentiable manifolds, tangent spaces and vector fields, Lie derivatives and Lie Algebras, tensors, differential forms, integral manifolds, Frobenius theorem, Darboux theorem, introduction to Riemann manifolds. (3 credit hours).	
MATH9325	Commutative Algebra
Prime ideals, nilradical and Jacobson radical, modules over commutative rings, rings of fractions, chain conditions, Hilbert basis theorem, rings extensions, localization, valuation rings. (3 credit hours).	
MATH9326	Category of Rings and Modules
Category theory, functors between categories, equivalence of module categories, decomposition properties of injective and projective modules. (3 credit hours).	
MATH9327	Stochastic Differential Equations
Stochastic dynamics and models, Brownian motion and Martingales, Ito's stochastic calculus, stochastic integration and Martingale Representation Theorems, Ito's Formula, stochastic dynamical models via stochastic differential equations, existence and uniqueness of solutions, linear stochastic differential equations, theory for diffusion processes, Markov processes, Dynkin's Formula, Girsanov's Theorem. (3 credit hours).	
MATH9328	Advanced Ordinary Differential Equations
Gronwall's inequality, initial value problems for systems: existence & extendability of solutions, periodic solutions, first integrals, Morse theorem, attractors, Brouwer's fixed point theorem & degree theory, Floquet's theorem, perturbation theory, Poincare-Lindstedt method for periodic solutions. (3 credit hours).	
MATH9329	Axiomatic Set Theory
Introduction to axiomatic set theory, ordinals and cardinals, equivalents of axiom of choice, combinatorial set theory. (3 credit hours).	

MATH9330	Probability Theory
Gaussian Random Variables (The Normal and the Multivariate Normal Distributions), Convergence of Random Variables, Weak Convergence, Weak Convergence and Characteristic Functions, The Laws of Large Numbers, The Central Limit Theorem, L2 and Hilbert Spaces, Conditional Expectation, Martingales, Supermartingales and Submartingales, Martingale Inequalities, Martingale Convergence Theorems, The Radon-Nikodym Theorem. (3 credit hours).	
MATH9331	Mathematical Statistics
Probability Theory, Transformations and Expectations, Common Families of Distributions, Multiple Random Variables, Properties of a Random Sample, Principles of Data Reduction, Sufficient Statistics, The Likelihood Principle, Point Estimation, Method of Moments, Hypothesis Testing, Likelihood Ratio Tests, Interval Estimation, Asymptotic Evaluations. (3 credit hours).	
MATH9332	Mathematical Physics 1
Mathematical methods of classical and quantum mechanics; methods of functional integration and its applications; infinite-dimensional Lie algebras, quantum groups and representations; conformal field theories; super-symmetry. (3 credit hours).	
MATH9333	Mathematical Physics 2
Topological quantum field theories; gauge theories and geometry in four-dimensions; supergravity and mirror symmetry; strings. (3 credit hours).	
MATH9399	Topics in Mathematics
Special topics in a certain field after the approval of the program committee. (3 credit hours).	
MATH9999	Dissertation
To write a publishable thesis in a certain field of mathematics and to defend it successfully. (24 credit hours).	

Doctor Program in Educational Development

Introduction:

The [Doctorate Program in Educational Development](#) aims at preparing educators specialized in teacher preparation and training, schools improvement, and educational leadership. It focuses on establishing the foundations of a liberating education system in the Palestinian context that has been under a colonial settler occupation. Further, the program aspires to meet the needs of educators who do not hold graduate degrees in education and work at various faculties of education at Palestinian universities. The program also seeks to facilitate the professional development of experienced practitioners working at the Ministry of Education, public school system and other nongovernmental educational sectors. It seeks to invest in the development of human resources, developing the capacity of current educational leaders at faculties of education and other educational institutions. Finally, being the first program offered in Palestine, it aims at improving schools curriculum, learning and teaching methods.

Admission Requirements:

The admission requirements are as follows:

1. Master degree in education or a related field with an average of “very good” or its equivalent from an accredited university. The master degree should have been obtained through regular studies at the aforementioned university with a Thesis research project. In case the student did not conduct a thesis project, he / she must submit a published paper in a refereed journal / book.
2. Three years of experience working full time at an educational institution.
3. Submitting a sample of academic work such as a research paper from one of the courses completed in the Master degree program or a published research paper in a refereed journal / book showing good analysis and synthesis skills.
4. A purpose of study explaining the academic goals the applicant is aspiring to achieve during his / her study, future professional plans, reasons for choosing to study in the program and identifying academic and research interests. In addition, the applicant should submit a preliminary proposal composed of 750-1000 words in which the student identify the topic on which he / she is planning to conduct research, review relevant literature and illustrate the significance of the study.
5. Successful personal interview.

Study Language: Arabic

PhD Candidacy Requirements:

Students become PhD candidates after completing the following:

- Successfully passing the coursework requirements with at least a "good" rating.
- Successfully passing the Qualifying Exam (EDUC9090)
- Successful defense and acceptance of a PhD Dissertation Proposal.

Graduation Requirements :

1. The completion of 54 credit hours as follows: 22 credit hours of mandatory courses, 4credit hours of courses in a specific concentration, and 4credit hours of elective courses.
2. Passing the Qualifying exam taken upon the completion of 24 credit hours of course work.
3. Maintaining an average of 80 at least.
4. Successfully defending the dissertation (24 credit hours).

Program Requirements:

The completion of 54 credit hours as follows -:

A. Compulsory courses: (22) credit hours consisting of the following courses:

Code, and Course Number	Course Name
EDUC9201	Advanced Qualitative Research
EDUC9202	Action Research and Self-Study
EDUC9203	Group Consultancy Project
EDUC9204	Foundations of Education in Palestine
EDUC9205	Teaching, Learning and Assessment in Schools
EDUC9206	Teacher Education and Professional Development
EDUC9207	Design and Evaluation of Educational Programs
EDUC9208	Supervision and Mentoring of Teachers
EDUC9209	Inquiry into Palestinian Schooling
EDUC9210	Foundations of Technology in Learning and Teaching
EDUC9223	Doctoral Dissertation Seminar

B. Elective courses: (4) credit hours: Two courses chosen from the following list, or one course from the list and another from any concentration area:

Code, and Course Number	Course Name
EDUC9219	Advanced Quantitative Research
EDUC9220	Special Topic in Education
EDUC9221	Education for Liberation in Palestine
EDUC9222	Modern Educational Thought

C. Concentration (4 credits hours)

C1. Science Education: (4 credits hours)

Code, and Course Number	Course Name
EDUC9211	Science Education in the Palestinian Context
EDUC9212	Special Topics in Science Education Research

C2. Mathematics Education: (4 credits hours)

Code, and Course Number	Course Name
EDUC9213	Mathematics Education in the Palestinian Context
EDUC9214	Special Topics in Mathematics Education Research

C3. Educational Technology: (4 credits hours)

Code, and Course Number	Course Name
EDUC9215	Web-based Learning and Instructional Design
EDUC9216	Special Topic in Educational Technology Research

C4. Leadership: (4 credits hours)

Code, and Course Number	Course Name
EDUC9217	Educational Leadership
EDUC9218	Special Topic in Educational Leadership Research

D. Qualifying Examination: (0) credit hours:

Code, and Course Number	Course Name
EDUC9090	Qualifying Examination

E. Doctoral Dissertation: (24) credit hours:

After successfully passing the PhD candidacy requirements and becoming a PhD candidate, students can register for the Doctoral Dissertation, which spans over at least three semesters, with (8) credit hours each semester. Students will be granted the PhD degree after a successful defense of their Doctoral Dissertation.

Code, and Course Number	Course Name
EDUC9990	Doctoral Dissertation

Doctor Program in Educational Development Course Description (EDUC)

EDUC9090	Qualifying Exam
An assessment of students' mastery of the core themes covered in the program, and their analytic and synthetic abilities. Given upon the completion of 20 credit hours of course work. <i>Prerequisite: Completion of 20 credit hours of course work.</i>	
EDUC9201	Advanced Qualitative Research
Builds on the Master's level qualitative research methodology course and examines more advanced aspects of qualitative research. The topics to be covered include the meaning of research, research paradigms, qualitative research design, inquiry process, data collection, data analysis, report writing, and critical appraisal of qualitative research reports.	
EDUC9202	Action Research and Self-Study
Theory and methods of conducting research into practice including self-study. The course provides students with the knowledge and skills needed to use action research and self-study as a basis to make curricular and instructional decisions both at the school and at the classroom levels. Additionally, the course explores different positions on key theoretical and methodological questions in critical action research, and a range of critical action research reports. Students work individually over a period of two semesters to identify and solve a problem of practice.	
EDUC9203	Group Consultancy Project
Students work collaboratively in small groups under the supervision of a faculty member over a period of two semesters (nine months) to solve problems arising from practice and proposed by practitioners in the Palestinian society. The goal of the project is to provide schools and other educational institutions with a set of advisory recommendations and action plans based on a doctoral level inquiry.	
EDUC9204	Foundations of Education in Palestine
An introduction to the history of education in Palestine, philosophy and sociology of education, and a selection of recent critical and progressive educational thought in Palestine, the Arab World, and beyond.	
EDUC9205	Teaching, Learning and Assessment in Schools
The course provides students with opportunities to critique and explore theoretical, practical, and research-related issues associated with teaching, learning, and assessment. A practice-oriented course to help students develop and implement school learning environments that enhance emancipatory education and that are based on sound educational principles.	
EDUC9206	Teacher Education and Professional Development
Reviews the recent trends in inquiry into pre-service teacher education and teacher professional development. Explores the interrelated concepts of professional development and teacher learning. Students explore approaches to professional learning/ development, policy and literature, and identify their role in supporting the learning of teachers.	

EDUC9207	Design and Evaluation of Educational Programs
Reviews research on design and evaluation of educational programs. Provides students with the knowledge and skills needed to design and evaluate educational programs with an emphasis on emancipatory education.	
EDUC9208	Supervision and Mentoring of Teachers
Provides a strong theoretical understanding of issues involved in supervision and mentoring. Reviews research and approaches to support teachers to develop professionally through supervision and mentoring experiences.	
EDUC9209	Inquiry into Palestinian Schooling
Identifies problems in Palestinian schooling and facilitates critical and ethical reflection on these problems. Offers solutions that are based on a critical, political, decolonizing, and transformative pedagogy. Explores international perspectives on school reform and change, and addresses issues of school reform with an emphasis on equity, quality and relevance.	
EDUC9210	Foundations of Technology in Learning and Teaching
Introduction to educational technology. Learning theories implications for online and blended learning, teaching and assessment. Pedagogical approaches for digital technologies integration in education. Digital tools and online resources. Ethical considerations and safety in the digital age. Digital competencies of students and teachers. Future trends of integrating emerging technologies in education.	
EDUC9211	Science Education in The Palestinian Context
Reviews the relevant literature in order to critically examine different aspects of teaching science in Palestine including goals and aims of science teaching, curricula and textbooks, science teachers, teacher preparation and professional development, student access, teaching practices, student learning and assessment. The course addresses the need to develop a critical science education for a people under settler colonialism.	
EDUC9212	Sp.Top: In Science Education Research
This course is devoted to a particular topic not otherwise included in the science education curriculum and approved by the Program administrative council. Content might vary with each offering to meet the needs of the students and their interests as well as the interests of the instructor. Topics might include critical theory and science education, cultural, social, and political perspectives in science education, philosophy and history of science in science teaching.	
EDUC9213	Mathematics Education in The Palestinian Context
Mathematics curriculum, Arabic language and teaching and learning mathematics, mathematics education under different powers, assessment in teaching mathematics, mathematics as power, mathematical knowledge for teachers, teaching and learning and assessment in different areas (algebra, geometry, etc.)	

EDUC9214	Sp.Top: In Mathematics Education Research
Devoted to a particular topic not otherwise included in the mathematics education curriculum and approved by the Program administrative council. Content might vary with each offering to meet the needs of the students and their interests as well as the interests of the instructor Focus on faculty members' research interests such as Arabic mathematics discourse, sociopolitical aspect, racism and social justice in mathematics education, assessment, history of mathematics education in Palestine, technology and mathematics education, teaching and learning mathematics and technology, philosophy of/and mathematics (education), mathematical knowledge for teaching.	
EDUC9215	Web-Based Learning and Instructional Design
Instructional design principles for effective web-based learning. Online collaboration, creation and making. Web-based resources for blended and online learning. Teaching online courses and engaging students in online environments. Designing effective online assessment and evaluation. Digital tools, online platforms and learning management systems. Personalized learning. Considering diversity, accessibility and inclusivity in web-based learning.	
EDUC9216	Sp.Top: In Educational Technology Research
In-depth exploration of current research topics and emerging trends of educational technology. Carrying out investigations within the Palestinian and international social and cultural contexts of special selected topics, challenges and innovations of digital transformation of education.	
EDUC9217	Educational Leadership
This course focuses on educational leadership, leadership theory and practice. It discusses the necessary skills and traits required for effective leadership. Topics that will be covered include transformational leadership, authentic leadership, gender and leadership, the cultural and social foundations of educational leadership, theories and models of change, organizational change and renewal, effective communication, problem-solving, effective decision-making, consensus building and conflict resolution.	
EDUC9218	Sp.Top: In Educational Leadership Research
This course explores in depth one of the main issues discussed in the Educational Leadership course with emphasis on the Palestinian context. Some of the topics that this course might focus on is organizational change and the political, social and cultural foundations of educational leadership. Based on the context and students needs the instructor will choose a topic for this course.	
EDUC9219	Advanced Quantitative Research
Builds on the Master's level quantitative research methodology course. The course covers research design, population/sampling selection, data collection tools, data collection methods. Advanced quantitative data analysis methods that are widely used by researchers in education. Topics covered include logistic regression, factor analysis, and structural equation modeling.	
EDUC9220	Sp.Top: In Education
Advanced topics in education. Topics are approved by the program committee in accordance with the interests of the students and the faculty members.	

EDUC9221	Education for Liberation in Palestine
Addresses the issues related to education for liberation in Palestine. Critical perspectives are brought to bear on the question of how to transform schools into institutions that foster democratic pedagogies, social justice, and the creation of an active participatory citizenry on the one hand, and the creation of active persons who endeavor to achieve personal and national liberation on the other hand.	
EDUC9222	Modern Educational Thought
The course discusses the thoughts of modern educational thinkers and other philosophers and scholars, from the West, the Arab World, and other countries, whose thinking can be brought to bear on addressing important educational issues. It offers a survey of writings on education, including major historical theorists as Ibn Rush, Ibn Khaldun, Rousseau, Dewey, and Freiri, as well as contemporary educational and social theorists such as Habermas, Apple, Arkoon and AlJabiri.	
EDUC9223	Doctoral Dissertation Seminar
A seminar that supports students to develop their dissertations' proposals. The course provides opportunities for students to share their research ideas and progress and to provide feedback on each other's research. Students will be asked to present early drafts of proposals for discussion. Additionally, the seminar will focus on improving academic writing at the graduate and professorial level. Through presentations, readings, discussion, and peer editing, graduate students will develop their writing skills.	
EDUC9990	Dissertation
To write a publishable thesis in a certain field of Education and to defend it successfully.	

Faculties Deans and Programs Directors

Faculty of Arts	
<u>Dr. Munir Fakher Eldin</u>	Dean - Faculty of Arts
<u>Dr. Mashhour Mshahreh</u>	Director of Master Program in Arabic Language and Literature
<u>Hasan Ladadweh</u>	Acting - Director of Master Program in Sociology
<u>Dr. Sama Dawani</u>	Director of Master Program in Community Psychology

Faculty of Science	
<u>Dr. Wafaa Khater</u>	Dean - Faculty of Science
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<u>Dr. Ala Talahmeh</u>	Director of Master Program in Mathematics
<u>Dr. Abdallah Sayyed Ahmad</u>	Director of Master Program in Physics
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Faculty of Business and Economics	
<u>Dr. Grace Khoury</u>	Dean - Faculty of Business and Economics
<u>Dr. Tareq Sadeq</u>	Director of Master Program in Economics
<u>Dr. Samah Abu Assab</u>	Director of Master Program in Business Administration and Executive Director of Master Program in Business Administration
<u>Dr. Zeyad Munawer</u>	Director of Master Program in Accounting and Auditing
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Faculty of Engineering and Technology	
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<u>Dr. Sobhi Ahmed</u>	Director of Master Program in Software Engineering
<u>Dr. Mirvat Bulbul</u>	Director of Master Program in Civil Engineering
<u>Dr. Ahmad Balasie</u>	Director of Master Program in Mechanical Engineering
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Faculty of Law and Public Administration	
<u>Dr. Mahmoud Dodeen</u>	Dean - Faculty of Law and Public Administration
<u>Dr. Mohammad Al Ahmad</u>	Director of Master Program in Law. Director of Master Program in Private Law Director of Master Program in Law and Economics.

<u>Dr. Ahmad Khaled</u>	Director of Master Program in Public Law
<u>Dr. Ayman Zaru</u>	Director of Master Program in Government and Local Governance.
Faculty of Pharmacy, Nursing and Health Professions	
<u>Dr. Rania Abu-Hamdah</u>	Dean - Faculty of Pharmacy, Nursing and Health Professions
<u>Dr. Mahmoud Srour</u>	Director of Master Program in Clinical Laboratory Sciences
<u>Dr. Abdullah Abu Khalil</u>	Director of Master Program in Industrial Pharmaceutical Technology.

Faculty of Education	
<u>Dr. Refa' Al-Ramahi</u>	Dean - Faculty of Education
<u>Dr. Anwar Abdel Razeq</u>	Director of Master Program in Education
<u>Dr. Iyad Yousef</u>	Director of Master Program in Physical Education and Sports Sciences

Faculty of Graduate Studies	
<u>Dr. Ahmed Abu Hanieh</u>	Dean - Faculty of Faculty of Graduate Studies
<u>Dr. Sameera Awawda</u>	Director of Master Program in Applied Statistics and Data Science
<u>Dr. Hala Shoaibi</u>	Director of Master Program in Israeli Studies
<u>Dr. Lourdes Habash</u>	Director of Master Program in International Studies
	Director of Master Program in Humanitarian Action in International Conflicts
<u>Dr. Asem Khalil</u>	Master Program in International Migration and Refugee Studies
<u>Dr. Mudar Kassis</u>	Director of Master Program in Democracy and Human Rights
<u>Dr. Maysaa Nemer</u>	Director of Master Program in Community and Public Health
<u>Dr. Rania Jawad</u>	Director of Master Program in Gender and Development Studies
<u>Dr. Ahmed Abu Hanieh</u>	Director of Master Program in Water and Environmental Sciences
	Director of Master Program in Water and Environmental Engineering
<u>Dr. Ghassan Al Barghouti</u>	Director of Master Program in Renewable Energy Management
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<u>Dr. Imad Sayrafi</u>	Director of Master Program in Community Development
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<u>Dr. Mustafa Jarrar</u>	Director of Ph. D. Program in Computer Science
<u>Dr. Mohammad Saleh</u>	Director of Ph. D. Program in Mathematics