Division of University Interdisciplinary Programs (DUIP)

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Officers of the Faculty

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Mohamed Harajli	Interim Provost, ex-officio
Nesreen Ghaddar	Director
Moueen Salameh	Registrar, ex-officio
Salim Kanaan	Director of Admissions, ex-officio
Rabih Talhouk	Chair of the Graduate Council, ex-officio
Lokman Meho	University Librarian, ex-officio

Faculty Administrative Support

Lara El-Khoury	Executive Officer

Background

The Division of University Interdisciplinary Programs, established in 2012, is a degree-granting unit at the American University of Beirut. It supports University interdisciplinary programs involving multiple departments or disciplines in two or more faculties.

Mission

The Division of University Interdisciplinary Programs promotes interdisciplinary engagement in teaching and research as a shared enterprise involving AUB faculties and research units. These collaborative engagements permit faculty members and graduate students to cross traditional disciplinary boundaries in order to advance research and scholarship, acquire knowledge, and generate new insights.

The DUIP provides a responsive environment for graduate education and research by focusing on scholarship in areas not addressed through existing departmental structures, and by connecting graduate students from a variety of backgrounds with the resources which they need to achieve diverse career goals.

Objectives

- To create an environment that fosters interdisciplinary approaches to graduate education and research
- To improve administrative and financial support for interdisciplinary programs
- To strengthen existing interdisciplinary programs and to support the creation of new interdisciplinary curricular offerings
- To support the involvement of University centers, institutes, and museums in research and outreach activities
- To support individual faculty members who participate in interdisciplinary engagements

Master of Science Degree Program in Energy Studies

Chairperson:	Ghaddar, Nesreen
Professors:	Karaki, Sami (EECE); Tabbal, Malek (PHYS); Yassine, Ali (ENMG)
Assistant Professor:	Khodr, Hiba (PSPA)

Educational Goals and Program Learning Outcomes

The Master of Science in Energy Studies program is planned to consolidate and build on AUB's excellent research and professional profile addressing current and future energy research needs of the region in areas, such as energy science and technology, economics, public policy, and energy management. The program's educational goals are:

to promote an interdisciplinary approach to understand and evaluate various modes of energy supply and end-use efficiency of energy systems within the context of sustainability and development in the region.

to develop effective collaboration skills among students from different disciplines including energy science and technology, economics, and public policy.

Upon successful completion of this interdisciplinary course of study, students will:

be able to evaluate different sources of energy related to energy extraction, conversion, and utilization for both traditional systems and sustainable/renewable energy alternatives.

apply methods of economic analysis, risk and decision analysis, environmental impact assessment, and policy techniques for performing energy planning and reaching, and decision-making while addressing sustainability in supply and demand.

understand advances in selected energy technologies, products and energy end-use efficiency and their impact on market economy and development activities.

Admission Requirements

Admission requirements to the program will follow AUB Graduate Studies Policies. Bachelor degree holders from relevant fields of study are eligible to apply for admission into the Energy Studies Master's program. Remedial courses may be needed for students as would be recommended by the Program.

Applicants to any graduate program other than AUB graduates and graduates of recognized colleges or universities in North America, Great Britain, Australia, and New Zealand must demonstrate proficiency in the English language. See English Language Proficiency Requirement (ELPR) under Admissions section (page 34).

Degree Requirements

The program permits full-time or part-time enrollments. To obtain a master's degree in energy studies, the student must complete a minimum of 24 credits of graduate course work, 6 credits of interdisciplinary thesis work on energy-related fields, and a 0-credit seminar. The course work is distributed as follows:

- 9 credits of required core courses
- 3 or 6 credits of elective courses from List A on energy resources, economics and policy
- 6 or 9 credits of elective courses from List B on energy science and technology
- 3 credits of elective course as approved by thesis advisor/s if the elective is not from List A or B
- 0 credit seminar

Credit Summary

Course	Credits
Required core courses	9
Elective courses from List A	6 or 3
Elective courses from List B	6 or 9
Elective graduate course	3
Thesis	6
Seminar	0
Total number of credits required for graduation	**30**

Required Core Courses (9 cr.)		
ECON 333	Energy Economics and Policy	3
PSPA 352	Foundations of Public Policy	3
ENST 300	The Science and Technology of Energy (FAS/FEA)	3
List A	**Energy Resources, Economics and Policy Courses**	**Credits**
ENST 310	Advanced Energy Economics	3
ENST 320	Energy Law and Case Studies	3
ECON 337	Economic Development (with focus on energy and development)	3
ECON 338	Economics of Natural Resources and the Environment	3
ECON 305	Econometrics I	3
ECON 347	Economic Forecasting	3
MFIN 360	Energy Finance	3
ENMG 603	Probability and Decision Analysis	3
ENMG 604	Deterministic Optimization Models	3
ENMG 656	Management of Technological Innovations	3
PSPA 316	International Environmental Policy	3
PSPA 362	Policy Research and Analysis	3
PSPA 381	Special Topics in Energy and Public Policy	3
ENST 396	Topics In Energy Issues: The Case of Lebanon	3
ENST 398	Special Projects in Energy Studies in Cooperation with Industry and/or NGO and Legislative Bodies	3
List B	**Energy Science and Technology Courses**	**Credits**
CHEM 324E	Electrochemistry	3
CHEM 352C	Renewable Energy	3
CIVE 656	Air Pollution Control I	3
CIVE 659	Environmental Impact Assessment	3

ENST 330	Energy Science and Technology Lab	3
ENST 396A	Special Topics in Energy Issues: The Future of Nuclear Power	3
EECE 670	Power System Planning	3
EECE 671	Environmental Aspects of Energy Systems	3
EECE 672	Energy Planning and Policy	3
EECE 675	Renewable Energy Systems	3
ENST 398	Special Projects in Energy Studies in Cooperation with Industry and/or NGO and Legislative Bodies.	3
GEOL 300	Elements of Petroleum Geology	3
MECH 671	Renewable Energy Potential, Technology, and Utilization in Buildings	3
MECH 673	Energy Efficient Buildings With Good Air Quality	3
PHYS 340	Atmospheric Physics and Energy	3
ENST 397	Seminar- Must be registered once per year	0
ENST 395A/395B	Comprehensive Exam	0
Thesis[1]	Interdisciplinary Thesis in Energy-related Field	6

Comprehensive Exam

See General University Academic Information Section in this catalogue.

Prerequisite Courses

Students who join the program may have to complete prerequisites for courses offered in the program or obtain the consent of the course instructor and program chair. The core courses are designed to include remedial preparation in social science. This will enable the waiver of social science prerequisites for students who join from sciences, math, business, or engineering majors. BA holders from economics major may not need remedial courses beyond the core energy science course. Students from other social science majors or arts may be required to take one or more remedial courses over and above program requirements, as would be recommended by the chair of the program upon admissions. Suggested remedial courses for BA holders are PHYS 210, MATH 201 or Math 204, and STAT 201 or their equivalents. These remedial courses are part of the general education requirements at most universities. The prerequisites by topic include:

- Preliminary concepts of fluid dynamics, heat, and first and second law of thermodynamics
- Methods of differentiation and integration
- Partial derivatives and multivariable functions
- Vector functions
- Probability and elementary statistics

The minimum passing grade for a prerequisite course taken after admission to the graduate program is 70. If a student fails to obtain a grade of 70 in any of the undergraduate prerequisites, the student is allowed to repeat the course only once.

[1] Although thesis can be focused on primary discipline, the culminating thesis should include sufficient elements of at least one another discipline to permit an expert in the field to recognize its contribution.

Sample Program

Sample Program schedule is given in the following table

Fall (Term I)		Spring (Term II)	
Course Title	**Cr**	**Course Title**	**Cr**
Core Course I	3	Core Course II	3
List A Elective	3	List B Elective	3
List B Elective	3	Graduate Elective	3
Seminar	0		
Total Credits	**9**	**Total Credits**	**9**

Fall (Term III)		Spring (Term IV)	
Course Title	**Cr**	**Course Title**	**Cr**
Core Course III	3	Thesis	6
List A or B Elective	3	Seminar	0
Comprehensive	0		
Total Credits	**6**	**Total Credits**	**6**

Graduation Requirements

See General University Academic Information section in this catalogue (page 58).

Course Descriptions

Core Courses

ECON 333 Energy Economics and Policy 3.0; 3 cr.
A study of the theories related to energy economics, such as economics of natural resources, and the interrelationship between energy, economics and the environment, as well as some important issues in energy policy. *Students cannot receive credits for both ECON 333 and MECH 674*.

ENST 300 The Science and Technology of Energy (FAS/FEA) 3.0; 3 cr.
This course examines the fundamentals principles of energy conversion processes as well as their impact on the environment and provides a clear physical explanation of these principles. It also offers a survey of current energy conversion technologies. Topics are selected based on their future promise energy sources. The course starts on introductory topics providing a minimum base on thermodynamics, kinetic theory of gases, heat transfer and fluid flow and the concept of energy efficiency. Topics include: Applications in heat engines, solar thermal, photovoltaic energy conversion, wind, biomass and fuel cells. *Prerequisite: PHYS 210 or equivalent.*

PSPA 352 Foundations of Public Policy 3.0; 3 cr.
This seminar covers topics related to the substance, methods and frameworks of public policy in a variety of disciplines including: welfare economics, political science, political economy, and organization theory. Emphasizing the role of theory in empirical policy research, the course

illuminates the various policies and policy challenges in the following substantive areas: economics; education; the environment; national security; and immigration. *Core course. Annually.*

List A: Energy Resources, Economics and Policy Courses

ENST 310 Advanced Energy Economics 3.0; 3 cr.
This course covers advanced topics in energy economics such as an in depth analysis of energy demand issues, forecasting energy demand and supply, the economics of electricity supply, a broad variety of topics pertaining to energy investment analysis, integrated analysis of energy systems, as well as energy and the transport sector. In addition, the course covers advanced topics in both oil and natural gas economics with a clear distinction between these two energy sources. *Prerequisite: ECON 333.*

ENST 320 Energy Law and Case Studies 3.0; 3 cr.
This course is concerned with regulation of energy, energy resources, and energy facilities. Among the topics examined are the regulation of rates and services; the state public utility commissions; and the interaction with environmental law. Attention is given to energy resources (such as oil, natural gas and coal reserves, and hydropower resources) and to generating, transmission, and distribution facilities. Special emphasis is put on the current and future roles of renewable energy, energy efficiency, and nuclear energy, as well as the regulation and deregulation of electricity. *Prerequisite: PSPA 352.*

ENST 396 Topics in Energy Issues: The Case of Lebanon 3.0; 3 cr.
This course addresses contemporary issues in energy economics facing Lebanon. Evaluates energy sector economic policies in production and, pricing, taxation and conservation and provides alternatives policies and solutions.

ECON 337 Economic Development (with focus on energy and development) 3.0; 3 cr.
An examination of the major economic and non-economic determinants of development in developing countries, theories and models of development. *Occasionally.*

ECON 338 Economics of Natural Resources and the Environment 3.0; 3 cr.
An analysis of economic issues regarding the efficient use of natural resources and the management of environmental quality. *Occasionally.*

ECON 305 Econometrics I 3.0; 3 cr.
Parameter estimation and hypothesis testing within the framework of the classical linear regression model. Subjects covered include general least squares and its application (e.g. heteroscedasticity, autocorrelation, multivariate regression), GMM estimation, simultaneous equation models and panel data models. *Annually.*

ECON 347 Economic Forecasting 3.0; 3 cr.
A course that provides training methods of forecasting used in commercial enterprises. This course also introduces the methods of macroeconomic forecasting. *Occasionally.*

MFIN 360 Energy Finance 3.0; 3 cr.
Energy Finance: This course aims to provide an in-depth understanding of energy finance by addressing three areas of finance in an energy context: pricing, asset valuation, and risk

management. The first section develops students' understanding of the energy markets, and how to model and forecast energy and forward/futures prices. The second part covers valuation and the application of option theory to energy related assets. In the third part of the course we will then focus on giving students an understanding of energy-related derivatives. Students will be taught the different derivative products and learn how to apply them in the energy markets to develop hedging and risk management strategies.

PSPA 316 International Environmental Policy 3.0; 3 cr.
This course provides a critical examination of the politics of international economic relations, global economic development, and transnational economic activity with a special emphasis on the position and experiences of the Middle East states in the global political economy. The course offers a survey of theoretical approaches to international political economy and addresses themes critical to the experience of the Middle East such as state-led industrialization, trade and regionalism, finance, oil, labor migration, MNCs, transnational movements, globalization, neo liberalism, and the politics of development and global governance. *Occasionally.*

PSPA 362 Policy Research and Analysis 3.0; 3 cr.
This course addresses both the various theoretical and practical aspects of performing policy analysis. It covers the production and use of analysis to support public policy. The course provides introduction to policy research tools and techniques as it engages methods for collecting data, structuring problems, evaluating policy alternatives and outcomes, monitoring policies and communicating policy options to decision-makers.

PSPA 381E Special Topics in Energy and Public Policy 3.0; 3 cr.
This course provides an overview of the public policies related to energy resources and technologies that are designed to ensure clean, stable supplies of energy for the future. The course studies how public policies can be formulated and implemented to influence the development of fossil fuel, renewable energy, and hydrogen technologies. The development of energy policy in the MENA and GCC regions is of particular concern, although a global perspective will be integrated throughout the course.

ENST 398 Special Projects in Energy Studies in Cooperation with Industry and/or NGO and Legislative Bodies 3.0; 3 cr.

List B: Energy Science and Technology Courses

CHEM 324 Electrochemistry 3.0; 3 cr.
Fundamentals and applications of electrochemistry. Overview of electrode processes, potentials and thermodynamics of cells; kinetics of electrode reactions; Marcus microscopic theory for charge transfer; treatment of mass transfer by migration and diffusion; electrochemical techniques including potential step methods, potential sweep methods, and hydrodynamic methods; electrode reactions with coupled homogeneous chemical reactions; instrumentation. *Alternate years*.

CHEM 352C Renewable Energy 3.0; 3 cr.
This course is designed to introduce students of different backgrounds to the latest innovations in clean energy research. The students will learn through a series of interactive and modern techniques the fundamentals and hurdles in clean energy technologies such as hydrogen fuel cells, water splitting, CO2 reduction, solar cells, thermoelectric devices, microbial fuel cell,

biofuel, and recent cutting edge research in energy storage. The course also touches on the international climate change policies and reflects on the future of these technologies.

CIVE 656 Air Pollution and Control I 3.0; 3 cr.
An introductory course on air pollutants, sources, and effects; emission estimates, regulations, and monitoring techniques; particulate matter characterization; meteorology and atmospheric dispersion; and air pollution control processes. *Prerequisite: CHEM 202 or equivalent.*

CIVE 659 Environmental Impact Assessment 3.0; 3 cr.
A course that outlines theories and procedures of assessing environmental impact; analysis of the impact of development on various measures of environmental quality; and benefit-cost considerations in environmental impact assessment. *Prerequisites: CIVE 450, CIVE 654, and CIVE 656; or consent of instructor.*

EECE 670 Power Systems Planning 3.0; 3 cr.
A course that investigates energy and peak load forecasts, weather-sensitive forecasts, generation reliability, load duration curves, loss-of-load expectation, capacity reserve evaluation, generation and transmission expansion, power flow analysis, reliability of bulk supply, and cost-benefit analysis. *Prerequisite: EECE 471.*

EECE 671 Environmental Aspects of Energy Systems 3.0; 3 cr.
A course that examines world energy resources and classification; sources and effects of air pollution; air quality modeling, Gaussian dispersion models for pollution estimation; motor vehicle emissions and noise pollution; environmental impacts of electricity generation, pollution control systems, electromagnetic radiation, production and impacts in high-voltage applications; environmental impact assessment; basic concepts.

EECE 672 Energy Planning and Policy 3.0; 3 cr.
A course that focuses on features of modern energy planning and policy. Topics covered include the interaction among the technological, economic, environmental, and sociopolitical aspects of energy supply and use; electricity, oil, and gas industries, and their market structures; elements of energy planning on the sector and national levels; energy decision-making under conditions of uncertainty, risk management in energy planning; liberalization of energy markets; case studies.

EECE 675 Renewable Energy Systems 3.0; 3 cr.
A course that covers the principles of renewable energy, solar radiation, solar water heating, building and other thermal applications, photovoltaic generation, wind power, fuel cells and the hydrogen cycle, biomass, and institutional and economic factors. *Students cannot receive credit for both MECH 671 and EECE 675.*

MECH 671 Renewable Energy Potential, Technology, and Utilization in Buildings 3.0; 3 cr.
A course that covers the principles and utilization of solar (thermal and photovoltaic), wind, and geothermal energy, as well as energy from biomass. Issues relevant to energy efficiency and energy storage are discussed (heat and power store and bio-tanks). The potential of using renewable energy technologies as a complement to and, to the extent possible, replacement for conventional technologies, and the possibility of combining renewable and non- renewable energy technologies in hybrid systems are analyzed. Design aspects of active, passive, wind,

bio-energy, and photovoltaic energy conversion systems for buildings; and strategies for enhancing the future use of renewable energy resources are presented. *Prerequisite: MECH 310 or PHYS 210. Students cannot receive credit for both MECH 671 and MECH 675.*

MECH 673 Energy Efficient Buildings with Good Air Quality 3.0; 3 cr.
Energy consumption standards and codes in buildings. Energy conservation measures in built in environment to enhance the building's energy efficiency while maintaining space thermal comfort and indoor air quality requirement. Fundamental ventilation, indoor-air-quality, infiltration natural and mechanical ventilation, importance and impact of indoor air quality on human health and energy performance of the building air conditioning system. An overview of the different heating, ventilation and air conditioning system designs are covered. Performance and energy consumption of the conventional air conditioning system (constant and variable air volume) as well as the alternative hybrid integrated air conditioning systems will be discussed and compared. The course will include several demonstrations of concept experiments. *Prerequisite: MECH 310 or PHYS 210 or equivalent.*

ENMG 603 Probability and Decision Analysis 3.0; 3 cr.
Framing of decision problems. Influence diagrams. Review of probability (random events and variables, probability distribution functions, etc.). Decision Trees. Inverting Decision Trees (Baye's Law). Traditional approach to assessment of error (confidences level). Decision Analysis view of assessment (value of information, sensitivity). Multiple attribute decision objective. Mathematical treatment of risk, tolerance and avoidance.

ENMG 604 Deterministic Optimization Models 3.0; 3 cr.
Mathematical modeling and the operation research approach. Formulation and classification of optimization models. Improving search. Formulation of linear programs (LPs). Simplex algorithms for solving LPs. Duality and sensitivity in linear programming. Multi-objective optimization and goal programming. Introduction to network flow models. Formulation of integer programs. Solution methods for integer programs. Unconstrained nonlinear programming. Introduction to constrained nonlinear programming and quadratic programming. forecasts in organizations.

ENMG 656 Management of Technological Innovations 3.0; 3 cr.
Strategic management of technology-based innovation within the firm. Assessing the innovative capabilities of the firm. Managing the corporate R&D function. Managing the interfaces between functional groups in the development process. Managing the new business development function in the firm. Building distinctive technology-based competencies and competitive advantages. Technological leadership versus followership in competitive strategy. Institutionalizing innovation. Attracting and keeping corporate entrepreneurs.

ENST 330 Energy Science and Technology Lab 3.0; 3 cr.
This course is designed to give the students "hands-on" experience on selected energy science and technology topics in solar energy; electrochemical energy storage; thermoelectric technologies; fuel cells; thermo-hydraulics of power systems; energy efficiency in a wide range of systems; hybrid engines; thermal management of electronics; and energy efficient buildings. The selected topics vary from semester to semester.

ENST 396A Special Topics in Energy Issues: The Future of Nuclear Power 3.0; 3 cr.
This course will provide students with a deeper understanding of nuclear energy and the underlying economic, security, and technological challenges associated with it. Covered topics

include the basic physics of nuclear energy, overview of nuclear technologies, economics of nuclear power and examination of safety and security risks. The course aims to provide a policy-oriented platform to assess the prospects of a global nuclear "renaissance" as well as the realities of nuclear power deployment in the Middle East. *Prerequisite: MECH 310 or PHYS 210 or PHYS 211.*

GEOL 300 Elements of Petroleum Geology 3.0; 3 cr.
The course is designed for non-geologists who require a pretty good knowledge of geology associated with petroleum exploration and exploitation. The aim is to introduce sufficient knowledge and terminology to give the students the ability to interact knowledgeably with the global energy industry. It is to focus on the origins of oil and gas, the accumulation conditions and the techniques to find and exploit hydrocarbons, the various estimates of petroleum proven reserves and undiscovered reserves, and the distribution of the world's major oil and gas provinces.

PHYS 340 Atmospheric Physics and Energy 3.0; 3 cr.
The course exposes the students to the various physical principles governing energy conversion and transformation. Understanding the composition and structure of the atmosphere; transport laws, radiation, momentum transfer, heat transfer, mass transfer, steady state heat balance, microclimatology of radiation, crop meteorology and wind system, wind energy, mapping the atmosphere for the study of global warming and Ozone depletion. The basic of light matter interaction and nuclear energy.

ENST 397 Seminar 0 cr.
Must be registered once per year.

ENST 395A/395B Comprehensive Exam 0 cr.

ENST 699 Thesis 6 cr.

Master of Arts Degree Program in Public Policy and International Affairs

Chairperson:	Makdisi, Karim
Professor:	Hanafi, Sari (SOAM)
Associate Professor:	Hazbun, Waleed (PSPA)
Assistant Professors:	Kosmatopolous, Nikolas; Tell, Tariq (PSPA)

Educational Goals and Program Learning Outcomes

Students who earn a master's degree in public policy and international affairs will be able to participate in and analyze the policy process in the Arab region within the global context. Students will also be able to raise awareness about public policy and international problems; assess the quantity and quality of policy relevant data and theories; advance the capacity, accountability, and responsiveness of public actors; and promote sound public policies that are informed by evidence.

Upon successful completion of this interdisciplinary course of study, students will be able to:

- explain fundamental theories and processes of public policy and international affairs,
- apply techniques and methodologies in public and international policy research,
- critically analyze key policy and international affairs issues,
- demonstrate oral and written communication skills in public and international policy arenas,
- formulate domestic and international public policy alternatives and arguments, and
- critically appraise the validity and limitations of domestic and international public policy theories and arguments.

Admission Requirements

Admission requirements to the program will follow AUB Graduate Studies Policies. Bachelor degree holders from most fields of study are eligible to apply for admission into the Public Policy and International Affairs Master's program. Remedial courses may be needed for students as would be recommended by the program.

Students should have a GPA of at least 80 or 3.0 and good recommendations to be considered for regular admission into the Public Policy and International Affairs Master's program. Students with a GPA above 75 and below 80 are considered for admission on probation. A strong academic record in relevant fields, reference letters, a letter of intent, and a thoughtful personal statement will all be evaluated closely for entry into the program. A minimum of one-year work experience is strongly recommended and more is encouraged.

Two to three prerequisites (such as introductory classes in public administration, political science, and economics) will be required for applicants who have a technical or natural scientific background, and thus have little or no relevant coursework in fields related to public policy and/or international affairs. However, the requirement for prerequisites, particularly for more experienced applicants, may be waived at the discretion of the MPPIA Admissions Committee.

Applicants to any graduate program other than AUB graduates and graduates of recognized colleges or universities in North America, Great Britain, Australia, and New Zealand must demonstrate proficiency in the English language. See English Language Proficiency Requirements (ELPR) under Admissions section (page 34).

It is necessary for students to have intermediate knowledge of the Arabic language. The ability to converse, read, and write in Arabic is crucial in gaining understanding of the Arab region. Students will be tested on their Arabic level upon admission, and, if not native speakers or fluent, will be required to take Arabic classes available at the Department of Arabic and Near Eastern Languages.

Degree Requirements

The program permits full-time or part-time enrollments. To obtain a Master of Arts degree in Public Policy and International Affairs, the student must complete a minimum of 36 credits of graduate coursework and 6 credits of interdisciplinary thesis work, or an internship and final year project in the non-thesis track. There is also the option of providing a 3-week intensive course (0 credits) on Economics methods prior to the start of the fall semester for those applicants lacking an economics background. The coursework is distributed as follows:

- 18 credits of required core courses
- 12 credits of elective courses
- 6 credits of mini-courses/seminars on policy-making and international affairs related to the Arab World

Credit Summary

Course	Credits
Required core courses	**18 cr.**
Seminars/mini-courses	6 cr.
Elective courses	12 cr.
Thesis or (Internship + Project)	6 cr.
Total number of credits required for graduation	**42 cr.**

Required Core Courses (18 cr.)		
PPIA 301	Public Policy	3
PPIA 302	International Affairs	3
PPIA 304/305/306	Development OR Economics of Public Affairs OR Political Economy	3
PPIA 307	The Politics of Policy Making	3
PPIA 308	Research Methods: Gateway course	3
PPIA 309	Evidence, Policy and Communication	3
Intensive Seminars/ Mini-Courses (6 cr.)		**Credits**
PPIA 310	Topics in Public Policy	3
PPIA 311	Topics in International Affairs	3
Elective Courses: Sample Electives in International Affairs		**Credits**
PPIA 304	Development	3
PPIA 402	Global Governance	3
PPIA 403	Foreign Policy	3
PPIA 404	History of the Global South	3

PPIA 405	Law and Development	3
PPIA 406	Law of Armed Conflict and the Use of Force	3
PPIA 407	International Criminal Law	3
PPIA 408	Issues in International Economics	3
PPIA 409	Topics in Economic Development and Policy	3
PPIA 410	Philosophy and Methodology of Economics	3
PSPA 311	International Politics and the Middle East	3
PSPA 312	Public International Law	3
PSPA 313	International Security	3
PSPA 314	The UN and International Politics	3
PSPA 316	International Environmental Policy	3
PSPA 317	International Political Economy	3
PSPA 318	Theories of International Relations	3
PSPA 325	Political Trends in the Middle East	3
AMST 301	America in the Middle East	3
ECON 327	Macroeconomics	3
ECON 335	International Trade Theory	3
ECON 336	International Monetary Economics	3
ECON 337	Economic Development	3
ECON 344	Financial Markets and Institutions	3
ECON 345	International and Arab Emerging Markets	3
SOAN 318	Human Migration	3
SOAN 324	Special Topics: Transitional Justice	3
HIST 303/304	Graduate Seminar in Arab and Middle East History	3
HIST 305/306	Graduate Seminar in European History	3
HIST 331-334	Topics in Arab and Modern Middle East History	3
Elective Courses: Sample Electives in Public Policy		**Credits**
PPIA 601	Anthropology of Policy Making	3
PPIA 602	Ethics and Public Policy	3
PPIA 603	Public Policy and Quality of Life	3
PPIA 409	Topics in Economic Development and Policy	3
PPIA 410	Philosophy and Methodology of Economics	3
PSPA 324	Government and Politics in Lebanon	3
PSPA 341	Environmental Regulation and Legislation	3
PSPA 351	Foundations of Public Administration	3
PSPA 361	Public and Non-Profit Program Evaluation	3
PSPA 362	Public Policy and Administration	3
PSPA 363	Public Financial Management	3
PSPA 371	Public Management	3
PSPA 372	Leadership and Management of Public Organizations	3
PSPA 373	The Ethics of Public Administration	3
PSPA 374	Non-Profit Management	3
ECON 362	Public Finance	3

ECON 333	Energy Economics and Policy	3
ECON 332	Political Economy	3
ECON 326	Public Finance	3
EDUC 303	Determinants of Educational Policy	3
EDUC 308	Educational Planning and Policy Studies	3
EDUC 332	Seminar in Educational Planning for Social and Economic Development	3
URPL 665	Development and Planning Policies	3
URPL 664	Transportation Planning and Policy	3
URPL xxx	Decentralization Policy	3
HMPD 318	Policy and Decision Making in Healthcare	3
HMPD 320	Governance in Healthcare	3
HMPD 354	Special Topic in Health Management and Policy	3
FINA 325	Global Finance	3
PPIA 395A/395B	Comprehensive Exam	0

Thesis or Internship Track

Thesis Track (6 cr.): Students must seek the program's approval first. If this track is approved, they must successfully defend their Masters thesis required for the partial completion of the MA degree. Students can select to conduct interdisciplinary research in public policy or international affairs and are advised to select elective courses based on the topic chosen for their research project.

Non-Thesis Track (3 cr. internship + project): Students are expected to complete one guided internship plus one elective course related to their final project.

Comprehensive Exam

See General University Academic Information Section in this catalogue.

Prerequisite Courses

Two to three prerequisites (such as introductory classes in public administration, political science, and economics) will be required for applicants who have a technical or natural scientific background, and thus have little or no relevant coursework in fields related to public policy and/or international affairs. However, the requirement for pre-requisites, particularly for more experienced applicants, may be waived at the discretion of the MPPIA Admissions Committee. The prerequisites by topic include:

- Public Policy
- International Affairs
- Development
- Economics for Public Affairs
- Political Economy
- Research Methods: Gateway Course
- Evidence, Policy and Communication

- Topics in Public Policy
- Topics in International Affairs
- Economic Methods

The minimum passing grade for a prerequisite course taken after admission to the graduate program is 70. If a student fails to obtain a grade of 70 in any of the undergraduate prerequisites, the student is allowed to repeat the course only once.

Sample Program

Sample Program schedule is given in the following table:

Fall (Term I)		Spring (Term II)	
Course Title	**Cr**	**Course Title**	**Cr**
Core Course 1 (Public Policy)	3	Core Course 4 (Methods II)	3
Core Course 2 (International Affairs)	3	Core Course 5	3
Mini-course/seminar (2)	3	Mini-course/seminar	1.5
Core Course 3 (Methods I)	3	Elective 1	3
Total Credits	**12**	**Total Credits**	**10.5**

Fall (Term III)		Spring (Term IV)	
Course Title	**Cr**	**Course Title**	**Cr**
Elective 2	3	Elective 5 (related to thesis/ project)	3
Elective 3	3	Thesis (or Internship + Project)	6
Core Course 6	3		
Mini-course/seminar	1.5		
Comprehensive	0		
Total Credits	**10.5**	**Total Credits**	**9**

Graduation Requirements

See Master's Degree Graduation Requirements under General University Academic Information (page 58).

Course Descriptions

Core Courses

PPIA 301 Public Policy 3.0; 3 cr.

The course covers topics related to the formation, development and evolution of frameworks of public policy. It compares theories and models of policy-making and decision-making to illustrate the special requirements of the country's context and environment. It examines the roles of various participants in the policy process: legislators, political parties, interest groups, civil society groups, media, administrative structures, citizens and the judiciary. Using a comparative perspective, the course discusses how public policy is formulated, how it

changes, and why. The course also examines the role of formal and informal institutions, actors, structures and networks including challenges. The course provides students with an increased understanding of theories of public policy, and the ability to critically analyze and compare public policy.

PPIA 302 International Affairs 3.0; 3 cr.
The seminar provides a survey of international affairs and contemporary research in the field. In addition to covering central theoretical perspectives in international relations theory, the course will introduce students to contemporary debates in international politics, history and policy with an emphasis on topics and themes relating to the Middle East. Students will develop critical thinking and analytical writing skills through close reading of key texts and writing exercises.

PPIA 304 Development 3.0; 3 cr.
This course offers students historical, political, and policy analysis of development both as a reality and as a concept and discipline in the social sciences. It explains the emergence and the continuing relevance of development, offering particular critical attention to the close interdependence between development paradigms, international institutions (UN System, World Bank), and global political economy. The course deepens and broadens students historical understanding of the antecedents behind contemporaneous global and local development issues and challenges with a critical focus on the interdependence between science, advocacy, and policy.

PPIA 305 Economics for Public Affairs 3.0; 3 cr.
This course reviews the principles necessary to understand economic change and economic policy debates within both regional and international contexts. Starting with the microeconomics theory of the firm and the consumer, students are presented with an analysis of a competitive, monopolistic of markets to explain how the pricing and output decisions of firms depend on market structure and the behavior of competitors. The course also reviews how national income, employment levels, and prices are determined and how government policy can affect macroeconomics outcomes.

PPIA 306 Political Economy 3.0; 3 cr.
This course provides a critical examination of the politics of international economic relations, global economic development, and transnational economic activity with a special emphasis on the position and experiences of the Middle East states in the global political economy. The course offers a survey of theoretical approaches to international political economy and addresses themes critical to the experience of the Middle East such as state-led industrialization, trade and regionalism, finance, oil, labor migration, MNCs, transnational movements, globalization, neo liberalism, and the politics of development and global governance. *Occasionally.*

PPIA 308 Research Methods: Gateway Course 3.0; 3 cr.
This course provides students with an understanding of research language, concepts and ethics for the purpose of generating evidence-based research for policy-making. It introduces the elements of the research process within quantitative, qualitative, and mixed methods approaches, with an emphasis on problem formulation, research design, data collection, analysis and reporting. The students will engage in identifying their main research question, selecting appropriate research methods,, and designing the relevant data collection and field work to address their research question. They will also learn how to present their research ideas

into research proposals for academic, professional and other audiences. Students will also be exposed throughout the course to the variety of public policy tools used to communicate with different publics (memos, briefs, reports, etc.).

PPIA 309 Evidence, Policy and Communication 3.0; 3 cr.
This course introduces students to the types of questions that need to be answered to address and make improvements to public policy concerns and priorities including what's the problem; what policy and programmatic options are best suited to address the problem; and how can change be brought about. This course will train students to use the knowledge translation tools and resources available to public policymakers and stakeholders in order to support their use of research evidence; and will enhance students' skills in assessing, selecting, adapting and applying research evidence. Students will experiment with key tools and resources to communicate with different types of policy makers including priority setting, evidence briefs, policy briefs, policy memos, personalized briefing and policy dialogues. This course will provide skills on how to prepare briefs and effective tips on how to communicate evidence (both published and tacit) to policy makers and to the public.

Seminars/Mini-Courses

PPIA 310 Topics in Public Policy 3.0; 3 cr.
This three-to-four week intensive seminar examines the policy-making process in the region. It will consist of a series of case studies on successful and unsuccessful policies. The seminars will highlight the policy processes in different contexts within the Arab world, and the role of research and advocacy in policy-making. Samples of seminar topics include: Policy-Making in Tunisia, Program Monitoring and Evaluation, Ethics of public policy, Leadership and policy, etc.

PPIA 311 Topics in International Affairs 3.0; 3 cr.
This three-to-four week intensive seminar will investigate issues pertaining to international affairs and relations in the region. It will deconstruct power structures (international organizations, players and etc), which influence foreign policy in the region. The seminar will be given by an international affairs expert or by a practitioner who has been working in the field for an extensive period. Topics of investigation include: Chinese Foreign Policy in the Arab Region, the Rise of Regional Powers (Iran, Turkey and Russia), GIS and others.

Sample Elective Courses in International Affairs

PPIA 304 Development 3.0; 3 cr.
This course offers students historical, political, and policy analysis of development both as a reality and as a concept and discipline in the social sciences. It explains the emergence and the continuing relevance of development, offering particular critical attention to the close interdependence between development paradigms, international institutions (UN System, World Bank), and global political economy. The course deepens and broadens students historical understanding of the antecedents behind contemporaneous global and local development issues and challenges with a critical focus on the interdependence between science, advocacy, and policy.

PPIA 402 Global Governance 3.0; 3 cr.
This course explores the structures and processes of global governance. Rather than treating global governance merely in a technical way by focusing on the history of particular

institutions, the course introduces students to global governance as a distinct field of inquiry within International Relations. It will provide students with a foundational understanding of the structures of global governance as well as how globalization has affected the processes of complex social relations between various actors and agents. The course also examines a selection of contemporary challenges in global governance including: international security; development and international trade; the international relations of the environment; international migration and human trafficking; and, democracy and global governance.

PPIA 403 Foreign Policy 3.0; 3 cr.
The course is designed to prepare students to be foreign affairs practitioners and analysts in an increasingly complex global environment. This environment places a premium on breadth of knowledge across disciplines to include history, politics, economics and culture. It rewards those with an understanding of and appreciation for the tools of statecraft, which includes diplomacy, coercion, and intelligence. It requires an understanding of the "drivers" of contemporary change: forces of globalization including information technology, the impact of values and nationalism on politics, demographics, resource scarcity, and global warming among others. Students should be able to relate theory to practice and to understand the dynamics of significant, contemporary geopolitical challenges and conflicts.

PPIA 404 History of the Global South 3.0; 3 cr.
The purpose of this course is to develop greater understanding of the evolution and history of the Global South. The course highlights the nature of changes within global frameworks and structures. While the course explores the common historical processes that unify the various states, societies and peoples within the global south (e.g. imperialism/colonialism; core/periphery; formation of the G77 block within the United Nations, etc.), it also unpacks the contradictions, class, race and gender discrepancies, power imbalances, and other particularities within the global south.

PPIA 405 Law and Development 3.0; 3 cr.
Within contemporary economic development debates, many policy-makers and economists are focusing on how institutions may improve socio-economic conditions of a community. With this focus on institutions, law is currently a central feature of development discourse. Thus, this course will survey the history of legal theories that have been implicit in development theories, and the economic theories implicit in law & development theories. It begins with the role of law in the 19th century industrial revolution in England, continues through the "development decade" and Third World politics of the 1960s, and ends with contemporary discussions regarding human rights and sustainable development. The purpose is to give students a sense that development theories and policies have been structured by a series of debates between orthodox and heterodox ideas. The course will therefore provide students with two skills: 1) an ability to understand and engage in economic development debates; and 2) an ability to appreciate the role that legal theories play in development debates.

PPIA 406 Law of Armed Conflict and the Use of Force 3.0; 3 cr.
International humanitarian law sets out rules that aim to limit the effects of armed conflict. International laws, such as the doctrine of the "Right to Protect", are also used to justify the international and transnational use of force in cases such as Libya, Iraq, and Afghanistan. Moreover, domestic law is sometimes used to justify the torture of transnational actors deemed to be "enemy combatants". This course will explore how law is central to shaping and enabling policies regarding the use of force by states. Thus, students will examine cases where states use law to limit the use of force, validate the use of force, or justify non-intervention in armed conflict.

PPIA 407 International Criminal Law 3.0; 3 cr.
This course introduces students to the growing fields of international criminal law and transitional justice. Course materials include a study of specialized international criminal tribunals (International Criminal Tribunal-Yugoslavia, International Criminal Tribunal-Rwanda) and Special Courts (Special Tribunal for Lebanon, Special Court for Sierra Leone), hybrid tribunals (DRC, Liberia), and the establishment of an International Criminal Court (ICC). In addition to the machinery of punitive judicial processes, the course critically examines the field of transitional justice in countries emerging from brutal periods in their history. Students will be exposed to the choices countries face in opting between punitive and restorative justice. Students will also learn how to situate such choices within the context of historical global power structures by noting who is being punished and discerning how such punishment is being justified.

PPIA 409 Topics in Economic Development and Policy 3.0; 3 cr.
This course expands students' knowledge on a range of topics that have direct implications for economic development and policymaking. The topics that will be introduced will cover both micro and macro economics, special focus on the Arab region, and will include the following themes: the financial crisis and global financial architecture; economic growth (a review of theory and evidence); inequality: theory, measurement, and policy; poverty: theory, measurement, and policy; macroeconomics: competing paradigms and policy implications; behavioral economics and economic policy; trade theory; gender, empowerment, and development; labor economics in developed and developing countries; knowledge, innovation, and technology; and migration, the brain drain, and economic development.

PPIA 410 Philosophy and Methodology of Economics 3.0; 3 cr.
Economics, like the other social sciences, evolved out of philosophy in the 17th and 18th centuries. During most of the 20th century the economics profession seemed to make a concerted effort to downplay the philosophical roots of their discipline, but this has changed during the last two decades. In Philosophy and methodology of economics students are introduced to meta-reflection on economics. The course is divided in two parts. In the first part the principles schools of thought in philosophy of science in general and philosophy and methodology of economics in particular are considered. In the second part of the course, economic methodology and philosophy are used to assess contemporary developments in economics including game theory, behavioral economics, experimental economics, neuro-economics, complexity economics, and heterodox approaches, among others. Upon the successful completion of the course, students should be able understand and explain the evolution of economic and the variety of thoughts which currently inhabit it.

PSPA 311 International Politics and the Middle East 3.0; 3 cr.
A course that deals with issues and themes relevant to contemporary Middle East politics within the context of international relations. Issues include the Arab-Israeli conflict, regional conflicts, inter-Arab relations, Gulf Politics, and relations between Middle Eastern countries and major powers.

PSPA 312 Public International Law 3.0; 3 cr.
A course that aims to provide an understanding of the principles underlying public international law that facilitates relations among states, resolves disputes, protects human rights, allocates resources, and restricts conduct during war time. Emphasis is placed on subfields of international law most closely connected to international politics such as the legal consequences of very serious violations of international law, the role played by the United Nations or the legal regulation of the use of force. Reflecting upon the kind of role international law plays in the

conduct of international relations, this course includes many recent case studies and tackles some of the major debates in the field. *Annually.*

PSPA 313X International Security 3.0; 3 cr.
Security motives play an essential role in international politics, particularly in the conduct of international relations. This course deals with major issues in international security that may include arms control, disarmament, as well as new types of threats, such as terrorism, or environmental degradation. It covers traditional and less traditional perspectives on the field. *Occasionally.*

PSPA 314 The UN and International Politics 3.0; 3 cr.
This seminar examines the role of the United Nations (UN) within the context of international politics, security, and development. It focuses on the UN role in the Global South, particularly the Arab region. The course explores theoretical perspectives on the role of the UN in world politics and traces the evolution of UN institutions, and in particular UN peacekeeping, from the Cold War to post-Cold War period including the war on terror. It then considers a series of case studies in depth. The course will include, when possible, guest presentations from UN officials and a field trip to better appreciate the conditions within which UN operations work. *Occasionally.*

PSPA 316 International Environmental Policy 3.0; 3 cr.
This course provides a critical examination of the politics of international economic relations, global economic development, and transnational economic activity with a special emphasis on the position and experiences of the Middle East states in the global political economy. The course offers a survey of theoretical approaches to international political economy and addresses themes critical to the experience of the Middle East such as state-led industrialization, trade and regionalism, finance, oil, labor migration, MNCs, transnational movements, globalization, neo liberalism, and the politics of development and global governance. *Occasionally.*

PSPA 318X Theories of International Relations 3.0; 3 cr.
The seminar offers a critical study of readings drawn from the major theoretical traditions (realism, liberalism, constructivism) in international relations theory as well as critical approaches and trends. *Annually. Prerequisite: Departmental approval.*

PSPA 325 Political Trends in the Middle East 3.0; 3 cr.
This course examines the genesis and evolution of major political trends that have been impacting the Middle East and North Africa since the latter part of the nineteenth century, especially colonialism, nationalism and nation-building, transnational political conflict, religious extremism, the politics of oil and security issues. *Occasionally.*

AMST 301 America in the Middle East 3.0; 3 cr.
This graduate seminar offers close readings of scholarship and cultural artifacts related to U.S./ Middle East relations. Students will gain a deep understanding of how the Middle East has been understood within the United States, as well as how U.S. culture circulates within the Middle East. Among the topics this seminar might address are: Arab and Lebanese migration to the U.S., U.S. images of the Arab World, political and diplomatic relations between the U.S. and Middle East.

ECON 327 Macroeconomics 3.0; 3 cr.
A study of macroeconomic theory including the classical, Keynesian and Post-Keynesian macroeconomic systems, a static analysis of the structure of income determination models, theories of consumption and investment, dynamic analysis of business cycles and economic growth, theories of inflation and stabilization policies, macrodynamic models. *Annually.*

ECON 335 International Trade Theory 3.0; 3 cr.
An intensive examination of the theory of comparative advantage: the classical and Heckscher-Ohlin statements, trade and welfare, tariffs, recent contributions to trade theory. *Occasionally.*

ECON 336 International Monetary Economics 3.0; 3 cr.
An intensive examination of the theories of balance of payments adjustment; the international monetary system and the position of the developing countries in it. *Occasionally.*

ECON 337 Economic Development 3.0; 3 cr.
An examination of the major economic and non-economic determinants of development in developing countries, theories and models of development. *This course has not been offered in years*.

ECON 344 Financial Markets and Institutions 3.0; 3 cr.
An analysis of the institutional features of the international financial markets, instruments and application of financial economic theory, and analytical tools to achieve effective and efficient risk management in international environments. *This course has not been offered in years*.

ECON 345 International and Arab Emerging Markets 3.0; 3 cr.
Case studies and exercises of portfolio selection and management in selected Middle Eastern countries.

SOAN 318 Human Migration 3.0; 3 cr.
A comparative study of the causes and effects of human migration worldwide. This course covers issues concerned with voluntary and forced migration as well as temporary labor migration and voluntary migration and resettlement, with an emphasis on the Lebanese experience.

SOAN 324 Special Topics: Transitional Justice 3.0; 3 cr.
May be repeated for credit. Occasionally.

HIST 303/304 Graduate Seminar in Arab and Middle East History 3.0; 3 cr.
A collaborative investigation of select topics in Arab and Middle Eastern History viewed from multiple perspectives. Periodic progress reports and the incorporation of findings in an interpretive term paper are required.

HIST 305/306 Graduate Seminar in European History 3.0; 3 cr.
An in-depth analysis of a selected topic entailing intensive research and the submission of a final analytical term paper.

HIST 331-334 Topics in Arab and Modern Middle East History 3.0; 3 cr.
A directed individual examination of a selected topic entailing an intensive reading program, research, and the submission of a model term paper.

Sample Elective Courses in Public Policy

PPIA 601 Anthropology of Policy Making 3.0; 3 cr.
The course aims to open up the field of 'policy studies' to critical anthropological enquiry. Policy has become one of the fundamental 'organizing principles' of contemporary society, yet its effect on society is not well studied. Whether they originate in governments, non-governmental organizations, or the private sector, policies play an increasingly pervasive role in shaping our everyday worlds. What exactly are 'policies' and how can we study them anthropologically? One method is to examine policies in terms of their effects or consequences. This course opens up such issues that lie at the heart of contemporary social anthropology, including debates around power and the state; institutions and human agency; authority and hegemony; ideology and meaning; ethnicity and identity; language, narrative and symbolism, and the relationship between the global and the local.

PPIA 602 Ethics and Public Policy 3.0; 3 cr.
This course introduces the concepts of values and ethics in public decision-making. Values are fundamental to public policy and policy analysts need to understand the role that values play in policy analysis and the policy process.

PPIA 603 Public Policy and Quality of Life 3.0; 3 cr.
Quality of life is now a mainstream discipline with high socio-economic, political, environmental, and policy impact. The course's philosophical component situates the evolving concept of quality of life, or well-being, in time leading to its emergence as a core research area in the social sciences. The contemporaneous policy and advocacy questions, alongside their environmental repercussions, are also covered. The course, furthermore, emphasizes both the moral and scientific challenges in terms of the differentials between quality of life in developing and developed countries.

PPIA 409 Topics in Economic Development and Policy 3.0; 3 cr.
This course expands students' knowledge on a range of topics that have direct implications for economic development and policymaking. The topics that will be introduced will cover both micro and macro economics, special focus on the Arab region, and will include the following themes: the financial crisis and global financial architecture; economic growth (a review of theory and evidence); inequality: theory, measurement, and policy; poverty: theory, measurement, and policy; macroeconomics: competing paradigms and policy implications; behavioral economics and economic policy; trade theory; gender, empowerment, and development; labor economics in developed and developing countries; knowledge, innovation, and technology; and migration, the brain drain, and economic development.

PPIA 410 Philosophy and Methodology of Economics 3.0; 3 cr.
Economics, like the other social sciences, evolved out of philosophy in the 17th and 18th centuries. During most of the 20th century the economics profession seemed to make a concerted effort to downplay the philosophical roots of their discipline, but this has changed during the last two decades. In Philosophy and methodology of economics students are introduced to meta-reflection on economics. The course is divided in two parts. In the first part the principles schools of thought in philosophy of science in general and philosophy and methodology of economics in particular are considered. In the second part of the course, economic methodology and philosophy are used to assess contemporary developments in economics including game theory, behavioral economics, experimental economics, neuro-economics, complexity economics, and heterodox approaches, among others. Upon the successful completion of the course, students should be able understand and explain the evolution of economic and the variety of thoughts which currently inhabit it.

PSPA 324 Government and Politics in Lebanon 3.0; 3 cr.
A course that examines the evolution of the political system and the different approaches to the study of government institutions in Lebanon. This course focuses on patterns of change involving state and society from the founding of the state in the early 1920s to the present. *Alternate years.*

PSPA 341/ENSC 657 Environmental Regulation and Legislation 3.0; 3 cr.
An introduction to contemporary legislative approaches to environmental protection, the rationales for their embodiment in policies, and their effectiveness in achieving prescribed goals and alleviating environmental degradation. This course also examines the emergence of environmental initiatives in developing countries with a focus on the latest developments in Lebanon. *Alternate years. Prerequisite: Departmental approval.*

PSPA 351X Foundations of Public Administration 3.0; 3 cr.
This seminar is an advanced study and analysis of the field of public administration, from its foundations and origins up to the present. It covers topics such as: historical public administration, the traditional model of public administration, new public management, and collaborative public administration. The course will also review contemporary research activities and findings related to public administration. *Annually.*

PSPA 361X Public and Non-Profit Program Evaluation 3.0; 3 cr.
This seminar introduces students to the theoretical and practical foundations underlying the use of program evaluation in the public and non-profit sectors. Based in large part of the logic-model process of program evaluation, it reviews the quantitative and qualitative techniques used by managers to analyze program processes, outputs, and outcomes. It also considers issues such as client management, data collection, data presentation, and research ethics. *Annually. Prerequisite: Departmental approval.*

PSPA 362X Public Policy and Administration 3.0; 3 cr.
This seminar covers topics and frameworks related to the substance and approaches of public policy as they relate to public administration. Students will engage in a serious analysis of the economic, social, and cultural assumptions that underpin government and its relationship to the polity. The course is also designed to give students an organized opportunity to investigate their own interests within a specific key policy area. *Annually. Prerequisite: Departmental approval.*

PSPA 363 Public Financial Management 3.0; 3 cr.
This seminar examines the theory, practice, concepts and problems related to the administrative and political management of public financial resources and public sector budgeting. It reviews how economic, political, social and institutional factors, and resources are transformed into budgetary policy. It analyzes the organizational, structural, managerial, and legal aspects of the public budget, as well as the most important problems in the phases of the public budget cycle. *Annually. Prerequisite: Departmental approval.*

PSPA 371X Public Management 3.0; 3 cr.
This seminar investigates the conceptual and practical boundaries of public management reform initiatives with a comparative perspective. Moving beyond the foundations of traditional public administration, topics covered include performance and personnel management, privatization, e-government, and accountability. The limits of public management will also be considered. *Annually. Prerequisite: Departmental approval.*

PSPA 372X Leadership and Management of Public Organizations 3.0; 3 cr.
This seminar examines the distinction between leadership and management, from theoretical and applied perspectives. It also analyzes the major theories of leadership and assesses their impact on group and individual behavior in light of personality differences and cross-cultural management. *Alternate years. Prerequisite: Departmental approval.*

PSPA 373 The Ethics of Public Administration 3.0; 3 cr.
This seminar covers contemporary perspectives on ethics and ethical behavior in government. It focuses on the interactions between government and society and analyzes the political, legal, economic, and social environments of societal organizations. Some of the contemporary issues addressed are: transparency, accountability and responsiveness, corruptive practices in public administration, administrative discretion, and social justice. *Alternate years. Prerequisite: Departmental approval.*

PSPA 374 Non-Profit Management 3.0; 3 cr.
A course that examines the development and characteristics of non-profit management systems, managerial challenges, and the application of theories and mechanisms relevant to non-profit management. This course covers topics such as organizational structure, financial management, board-executive relations, and public-private cooperations. *Alternate years. Prerequisite: Departmental approval.*

ECON 333 Energy Economic and Policy 3.0; 3 cr.
A study of the theories related to energy economics, such as economics of natural and energy resources, and the interrelationship between energy, economics and the environment, as well as, some important issues in energy policy. Students cannot receive credits for both ECON 333 and MECH 674. *Occasionally.*

ECON 332 Political Economy 3.0; 3 cr.
Determinations of the size and form of distributive programs; the extent and type of public goods provision; the burden of taxation across alternative tax bases. *Occasionally.*

ECON 326 Public Finance 3.0; 3 cr.
A study of the theories of governmental taxation and spending, budgetary policies and their effects on the level of economic activity, welfare effects of taxation and expenditure policies. *Annually.*

EDUC 303 Determinants of Educational Policy 3.0; 3 cr.
An examination of forces underlying policy making in education based on theoretical and case study approach; developing scenarios for improvements. *Annually.*

EDUC 308 Educational Planning and Policy Studies 3.0; 3 cr.
Planning models at the micro level and applications in various countries; policy formulation, change, and implementation issues as they relate to educational institutions and public and private educational systems. *Annually.*

EDUC 332 Seminar in Educational Planning for Social and Economic Development 3.0; 3 cr.
Theory and practice of educational planning for social and economic development; techniques

of assessing manpower needs and translating these into educational strategies and plans. *Alternate years.*

URPL 665 Development and Planning Policies 3.0; 3 cr.
The course examines development and spatial planning projects and policies. It investigates policy governance and institutional setup, the role of professional expertise, and the spatial impacts on the built and un-built environments, as well as the social and environmental impacts. Using case-study analysis of selected cities and towns, the course investigates how policies have been and are being elaborated today through the use of chosen models, approaches, strategies and tools; privileging certain sectors, and for specific ends.

URPL 664 Transportation Planning and Policy 3.0; 3 cr.
The course focuses on transportation policy and planning for transportation facilities and services as well as the interaction between transportation and built, natural, and social environments. The course's intent is to provide students with the necessary knowledge for analyzing transportation problems in the field, as well as the policy framework for examining the broader social, economic, and environmental implications of alternative transportation planning decisions. The course discusses policy making and policy instruments, considers alternative institutional arrangements for policy development and implementation, and evaluates the efficacy of different policy interventions. The interaction between technical analysis and policy making is also addressed.

HMPD 318 Policy and Decision Making in Healthcare 3.0; 3 cr.
A course that examines the theory and practice of policy and decision making in health care. Its purpose is to assist students in understanding the various theories, approaches, dynamics, and challenges to health policy making and analysis. It includes case studies application including health policy issues at the national, regional, and international levels. *Prerequisite: HMPD 300.*

HMPD 320 Governance in Healthcare 3.0; 3 cr.
A course that examines the multiple levels of governance in health care systems, including theory, dynamics, approaches, dysfunctions and challenges. Its objectives are to introduce students to governance and accountability at the organizational, local, national, regional and global level; convey an understanding of governance and accountability of different health care structures; and examine challenges.

HMPD 354 Special Topics in Health Management and Policy 3.0; 3 cr.
A course that presents students with analytical tools for an in-depth understanding of current or emerging health policies that are debated in the health care industry, as well as tools for generating health policy documents.

FINA 325 Global Finance 3.0; 3 cr.
A study of global financial markets and instruments. Topics covered include financial and investment decisions in an international environment, operations of international money and capital markets, management of foreign exchange risk, working capital management, direct foreign investment, political risk analysis and currency derivatives forward and swap markets.

PPIA 395A/395B Comprehensive Exam 0 cr.

PPIA 399 Thesis 6 cr.