



ATENEIO DE MANILA
UNIVERSITY

UNDERGRADUATE BULLETIN OF INFORMATION

Addendum SY 2022-2023



Copyright © 2022 Loyola Schools, Ateneo de Manila University

DISCLAIMER: This Addendum to the 2020 Undergraduate Bulletin of Information summarizes new/revised courses, and new/revised minors/specializations effective in SY 2022-2023 (June 2022-May 2023). While great care has been taken in the preparation of this Addendum, we do not assume responsibility for possible errors, omissions, or changes in the information provided. Should there be any discrepancies between this Addendum and official documents of the Office of the Registrar or the Office of the Associate Dean for Academic Affairs, the official documents shall take precedence.

The *Undergraduate Bulletin of Information Addendum SY 2022-2023* is published by the:

Office of the Associate Dean for Academic Affairs
Office of the Registrar
Office of the Vice President for Loyola Schools

Cover Design: Zachary Pangan

Table of Contents

Interdisciplinary Electives	1
New/Revised Courses, Minors, and Specializations	6
School of Humanities	7
Fine Arts	8
Course Offerings	9
Physical Education	10
Course Offerings	11
John Gokongwei School of Management	12
Marketing and Law	13
Course Offerings	14
School of Science and Engineering	15
Electronics, Computer, and Communications Engineering	16
Course Offerings	17
Information Systems and Computer Science	20
Course Offerings	21
Mathematics	22
Course Offerings	23
School of Social Sciences	24
Communication	25
Course Offerings	26
Development Studies	27
Course Offerings	28
Economics	29
Course Offerings	30
Sociology and Anthropology	31
Minor in Gender Studies	32

Interdisciplinary Electives

The following Interdisciplinary Electives, approved by the Curriculum Committee effective SY 2022-2023, are offered in addition to those listed in the *Undergraduate Bulletin of Information*, 2020 Edition (version 2.0 May 2022).

Interdisciplinary Elective Offerings

The following Interdisciplinary Electives, approved by the Curriculum Committee effective SY 2022-2023, are offered in addition to those listed in the *Undergraduate Bulletin of Information*, 2020 Edition (version 2.0 May 2022).

DEV 181.5i: Special Topics in Humanitarian Action: Multidisciplinary Approaches to Humanitarian Assistance - 3 units

This course introduces students to the complex challenges of humanitarian actors coming from different disciplines. Drawn from a cluster approach to humanitarian assistance introduced by the United Nations, the course enables students to think outside of the boundaries of professional disciplines to strategically arrive at solution around programmatic, operational and management issues involved in humanitarian action. The course gives attention to specific interventions that illustrate convergence of disciplines for humanitarian work. The humanitarian cases demonstrate the potential of bridging compartmentalized interventions and strengthening collaboration among disciplines.

DEV 183.16i: Special Topics in Development Management: Training Management - 3 units

The course introduces students to the training management cycle. It covers the knowledge, skills, and management capabilities to plan, design, implement, and evaluate training programs. Drawing on the fields of education, psychology, sociology, and development studies, the course provides hands-on learning exercises and through an actual training conducted for target groups such as community organizations.

DEV 183.23i: Special Topics in Development Management: Monitoring and Evaluation of Development Programs - 3 units

The course introduces to students the techniques to determine the extent to which programs deliver results in addressing various development problems. Its approaches and tools are applicable in a variety of issues including welfare assistance, public health, livelihood, human rights, and peacebuilding. It also covers different theoretical and practical issues in institutionalizing a results-based monitoring and evaluation system. The course draws on the disciplines of economics, sociology, communication, public health, and public administration to ensure that monitoring and evaluation are aligned with the principles of resilience, competitiveness, and sustainability.

ECON 185.65i: Economics of Labor and Employment Law - 3 units

The course draws from the alternative schools of economic thought (Institutional Economics/Industrial Relations vis-a-vis Neoclassical Economics) on the complex relationships arising from the labor market, especially market efficiency and government intervention. Through an integrated presentation of laws, policies, cases, data, and narratives of labor issues in a single-country/cross-country context, labor and employment law, particularly on employment relationship, security of tenure, minimum wage, and standards of work, among others, are discussed using the lens of economic analysis. The emerging trends in 21st century labor and work are also examined.

ECON 185.78i: Data Science for Economists - 3 units, Prerequisite: ECON 117.01 and ECON 117.02, or equivalent

This course is an introduction to techniques for compiling, visualizing, and understanding data to describe real world socioeconomic and business phenomena and to design more effective public policy. Emphasis will be on data wrangling, visualization, and modelling techniques using programming software to be introduced in the course rather than on statistical theory. Course applications may include geospatial models as applied to urban and environmental economics, time series models and machine learning as applied to macroeconomics, and other business and financial models. In addition, the course gives an overview of data ethics.

EURO 182.4i: Europe and the Other: Race, Religion, and Multiculturalism - 3 units, Prerequisite: SocSc 12

This course provides students with various points of view on the relations of Europe with its neighbors and

its partners throughout the world. Using concepts of race, religion and culture, the course examines the different ways that Europe is defined by Europeans themselves, and the implications of the meaning on the way Europe engages non-Europeans.

EURO 182.6i: Filipino Encounters with Austria and Germany - 3 units

Looking at the ties between the Philippines and German-speaking countries, this course aims to examine the various economic and cultural experiences of Filipinos in Austria and Germany. This course reviews the most significant historical events involving Filipinos and the two countries—such as José Rizal's studies in Germany and friendship with Austrian educator Ferdinand Blumentritt—as well as the perspectives of, and socio-economic interactions experienced by, Overseas Filipino Workers and their descendants, who make up a significant population of the Filipino-European identity. Contemporary issues of heritage and cultural economics of Filipino workers and entrepreneurs in Europe are discussed in the course.

EURO 182.7i: Adapting to Intercultural Contexts by Developing Cultural Intelligence - 3 units

The course teaches students about adapting to intercultural contexts, and the issues that are associated with such an endeavor. It discusses how successful cross-cultural interaction can be undermined by a lack of cultural openness and knowledge, sometimes referred to as low cultural intelligence (CQ). The course then proceeds to equip students with the tools needed to successfully develop their CQ, reflect on how it can be applicable to their future careers, or current areas of study.

EURO 182.8i: Remembering and Forgetting: How Memory Becomes European - 3 units

This course analyzes the complexities of European Heritage by bringing up questions of ownership, contested memory, and remembrance. It will specifically examine the way involved social actors create and interpret heritage through either the process of remembering or forgetting. Specific examples of European heritage will be explored to investigate the issues surrounding them, the emotions attached to them, and the perspectives that celebrate or condemn them. It is the goal of this course to show heritage in action. Heritage, after all, is not fixed. It is created, reinterpreted, remembered, and forgotten by a multitude of actors in varying social contexts.

EURO 185.7i: Interdisciplinary Elective: European Union Space Policy and International Cooperation - 3 units,

Prerequisite: STS 10

This course introduces EU space policy and issues and places them in the context of legal, technological, political, and economic advances amidst the changes of the global strategic environment. It examines the foundations of space law in the context of the five international treaties and five sets of principles adopted by the UN then considers its implications in EU space programs and activities. It covers EU's international cooperation and competition with other spacefaring nations – US, Russia, China, India, and Japan – and examines how space science and technology application benefits agriculture, global health, environment and climate, transport, communication, and sustainable development.

HISTO 125.05i: The Ground We Stand On: Hazards, Disasters, and the Making of the Modern Philippines - 3 units, Prerequisite: HISTO 11 and HISTO 12

This interdisciplinary course examines the risks of living in such a hazard-prone country as the Philippines and how the frequency and magnitude of disasters affects Filipinos past and present. It is divided into three sections that examine the hazards to which people are vulnerable to, the resiliency of communities, and the adaptability of Filipino societies. The course employs concepts and methodologies from the humanities, and social and physical sciences to give students a transdisciplinary understanding of their own environment.

IDS 131.27i: Area Studies: Law and American Empire (The Philippine Template) - 3 units,

Prerequisite: SocSc 12, HISTO 12

This course revisits the American colonial period of Philippine history and focuses on the construction and operation of the Government of the Philippine Islands. It examines how deploying American democratic and constitutional templates for colonial governance shaped American national and imperial identity, the

conduct and nature of Philippine constitutional democracy, the meaning and functioning of their shared constitutional tradition, and the legacies of this encounter for the United States, the Philippines, and other nations. The course employs theoretical and methodological insights from multiple disciplines including law (constitutional, comparative, international), history, political and social theory, and post-colonial theory.

JPN 180.64i: Japanese Art - 3 units

This course introduces students to the development of Japanese art and aesthetics that reflect Japanese society and culture. The course takes an interdisciplinary approach in situating select Japanese artworks within their historical and cultural contexts. Formalist approaches in art are used alongside diverse theoretical frameworks and methods from fields of anthropology, history, economics, gender, cultural studies and politics. This course aims to help students evaluate Japanese art through its transformative aesthetics that shapes individuals and society. The course also intends to develop students' critical appreciation of Japanese art and how it challenges the transcultural and intertextual nature of modern art.

MATH 55.5i: Seminar in Problem Solving Techniques - 3 units, Prerequisite: MATH 10

MATH 55.5i is about mathematical problem solving, applied to different disciplines. After distinguishing nonroutine problems from routine exercises, students explore fundamental techniques which are also life skills: getting hands dirty, looking for patterns, working backwards, drawing pictures, solving simpler problems. Topics pertinent to particular fields include, but are not limited to: reasoning (physical sciences, philosophy), optimization (management engineering, computer science, engineering), financial literacy (economics, management), symmetry and geometry (physical sciences, fine arts), graph theory and combinatorics (physical sciences, management engineering), among others. Throughout the course, students hone skills, mindset, and attitudes of good problem solvers.

PHYS 180.5i: Climate Change and Disaster Risk - 3 units, Prerequisite: Any pair of Nat Sci Lecture and Lab Courses

This course introduces the science of climate change and disasters. It covers the impacts of a globally warmer world, long-term climatic changes, and rapid onset extreme events. Discussions tackle the connections between climate change and disasters, framed through an integrated risk approach, and covers tools and concepts on socio-ecological resilience and influence diagrams. The aim is to increase learning on climate change and disasters in a holistic manner to provide a well-rounded science-evidence based approach to assessing and formulating options and actions that lead towards pathways for development that are both sustainable and climate change resilient.

PSYC 50.10i: Leadership across Genders - 3 units

This course introduces the students to the theories and concepts of leadership and the impact of gender in various organizations such as corporate, government and community. Highlighting examples from Asia and the Global South, especially Philippine society, the course seeks to develop in students a critical understanding of how gender constructs can influence leadership, and how leadership can impact social and organizational discourses on gender. Through this course, students are expected to reflect on the social contexts of leadership and gender-sensitive positions, and evaluate how they can improve social structures and organizations they will work with.

PSYC 70.18i: Cyberpsychology: Technology, Social Media, and Human Behavior - 3 units, Prerequisite: SocSc 11

This course examines the interface between humans and technology, with a particular emphasis on social media. Using different perspectives from Psychology, Communication, and Technology Studies, the course provides students with different theoretical and research frameworks to analyze cyberpsychological phenomenon, starting with individual issues like identity and mental health, to macrolevel issues such as politics and gender expectations.

**SEAS 104i: Comparative Analysis of Contemporary Development Challenges in Southeast Asia - 3 units,
Prerequisite: SocSc 12**

The course equips students with the knowledge and basic skills for comparative analysis of Southeast Asia. It focuses on the region's contemporary political, sociocultural, and development issues while highlighting differences among and within countries in the region. The premise of the course is that regional identity in Southeast Asia can be developed by navigating differences, appreciating diversity and finding common solutions to problems confronting the region. It adopts an interdisciplinary, area-specific, issue- or problem-based, and context-sensitive approach to comparative analysis of Southeast Asia.

SocSc 132i: Future Technologies, Utopian Imaginaries: The Politics of Science and Technology in the Anthropocene - 3 units

The course addresses the realities of living in the "Anthropocene" ('the age of man'), a geologic era where the human is both the recipient of climate risk & vulnerability, and an agent behind it. To help students engage with that paradoxical position, the course addresses *technologies* (objects and concepts born from human agency) in the Anthropocene and helps students frame, navigate, and engage the politics inherent in them. Students are (1) introduced to debates on the roles of science, art, economics, politics, and law in these 'end times;' (2) given the proper tools to navigate controversial themes (e.g., the ethics of bringing an extinct animal back to life), and (3) forced to think about their own roles as relational beings within this complex matrix. The course leaves students at the forefront of global discussions – as critical, conversant, and relational individuals.

**SOAN 138.6i: Engendering Methodology: Approaches to Gender Mainstreaming - 3 units,
Prerequisite: SocSc 11**

The course equips students with diverse conceptual, analytical, and methodological approaches in analyzing gender inequalities. It examines policies and programs and works towards crafting gender mainstreaming initiatives aiming to remedy gender disparities, promote equality, and foster gender inclusiveness. The course provides an avenue where different knowledge areas and competencies on gender analysis can be applied in practical gender mainstreaming interventions. Its focus on interdisciplinarity, methodology, and practice complements theoretical or conceptual discussions on gender, which are often disciplinary. The course applies interdisciplinary gender perspectives in practical gender mainstreaming interventions. Therefore, it enriches the existing gender-related courses in the Loyola Schools.

New/Revised Courses, Minors, *and* Specializations

The following courses, minors, and specializations, approved by the Curriculum Committee effective SY 2022-2023, are offered in addition to those listed in the *Undergraduate Bulletin of Information*, 2020 Edition (version 2.0 May 2022)

SCHOOL *of*
HUMANITIES

FINE ARTS

2/F George SK Ty
Learning Innovation Wing, Areté
(632) 8426-6001 loc. 5330/5331/5332/5333
finearts.soh@ateneo.edu

Rooted in relevant traditions (Jesuit, Filipino, and Atenean), the Fine Arts Department is the Loyola Schools' hub for the academic study of practices in the fields of art, creative writing, design, and theater. The department's graduates are technically proficient in the crafts involved in their artistic disciplines, literate and articulate in the theories and history of their artistic disciplines, and aware and critically responsive to the relevant contexts that affect their practices.

The Fine Arts Department is committed to a contextualized program of study that is aware of the local, regional, and global forces that affect practices in the arts. It ensures that students develop the willingness to interrogate their field, their greater world, and their own selves, while also developing the willingness and ability to respond through creation and creative acts.

The Department believes that if the creative act is responsive then it is one strengthened by the rigor of research. It believes that a practice steeped in knowledge cannot help but lead to the impulse to create and perform. It views outreach and formation as not external to one's field of study, but as part of it through service learning and discipline-based formation. This is all part of the belief in forming students who are not only aware but also engaged.

COURSE OFFERINGS

CRWR 180.03 (New)

SPECIAL TOPICS IN CREATIVE WRITING: QUEER WRITING

3 units

This course investigates how various queer subjects are transmuted by writers into aesthetic considerations and formal choices. Through research and creative texts, this course introduces students to social and literary applications of the word “queer,” with special emphasis placed on how it serves as an umbrella term for a spectrum of sexual and gender identities and how it functions as a praxis that critiques and subverts the poetics and production of normative categories. The students are expected to display their engagement with the theoretical and literary components in the course through their own creative writing.

CRWR 180.04 (New)

SPECIAL TOPICS IN CREATIVE WRITING: PHILIPPINE MYTHOLOGY

3 units

This course offers an in-depth study of Philippine mythology as thematic preoccupation and trend in contemporary narrative practices across various genres and platforms. By holding workshops and conversations with accomplished artists in the field, and by analysing relevant critical and literary texts, the course facilitates appreciation of certain issues with the creative practices involved such as adaptation, retelling, mythographies, cultural appropriation, worldbuilding, and counter-narration. The course introduces various niche publications, platforms, and conventions where students may present their future works. Through these, students are given guidance and a wide range of possibilities in creating their speculative projects.

PHYSICAL EDUCATION

2/F Old Communication Bldg.
(632) 8426-6001 loc. 5016-17
pe.ls@ateneo.edu

The Physical Education Program contributes to the total formation of Ateneans through various course offerings per semester. These accommodate a wide range of students' interests and abilities – from the more traditional games like basketball, tennis, badminton, and soccer to the more exceptional sports and health exercises such as yoga, tai-chi, wu-shu, fencing, taekwondo, judo, arnis, muay thai, dance-sports, tap dancing, swimming and snorkeling or skin diving.

Jesuit Education adheres to holistic development and character formation of the students. The P.E. Program specifically focuses on the physical development aspect and allows students to play, interact and even compete in a friendly environment. Physical components like speed, agility, power, strength, balance, coordination, reaction time, flexibility, and endurance are developed through the various physical activities offered.

The Program not only develops the physical well-being of the students, but also instructs them in the rules, discipline, and ethics important in fair play, which will serve them well in other areas of their college life and future professions.

The P.E. Program also administers the recreational facilities and equipment of the Loyola Schools for the indoor and outdoor use by students, faculty, and staff.

COURSE OFFERINGS

PHYED 114.20: Functional Training – 2 units

The objective of Functional Training (PHYED 114.20) is to contribute to the physical well-being of the individual by implementing a training program that focuses on improving posture, movement quality, performance, and reducing the risk of injury. It aims to achieve this by focusing on exercises that develop joint mobility, motor control, multiplanar strength, power, and cardiovascular fitness to meet the demands of sport and daily life. Exercises are focused on movements that recruit multiple joints and muscle groups. It is a course that can cater to students of all fitness levels and backgrounds.

JOHN GOKONGWEI
SCHOOL *of* MANAGEMENT

MARKETING AND LAW

5/F John Gokongwei
School of Management Bldg.
(632) 8426-6001 loc. 5530/5531
Telefax: (632) 8426-6076

The Marketing and Law Department's Marketing unit is committed to helping develop future management practitioners, corporate or entrepreneurial, who will create relevant and meaningful value centered around the three contemporary marketing principles of: customer delight, social responsibility, and sustainability.

The Department's Law unit serves the dual role: of providing business law knowledge and expertise that are critical to operating and managing successful and viable organizations; and sustaining the development and continued growth of the Legal Management program.

COURSE OFFERINGS

LLAW 123 (Revised)

ENVIRONMENTAL AND SUSTAINABILITY LAWS

3 units

This course surveys Philippine environmental and sustainability laws. International treaties acceded to by the Philippines are discussed to foster awareness that legal issues on the environment and sustainability are a global concern. It introduces the student to procedural laws that can be utilized in being a proactive and responsible stakeholder of the global environment.

LLAW 127 (New)

GENDER AND THE LAW

3 units

This is a survey course on Philippine laws and international agreements related to gender. The course raises the awareness of students regarding gender-based discrimination and violence. It builds their capacity to be proactive advocates of gender equality and respond to situations of abuse, exploitation, and/or harassment in the workplace.

MKTG 126.03 (Revised)

SOCIAL MEDIA MARKETING

3 units

Prerequisite: MKTG 126

This course focuses on the use of social media strategies, tools, and networks as a way of helping achieve the business objectives. The course tackles the different stakeholders, platforms, content, and success metrics in social media. The overall digital environment, ethical and legal factors and parameters, and technological developments and trends are discussed throughout the course.

MKTG 130 (New)

POLITICAL MARKETING

3 units

Prerequisite: MKTG 111, or MKTG 111.03, or MKTG 111.04, or MKTG 111.30

This course applies the principles, concepts, processes and tools of Marketing and Marketing Research in recognizing, creating and providing value to satisfy the needs and wants of identified political markets of organizations and individuals. The course tackles marketing strategy, research, branding, and the marketing mix in achieving political goals and aspirations of political stakeholders in an ethical way.

MKTG 131 (New)

SUSTAINABILITY MARKETING

3 units

Prerequisite: MKTG 111, or MKTG 111.03, or MKTG 111.04, or MKTG 111.30

Applying a marketing management perspective and approach, this course employs an ecological and social orientation in creating, strengthening and maintaining a company's sustainable relationship with its customers, society and nature. The course employs the principles, concepts, strategies and tools of marketing in developing a sustainable marketing plan.

SCHOOL *of*
SCIENCE AND
ENGINEERING

ELECTRONICS, COMPUTER, AND COMMUNICATIONS ENGINEERING

PLDT-CTC, Rm 314
(632) 8426-6001 loc. 5641
ecce.sose@ateneo.edu

The Department of ECCE provides a science-based and research-oriented engineering program characterized by a multidisciplinary approach which aims to develop graduates who will be front-runners in the rapidly changing fields of microelectronics, telecommunications, biomedical engineering, and energy.

COURSE OFFERINGS

ENGG 181.32 (New)

ASIC DESIGN, LABORATORY

1 unit

Prerequisite: ENGG 181.21, ENGG 181.22

Co-requisite: ENGG 181.31

This course discusses various hardware programming languages such as Very High-Speed Integrated Circuit Hardware Description Language (VHDL) and Verilog. It provides an in-depth study of current and historical issues in the design, implementation, and application of hardware programming languages. Topics include areas such as syntax, semantics, binding, data abstraction, exception handling, concurrency, and functional, logic, and object-oriented programming.

ENGG 184.11 (Revised)

ENERGY GENERATION AND STORAGE, LECTURE

3 units

Prerequisite: PHYS 31.31, ENGG 102.01, ENGG 102.02, ENGG 111.01, ENGG 111.02, ENGG 184.01i

This course deals with the principles of operation, design, and control of the different devices that are involved in the generation, transformation, conversion, and storage of electrical energy in modern power systems. It introduces electromechanical, piezoelectric, photoelectric, photovoltaic, thermoelectric, and electrochemical generators; and electromechanical, electrical, and electrochemical energy storage devices. It then discusses their analysis and application in energy systems. Electric machines and power electronics that interface the different devices are also introduced, analyzed, and employed. The course then concludes with the control and integration of these devices into energy systems for a holistic treatment of the subject matter.

ENGG 184.32 (New)

ENERGY MANAGEMENT AND INTELLIGENT SYSTEMS, LABORATORY

1 unit

Prerequisite: ENGG 122.01, ENGG 122.02

Co-requisite: ENGG 184.31

This laboratory course complements the topics discussed in Energy Management and Intelligent Systems, Lecture. It provides a hands-on approach to gathering, processing and exploration of energy data as well utilizing data to model, forecast, and automate energy systems. The course inherently requires both hardware and software knowledge as it tackles the creation of hardware to gather data and implement automation and the utilization of software algorithms to extract insights and execute decisions. Other topics may include hardware calibration, environmental monitoring, scheduling algorithms, and other emerging topics relevant to managing energy.

ENGG 184.12 (New)

ENERGY GENERATION AND STORAGE, LABORATORY

1 unit

Prerequisite: PHYS 31.31, ENGG 102.01, ENGG 102.02, ENGG 111.01, ENGG 111.02

Co-requisite: ENGG 184.11

This laboratory course complements the topics discussed in Energy Generation and Storage, Lecture. It provides a hands-on approach to studying the principles of operation, design, and control of the different devices that are involved in the generation, transformation, conversion, and storage of electrical energy in modern power systems through experiments and simulation. Experiments include electromechanical energy transformation; photovoltaic, thermoelectric, and electrochemical storage device characterization; interfacing electric machines and power electronics; and control and integration of these devices into energy systems.

ENGG 181.22 (New)

PRINCIPLES OF VLSI, LABORATORY

1 unit

Prerequisite: ENGG 181.11i, ENGG 181.12

Co-requisite: ENGG 181.21

This laboratory course complements the topics discussed in the Principles of Very Large-Scale Integration (VLSI) Design. This course introduces the basics of design for VLSI circuits that use Complementary Metal Oxide Semiconductor (CMOS) technology. Topics include practical circuits and applications of digital CMOS and analog CMOS.

ENGG 181.21 (Revised)

PRINCIPLES OF VLSI, LECTURE

3 units

Prerequisite: ENGG 181.11i

This course introduces the basics of design for Very Large-Scale Integration (VLSI) circuits that use Complementary Metal Oxide Semiconductor (CMOS) technology. Students learn CMOS design for digital and analog circuits, as well as its practical circuits and applications.

ENGG 181.31 (Revised)

ASIC DESIGN, LECTURE

3 units

Prerequisite: ENGG 181.21

This course introduces Application-Specific Integrated Circuit (ASIC) design for Very Large-Scale Integration (VLSI) circuits that use Complementary Metal Oxide Semiconductor (CMOS) technology. The student learns ASIC design for digital and analog circuits, basics of programming logic devices, as well as its practical circuits and applications.

ENGG 184.31 (Revised)

ENERGY MANAGEMENT AND INTELLIGENT SYSTEMS, LECTURE

3 units

Prerequisite: ENGG 122.01, ENGG 122.02, ENGG 184.01i

This course discusses energy as a resource that can be managed through the views of different stakeholders starting from supply to demand. It looks into the dependence of modern human society on energy that is inherent with the continuous increase in technological innovation. Techniques used in the supply and the demand sides to manage energy resources are discussed along with the infrastructure essential to effectively manage resources. The course culminates with the discussion of intelligent systems focused on how information from the supply and demand sides can be used to effectively manage energy and maximize its benefit to human society.

ENGG 183.22 (New)

ADVANCED COMMUNICATION SYSTEMS AND DESIGN, LABORATORY

1 unit

Prerequisite: ENGG 183.01i; ENGG 142.01 or ENGG 142.20

Co-requisite: ENGG 182.21

The laboratory course complements the topics in Advanced Communication Systems and Design, Lecture. This course utilizes the theories and calculations learned in the lecture, and applies these through simulations and hands-on experiments. Topics include signal transmission modes, spread spectrum modulation system, terrestrial microwave, satellite systems, satellite multiple access techniques, path calculations, link budget, design considerations and challenges.

ENGG 183.32 (New)

INTRODUCTION TO WIRELESS SENSOR NETWORK, LABORATORY

1 unit

Prerequisite: ENGG 183.01i, ENGG 142.01 or ENGG 142.20, ENGG 143.01

Co-requisite: ENGG 183.31

The laboratory course complements the topics in Introduction to Wireless Sensor Network (WSN), Lecture. The course discusses and implements both the hardware and software wireless sensor network platforms, including the communication architecture and protocols used in the Internet of Things (IoT). Topics also include energy management, sensor data acquisition, processing, and handling. Application and modeling of WSN are also implemented in connection to real-world case studies and problems like health, environment, smart home monitoring, among others.

INFORMATION SYSTEMS AND COMPUTER SCIENCE

Faura Hall, Rm 208
(632) 8426-6001 loc. 5660
fax: (632) 8426-6071
discs.ose@ateneo.edu

The Department of Information Systems and Computer Science seeks to be the Computer Science and Information Systems education institution of choice in Asia, serving as a cradle for innovative technology research and development. It seeks to transform students grounded in theory and practice into world-class professionals and researchers capable of producing information technologies that meet society's needs.

COURSE OFFERINGS

CSCI 186.53 (New)

SPECIAL TOPICS IN BUSINESS COMPUTING: INTRODUCTION TO BLOCKCHAIN TECHNOLOGIES

3 units

Prerequisite: CSCI 21 (for CS Majors), MSYS 21 (for MIS Majors)

Blockchain is a disruptive foundation that is now being adopted in various industries around the world. The course provides an overview of the concepts, technology, and impacts of Blockchain. The course begins with discussions on the basics of Blockchain, its features, functions, and benefits, followed by the mechanics and technology behind Blockchain. Students learn the fundamentals of utilizing Blockchain services and building applications on top of it. This course contains several hands-on activities focused on integrating Blockchain networks with application services seamlessly and effectively. Students submit a final project showcasing what they have learned, by the end of the course.

GDEV 185.03 (New)

SPECIAL TOPICS IN GAME DESIGN AND DEVELOPMENT: DESIGNING EDUCATIONAL ESCAPE ROOMS

3 units

An escape room is a recreational game in which players are locked in a room and must work together to discover clues and solve puzzles in order to exit. In this course, students design and test educational escape rooms meant to engage players in learning or assessment activities. Through the process, students become acquainted with the characteristics of good games, the characteristics of escape rooms, and principles of educational materials design.

ISCS 30.66 (New)

GUIDED STUDIES IN DEVELOPING DECENTRALIZED APPLICATIONS ON PUBLIC BLOCKCHAINS

1 unit

Prerequisite: CSCI 21 (for CS Majors), MSYS 21 (for MIS Majors)

This course introduces students to basic concepts of developing decentralized applications (dApps) on public blockchain networks. Students are able to develop smart contracts that are deployed to public blockchain networks. The course also requires the students to build decentralized applications that interact with the smart contracts.

ISCS 30.67 (New)

GUIDED STUDIES IN ARCHITECTING PRIVATE BLOCKCHAIN NETWORKS

1 unit

Prerequisite: CSCI 21 (for CS Majors), MSYS 21 (for MIS Majors)

This course introduces students to basic concepts of architecting private Blockchain networks. The course requires the students to develop and deploy their own private networks for specific industry use cases.

MATHEMATICS

3/F Science Education Complex, A
(632) 8426-6001 loc. 5680/5681/5682/5683
fax: (632) 8426-6125
math.sose@ateneo.edu

The Department of Mathematics seeks to become a community of mathematicians and mathematics educators that takes leadership in the pursuit of excellence in mathematics teaching, research, and service.

The Mathematics Department aims to provide excellent undergraduate and graduate mathematics education to both science and non-science students that will enable them to make significant contributions to the advancement of the country; cultivate a culture of research and professionalism that will contribute to the country's progress as well as to the personal growth and development of the members of the Department; develop outstanding mathematicians, mathematics educators, and mathematics professionals who will become leaders in shaping the country's future; strengthen collaboration between mathematics and mathematics education as well as with other disciplines; encourage and advance links with business and industry; and, increase interest and commitment among students to pursue careers in mathematics.

COURSE OFFERINGS

MATH 104.1 (New)

PROBABILISTIC MACHINE LEARNING I

3 units

Prerequisite: MATH 71.1, MATH 62.1 or equivalents

This course introduces concepts of machine learning from the point of view of probability theory. A general overview of machine learning, followed by the three main paradigms of machine learning are presented. In-depth mathematical discussions of methods, models, and algorithms involved in supervised and unsupervised learning, and their proofs are established in this course. Finally, hands-on coding component and experimentation with data sets complement the lecture.

SCHOOL *of*
SOCIAL SCIENCES

COMMUNICATION

3/F Social Sciences Building
(632) 8426-6001 loc. 5210/5211
fax: (632) 8426-6133
communication.soss@ateneo.edu

The Department of Communication at the Ateneo de Manila seeks to be a center for excellence in multimedia communication education and scholarship in Asia. Its programs and initiatives form ethically grounded, socially oriented media practitioners and scholars in line with the communication apostolate of the Society of Jesus. Its courses prepare students for careers in the creative industries in Asia by developing in them the competencies to communicate skillfully, creatively and professionally across a wide range of media forms, technologies and practices. Its research and creative work inform responsible media practice in Asia by generating knowledge of and promoting discourse on local and regional communication realities through theoretically informed, empirically grounded and multi-disciplinary perspectives.

The Department seeks to form students in the field of communication, information and media, to use their God-given talent in the field of communication for the service of the faith and the promotion of justice.

COURSE OFFERINGS

COMM 79.1 (New)

NEWS MEDIA SYSTEMS AND MANAGEMENT

3 units

The course examines the sustainability of journalism and journalistic practice, in an age when traditional business models are being challenged and social media has become the public's main source of news and information. It introduces students of communication to the business side of news reportage, and to existing and evolving revenue models that help deliver journalism to society today, including entrepreneurial journalism.

DEVELOPMENT STUDIES

Ricardo & Dr. Rosita Leong Hall, Room 408
(632) 8426-6001 loc. 5218/5219
fax: (632) 8426-5659
devstudies.soss@ateneo.edu

The Development Studies Program seeks to form development professionals who effectively contribute to the continuing effort to improve Philippine society.

The Department provides an interdisciplinary program of studies for undergraduate students that is ever responsive to the changing human resource requirements of Philippine development.

COURSE OFFERINGS

DEV 183.40 (New)

SPECIAL TOPICS IN DEVELOPMENT MANAGEMENT: SOCIAL ACCOUNTABILITY

3 units

Prerequisite:

This course introduces students to social accountability as an approach to achieving development and democratic outcomes particularly in contexts with weak legal accountability mechanisms. It dives deep into issues of transparency, citizen participation, open government, and democratic innovations, and their contributions to amplifying citizen voice and responsive governance. The course features case studies both global and local and highlights lessons learned for citizen empowerment.

ECONOMICS

Ricardo & Dr. Rosita Leong Hall, Rm 409
(632) 8426-6001 loc. 5220/5221/5222
fax: (632) 8426-5661
economics.soss@ateneo.edu

The Economics Department seeks to build on what it has accomplished in the area of teaching and research in order to become a leading institution in the discipline; strengthen its mission to teach and train students in economic analysis and methodology in order to develop individuals who can contribute effectively to policy formulation, basic and advanced teaching in economics and research; and, To develop further its capability and expertise in theory and empirical research, directed to the generation and communication of new knowledge and ideas in economics and to the effective design of policy in the country.

COURSE OFFERINGS

ECON 185.74 (New)

SPECIAL TOPICS IN ECONOMICS: INTERNATIONAL AGREEMENTS AND DEVELOPMENT POLICY

3 units

Prerequisite: Econ 121

The course develops students' understanding an "enabling international economic environment" by which developing countries acquire access to international markets and obtain development financing. Aside from existing WTO rules, regional partnership agreements and other international agreements are of interest, such as (1) the 2016 Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP-TPP) Trans Pacific Partnership (TPP), (2) the 2020 United States, Canada, Mexico Agreement (USMCA), and (3) the 2020 Regional Comprehensive Economic Partnership (RCEP). The course relates the advantages and obligations presented by international agreements to the variety of development strategies applied by developing countries at present and historically.

SOCIOLOGY AND ANTHROPOLOGY

G/F Ricardo & Dr. Rosita Leong Hall
(632) 8426-6001 loc. 5270/5271
fax: (632) 8426-5990
socioanthro.soss@ateneo.edu

The Department of Sociology and Anthropology, commits itself to the University's goal to contribute to national development by forming women and men who will devote their lives to the service of their fellow individuals and, through academic excellence, mature spirituality and the promotion of justice, serve those who are in need of help, most especially the poor and powerless.

Through its training, research, and action programs, the Department instills in its students a critical understanding of mutual dependence between structure and human agency in a globalized society, as well as the ability to apply this understanding to transformation of cultural practices, especially those found in Third World societies like the Philippines. These academic skills, coupled with the value formation acquired through the University's core curriculum, are prerequisites for interpreting and acting on contemporary social forces such as the dialectic between globalization and national integration, the gross inequalities in access to power and resources among different groups, the relentless degradation of the physical environmental, the growing rationalization of modern life, and the deconstructive ethos of a highly technological postmodern age.

MINOR IN GENDER STUDIES

(New)

The Minor in Gender Studies is an interdisciplinary academic program that exposes students to key concepts, theoretical perspectives, debates, and methodological approaches in gender studies. The program equips students with analytical tools to critically assess historical, socio-economic, cultural, political, and ideological dimensions of the gender question cognizant of their intersectionality with class, race, ethnicity, age, sexuality, and religion. The program develops an innovative mindset among students to generate transformative solutions to contemporary gender issues.

Gender equality is a critical aspiration enshrined in the United Nations Sustainable Development Goals. Moreover, gender mainstreaming has been central in Philippine development plans while issues and analyses surrounding sexuality, feminism, and intersectionality foreground the global and interdisciplinary scholarships on gender.

In consonance with the interdisciplinary requisites for gender studies, eleven departments and programs from the Schools of Social Sciences and Humanities collaborated in the creation and delivery of the program. These collaborating departments and programs are the Chinese Studies, Communication, Development Studies, English, Fine Arts, History, Interdisciplinary Studies, Japanese Studies, Filipino, Political Science, and Sociology and Anthropology. The Department of Sociology and Anthropology serves as the administrative host of the Minor.

Eligibility Requirement

Open to all students of the Loyola Schools.

Admission Requirements

SocSci 11 (Understanding the Self)

Minimum Grade Requirement

Average grade of C, with no F (Failure), computed on the basis of all courses taken as part of the Minor

Program Curriculum

Required Courses (6 units)

SOCIO 138.1 Gender Relations, 3 units
SOAN 138.6i Engendering Methodology: Approaches To Gender Mainstreaming, 3 units

Electives (9 units)

ARTS 180.13i Art As Inquiry: Art Of The Queer, 3 units
COMM 187.05 Special Topics In Film Studies: Women In Film, 3 units
COMM 183.16 Special Topics In Culture And Communication: Gender And The Media, 3 units
CSP 60.14 Gender And Sexuality In Chinese Medicine, 3 units
DEV 186.39 Special Topics In Development Studies: Gender And Development, 3 units
ENLIT 135.13 British Literature: 19th Century British Women Writers, 3 units
ENLIT 131.16 Literature And Ideas III: Cultural Studies: Reading Sex And Sexuality, 3 units

ENLIT 163.10	Literature And Ideas III: Literature, Sexuality, And Urban Space, 3 units
HISTO 122.07	Women And Gender In Philippine History, 3 units
HISTO 132.03i	History Of Gender In Asia, 3 units
IDS 133.03i	Ideologies: Gender Relations, 3 units
IDS 133.04i	Gender And Society In The Philippines: Perspective, Problems, And Prospects, 3 units
IDS 133.05	Ideologies: Gender, Art, And Society, 3 units
IDS 133.13	Ideologies: Gender And Society II: Japanese Women, 3 units
IDS 135.06	Civilization And Culture IV: Ideologies – Songs Of Ourselves: Writing By Filipino Women In English, 3 units
IDS 180.03i	Special Topics In Philippine Studies: Representation Of Otherness In Film And Literature, 3 units
JPN 180.12i	Special Topic: Gender In Japan, 3 units
PHILO 155.08	Philosophy Of Woman, 3 units
PNTKN 129.1	Mga Katawang Filipino: Pemenismo, 3 units
PNTKN 129.2	Mga Katawang Filipino: Queer, 3 units
PNTKN 129.3	Mga Katawang Filipino: Pagkalalaki, 3 units
PNTKN 149.03i	Kulturang Popular At Usapin Ng Kasarian, 3 units
POLSC 121.20	Feminist Comparative Policy, 3 units
POLSC 32	Gender Studies, 3 units
POLSC 32.10	Gender, Globalization And Development, 3 units
POLSC 32.13	Gender And Women's Human Rights, 3 units
POLSC 32.14	Sexual Politics: Global Perspectives, 3 units
SOAN 103.7	Feminist Theories, 3 units
SOAN 138.2	Gender And Development, 3 units
SOAN 138.3	Gender, Work, Sexuality And Violence, 3 units
SOAN 138.5	Ethnicity, Class And Gender In East And Southeast Asia, 3 units
SOAN 139.1	Transnational Migration: Gender, Culture, And Identities, 3 units
SOCIO 116	Sociology Of Inequality, 3 units

** Other and new relevant gender studies electives to be approved by the Curriculum Committee and added by the Department of Sociology and Anthropology may also be counted towards the Minor.*

Total Number of Units for the Minor: 15 units