



ATENEUM DE MANILA
UNIVERSITY

UNDERGRADUATE BULLETIN OF INFORMATION

Addendum SY 2020-2021



Copyright © 2021 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 2020-2021 (July 2020-June 2021). 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 2020-2021* 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
Filipino	8
Course Offerings	9
Fine Arts	10
Course Offerings	11
Modern Languages	14
Course Offerings	15
John Gokongwei School of Management	17
Leadership and Strategy	18
Minor in Sustainability	19
Marketing and Law	20
Course Offerings	21
Quantitative Methods and Information Technology	22
Minor/Specialization in Decision Science	23
Minor/Specialization in Information Technology Management	24
Minor/Specialization in Project Management	25
Course Offerings	26
School of Science and Engineering	29
Information Systems and Computer Science	30
Course Offerings	31
Mathematics	36
Course Offerings	37
Physics	38
Course Offerings	39
School of Social Sciences	40
Development Studies	41
Minor/Specialization in Development and the Law	42
Course Offerings	44
History	45
Course Offerings	46
Sociology and Anthropology	47
Course Offerings	48

Interdisciplinary Electives

The following Interdisciplinary Electives, approved by the Curriculum Committee effective SY 2020-2021, are offered in addition to those listed in the *Undergraduate Bulletin of Information*, 2020 Edition (version 1.0 May 2021).

Interdisciplinary Elective Offerings

The following Interdisciplinary Electives, approved by the Curriculum Committee effective SY 2020-2021, are offered in addition to those listed in the *Undergraduate Bulletin of Information*, 2020 Edition (version 1.0 May 2021).

CSCI 113i: Business Intelligence – 3 units, Prerequisite: Consent of Instructor

This course introduces students to the field of business intelligence, and its value to organizations today. Business intelligence is taught as the extraction, modeling, and presenting of information to support decision making across different types of business domains. The course focuses not just on the computational methods of business intelligence techniques. Attention is given to the domains where datasets are acquired, such as management information systems, health informatics, enterprise systems and related fields across different disciplines. Students are taught the different approaches towards various types of datasets from interdisciplinary areas, in the context of descriptive and predictive analytics.

CSCI 117i: Data Visualization - 3 units

In this course, students learn to manipulate, analyze, and visualize data. This is performed not only through the lens of computer science but with related fields such as information design. The datasets used in the course come from various fields outside computer science as well, such as Public health, Economics, or Environmental Science. No prior experience with a programming language like python is required, but programming exposure can be an advantage. Coding tutorials and lab work are interspersed with lectures on design fundamentals. In a major class project, students create – conceptualize, design, and code – a useful visualization based on a real-world dataset.

CSP 61i: Science and Technology in China - 3 units

This course surveys the developments in science and technology in China from the earliest period in history up to contemporary times. It examines the scientific and technological contributions of China to the advancement of human civilization (e.g. astronomy, mathematics, agriculture, ceramics, metallurgy, chemistry, etc.) and technological inventions (i.e. sericulture, paper making, printing, pottery, gun powder, lacquer, etc.). There will be discussions on the inter-relationships between science and technology on one hand, and social, political and economic developments on the other. The survey of earlier scientific and technological developments provides the foundation for the fast-paced advances of contemporary times.

CSP 71i: Chinese Art and Society - 3 units

This course is a survey of the wide range of art forms in China focusing particularly on art forms unique to China such as silk, paper, printing, lacquer ware, calligraphy, pottery, etc. It will analyze works of art from various perspectives and within social-political-economic contexts. The course includes parades, pilgrimages, festivals and collective activities that occasion artistic expressions. There will be comparative analysis of Chinese with western art at various historical-social contexts and will study the cultural and artistic exchanges between China and our country.

DEV 181.4i: Special Topics in Humanitarian Action: Human Rights and Development - 3 units

The course introduces the inextricable link between human rights and development, both in theory and practice, with emphasis on state's obligations on core compliance and progressive realization, and people's duties and responsibilities. It highlights the contentious three (3) generations of human rights, and their normative standards, and implications on issues relating to trade and investments, foreign aid or development assistance, poverty alleviation and environment protection. It examines contemporary challenges of the Right to Development (RTD) over its 30 years of implementation, and ways of progressively realizing it, together with the implementation of the UN Sustainable Development Goals (SDGs).

DEV 187.3i: Special Topics in Geography and Development: Introduction to Urban and Regional Development – 3 units

This course familiarizes students with the geospatial aspects of development, with emphasis on the features and processes that have characterized human settlements through the ages, culminating in the contemporary city and emerging regional configurations. By learning key concepts of geography and urban planning, students gain an appreciation of economic, social, and physical considerations that are necessary for producing vibrant urban areas, as well as those conditions that drive current phenomena like suburbanization and the proliferation of informal settlements. Philippine examples are used in the discussions to compare against historical urban dynamics in other nation-states and eras.

DEV 187.4i: Special Topics in Geography and Development: Inclusive Cities - 3 units

This course argues that excellent urban areas are neither accidental nor entirely spontaneous. Planned-for ingredients of urban success are socio-economic, social, and spatial inclusiveness, diversity, environmental sustainability, good governance, and creativity. The course facilitates the identification and analysis of social exclusion and inequality in urban spaces, and of emerging urban development strategies and planning interventions that aim to make cities livable for all. Key concepts and tools, best practices and instructive historical examples are discussed extensively to enable the student to critically appraise, analyze, and plan for inclusive and sustainable cities.

GDEV 21i: Interdisciplinary Approaches to Games and Game Design I - 3 units

Using an interdisciplinary approach, this course aims to introduce students to the essential concepts behind game design. It emphasizes storytelling, character development, crafting of plausible ethical dilemmas, the exercise of creativity, and technical execution.

GDEV 50i: Game Studies : An Interdisciplinary Introduction - 3 units

This course tackles contemporary issues surrounding the ways in which games affect, enable, and change ourselves, our relationships, and our ways of life. Faculty lineup from the School of Humanities and the School of Social Sciences help the course gain a better appreciation of digital games as art, as social artifacts, and as communication media, and to understand their impact on us as individuals and on society as a whole. This course uses the lenses of communication, philosophy, psychology, theology, and other disciplines to analyze games and their effects.

HSCI 30i: Fundamentals of Nutrition - 3 units

This is an interdisciplinary course in nutrition science that covers not only the biochemistry and physiologic values of food but also the impact of malnutrition on national development. Topics include the relationship between food and the well-being of the populations as well as public health concerns in food production, processing, and handling. Special topics, such as food diseases and disorders as well as specific nutritional requirements from selected population subgroups, are discussed. The importance of nutrition in ending hunger and poverty, improving quality of life, and fostering national progress is also examined.

HSCI 60i: Fundamentals of Global Health - 3 units

Similar to other countries, the Philippines suffers from a double epidemiologic burden: even as serious infectious diseases continue to affect the population, chronic diseases have become the leading causes of morbidity and mortality. Many social factors confound attempts to bring these diseases under control – poverty and inequity, environmental degradation, socio-cultural biases, and political challenges. As such, this course aims to provide a solid foundation on the principles and perspectives necessary to understanding the complexity of global health. Central to discussion are the Sustainable Development Goals, particularly the achievement of universal health coverage.

HSCI 70i: Introduction to Health Policy and Systems Research - 3 units

This interdisciplinary elective introduces students on how health is determined by a complex interplay of individual, intermediate, and structural factors and on how the health system is embedded in a political and economic context that affects accessibility, affordability, and quality of healthcare for many Filipinos. Given that policies set the mechanism and the environment to which strategies are formulated, resources are distributed, and programs and efforts are implemented, monitored, and evaluated, this course provides opportunities for students to assess whether decisions made by policy makers can contribute to better outcomes for individuals, the health sector, and the nation.

IDS 162.13i: Media Studies: Filipino Film and Society - 3 units

The course examines the complex relationship between the Filipino feature film and Philippine society—how historical, social, economic, cultural and political forces shape film and how film makes an impact on society. It also looks into the conduct and context of film production and exhibition.

IDS 180.13i: Special Topics in Philippine Studies: Representation of Otherness in Film and Literature - 3 units

This course studies the ways in which the Other has been depicted in two major cultural types—film and literature—and the factors leading to such representations. A number of illustrative films and literary texts are used to illustrate the issues tackled in the course.

LAS 50.2i: Interdisciplinary Issues in Sport Management - 3 units

This course aims to identify the different disciplines involved in the growing sports industry and the interplay involved that have an influence on the different stakeholders of the industry. This includes but is not limited to: understanding the science behind athletic performance, the psychology behind the consumption of such sporting events, the legal and ethical issues that are present in different sports, and the managerial decisions that must be made to make any sporting event economically viable. This includes the management of organizations that deal with professional and amateur sports, participation sports, sporting goods, and sports services. Case studies and readings complement conceptual content.

LAS 142i: Corporate Sustainability - 3 units

This course covers the transformation of concepts in corporate sustainability, from the traditional financial and operational viability, to the development of Corporate Social Responsibility, to the concepts of shared value, sustainable value, circular economy, among others. It looks at global trends in developing sustainability vision and value-creating strategies; implementing sustainable development and ethics in business; and measuring environmental, social, and governance performance in the form of indices and rankings.

LAS 150.6i: Creative Problem Solving for Sustainability Management - 3 units

This course discusses the importance of multi- and interdisciplinary perspectives in solving problems of environmental sustainability. The course involves using mixed perspectives in finding solutions to challenges in environmental sustainability and highlights the importance of systems and the need to think beyond limits of disciplines.

MSYS 181.04i: Special Topics in Information Technology: IT Trends and Technologies in the Corporate World - 3 units

This course is designed as an introductory overview for students who want to understand how IT services are managed in the real world. The course involves a discussion of the key concepts underlying IT Service Management and the best practices documented in IT Infrastructure Library (formally known as ITIL). It introduces the students to the different processes under the ITSM framework and covers how these processes should be implemented in different companies.

PSYC 70.17i: Health Psychology - 3 units, Prerequisite: SocSc 11

Health Psychology applies psychological principles and processes to the scientific study of health, illness and health-related behaviors. It focuses on how biological, psychological, sociocultural factors interact with, influence and affect health and illness. It is specifically aimed toward a broader understanding of the different health concepts and issues, and their impact on human life. It is the psychology behind why people get ill, what their behaviors are when they become sick or how they react to, cope with and recover from illness, or simply how they stay healthy and well, and how they relate to the health care system and providers.

SEAS 103i: Comparative ASEAN Health Policies - 3 units

This introductory course explores variations in national health policies arising from country-specific, socio-political, cultural, and historical contexts. Based on a multiple country collaborative learning engagement, the course looks into existing policies, practices including the management of global pandemics such as COVID-19, and institutions contributing to an evolving ASEAN-level policy platform for regional health governance and cooperation. The course adopts an interdisciplinary approach, integrating knowledge and methods from the disciplines public administration, politics, history, sociology, and economics to produce a more comprehensive understanding of health policies and practices in the SEA region.

New/Revised Courses, Minors, *and* Specializations

The following courses, minors, and specializations, approved by the Curriculum Committee effective SY 2020-2021, are offered in addition to those listed in the *Undergraduate Bulletin of Information*, 2020 Edition (version 1.0 May 2021)

SCHOOL *of*
HUMANITIES

FILIPINO

3/F Horacio de la Costa Hall
(632) 8426-6001 loc. 5320/5321
jestrelles@ateneo.edu / adevera@ateneo.edu

Taglay ang atas ng Pamantasang Ateneo de Manila na magsilbing taga-ingat at tagasulong ng kabang-yaman ng Kulturang Filipino, nang isinasaalang-alang ang pana-panahong pagbabago ng kasaysayan at lipunang sarili at pati ng sa mundo, itinatakda ng Kagawaran ng Filipino ang: propesyunal at multi-disiplinaryong pagtugon sa pangangailan na iuwi at iugat sa sariling kultura ang pamantasan at lahat ng pinaglilingkuran nito hindi sa pamamagitan ng pagtatakwil sa mga kaalamang hiram kundi sa integrasyon nito sa mga kaalamang sarili. Isasagawa ito sa pakikisangkot sa malikhaing praktis, pagtuturo, at pagsasaliksik na walang humpay na pinatitining at pinalalaya ng espiritwalidad ni San Ignacio.

COURSE OFFERINGS

PNTKN 199.1 (Revised)

PANUKALANG TESIS

3 units

Isa itong kurso para sa masinop at ginabayang pananaliksik sa ilalim ng isang tagapayo tungo sa pagsulat at depensa ng panukalang tesis.

PNTKN 199.2 (Revised)

PAGSUSULAT NG TESIS

3 units

Prerequisite: PNTKN 199.1

Isa itong kurso para sa aktuwal na pagsulat ng mag-aaral ng kaniyang tesis sa ilalim ng isang tagapayo.

PNTKN 199.3 (Revised)

DEPENSA NG TESIS

3 units

Prerequisite: PNTKN 199.1, PNTKN 199.2

Isa itong kurso para sa presentasyon at depensa ng tesis ng mag-aaral nang may kaakibat na gawain ng rebisyon sa ilalim ng isang tagapayo.

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

ARTM 120 (New)

DIGITAL MANAGEMENT IN THE ARTS

3 units

This course provides a hands-on approach in creating, managing, and sustaining an online presence for any art-centered institution. Topics include building a social media identity, conceptualizing online artist talks and webinars, and creating online exhibitions and catalogues. Cognizant of how an online presence can drive growth in any institution, this course equips students with basic and intermediate skills in digital management in the arts.

ARTM 132 (New)

THE CREATIVE PRACTICE

3 units

This course, conducted by a practicing artist, provides an overview of the creative process—from conceptualizing to executing projects—embedded within the larger historical, social, political, ethical, and economic frames. It particularly focuses on non-conventional artistic media, such as conceptual and performance art, photography and video art, as well as technologically-reliant forms of expression. Designed as a catalyst for students to come up with their own creative projects, the course attempts at a coherent, discursive, and actionable approach to the creative process.

CRWR 130 (New)

WRITING FOR NEW AND EMERGENT MEDIA

3 units

Writing for new and emergent media acknowledges that the practice of writing is actively engaged in the vibrant, ever-changing media landscape. This course identifies specific new modes of writing, new media or forms, or new ways of writing in what might be considered traditional media. It equips students with the ability to better understand and write within these new media and modes.

CRWR 131 (New)

WRITING FOR COMICS

3 units

The course teaches students how to write compelling narratives using the medium of comics or sequential art. It does so by explaining how the comics medium is not only accessible to both creators and audiences, but it has characteristics that allow it to tell stories in unique ways that other media cannot easily duplicate. It also guides students on how to tailor their writing to the visual nature of the medium, as well as to the various formats, genres, and applications of the sequential art medium.

IDES 102.08 (New)

DESIGN PROCEDURES: PHOTOGRAPHY FOR DESIGNERS

3 units

Prerequisite: ArtAp 10, ARTS 120, IDES 102.04

This course focuses on photography as one of the production practices in the design industry. It does not teach basic photography skills; rather, it applies these skills into real world scenarios where photography is needed to complete or complement design work. Students create photographs with the same discipline as creating graphic design work, taking into consideration art direction and production platforms while collaborating with others.

IDES 102.13 (Revised)

DESIGN PROCEDURES: ADVANCED TYPOGRAPHY

3 units

Prerequisite: IDES 102.03

This course engages students with advanced topics in typography. Students explore the history of typefaces and analyze how context led to the design and application of a typeface. Stakeholders and platforms are considered in the application of typography for uncommon and innovative platforms.

IDES 103.06 (New)

DESIGN PRACTICE: PROTOTYPING

3 units

Prerequisite: ArtAp 10, ARTS 110

Prototyping is the part of the design process where ideas are transformed into tangible objects. This course explores the multiple ways this process can be done. In this class, students respond to prompts by using different materials and modes of fidelities to test assumptions of a concept. This course encourages students to reimagine their relationship with the concept of “failure” by providing opportunities to iterate quickly and efficiently as they continue to challenge the boundaries of material and form.

THTR 161 (New)

TEXTUAL ANALYSIS

3 units

Textual Analysis teaches students to appreciate dramatic literature and unlearn bad habits in script analysis, such as generalizations, oversimplifications, and over-interpretations, by arming them with various reading strategies beyond formalist criticism. Because dramatic literature is meant to be performed truthfully for an audience, the students use a hybrid technique that engages both mind and heart in analyzing a text’s plot structure and character development. Through table discussions, script readings, and studio rehearsals, students learn and develop their own technique that uses their personal understanding of the human condition to further enhance their creative process.

THTR 162 (New)

DRAMATURGY

3 units

This course is an introduction to dramaturgy as a practice in the process of creating theater. It offers a comprehensive exploration of performance composition, blending theory and practice to impart students with a deeper understanding of dramaturgy and the role of the dramaturg. The course aims to reflect on the importance of the creative process and its components, giving insight into the interdisciplinary nature of the dramaturg’s work.

THTR 171 (New)

SELF-PRACTICE IN THE PERFORMING ARTS

3 units

This is a practical course that highlights the importance of holistic wellness in the performing arts and draws from the ancient practices of meditation and mindfulness as well as rigorous self-reflection along with practical tools and technologies for the artist’s self-practice. Methods for idea generation and solo research are discussed thoroughly. The course touches on the concept of essence in theater that cuts across specialization and grounds each artist in purposeful creation.

THTR 172 (New)

DEVISING AND NON-TEXT BASED PERFORMANCE

3 units

This course is a process-oriented class on devising and non-text based performance, a collaborative process of making theatre wherein no script exists before the work's creation. Students are exposed to different devising techniques, which may involve improvisation, movement and voice exercises, crafts, multimedia experiments, archival research, fieldwork, and so on. Students also explore how to work as an ensemble and how to be reflective practitioners.

THTR 173 (Revised)

ACTING FOR THE CAMERA

3 units

A workshop series on how to act for video and film. Topics include methods of acting and reacting, blocking and business, voice projection, character focus, as well as performing in long, medium and close up shots. Discussions also cover the differences between film and stage acting.

MODERN LANGUAGES

2/F Horacio de la Costa Hall
(632) 8426-6001 loc. 5350
modernlanguages.soh@ateneo.edu

The Department of Modern Languages provides the students with the necessary basic and intermediate skills for oral and written communication in Spanish, French, German, Italian, Portuguese, Russian, Bahasa Indonesia, and Korean and acquaints them with the country's history, art and culture as well as to understand and appreciate their own. Its objective is to provide the basic listening, speaking, reading and writing skills to enable students to function in practical situations.

The Department of Modern Languages seeks to be a leading center in Asia for foreign language learning in a rapidly, constantly changing world; and in so being, our students become capable of asserting themselves in the global and local sense. The Department also seeks to form Christian leaders with communication skills to interact and excel in a social, business or professional environment deeply rooted in Philippine culture yet knowledgeable of foreign cultures and affairs through partnerships with other sectors within and outside the Ateneo.

COURSE OFFERINGS

FRE 15 (New)

ADVANCED FRENCH 1

3 units

Prerequisite: FRE 14

This course corresponds to the first phase of the B1 level of the Common European Framework of Reference for Languages and aims to further hone the student's listening, speaking, reading and writing skills in French. The student's argumentation skills are developed through the use of a wide array of language resources dealing with current socio-political and cultural events and realities. A deep understanding of these aspects of French culture integrated in the use of the language enables the student to become intercultural agents with an awareness of the other and a deeper sense of self.

FRE 16 (New)

ADVANCED FRENCH 2

3 units

Prerequisite: FRE 15

This course corresponds to the final phase of the B1 level of the Common European Framework of Reference for Languages and serves to refine the student's listening, speaking, reading and writing skills in French. These four competencies with a focus on the student's argumentation skills are honed further through the use of different platforms and language resources dealing with current socio-political and cultural phenomena. This gives the student a deeper knowledge and understanding of French culture integrated in the use of the language and thus enables the student to become intercultural agents with an awareness of the other and a deeper sense of self.

GER 15 (New)

ADVANCED GERMAN 1

3 units

Prerequisite: GER 14

This course corresponds to the first phase of the B1 level of the Common European Framework of Reference for Languages and aims to further hone the student's listening, speaking, reading and writing skills in German. The student's argumentation skills are developed through the use of a wide array of language resources dealing with current socio-political and cultural events and realities. A deep understanding of these aspects of German culture integrated in the use of the language enables the student to become intercultural agents with an awareness of the other and a deeper sense of self.

GER 16 (New)

ADVANCED GERMAN 2

3 units

Prerequisite: GER 15

The course continues to build on the student's acquired language skills and knowledge of basic and intermediate grammatical structures from German 11 to 15 and enables the student to apply these in order to communicate and explain themselves in a variety of situations in a more structured and detailed manner.

PORT 12 (New)

BASIC PORTUGUESE 2 LANGUAGE AND CULTURE

3 units

Prerequisite: PORT 11

The course reviews and further develops basic listening, reading, writing and speaking skills acquired in Portuguese 1, thereby increasing the students' knowledge and comprehension of the grammatical structures and functions of the language, thus enabling him/her to communicate in Portuguese at an acceptable fluency and accuracy. It also exposes the students to other practical situations and increases their familiarity with aspects of Portuguese life and culture.

SPA 15 (New)

ADVANCED SPANISH 1

3 units

Prerequisite: SPA 14

This course corresponds to the first phase of the B1 Level of the Common European Framework of References for Languages and aims to further hone the student's listening, speaking, reading and writing skills in Spanish. The student's argumentation skills are developed through the use of a wide array of language resources dealing with socio-political and cultural issues in Spain and the Hispanic World. A deep understanding of these aspects of Spanish and Hispanic culture integrated in the use of the language enables the student to become intercultural agents with an awareness of the other and a deeper sense of self.

SPA 16 (New)

ADVANCED SPANISH 2

3 units

Prerequisite: SPA 15

This course corresponds to the second phase of the B1 Level of the Common European Framework of References for Languages and aims to further hone The student's listening, speaking, reading and writing skills in Spanish. The student's argumentation skills are developed through the use of a wide array of language resources dealing with socio-political and cultural issues in Spain and the Hispanic World. A deep understanding of these aspects of Spanish and Hispanic culture integrated in the use of the language enables the student to become intercultural agents with an awareness of the other and a deeper sense of self.

JOHN GOKONGWEI
SCHOOL *of* MANAGEMENT

LEADERSHIP AND STRATEGY

5/F John Gokongwei
School of Management Bldg.
(632) 8426-6001 loc. 5521/5543
Telefax: (632) 8426-6076

The Department of Leadership and Strategy (LAS) assumes the integrative role in JGSOM's programs, participating in the school's pursuit of leadership in business education. The department welcomes the JGSOM students through their management introductory courses, such as Principles of Management, Entrepreneurial Mindset and Philippine Business Environment: Policies and Programs in Enterprise Development. Towards the end of their programs, JGSOM students take culminating courses with LAS such as Strategic Management, Leadership and Business Ethics, CSR and Sustainability and Enterprise Development capstone program. Elective offerings are in the area of general management, entrepreneurship, human resource management, international business, strategy, leadership, sustainability management, business ethics, family business management and social entrepreneurship.

The Leadership and Strategy Department, through its course development, and faculty involvement and commitment, seeks to contribute to JGSOM's goal of molding Ateneo management students to become principle-centered leaders and entrepreneurs who nurture a people-oriented culture and who take on a strategic global perspective rooted in the ASEAN and Philippine context.

MINOR IN SUSTAINABILITY

(revised)

Despite the Philippines' share of poverty and disaster, we have not been able to systematically develop a connected understanding of the complex social and natural environments among members of our society. This kind of understanding should not only encompass cognitive and affective aspects but also lead to behavioral change. This should also use multi- and interdisciplinary perspectives, specifically those of systems thinking and sustainable development. As more organizations move toward an acceptance of sustainability models, our students need to be equipped with the lenses, frameworks, tools, and methodologies that can be applied in various fields and professions.

Eligibility Requirement

Open to all LS undergraduate students

Admission Requirements

ENVI 10.01 Introduction to Environmental Science, Lecture

Minimum Grade Requirement

No Grade lower than a C for all subjects qualified for the Minor

Program Curriculum

Required Courses (9 units)

ENVI 177.04i Environmental Management for Sustainability
PHYS 180.5 Climate Change and Disaster Risk
DECSC 141 System Dynamics Modelling

Electives (6 units; choose two)

DEV 181.2i Special Topics in Humanitarian Action: Disaster Risk Reduction and Society
DEV 183.20 Special Topics in Development Management: Entrepreneurship for Sustainable Development
DEV 183.24i Special Topics in Development Management: Creating Shared Value for Practitioners
DEV 183.25 Special Topics in Development Management: Social Entrepreneurship
DEV 186.19 Special Topics in Development Studies: Political Economics of Environmental Resources
DEV 186.44 Special Topics in Development Studies: Issues in Sustainable Development
DEV 187.3 Special Topics in Geography and Development: Disaster Risk Reduction & Society
ECON 159 Economics of Natural Resources and Environment
ECON 185.61 Special Topics in Economics; Social, Political, and Ecological Economics
LAS 140 Sustainability and Social Responsibility
LAS 141 Social Enterprise
LAS 142i Corporate Sustainability
LAS 150.6i Creative Problem Solving for Sustainability Management
PHILO 126.06 Environmental Ethics
SOAN 123.1 Cities and Society

Other courses as may be determined/approved by the Program Director.

Total Number of Units for the Minor: 15 units

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

MKTG 145 (Revised)

ENTREP SERIES 1: PRODUCT DEVELOPMENT AND MARKET ANALYSIS

5 units

This is the first of a three-consecutive-term program that coaches students in developing their product or service idea into a working model. Students are involved in the essentials of product development and present a prototype of their business proposal at the end of the term.

MKTG 179.30 (Revised)

ADVANCED MARKETING (RENT)

3 units

Prerequisite: MKTG 111, MKTG 111.30

This is a management course that studies the discipline and practice of marketing in service-oriented organizations. The focus of this course will be on service and entrepreneurial marketing and is intended to equip students with the marketing know-how they will need to establish their own food service concerns.

QUANTITATIVE METHODS AND INFORMATION TECHNOLOGY

5/F John Gokongwei
School of Management Bldg.
(632) 8426-6001 loc. 5540/5541
telefax: (632) 8426-6076
jolpoc@ateno.edu

The Quantitative Methods and Information Technology (QMIT) Department prepares future managers to be aware and to be prepared in utilizing technology to continuously improve business processes and make informed business decisions. To achieve this,

The QMIT Department houses two sub-units. The 'Quantitative Methods' unit helps prepare students with their future careers as managers by equipping them with essential quantitative tools and methods. The courses under this unit focus on applied quantitative courses such as business statistics, quantitative research methods, production/operations management and operations research. These courses aim to prepare management students to be comfortable in using quantitative methods as part of their business decision making processes.

The 'Information Technology' unit helps propel the students with the necessary skills to be comfortable in the domain of Information Technology. The array of courses includes business software applications, basic computer programming, IT Fundamentals, business process re-engineering, and information engineering. These courses train students to effectively use computers and information technology to their business advantage.

MINOR/SPECIALIZATION IN DECISION SCIENCE

The Decision Science Minor/Specialization program provides students with tools for improving the quality of decisions and managing decision making at the individual and corporate level. Students who finish the minor will have a foundational knowledge of how decisions are made from a qualitative and quantitative perspective and the theoretical and methodological foundations for dealing with complex problems.

	MINOR IN DECISION SCIENCE	SPECIALIZATION IN DECISION SCIENCE
Eligibility Requirements	All non-JGSOM majors	Any program in JGSOM
Admission Requirements	Should have a C+ in MATH 10, Should have taken SocSc 11	At least a C+ in any Statistics course and should have taken SOCSC 11
Minimum Grade Requirement	No Grade lower than a C for all subjects qualified for the Minor.	No Grade lower than a C for all subjects qualified for the Specialization
Program Curriculum	<p><u>Required Courses (9 units)</u> DECSC 21: Introduction to Decision Making 3 units QUANT 160: Basic Principles of Operations Research 3 units DECSC 33: Introduction to Business Analytics 3 units</p> <p>Plus one more Decision Science or Analytics elective under the DECSC catalog number as approved by the chair of QMIT.</p>	<p><u>Required Courses (9 units):</u> DECSC 21: Introduction to Decision Making 3 units</p> <p>QUANT 165 Operations Research Application (for M.E. students) OR QUANT 160 Basic Principles of Operations Research 3 units (for non-M.E. students)</p> <p>DECSC 33: Introduction to Business Analytics (for non-M.E. JGSOM students)</p> <p><u>Electives</u> <i>Choose any two (for non-ME JGSOM students) or three (for M.E. students) from the following:</i></p> <p>ITMGT 125.1: Gaming and Management Games 3 units DECSC 140: Corporate Models and Decision Support Systems 3 units OPMAN 131.05: Introduction to Six-Sigma for Process Improvement 3 units OPMAN 161: Project Management Tools and Techniques 3 units</p> <p><i>And other Decision Science related elective under the DECSC catalog number, as approved by the Program Director</i></p>
Total Units	12 units	15 units

MINOR/SPECIALIZATION IN INFORMATION TECHNOLOGY MANAGEMENT

The Minor/Specialization in Information Technology Management equips the qualified majors with the knowledge and skills necessary in identifying and managing information technology solutions to help attain business objectives. It includes courses covering IT infrastructure and business applications, technology planning, and information resource planning. Students who finish the minor/specialization will have a foundational knowledge of how IT is managed in an organization and how it can help organizations gain a competitive advantage.

	MINOR IN INFORMATION TECHNOLOGY MANAGEMENT	SPECIALIZATION IN INFORMATION TECHNOLOGY MANAGEMENT
Eligibility Requirements	All non-JGSOM and non-DISCS majors	Any program in JGSOM except BS IT Entrepreneurship
Admission Requirements	None	Student must have taken an IT course or IT Elective, which covers ITMGT 20, ITMGT 20.03, ITMGT 25, ITMGT 25.03, and ITMGT 20.xx – where the .xx refers to any subtopic under the ITMGT 20 catalog)
Minimum Grade Requirement	No Grade lower than a C for all subjects qualified for the Minor	No Grade lower than a C for all subjects qualified for the Specialization..
Program Curriculum	<p><u>Required Course (9 units)</u> ITMGT 20 or any ITMGT 20.xx course ITMGT 45: The Digital Economy or ITMGT 45.03: E-Commerce Fundamentals ITMGT 162: Enterprise Competitiveness Through ICT</p> <p>Non-JGSOM students who have already taken an introductory IT course as part of their degree program may have that course validated for ITMGT 20.</p> <p><u>Choose any one from the following:</u> ITMGT 40 Information Systems Fundamentals ITMGT 125.1 Gaming and Management Games ITMGT 130 Information Engineering ITMGT 163 Information Technology and Business Strategy (Application)</p> <p>And other Information Technology related electives, as approved by the Program Director</p>	<p><u>Required Course (6 units)</u> ITMGT 45: The Digital Economy ITMGT 162: Enterprise Competitiveness Through ICT</p> <p><u>Electives(Choose two from the following):</u></p> <p>ITMGT 40: Information Technology Fundamentals ITMGT 45.03: E-Commerce Fundamentals ITMGT 125.1: Gaming and Management Games ITMGT 130: Information Engineering ITMGT 163: Information Technology and Business Strategy (Application)</p> <p>And other Information Technology related electives, as approved by the Program Director</p>
Total Units	12 units	12 units

MINOR/SPECIALIZATION IN PROJECT MANAGEMENT

The Minor/Specialization in Project Management provides the coverage of both the technical and social aspects of managing projects. It likewise provides an avenue for students to apply the tools and techniques in managing scope, time, quality, and resources. Students who finish the minor/specialization will have the basic knowledge and skills necessary to manage a project.

	MINOR IN PROJECT MANAGEMENT	SPECIALIZATION IN PROJECT MANAGEMENT
Eligibility Requirements	Open to all non-JGSOM majors	Any program in JGSOM
Admission Requirements	At least a C+ in MATH 10 and ENGL 11	At least a C+ in MATH 10 and ENGL 11
Minimum Grade Requirement	No Grade lower than a C for all subjects qualified for the Minor.	No Grade lower than a C for all subjects qualified for the Specialization
Program Curriculum	<u>Required Course (12 units)</u> OPMAN 160 STPOM: Project Management Fundamentals 3 units OPMAN 161 STPOM: Project Management Tools and Techniques 3 units OPMAN 162 STPOM: Managing Project Teams 3 units OPMAN 163 STPOM: Strategic Project Management 3 units Note: Students who have taken an introductory project management course in their program will be required to replace OPMAN 160 with another Project Management elective as indicated by the QMIT Department Chair	<u>Required Course (12 units)</u> OPMAN 160 STPOM: Project Management Fundamentals 3 units OPMAN 161 STPOM: Project Management Tools and Techniques 3 units OPMAN 162 STPOM: Managing Project Teams 3 units OPMAN 163 STPOM: Strategic Project Management 3 units
Total Units	12 units	15 units

COURSE OFFERINGS

DECSC 131 (New)

APPLIED BUSINESS ANALYTICS

3 units

Prerequisite: ITMGT 25 or ITMGT 25.03 and QUANT 121

The course focuses on the understanding and implementation of a Business Analytics framework (e.g. CRISP-DM) on a real-world or simulated business problem. Along the way, students learn how to apply the appropriate statistical method/s to solve the identified problem.

DECSC 132 (New)

MARKETING ANALYTICS

3 units

Prerequisite: ITMGT 25 or ITMGT 25.03 and QUANT 121

The course focuses on the use of a Business Analytics Framework (eg. CRISP-DM) in order to inform and justify various marketing decisions. Students learn statistical tools and an analytics software to measure, manage and analyze a brand's overall marketing performance in order to optimize the return on investment.

DECSC 133 (New)

FUNDAMENTALS OF PROCESS MINING

3 units

Prerequisite: ITMGT 25 or ITMGT 25.03 and QUANT 121

This course introduces the student to various process analysis techniques used during the design, execution and post-execution stages of the Business Process Management (BPM) life cycle. Students learn various techniques such as process verification, process simulation and process mining to gain insights into both current and future business operations of an organisation, which in turn can lead to continuous process improvement.

DECSC 134 (New)

FINANCIAL ANALYTICS AND APPLICATIONS OF QUANTITATIVE FINANCE

3 units

Prerequisite: FINN 115 and QUANT 121

This course focuses on the use and application of financial analytics and quantitative finance in the financial industry. The course begins with an overview of business analytics, then tackles data visualization and its applications to fundamental analysis and machine learning, and its applications (e.g. factor models, credit ratings). The course also surveys other topics such as deep learning as applied in the field of finance.

DECSC 141 (Revised)

SYSTEM DYNAMICS MODELLING

3 units

Prerequisite: ITMGT 20, ITMGT 20.03, ITMGT 25, ITMGT 25.03 or Any IT course within the ITMGT 20.xx or ITMGT 25.xx domain

This course introduces students to system dynamics modeling as a tool to design sustainability policies and strategies. It teaches students to visualize a sustainable organization in terms of the structures and policies that create dynamics and regulate performance; and to recognize and deal with situations where policy interventions are likely to be delayed, diluted, or defeated by unanticipated reactions and side effects.

ITENT 155 (Revised)

TECHNOLOGY VENTURE PLANNING

3 units

Prerequisite: ITMGT 45

The course focuses on the development of a well-crafted business plan by exploring the underlying successes and failures of startup technology companies throughout the corporate lifecycle: starting new ventures, writing business plans, acquiring other businesses, and making existing enterprises profitable.

ITMGT 40 (Revised)

INFORMATION SYSTEMS FUNDAMENTALS

3 units

Prerequisite: ITMGT 20, ITMGT 20.03, ITMGT 25, ITMGT 25.03 or Any IT course within the ITMGT 20.xx or ITMGT 25.xx domain

The course introduces the students to the principles of information systems, information technology and electronic business. Students learn the tools and techniques associated with the use, development and selection of information systems and how they can support an organization's strategy.

ITMGT 45.03 (Revised)

E-COMMERCE FUNDAMENTALS

3 units

Prerequisite: ITMGT 20, ITMGT 20.03, ITMGT 25, ITMGT 25.03 or Any IT course within the ITMGT 20.xx or ITMGT 25.xx domain

This course studies electronic business which covers electronic commerce and includes the servicing of customers, collaborating with business partners, and conducting electronic transactions within an organization via computer networks including the Internet. This course integrates technology with business skills and techniques into a strategic perspective.

ITMGT 115 (New)

SOLUTIONS ARCHITECTURE

3 units

Prerequisite: ITMGT 20, ITMGT 20.03, ITMGT 25, ITMGT 25.03 or Any IT course within the ITMGT 20.xx or ITMGT 25.xx domain

The course develops the skills and mindsets required for the development of an enterprise systems architecture. Students identify and create optimal software solutions in the presales and pre-implementation stages taking into account the financial, environmental, cultural, competitive, and technical constraints imposed on the organization, and then defend the recommendations and decisions around these proposed solutions.

ITMGT 125.1 (Revised)

DECISION MAKING USING BUSINESS SIMULATIONS

3 units

Prerequisite: ITMGT 20, ITMGT 20.03, ITMGT 25, ITMGT 25.03 or Any IT course within the ITMGT 20.xx or ITMGT 25.xx domain

This course uses a scenario, game, simulation, or model to provide a background or environment in which a set of individuals (called "players") will act. Using a case method, players see and analyze the effects of their decisions and recommendations. Participants play several games in various fields, such as the Stanford Bank Management Simulator, the Executive Game, the Marketing Management Game.

ITMGT 130 (Revised)

INFORMATION ENGINEERING

3 units

Prerequisite: ITMGT 20, ITMGT 20.03, ITMGT 25, ITMGT 25.03 or Any IT course within the ITMGT 20.xx or ITMGT 25.xx domain

The course provides students with an integrated set of tools and techniques to help understand and analyze current as well as future information requirements. These tools and techniques also provide students the skills to develop systems that support the capture, process, and use of data and information for decision making and innovation.

ITMGT 149.03 (Revised)

INFORMATION TECHNOLOGY APPLICATIONS IN THE MARKETING INDUSTRY

3 units

Prerequisite: ITMGT 20, ITMGT 20.03, ITMGT 25, ITMGT 25.03 or Any IT course within the ITMGT 20.xx or ITMGT 25.xx domain

This course is an introduction to the underlying technologies behind the Fourth Industrial Revolution (4IR) and its impact in the marketing industry. The course presents examples of how these technologies are currently being used and considers the ethical challenges inherent in the creation and evolution of these 4IR technologies.

ITMGT 149.04 (Revised)

INFORMATION TECHNOLOGY APPLICATIONS IN THE FINANCIAL INDUSTRY

3 units

Prerequisite: ITMGT 20, ITMGT 20.03, ITMGT 25, ITMGT 25.03 or Any IT course within the ITMGT 20.xx or ITMGT 25.xx domain

This course is an introduction to the underlying technologies behind the Fourth Industrial Revolution (4IR) and their impact on the Financial Technology (FinTech) industry. Examples of how these are currently being used and the ethical considerations inherent in the creation and evolution of the 4IR technologies are also discussed.

ITMGT 151 (New)

CORPORATE INFORMATION SYSTEMS MANAGEMENT

3 units

Prerequisite: ITMGT 20, ITMGT 20.03, ITMGT 25, ITMGT 25.03 or Any IT course within the ITMGT 20.xx or ITMGT 25.xx domain

The course presents to the student the operational, tactical and strategic management implications of the use and acquisition of information technology (IT) computing, IT communications, IT business solutions and IT services.

SCHOOL *of*
SCIENCE AND
ENGINEERING

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

ISCS 30.10 (New)

GUIDED STUDIES IN USER EXPERIENCE ANALYSIS AND DESIGN USING PERSONAS

1 unit

This course introduces students to the analysis of users and their needs through the use of personas. In the course, students define what a persona is, why they are useful in the design process, how they are created, and how they are used during the innovation process. Problem scenarios are given for the students to create and use personas in order to arrive at a proposed solution.

ISCS 30.13 (New)

GUIDED STUDIES IN MIXED REALITY EXPERIENCES

1 unit

This course introduces students to the uses of mixed reality technologies to create immersive storytelling experiences. Students learn to use different mixed reality platforms and familiarize themselves in their affordances, appropriate uses, and methods for design. Based on their chosen platform, students draft a design for a mixed reality application.

ISCS 30.14 (New)

GUIDED STUDIES IN GENRE-SPECIFIC GAME DEVELOPMENT

1 unit

Prerequisite: CSCI 21 or MSYS 21

The course aims to introduce students to basic implementation techniques behind various video game genres. Students learn how to use a game engine of their choice to build several games of different genres, such as role-playing games and “shoot ‘em ups.” Students produce simple turn-based and real-time games.

ISCS 30.15 (New)

GUIDED STUDIES IN PROFESSIONAL TECHNOETHICS

1 unit

The course exposes students to different ethical ideas and issues surrounding technology and technology-enabled professional work. Students are guided towards the creation of a personal Worker Ethos – an actionable set of principles they can use to (1) evaluate Technoethical issues and (2) conduct themselves reliably and productively in the context of technology-enabled work. In response to recent events where students are acknowledging the problem of lacking meaning in one's work, the course concludes with possible models for transcending, recovering from or at the very least, accepting with cheer, the problem of meaning in the context of technology-driven work.

ISCS 30.16 (New)

GUIDED STUDIES IN DESIGNING DIGITAL EXPERIENCES FOR MUSEUMS

1 unit

This course introduces students to different ways in which digital technologies may be used to support the museum experience. Students get to survey the ways in which museum visitors better experience museum collections, contribute to the conversation about the collections, or co-create some aspect of the exhibit or the experience using digital media.

ISCS 30.17 (New)

GUIDED STUDIES IN DESIGNING TECHNOLOGIES FOR AGING POPULATIONS

1 unit

Prerequisite: CSCI 41 or MSYS 40

This course introduces students with the process of designing and evaluating technologies for older adults. In the course, students familiarize themselves with the physical, mental, and social characteristics of older adults that differentiate them from other segments of populations. Students assess how well current technologies provide for this population's unique needs. Recommendations are made on how these technologies can be improved in order to better support older adults.

ISCS 30.18 (New)**GUIDED STUDIES IN DATA PREPROCESSING****1 unit**

This course introduces students to methods of data preparation and exploratory data analysis that must be performed prior to data mining. These include methods and principles for data cleaning, treatment of missing data, feature engineering, and feature space reduction.

ISCS 30.19 (New)**GUIDED STUDIES IN BIG DATA APPRECIATION****1 unit**

This course introduces students to the motivations for data analytics. Students are guided in the formation of research questions with reference to the types of queries that data analytics attempts to understand, the iterative process of hypothesis testing, and the limits of machine learning.

ISCS 30.20 (New)**GUIDED STUDIES IN MACHINE LEARNING: ML PIPELINES****1 unit****Prerequisite: CSCI 21 or MSYS 21**

This course walks technical learners through the stages of a typical data science process for ML. These stages include analyzing and visualizing a data set; preparing the data and feature engineering; and the practical aspects of model building, training, tuning, and deployment.

ISCS 30.23 (New)**GUIDED STUDIES IN CONTAINERS I: CONTAINERIZING APPLICATIONS****1 unit****Prerequisite: CSCI 21 or MSYS 21**

This course focuses on the best practices of implementing applications in containers as an alternative to virtual machines, a concept referred to as “containerizing” applications. An application build and deployment tool like Docker is used in this course. The course differentiates between stateful and stateless servers, and guides the student on how to best utilize tools like Dockerfile and Docker cache.

ISCS 30.24 (New)**GUIDED STUDIES IN CONTAINER SCALING AND ORCHESTRATION****1 unit****Prerequisite: CSCI 21 or MSYS 21 and ISCS 30.23**

In software production environments, increased capacity and reliability are gained by implementing an operating system virtualization method referred to as “containerizing.” This course guides students to control a cluster of nodes by launching network services that describe these operating system containers for improved system performance.

ISCS 30.25 (New)**GUIDED STUDIES IN CONTAINER CONTROL PLANES****1 unit****Prerequisite: ISCS 30.24**

This course covers how to install, configure and deploy applications using a container control plane, in the context of implementing an isolated virtualization method called “containerizing.” It covers deploying tools such as Pods and services. Students are guided on how to implement deployments that interact with a cluster.

ISCS 30.26 (New)**GUIDED STUDIES IN CONTAINER ENABLED MICROSERVICES****1 unit****Prerequisite: ISCS 30.24**

The course highlights the challenges of running containerized applications at scale in software production environments, and provides guidance on creating and using virtualization apps such as Docker to manage cloud services. The focus of the course is the development and deployment of containerized microservices-based applications, as opposed to simply using apps such as Docker for containerization. Students are also guided on how to run container workers for asynchronous application processes.

ISCS 30.27 (New)**GUIDED STUDIES IN CONTAINER CONTROL PLANE QUALITY OF SERVICE****1 unit****Prerequisite: ISCS 30.25 or ISCS 30.26**

This course covers how to deploy, manage, and troubleshoot container-based workloads using container control planes. Students are guided on how to use labels, annotations, and namespaces to organize the largest workloads, and how control planes use labels internally for its own operations.

ISCS 30.28 (New)**GUIDED STUDIES IN CONTINUOUS INTEGRATION AND DEPLOYMENT****1 unit****Prerequisite: CSCI 21 or MSYS 21**

In this course, students learn how to set up a continuous integration and continuous deployment (CI/CD) pipeline in the context of software development environments. A pipeline helps automate steps in a software delivery process, such as initiating automatic builds and subsequent deployment to application servers. Students are guided in creating a service that builds, tests, and deploys code every time there is a code change, based on the release process models that are defined in the methodology.

ISCS 30.30 (New)**GUIDED STUDIES IN WEB ANIMATION****1 unit**

This course explores the different types of web animations that could be created. In the course, students learn different techniques to develop these types of animations, how to make them performant, and how to manage these animations for accessibility.

ISCS 30.33 (New)**GUIDED STUDIES IN JAVASCRIPT DEVELOPMENT****1 unit****Prerequisite: CSCI 21 or MSYS 21**

This course explores nuances of the JavaScript language. In the course, students learn about the language outside the context of the browser, using only application programming interfaces provided by the JavaScript standard. With this knowledge, students are equipped to work with JavaScript across different platforms.

ISCS 30.35 (New)**GUIDED STUDIES IN WEB PERFORMANCE****1 unit**

The internet is accessed through a multitude of devices and Internet connection speeds. In light of this, the need to build performant websites that can be usable in different network environments is a must. This course guides students in building websites for a spectrum of network environments and conditions. In this course, students learn to identify web performance bottlenecks, and apply the appropriate development solutions to address these bottlenecks.

ISCS 30.36 (New)**GUIDED STUDIES IN WEB ACCESSIBILITY****1 unit**

The Internet is a platform where people of all abilities and situations go. As such, websites should be able to cater to all persons, regardless of circumstance. In this course, students are introduced to topics regarding the building of websites that consider different types of people in mind. During the course, students assess accessibility problems in the context of websites and the Internet for the goal of and developing websites with accessibility and inclusivity in mind.

ISCS 30.37 (New)**GUIDED STUDIES IN WEB FRAMEWORKS****1 unit**

The evolution of the web development ecosystem has brought about different web frameworks that address particular problems that may be solved by web solutions. In this course, students are guided into building websites with the appropriate web frameworks for specific use-cases. In the duration of the course, students identify and implement appropriate web framework options for their chosen problem domains.

ISCS 30.40 (New)**GUIDED STUDIES IN MODERN IT MANAGEMENT FRAMEWORKS****1 unit**

Modern IT Management introduces students to modern integrated IT and related management frameworks to affect digital or IT transformation of enterprises and organizations. This course integrates multiple courses throughout the ISCS programs and applies them to real-world, even current, case studies. This course is designed to round out and provide practical, hands-on applications for future Chief Information Officers (CIOs), as well as Chief Digital Transformation Officers (CDTOs), and Chief Technology Officers, as well as other senior, and specialist roles needed in today's rapidly evolving Digital Economy.

ISCS 30.43 (New)**GUIDED STUDIES IN AGILE SOFTWARE DEVELOPMENT****1 unit****Prerequisite: CSCI 41 or MSYS 40**

This course introduces students to the agile methodology by allowing them to apply different agile tools and techniques to their software development projects. Students are tasked to use scrum practices as they develop their software applications. In the course of the semester, students assess said practices and implement adjustments as needed. Students are guided through the evolution of their software development process, and the assessment of agile methods.

ISCS 30.45 (New)**GUIDED STUDIES IN DESIGN THINKING FOR I.T. SOLUTIONS****1 unit**

This course teaches students how to identify problems and challenges that may be addressed by leveraging Information Technology. Students are introduced to the principles of design thinking as the main solution-finding approach. Design thinking tools are used to facilitate the framing of problems into opportunities for strategic solutions in the context of IT.

ISCS 30.50 (New)**GUIDED STUDIES IN OBJECT-ORIENTED PROGRAMMING FOR WINDOWS****1 unit****Prerequisite: CSCI 21 or MSYS 21**

This course provides a supplement to computer science and programming. An object-oriented programming language such as C# is used to explore the additional features in programming stand-alone programs. The student is further immersed in object-oriented programming and visual interface development.

ISCS 30.53 (New)

GUIDED STUDIES IN DECLARATIVE FRAMEWORK DESIGN AND IMPLEMENTATION

1 unit

Prerequisite: CSCI 21 or MSYS 21

This course introduces students to the ideas of declarative style/annotation-based framework design as seen in many popular industry level frameworks. Students familiarize themselves with technologies that are used to create declarative frameworks. Simplified versions of these frameworks are developed and implemented, and situations that merit the use of such techniques are identified.

ISCS 30.60 (New)

GUIDED STUDIES IN SOFTWARE TRAINING, SCREENCAST DESIGN, AND DEVELOPMENT

1 unit

This course teaches the students how to design and develop effective screencasts for software education and training. Students are guided through the process of planning and writing scripts, choosing the appropriate hardware and software tools, and deploying their work onto various platforms. Students learn best practices that allow them to deliver effective and high-quality content for software education and training.

CSCI 173 (Revised)

BIG DATA PROCESSING

3 units

Prerequisite: CSCI 21 or MSYS 21 or (specific for those minoring) CSCI 25

This course tackles principles, best practices, and technologies involved in large-scale data processing. Among the topics covered are distributed databases and programming, cloud computing, and unstructured databases. Students use data processing software tools in the context of solving problems that may be addressed by large-scale data analysis.

CSCI 182.06 (Revised)

NATURAL LANGUAGE PROCESSING

3 units

Prerequisite: CSCI 21 or MSYS 21 or (specific for those minoring) CSCI 25

This course provides students with the basic understanding necessary to develop and implement their own natural language processing software and algorithms in whatever field of application they may be required. This course concentrates on the fundamental techniques used to design NLP systems and the intuitions behind them.

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 56.1 (New)

INTRODUCTION TO SYMBOLIC DYNAMICS

3 units

Prerequisite: MATH 51.1

This course introduces the students to symbolic dynamics, its basic ideas, techniques, problems, and its interactions with information and coding theory, linear algebra, and general dynamical systems. The course focuses on symbolic dynamical systems that use just a finite number of symbols, on sequences of such symbols that are infinite in both directions, and spaces of such sequences.

PHYSICS

3/F Faura Hall
(632) 8426-6001 loc. 5690/5691
physics.sose@admu.edu

The Department of Physics seeks to be an internationally recognized Jesuit center of excellence in physics teaching and research in the service of society. We envision a department that shall address key issues in earth systems physics, physics for sustainable development, and physics education.

The department engages in relevant scientific endeavors in the fields of atmospheric physics, geophysics, materials science, photonics, theoretical physics, vacuum and plasma technology, and physics education. Through our collaborative, vibrant, and collegial faculty, we form scientists of competence and compassion who empower society.

COURSE OFFERINGS

PHYS 31.31 (Revised)

ANALYTICAL PHYSICS FOR ENGINEERING I, LECTURE

3 units

Prerequisite: MATH 30.23 and PHYS 31.32

This is a general physics course designed for Engineering majors. The course provides an overview of fundamental concepts from diverse fields in physics that have relevance in engineering practice and research. Topics include vectors, kinematics and dynamics, energy and momentum, rotations, elasticity, oscillations, fluids, heat and thermal processes, waves, electromagnetism and geometric optics.

PHYS 113 (Revised)

MATHEMATICAL PHYSICS III

3 units

Prerequisite: PHYS 112 and MATH 31.3

This is a 3-unit mathematical physics course that covers vector calculus, the Dirac delta function, and complex analysis. Topics in vector calculus include gradient, divergence, curl, line integrals, surface integrals, and volume integrals of vector fields in Cartesian coordinates and curvilinear coordinate systems, particularly cylindrical and spherical coordinates. Topics in complex analysis include complex functions, complex derivatives and the Cauchy-Riemann conditions, complex integrals, Laurent series and the residue theorem.

PHYS 114 (Revised)

MATHEMATICAL PHYSICS IV

3 units

Prerequisite: PHYS 112 and MATH 31.3

This is a 3-unit mathematical physics course on infinite-dimensional vector spaces, special functions, Fourier series and transforms, and partial differential equations. The definition, properties, and examples of Hilbert spaces are discussed, then the properties of various special functions are investigated. Fourier series are then taken up, and partial differential equations are introduced. In particular, Laplace's equation will be the focus of the course, with its solutions in Cartesian, spherical, and cylindrical coordinates. The course concludes with a discussion of the Fourier transform and its applications.

SCHOOL *of*
SOCIAL SCIENCES

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.

MINOR/SPECIALIZATION IN DEVELOPMENT AND THE LAW

The Minor/Specialization in Development and the Law grounds the students on the relationship between the law and various areas of development such as social and environmental legislation, law and macroeconomic stability, human rights and humanitarian action.

The Minor/Specialization builds on the existing expertise of the DS Program in humanitarian action, health and development, development theory, and development management. These are fields in which civil society actors have taken a lead role. By offering this Minor/Specialization, the Program will begin to critically approach the state and its legal role in fostering development.

The Minor/Specialization is mounted for students interested in potential careers in law, policy, politics, and research. Its critical assessment of the legal process will also be useful for those who intend to pursue development work.

	MINOR IN DEVELOPMENT AND THE LAW	SPECIALIZATION IN DEVELOPMENT AND THE LAW
Eligibility Requirements	The Minor is open to all students of the Loyola Schools. AB DS students will take it as a Specialization.	The Minor is open to all students of the Loyola Schools. AB DS students will take it as a Specialization.
Admission Requirements	There are no academic requirements for admission for the Minor program. For admission, students must submit an application addressed to and approved by the Development Studies Program by the First Semester of the Senior Year. Students are nevertheless encouraged to apply as early as possible.	There are no academic requirements for admission for both Minor and Specialization. For admission, students must submit an application addressed to and approved by the Development Studies Program by the First Semester of the Senior Year. Students are nevertheless encouraged to apply as early as possible.
Minimum Grade Requirement	Minimum grade of C in each of the courses taken as part of the Minor.	Minimum grade of C in each of the courses taken as part of the Minor/Specialization.
Program Curriculum	<u>Required Course (9 units)</u> DEV 100.1: Perspectives in Development: Economics, or DEV 100.2: Perspectives in Development: Politics, or DEV 100.3: Perspectives in Development: Sociology DEV 105i: Survey of Social Development Approaches DEV 186.56: Special Topics in Development Studies: Legal Issues in Development	<u>Required Course (3 units)</u> DEV 186.56: Special Topics in Development Studies: Legal Issues in Development

	<p><u>Electives (9 units)</u> CSP 32: Government and Politics of China DEV 109: Institutions and Development DEV 189.5: Special Topics in Contemporary Development Studies: Corruption and Development DEV 181.3: Special Topics in Humanitarian Action: International Frameworks and Practices DEV 181.4: Special Topics in Humanitarian Action: Human Rights and Development DEV 183.14: Special Topics in Development Management: Alternative Dispute Resolution Processes DEV 186.14: Special Topics in Development Studies: Local Government DEV 186.83: Special Topics in Development Studies: The Bureaucracy, Public Policy and Development DEV 186.48: Special Topics in Development Studies: Development Policy DEV 189.8: Special Topics in Contemporary Development Issues: The Political Economy of Health and Development DEV 189.83i: Special Topics in Contemporary Development Issues: Survey of Public Health Interventions ECON 185.60: Special Topics in Economics: Environmental Policy ECON 185.69i: Law, Economics and Public Policy JPN 141: Government and Politics of Japan LLAW 116: Labor Law and Social Legislation POLSC 112: Politics and Governance of Southeast Asia POLSC 131.40: The State and Economic Development: East and Southeast Asia POLSC 134.10: International Negotiation and Conflict Resolution</p> <p>And other courses as may be determined/approved by the Program Director</p>	<p><u>Electives (9 units)</u> CSP 32: Government and Politics of China DEV 109: Institutions and Development DEV 189.5: Special Topics in Contemporary Development Studies: Corruption and Development DEV 181.3: Special Topics in Humanitarian Action: International Frameworks and Practices DEV 181.4: Special Topics in Humanitarian Action: Human Rights and Development DEV 183.14: Special Topics in Development Management: Alternative Dispute Resolution Processes DEV 186.14: Special Topics in Development Studies: Local Government DEV 186.83: Special Topics in Development Studies: The Bureaucracy, Public Policy and Development DEV 186.48: Special Topics in Development Studies: Development Policy DEV 189.8: Special Topics in Contemporary Development Issues: The Political Economy of Health and Development DEV 189.83i: Special Topics in Contemporary Development Issues: Survey of Public Health Interventions ECON 185.60: Special Topics in Economics: Environmental Policy ECON 185.69i: Law, Economics and Public Policy JPN 141: Government and Politics of Japan LLAW 116: Labor Law and Social Legislation POLSC 112: Politics and Governance of Southeast Asia POLSC 131.40: The State and Economic Development: East and Southeast Asia POLSC 134.10: International Negotiation and Conflict Resolution</p> <p>And other courses as may be determined/approved by the Program Director</p>
Total Units	18 units	12 units

COURSE OFFERINGS

DEV 181.6 (New)

SPECIAL TOPICS IN HUMANITARIAN ACTION: PANDEMICS AND HEALTH EMERGENCIES

3 units

Prerequisite: DEV 181.1

This course introduces students to the humanitarian principles and frameworks in understanding pandemics. The course also covers the different policies and tools available in responding to pandemics as humanitarian crises. By drawing on the experience of different countries, it discusses how pandemics, for challenging health systems, require the cooperation of different stakeholders such as government agencies, humanitarian and development actors, and the private sector.

HISTORY

2/F Ricardo & Dr. Rosita Leong Hall
(632) 8426-6001 loc. 5240/5241
Fax: (632) 8426-6114
history.soss@ateneo.edu

The Department of History, as part of the School of Social Sciences, aims to produce transformative leaders who will work towards inclusive societal and human development. Through a combination of rigorous research, creative teaching and inclusive service learning, the Department of History hopes to form students who are trained to see themselves as connected to an increasingly global world, yet deeply rooted in our nation and culture.

COURSE OFFERINGS

HISTO 121.07 (Revised)

JAPANESE OCCUPATION OF THE PHILIPPINES

3 units

This course studies the Japanese invasion and occupation of the Philippines; the impact of the occupation years on the socio-political, economic, and cultural life of the Filipino; and the similarities in the behavior of the Japanese Army in the occupied countries in Southeast Asia.

HISTO 121.09 (Revised)

MARTIAL LAW IN THE PHILIPPINES

3 units

A course on the Martial Law period in the Philippines, from its origins to how it unfolded and ended. The course studies the context, causes, and consequences of this regime. It examines key personalities, and political and economic issues such as crony capitalism, the CCP-NPA-NDF insurgency, the Muslim secessionist movement, and various activist groups. It also delves into the question of human rights violations, and the role of religion and media. Finally, the course looks at how Martial Law has been remembered over the past decades, and studies the existing narratives and shifting perceptions of its legacy.

HISTO 122.04 (Revised)

PHILIPPINE SOCIAL HISTORY

3 units

A course on the various topics of Philippine social history with emphasis on the socio-economic, socio-cultural, religious, ethnographic, and demographic transformations experienced by the country. Topics include nationalist and social movements, gender, and ethnic and religious movements.

HISTO 124.04 (Revised)

A SURVEY OF PHILIPPINE ARTS

3 units

A course on history of Philippine visual arts from the 19th century to the post-war era. The course discusses the anonymous artists of the colonial Spanish period until the mixed media/installation artists from the 1960's to the present.

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.

COURSE OFFERINGS

ANTH 101

FUNDAMENTALS OF ANTHROPOLOGY

3 units

This course introduces students to the discipline of anthropology, paying close attention to how anthropologists study humans as sociocultural and biological beings affected by and affecting ecological, geographical, and political landscapes on which they stay or have moved across time. Themes and topics of the course are drawn from the integration of diversified traditions of anthropological scholarships and practice, covering among others the classical four-field anthropology, social anthropology, ethnology, and world anthropologies. Through these traditions, the course equips students with far more holistic framework in understanding the human scientifically and humanistically.

ANTH 168 (New)

ANTHROPOLOGY OF HEALTH

3 units

Prerequisite: SocSc 11

The course draws student attention to the interplay of extant and evolving bio-ecological conditions and socio-cultural and power relations with wellness and illnesses. Through close examination of the interconnectedness of body, society, politics, culture, ecology and the historical antecedents of these relationships, students tackle factors influencing the rise and distribution of diseases, prevention and treatment of sickness, and the plurality of epidemiological systems across social worlds. The course pays attention to popular health cultures vis-a-vis bioscientific epidemiology, the cornerstone by which health anthropology contributes to the deepening, diversification, and enhancement of public, professional, and academic understanding of health and well-being.

