

# Undergraduate Curriculum Model & General Education Programme

The following undergraduate curriculum model was implemented from academic year 2019/2020 onwards:

Course Types		No. of Credits
1.	Major (CM + RE)	40 – 66
2.	Community and Peer Education (CPE)	3
3.	Languages and Skills^ (L&S)	3 – 15
4.	General Education (GE)	24 – 27
5.	Free Elective (FE)	9 – 50
<b>Minimum Credit Requirement</b>		<b>120</b>

^ Students who test out of the Languages and Skills course(s) are required to make up the credits by taking additional Free Elective(s).

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## Community and Peer Education

The Community and Peer Education courses focus on experiential learning. They are run jointly by the Faculties and the Residential Colleges (RC).

<b>Community and Peer Education Courses</b>	<b>No. of Credits</b>	<b>Suggested Year Level</b>
CPED1000 - Residential College Experiential Learning	1	1
CPED1001/1002 - Physical Education I/II	0.5 each	1
CPED2001 - Residential College Community Team Project	1	2

## Languages and Skills

Languages and Skills is one of the components in the undergraduate curriculum model. It includes 0-9 credits of English language courses, 0-3 credits of Chinese and Portuguese language courses, and 3 credits of Information Technology course. Students can test out of some of the language course(s) but will be required to make up the credits by taking additional Free Elective(s).

Languages and Skills Courses	No. of Credits
<b><sup>1</sup> English Language</b>	
<b>University English</b>	
EELC1011 - University English I	3
EELC1012 - University English II	3
EELC1013 - University English III	3
<b>Academic English</b>	
EELC2008 – Academic English: Speaking	3
EELC2009 – Academic English: Writing	3
EELC2010 – Academic English: Project-based Learning	3
<b>English for Specific Academic Purposes</b>	
EELC2011 – English Speaking for Academic Research	3
EELC2012 – English Writing for Academic Research	3
EELC2013 – English Integrated Skills for Academic Research	3
<b><sup>2</sup> Chinese or Portuguese Language</b>	
CHLL1000 - University Chinese	3
PORT1000 - Portuguese Language I – Introductory Portuguese	3
<b><sup>3</sup> Information Technology</b>	
CISC1000 - Information Technology Fundamentals and Practices	3

<sup>1</sup> Please refer to the Registry's website (<https://req.um.edu.mo/current-students/curriculum-model/ug-curriculum-model/languages-and-skills/>) for details about the course requirements of English language courses.

<sup>2</sup> Students can choose either Chinese or Portuguese language.

<sup>3</sup> Students cannot test out of the Information Technology course.

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## General Education Programme

Students are required to fulfil the General Education requirement as follows: (Please refer to the Registry's website (<https://reg.um.edu.mo/current-students/curriculum-model/ug-curriculum-model/general-education/2017-2018/framework/>) for the most updated list of General Education courses.)

General Education Courses	No. of Credits	Suggested Year Level
<b>Global Awareness</b>		
<sup>1</sup> GEGA1000 - Macao and Chinese Civilization	3	1
GEGA1001 - Language and Globalisation	3	1
GEGA1003 - Global Justice and the Creative Economy	3	1
GEGA1004 - Global History of Medicine	3	1
GEGA1006 - Green Energy for Global Society	3	1
GEGA1007 - Nutrition in Health and Disease	3	1
GEGA1008 - Politics in Portuguese-Speaking Countries	3	1
GEGA2001 - Greater China and the Global Economy	3	2
GEGA2002 - Education and Globalization	3	2
GEGA2003 - Global Media	3	2
GEGA2004 - Intercultural Communication	3	2
GEGA2007 - Empires and Overseas Expansion	3	2
GEGA2008 - History of Globalization	3	2
GEGA2010 - Migration and Multicultural Society	3	2
GEGA3000 - Global Business and Cultures	3	3
GEGA3001 - Understanding International Politics	3	3
GEGA4000 - Global Politics and Wealth	3	4

<sup>1</sup> Compulsory General Education course for all students.

General Education Courses	No. of Credits	Suggested Year Level
<b>Literature and Humanities</b>		
<sup>1</sup> GELH1000 - Chinese Language and Culture	3	1
<sup>2</sup> GELH1010 - Chinese Language and Culture (for International Students)	3	1
GELH1001 - Chinese Languages and Chinese Communities	3	1
GELH1002 - Popular Literature and Life	3	1
GELH1003 - Contemporary Artistic Expressions in the Portuguese-Speaking World	3	1
GELH1004 - Portuguese-Speaking Countries in Contemporary World	3	1
GELH1007 - Visual and Performing Arts - Dance	3	1
GELH1008 - Trade, Empire and Globalization	3	1
GELH1009 - Athens and Jerusalem: Pillars of Western Civilisation	3	1
GELH1011 - Philosophy and Humour	3	1
GELH1012 - Art Appreciation: A Close Reading of Masterpieces	3	1
GELH2000 - Creativity and Writing: English for a Global Readership	3	2
GELH2001 - Sex and the Arts	3	2
GELH2002 - The Holocaust, Genocide and Human Rights	3	2
GELH2003 - Visual and Performing Arts – Drama	3	2
GELH2004 - Visual and Performing Arts – Music	3	2
GELH2005 - Visual and Performing Arts – Visual Art	3	2
GELH2006 - Dialogue with the Past: Human Memories in Arts, Literature, Films, and Material Cultures	3	2
GELH2007 - History of Western Civilization	3	2
GELH2008 - Asian Values and Moral Traditions	3	2
GELH2009 - Creativity for the 21 <sup>st</sup> Century	3	2
GELH2010 - Portuguese Language in Asia	3	2

<sup>1</sup> Compulsory General Education course for students who understand Chinese.

<sup>2</sup> Compulsory General Education course for students who do not understand Chinese.

General Education Courses	No. of Credits	Suggested Year Level
<b><i>Science and Technology</i></b>		
<sup>1</sup> GEST1001 - Quantitative Reasoning for Business	3	1
<sup>2</sup> GEST1002 - Quantitative Reasoning for Social Sciences	3	1
<sup>3</sup> GEST1003 - Quantitative Reasoning for Health Sciences	3	1
<sup>4</sup> GEST1004 - Quantitative Reasoning for Science and Technology	3	1
GEST1005 - Internet, Business and Society	3	1
GEST1006 - Logic and Reasoning for Business	3	1
GEST1007 - Fun in Health Science	3	1
GEST1008 - Exploring the Earth	3	1
GEST1009 - Multimedia Technology in Modern Society	3	1
GEST1010 - Chemistry and Modern Society	3	1
GEST1011 - Environmental Science	3	1
GEST1012 - Electricity and Life	3	1
GEST1013 - Mathematics in Modern Society	3	1
GEST1014 - Mysteries of the Universe	3	1
GEST1015 - Physics and Modern Society	3	1
GEST1016 - Mystery of Chemistry	3	1
GEST1017 - Modern Drug Discovery: Drugs and Health	3	1
GEST1018 - Nutrition and Food Safety	3	1
GEST1019 - Microelectronic Chip Technology in Daily Life	3	1
GEST2000 - Active Lifestyles, Wellness and Sports Science	3	2
GEST2001 - Biology in Our Daily Life	3	2
GEST2002 - Psychology and Health	3	2
GEST2003 - Exploring Chinese Medicine	3	2

- 1 Compulsory General Education course for FBA students.
- 2 Compulsory General Education course for FAH, FED (except for Bachelor of Education in Mathematics), FLL (Bachelor of Law in Chinese Law and Global Legal Studies) and FSS students.
- 3 Compulsory General Education course for FHS (except for Bachelor of Science in Bioinformatics (BIF19) – admitted from academic year 2019/2020 to 2021/2022) students.
- 4 Compulsory General Education course for FED (Bachelor of Education in Mathematics), FHS (Bachelor of Science in Bioinformatics (BIF19) – admitted from academic year 2019/2020 to 2021/2022) and FST students.

General Education Courses	No. of Credits	Suggested Year Level
<b><i>Society and Behaviour</i></b>		
<sup>1</sup> GESB1000 - Ethics, Values, Law and Society <ul style="list-style-type: none"> <li>• GESB1001 - Applied Ethics</li> <li>• GESB1002 - Foundations of Moral Values</li> <li>• GESB1003 - Law and Society</li> </ul>	3	1
GESB1004 - Development of Games and Gambling	3	1
GESB1005 - Macao Law and its Real-Life Applications	3	1
GESB1006 - Economics of Everyday Life	3	1
GESB1007 - Understanding Macroeconomic Policies	3	1
GESB1008 - Understanding Government	3	1
GESB1009 - Personal Growth	3	1
GESB1011 - Courtship, Marriage and Family	3	1
GESB1012 - Critical Problems in Contemporary Society	3	1
GESB1013 - Everyday Statistics	3	1
GESB1014 - Psychology and Intelligent Technology	3	1
GESB1015 - Adolescence: Beyond Storm and Stress	3	1
GESB1016 - Governance in China	3	1
GESB2000 - Personal Finance and Wealth Management	3	2
GESB2001 - Food, Eating and Culture	3	2
GESB2002 - Business, Society and Entrepreneurship	3	2
GESB2003 - Creativity and Marketing	3	2
GESB2004 - Public Speaking	3	2
GESB2005 - Art and Society	3	2
GESB2006 - Understanding Population	3	2
GESB2009 - Smart Tourism and Leisure Travel Behaviour	3	2

<sup>1</sup> Compulsory General Education course for all students.

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# Rules Governing General Education Programme

(Approved by the Rector on 10 February 2017)

1. The number of required GE Programme credits is 24 to 27 credits depending on the individual Faculty/Programme. The distribution of GE credits among the four GE areas can be designed by individual Faculty/Programme.
2. Students must complete four compulsory GE courses:
  - Macao and Chinese Civilization in area of Global Awareness (3 credits)
  - Chinese Language and Culture in area of Literature and Humanities (3 credits)
  - Quantitative Reasoning in area of Science and Technology (3 credits)
  - Ethics, Values, Law and Society in area of Society and Behaviour (3 credits)
3. In addition to the four compulsory courses, students are required to complete the remaining GE credits (12 to 15 credits) among the four areas.
4. GE course credits cannot be double counted to satisfy other University or Faculty/Programme credit requirement.
5. There are no GE substitution courses in this GE model.
6. Students registered in the old programmes (2016/2017 or before) will be allowed to take the new GE courses to fulfil the GE requirement if there is a mapping area for 2011/2012 model.
7. Students registered in this curriculum model will be allowed to take any additional GE courses to fulfil the free elective requirement.
8. Students must observe any additional rules on GE courses selection imposed by their Faculties/Programmes.



## Course Description

### Community and Peer Education

#### **CPED1000 RESIDENTIAL COLLEGE EXPERIENTIAL LEARNING**

This course is designed to enrich first-year students to collegial life, living and learning opportunities, and residential colleges learning goals at the University of Macau. It provides active learning opportunities which enable students to take responsibility for their transition to university and RC life. The course also serves the function of forming student learning communities, which, facilitated by RC faculty, encourage students to explore a wide range of experiential learning activities in RC competency areas (Citizenship with Global Perspective, Cultural Engagement, Healthy Living, Interpersonal Relations and Teamwork, Leadership and Service) while documenting and assessing their personal growth in an e-portfolio.

Pre-requisite: None

#### **CPED1001/1002 PHYSICAL EDUCATION I/II**

Physical Education consists of theory of fitness (Part I) and basic sport concepts, knowledge and skill practice in team sport and individual sport (Part II).

Part I covers sport relevant concepts including the function of sports in life, sports injury prevention & treatment and sport knowledge. Students will learn theory, principle and regulation in fitness and know how to do exercise and workout regularly.

Part II focuses on skill-based physical fitness which includes one team sport and one individual sport.

Students will be guided to apply the concept of fitness sport theory and game strategy with skill when they learn sports for participating in sport and sport practice continuously.

Pre-requisite: None

#### **CPED2001 RESIDENTIAL COLLEGE COMMUNITY TEAM PROJECT**

This course offers students practical experience in communication and leadership through experiential learning in a community team project. Students of different majors will complete a creative team project on an assigned topic to promote specific positive values pertaining to RC character education to an identified audience in the society under the supervision of RC academic staff and the support of community partner(s). They need to acquire related knowledge of the positive values and the targeted audience as active learners themselves during the process. The student teams need to document their project outcomes in electronic form and make physical or online presentations reflecting on the learning process of the team project.

Pre-requisite: None

### Languages and Skills

#### *English Language*

#### **EELC1011 UNIVERSITY ENGLISH I**

This is a one-semester Academic English course for elementary English language level students. Students have six class hours, one tutorial hour and an e-learning requirement. This course introduces basic academic listening, speaking, reading and writing skills through students' active participation in diverse and intensive academic and discipline-related activities and assessments at an appropriate elementary level. Simple academic texts and discipline-related materials

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enhance students' accurate use of basic grammar structures, enlarge their vocabulary and facilitate their development of language skills for a variety of academic contexts. The course provides a foundation for students to develop the academic English skills and abilities necessary for studying at the university level in English.

Pre-requisite: None

### **EELC1012 UNIVERSITY ENGLISH II**

This is a one-semester Academic English course for low-intermediate English language level students. Students have six class hours, one tutorial hour and an e-learning requirement. This course improves and consolidates academic listening, speaking, reading and writing skills through students' active participation in diverse and intensive academic and discipline-related activities and assessments at an appropriate low-intermediate level. Short academic texts and discipline-related materials enhance students' accurate use of more complex grammar and text structures, enlarge their vocabulary and facilitate their development of language skills for a variety of academic contexts. The course provides practice for students to develop the academic English skills and abilities necessary for studying at the university level in English.

Pre-requisite: EELC1011 or a required score in a placement test

### **EELC1013 UNIVERSITY ENGLISH III**

This is a one-semester Academic English course for intermediate English language level students. Students have three class hours. This course develops and reinforces academic listening, speaking, reading and writing skills through students' active participation in diverse and intensive academic and discipline-related activities and assessments at an appropriate intermediate level. Academic texts and discipline-related materials enhance students' confident use of appropriate grammar and text structures, enlarge their vocabulary and facilitate their development of language skills for a variety of academic contexts. The course provides students with the academic English skills and abilities necessary for studying at the university level in English.

Pre-requisite: EELC1012 or a required score in a placement test

### **EELC2008 ACADEMIC ENGLISH: SPEAKING**

This is a one-semester Academic English course for students with an intermediate English language level. Students have three class hours every week. The course requires students to apply the skills they have learned in previous University English or Academic English course(s). Additionally, students will learn to use introductory academic speaking skills. These skills include: logical persuasion, information sharing, meeting facilitation, impromptu speaking, and responding to questions. Students are expected to analyze sample academic speeches/presentations for discipline-specific academic features in preparation for advanced academic speaking. Depending on students' disciplines, they will be introduced to different genres in academic speaking (e.g. oral reports, persuasive/informative speeches, poster presentations, discussions, and oral reflections, etc.).

Pre-requisite: EELC1013 or a required score in a placement test

### **EELC2009 ACADEMIC ENGLISH: WRITING**

This is a one-semester Academic English course for students with an intermediate English language level. Students have three class hours every week. The course requires students to apply the skills they have learned in University English or Academic English course(s). Additionally, students will learn to use introductory academic writing skills. These skills include: writing summaries and responses, conducting secondary research, evaluating sources, documenting the research process, considering the rhetorical situation, making an argument, paraphrasing from sources, using academic language, and writing coherently. Students are expected to analyze sample academic text for discipline-specific academic features in preparation for advanced academic writing. Depending on students' disciplines, they will be introduced to different genres in academic writing (e.g. essays, reports, case studies, research proposals, book reviews, literature reviews, reflective writing, etc.).

Pre-requisite: EELC1013 or a required score in a placement test

**EELC2010 ACADEMIC ENGLISH: PROJECT-BASED LEARNING**

This is a one-semester Academic English course for students with an intermediate English language level. Students have three class hours every week. The course requires students to apply the skills they have learned in University English or Academic English course(s). In groups, students will learn to use introductory academic writing and speaking skills to design and implement their multigenre/multimodal projects. These skills include: primary/secondary research, critical thinking skills, problem-solving skills, writing/presentation skills, teamwork, etc. Through experiential learning, students will be guided to observe, collect information, persuade, and generate a writing/speaking product.

Pre-requisite: EELC1013 or a required score in a placement test

**EELC2011 ENGLISH SPEAKING FOR ACADEMIC RESEARCH**

This is a one-semester academic speaking course for students with an upper-intermediate English language level. Students have three class hours every week. The course also addresses the information literacy and higher-order thinking skills necessary for conducting extensive secondary research, constructing ideas, providing evidential support, and structuring ideas coherently in spoken academic settings. Students develop both verbal and non-verbal communication in small and large group academic settings. Students will critically evaluate their own and others' performances, and will learn how to utilize a variety of technology enhanced communication tools. Other skills addressed in this course include critical thinking and argumentation.

Pre-requisite: EELC2008, EELC2009, EELC2010 or a required score in a placement test

**EELC2012 ENGLISH WRITING FOR ACADEMIC RESEARCH**

This is a one-semester academic writing course for students with an upper-intermediate English language level. Students have three class hours every week. This course addresses the information literacy and higher-order thinking skills necessary for conducting extensive secondary research, providing evidential support, and structuring ideas in coherent written academic texts. Students spend time responding to multiple drafts of peer academic papers to improve precision and clarity in the writing process. Other specific skills addressed in this course are critical thinking and argumentation.

Pre-requisite: EELC2008, EELC2009, EELC2010 or a required score in a placement test

**EELC2013 ENGLISH INTEGRATED SKILLS FOR ACADEMIC RESEARCH**

This is a one-semester integrated academic language course for students with an upper-intermediate English language level. Students have three class hours every week. Students will engage in data gathering, analysis and interpretation skills and communicate research results effectively in academic presentation or report formats. Students will critically evaluate their own and others' performances, and will learn to utilize a variety of technology-enhanced tools to aid in preparing and communicating academic concepts and findings. Upon completion, students are expected to have acquired a basic understanding of primary academic research methods and have developed techniques to effectively communicate concepts and research results.

Pre-requisite: EELC2008, EELC2009, EELC2010 or a required score in a placement test

***Chinese or Portuguese Language*****CHLL1000 UNIVERSITY CHINESE**

This course covers topics such as characteristics of Chinese language, its significance as one of the global languages, its relationship with Chinese cultures and communities, and its expression in Chinese literature and practical usage. The focus of the last topic may change in accordance with the expertise of individual instructors, possible areas including traditional Chinese poetry, traditional Chinese fiction and drama, modern Chinese literature, contemporary Chinese literature, and Chinese literature in the world. This is a discussion-oriented, student-centered course in which all students are expected to engage in class discussions and critical analysis of the reading

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materials. Those reading materials will be focused on the different diversity courses techniques of those students from different majors. Presentation and communication techniques will also be gained.

Pre-requisite: None

### **PORT1000 PORTUGUESE LANGUAGE I - INTRODUCTORY PORTUGUESE**

Principles of written and oral language. The comprehension and conversation through exercises in the class and language laboratory. The grammar fundamentals obtained through the use of simple pronunciation and reading materials.

Pre-requisite: None

## ***Information Technology***

### **CISC1000 INFORMATION TECHNOLOGY FUNDAMENTALS AND PRACTICES**

This foundational course introduces and explores the impact of information technology (IT) in our modern society. The course is designed to provide the fundamentals and practices for an effective use of IT in our daily lives. The course is divided in three modules:

- Module I introduces the fundamentals of IT, the Internet and the Web, connectivity and mobility, and important issues in computer privacy, security and ethics.
- Module II focuses on application software for computers and mobile devices.
- Module III explores computer hardware and computer software, mobile devices and apps, communication and networking.

Pre-requisite: None

## **General Education Programme**

### ***Global Awareness***

#### **GEGA1000 MACAO AND CHINESE CIVILIZATION**

This GE course will provide an introduction to the history of Macao, focusing on the global processes that impacted the city's development and how this in turn helped shape the course of Chinese history from the sixteenth century (1500s) to the present. The aim is for students to engage with the history of Macao from international and local perspectives to gain an introductory understanding of the role Macao has played in the intertwined histories of China and Eurasia. Through this, students should gain an appreciation for Macao's role in mediating China's relations with the wider world and how this has impacted China's transformation and development. This course should help students understand how Macao's unique political, economic, and social position affected China's national development as well as the evolution of the Greater Bay Area.

Pre-requisite: None

#### **GEGA1001 LANGUAGE AND GLOBALISATION**

This course will introduce students to the development of historical and contemporary world languages. The rise and decline of several historically significant world languages (e.g. Latin, Portuguese, English, etc.) will illustrate the historical forces that shape the forms and function of world languages. The course will consider both standard and non-standard varieties of world languages as well as the socio-cultural factors related to the development of a standard language.

Pre-requisite: None

#### **GEGA1003 GLOBAL JUSTICE AND THE CREATIVE ECONOMY**

Is there and can there be "global justice"? Can someone lie and say the truth, be guilty and

innocent, smile and glower, be happy and sad, or happy and poor as well as sad and rich at the same time? What defines and drives the “creative economy”? Is it money and profits, work or satisfaction, or physical or mental labour, efficiency or creativity, or competition or cooperation? And how are global justice and the creative economy intertwined? These are only a few selected questions that point to a deeper problem encountered in the 21st century, which was also referred to as the Age of Paradox (Handy, C., 1995). It is a problem that also connects the two concepts “global justice” and “creative economy”. Already each of the two concepts alone currently poses serious challenges to individuals, municipalities, regions, states as well as the world community as a whole. In combination, the complexity of their meaning rises drastically, often leading to a sentiment of confusion, paralysis, or disorientation. Thus, the challenges they pose are reflected in the many thousand decisions that we take on a daily basis, whether consciously or unconsciously, individually or collectively, as well as wisely or foolishly. The two concepts have in common their nature as, what has been called, “essentially oxymoronic concepts”, which are oxymora, contradictions in terms, or paradoxes. These essentially oxymoronic concepts all share that, by uniting apparently opposite statements or truths, their meaning contains some varying degree of contradictions, which pose a problem to a classical or binary logic of someone being either right or wrong, but not both at the same time.

In the case of ‘global justice’, the contradiction can be found in the presumption that “justice” is already difficult to establish within a single country or its legal system and even more so at the global level, with its multitude of different legal systems, cultures and languages. Similarly, the term ‘creative economy’ has evolved from the oxymoron ‘culture industry’, i.e. two terms representing cultural activity on the one hand and economic activity on the other, which in the past were widely regarded as not only separate but also incompatible. Together they give rise to many more such concepts, like “glocalisation”, “coopetition”, or the many “paradoxes of happiness”, which, in line with the unique features of a place like the Macao SAR, will be discussed in the course from a both Eastern and Western perspective.

Pre-requisite: None

#### **GEGA1004 GLOBAL HISTORY OF MEDICINE**

Health is a crucial issue in global history. As nobody escapes disease and death, healing traditions have developed in all parts of the world. This course is a fascinating exercise in which we will explore, on the one hand, the development of medical thought, concepts and ideas as well as shifting patterns of medical practices and therapeutic treatments in world history. On the other hand, we will focus on the transmissions, interactions and exchanges of healing traditions, pharmacopeia and related religious worldviews, and this over a space stretching from Europe across Asia, from China and India to West Asia and the Americas. We will reflect on the close relationships between medical thought and the prevailing political, social, economic and cultural conditions that unavoidably shape man’s living conditions. Moreover, we will uncover that there are all-encompassing and cross-cultural parallelisms showing that civilizations and cultures are not discrete and unalterable units, but have been subjected time and again to external influences and impacts. With a true interdisciplinary and comparative approach and with due attention paid to primary sources this course aims at promoting an awareness of the historical forces that have moulded, and continue to shape, medicine in the world and that help us to reach a deeper understanding of what defines modernity. This general education course is conceived to be an interactive forum in which for some of the individual sessions a selected number of international Eastern and Western specialists in the history of medicine and medical humanities will present their innovative perspectives.

Pre-requisite: None

#### **GEGA1006 GREEN ENERGY FOR GLOBAL SOCIETY**

The course will focus on the challenging issue that our human being is facing – The Energy. The course will talk the importance of energy to our future society, energies in old forms (such as oil and coal) and their detrimental effects, and the solutions to the challenge in the future. The contents will cover all of the green energies, including solar energy, wind energy, hydrogen energy, tidal energy, hydroelectricity, Biomass, Geothermal Power, and others (such as ocean, and hot hydrogen fusion), and energy storage. In addition, topics on air pollution and global warming will

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be investigated.

Pre-requisite: None

### **GEGA1007 NUTRITION IN HEALTH AND DISEASE**

This course aims to provide the understanding of how nutrition advances are made and a view of the relationship between diet, nutrition and disease in detail. It also introduces the role of nutrition in global health. There is now a large body of evidence demonstrating that the satisfaction of nutritional needs is mandatory to human life. This course includes the dietary causes of chronic diseases related to lifestyle, such as hypertension, coronary heart disease, diabetes, obesity, and cancer. The course covers the methodology used to determine dietary, nutritional and health status and how evidence is gathered to determine the links between diet, nutrition and health.

Pre-requisite: None

### **GEGA1008 POLITICS IN PORTUGUESE-SPEAKING COUNTRIES**

This course has been designed to promote and encourage the Portuguese-speaking countries' (PSC's) scientific study, adopting both perspectives: International Relations and Political Science. The PSC will be organized in three groups (Portuguese-speaking small developing island states, African Portuguese-speaking countries and Ibero-American Portuguese-speaking countries), taking into consideration their intrinsic characteristics and regional location.

The study theoretical framework will be grounded in the post-colonial studies, regional development and globalization, and focus on the post-independence political, economic and social developments. Finally, this course also aims to encourage further post-graduate research on PSC in specific or thematic areas.

Pre-requisite: None

### **GEGA2001 GREATER CHINA AND THE GLOBAL ECONOMY**

Greater China includes Mainland China, Hong Kong, Macao and Taiwan. This course introduces to students the background and features of each region within Greater China. It especially covers the social and economic changes of Mainland China in the pre- and post- reform periods, its economic structure, its 5-year plans, and their implications for Asia and the entire world. The reform & opening-up policy, foreign direct investment, and international trade have transformed Mainland China into a significant global trader. Its social and economic integration with Hong Kong, Macao, and Taiwan is being deepened through CEPA, ECFA, and other agreements. Renminbi as an emerging reserve currency, the One-Road-One-Belt strategy, the Asian Infrastructure Investment Bank, and the new four China Free Trade Zones are the latest events of development important for economies and society in the Asian and European continents. All these topics will be discussed in this course.

Pre-requisite: None

### **GEGA2002 EDUCATION AND GLOBALIZATION**

Globalization has become a centerpiece in our times when increasing economic, cultural, and educational interconnections propel nations and citizens to think globally and act locally. Drawing on international scholarship, this course aims to help students make sense of this multi-faceted phenomenon of globalization and examine key themes, issues, and trends that affect education around the world. A variety of topics will be discussed and students will be given opportunities to reflect and analyze their own educational system in relation to these themes and issues. No prior course work on related topics is required.

Pre-requisite: None

### **GEGA2003 GLOBAL MEDIA**

The course aims to provide students with a set of literacies specific to the cultural field of the global mass media. Most of the information and knowledge, and also the ideas, opinions and attitudes, which students have about the world are derived from (increasingly digitally linked) media outlets and sources. However, while students utilize the media intensively, they do so with a relatively undeveloped (often merely tacit) understanding of the field's logics, values, discourses,

genres and forms of address. Consequently students lack the ability to distinguish between different sources and levels of information, and have little idea how to critically evaluate the representations and presentations provided through the media. In this course students will learn about the mass media as a cultural field, and how to approach and utilize it as informed and literate users. This level of literacy will be demonstrated in a project that they will be required to complete at the end of the semester, and also in oral presentations that groups will give on selected case studies. The course will also have a strong visual literacy component, whereby students will learn how audio-visual texts utilize combinations of visual, spoken and written language and signs to produce meanings and narratives for, and to hold the attention and influence the ideas and practices of, media audiences. Part of the feedback from the oral presentations will be directed to the kinds of literacies and techniques that help produce effective audio-visual texts: in this way the course will help students to learn both analytical & practical oral, visual and written communication literacies.

Pre-requisite: None

### **GEGA2004 INTERCULTURAL COMMUNICATION**

This course provides an introduction to how people communicate across cultures. It will look at examples of, and the reasons for, successful and unsuccessful cases of intercultural communication. This course aims to provide students with the tools they need to become competent and confident communicators across a range of intercultural communication contexts. There will also be a focus on how communication and culture shape each other, and how various socio-cultural factors and issues affect and are affected by communication.

Pre-requisite: None

### **GEGA2007 EMPIRES AND OVERSEAS EXPANSION**

This course area is designed to provide a general understanding of some of the key problems facing the modern world. In an attempt to understand the rise of modern-day 'superpowers', this course will focus on the historic role of 'Empires' and 'Overseas Expansion' in affecting political, economic, social and cultural development throughout the world in the modern period. Through an exploration of this process we will explore how empires (European and Asian) did not simply carry or enable global processes but rather how they gave rise to new hybrid forms of economic activity, political practice and cultural expressions.

Pre-requisite: None

### **GEGA2008 HISTORY OF GLOBALIZATION**

The contemporary issue that we will focus upon in this class is globalization. Globalization has long historical roots; some say reaching back 500 years and others even earlier, but no-one can deny that the current globalism is overwhelming in its impact upon the local. From the literature, we can see that globalization has numerous vectors, social, economic, environmental and political. Globalization also has its opponents as well. By taking a long duration approach - and with Macao as a ready example - this course seeks to reveal how many of the problems associated with globalization can only be understood with reference to the global past.

Pre-requisite: None

### **GEGA2010 MIGRATION AND MULTICULTURAL SOCIETY**

Migration is a fundamental feature of our lives. In Macao, our ancestors and family may have left home, settled and created a migrant society together with other groups. In the era of globalization, technological development facilitates further mobility, but new control mechanisms and borders also increasingly regulate and limit our mobility. This course offers a holistic view of the migration process from multiple perspectives. We will introduce macro factors structuring migration patterns and volume; how problems and crisis such as refugees and human trafficking affect the global politics and international relations. We will discuss migration policies of different countries and how they condition the migrants' entry, exit, settlement and entitlement to citizenship, as well as societal views toward different migrant groups. Students will also learn to look at migrants' identities and social networks through their own migration experiences or their family's migration history.

Pre-requisite: None

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### **GEGA3000 GLOBAL BUSINESS AND CULTURES**

Businesses, especially multinational corporations, play prominent role in the increasingly globalized world.

This course will therefore analyze how the contemporary global business environment and the free market economy has been evolving since the first publication of Adam Smith's "The Wealth of Nations" in 1776 and the world's first stock exchange invented by the Dutch in 1602 (i.e., Amsterdam Stock Exchange). As the contemporary business environment is highly globalized, this course will also adopt a cultural perspective on how to deal with counterparts from different parts of the world. Specifically, how different nations' cultures and the organizational cultures interact and affect the behaviors of employees will be discussed. The aim is to equip students a thorough understanding of how the contemporary business environment has been evolving and the skills to adapt to the latest development of globalization with cultural sensitivity. In addition to exposing to these historical, cultural and managerial dimensions of global business environment, students will also learn what modern business corporations need to adapt in the global business environment and develop individual sensitivity and competence in the global work context.

Pre-requisite: None

### **GEGA3001 UNDERSTANDING INTERNATIONAL POLITICS**

The field of world politics presents us with some of humanity's most difficult problems. Why do wars happen? Why are some countries rich and others poor? Why is it so hard to get countries to cooperate? Is change possible in world politics or is humanity doomed to repeat the same political drama over and over again? This course introduces students to the fundamentals of international relations theory and how to employ theory to analyze important topics in world politics, such as the development of international institutions, the causes of war, transnational norms, and the role of non-state actors.

Pre-requisite: None

### **GEGA4000 GLOBAL POLITICS AND WEALTH**

This course examines the political process of international economy, and the interaction between state and market, and between power and wealth in international relations. The course will present:

1. the history of international political economy;
2. basic theories and different schools and approaches;
3. analysis of basic issues on trade, investment, development, globalization and regional integration; and
4. examination of the interactions between the rising China and the global economy.

Pre-requisite: None

## ***Literature and Humanities***

### **GELH1000 CHINESE LANGUAGE AND CULTURE**

This is an introductory course to key features of Chinese language and culture, with a special focus on the interplay between language and thought. The course will present studies on how Chinese language influences Chinese ways of thinking, how it shapes our understanding of Chinese culture, and how it gives rise to debates regarding the comparison between Chinese and Western philosophy.

Pre-requisite: None

### **GELH1010 CHINESE LANGUAGE AND CULTURE (FOR INTERNATIONAL STUDENTS)**

This is an introductory course to key features of Chinese language and culture, with a special focus on the interplay between language and thought. The course will present studies on how Chinese language influences Chinese ways of thinking, how it shapes our understanding of Chinese culture, and how it gives rise to debates regarding the comparison between Chinese and Western philosophy.

Pre-requisite: None



**GELH1001 CHINESE LANGUAGES AND CHINESE COMMUNITIES**

In this course the students expand their knowledge of Chinese languages and Chinese communities and understand language phenomena as an expression of culture and as a function of society. Through readings, discussions and mini-projects the students apply the sociolinguistics knowledge introduced to answer academic and practical questions. Global and local language situations are surveyed in a Chinese perspective and current issues in language matters are analyzed. Through problem-solving exercises, the students hone their skills of critical thinking, communication and collaboration.

Pre-requisite: None

**GELH1002 POPULAR LITERATURE AND LIFE**

Through classroom instruction for students to grasp the knowledge of Chinese Popular Literature such as: fiction, opera, folk song, etc. Topics such as the analysis and interpretation of texts, themes, psychology and sociological studies of selected masterpieces will be covered. Works discussed will focus on the connection with the life and experience of students, and include the different kinds of theme and genre of popular literature.

Pre-requisite: None

**GELH1003 CONTEMPORARY ARTISTIC EXPRESSIONS IN THE PORTUGUESE-SPEAKING WORLD**

In this course students will be introduced to the vibrant diversity of the artistic scene in the Portuguese-speaking countries, addressing the way they dialog with each other and establish multidirectional exchanges among them. The course will explore how the crosscurrents of artistic debate in the twentieth century have been particularly prolific in stressing the tension between tradition and innovation, center and periphery, convergence and divergence, especially in the aftermath to the postcolonial redefinition of these countries.

Pre-requisite: None

**GELH1004 PORTUGUESE-SPEAKING COUNTRIES IN CONTEMPORARY WORLD**

This course will explore the complex and diverse realities of the Portuguese-speaking world. Starting from an approach to the historical background of these countries and to the insertion of these communities in their specific regional contexts, students will be introduced to the multilayered relations between them, covering a range of dimensions such as the political, economic and cultural.

Pre-requisite: None

**GELH1007 VISUAL AND PERFORMING ARTS - DANCE**

In this course, students explore the current themes and issues in dance by participating in theoretical (lectures/tutorials), practical (studio/performance), and aesthetic (dance film appreciation/critique) classes. Students develop an awareness of the body through movement, dance improvisation, creative processes, choreography, interdisciplinary arts, language, and literature. Theoretical and aesthetic components help students develop analytical thinking skills while practical sections challenge them to think more deeply on dance and the role it plays in society. Classes focus on a range of activities that dancers and movement practitioners use to foster kinesthetic awareness, critical thinking, movement experimentation, play/outcome-based learning, and communication through body language.

Pre-requisite: None

**GELH1008 TRADE, EMPIRE AND GLOBALIZATION**

This course traces the historical origins of globalization, examining the long-distance trade and imperial expansion that increasingly linked regions of the world together from around the year 1500. The course follows these phenomena through the modern period and up to the present. It explores how the lives of people around the world have changed in response to the globalization of society, culture, politics, and the economy.

Pre-requisite: None

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### **GELH1009 ATHENS AND JERUSALEM: PILLARS OF WESTERN CIVILISATION**

This course introduces the Bible (Hebrew & Christian) and the Mythology of Greece and Rome – pillars of Western civilisation. Their somewhat different value systems are seen as a cause of tension between Athens and Jerusalem, a dynamic at the heart of Western culture. That relationship, and the mythologies arising from these dual systems will be examined in this semester-long course.

By looking at key stories from these dual mythologies, this course equips students to understand how Western values have been constructed and how even in the modern world its culture continues to draw on these foundational myths.

Students will study their use in art, music, language, architecture, philosophy and astronomy. While these stories are important in their own right, students will also learn to read art e.g., various depictions of the same story, and to understand the central role these myths continue to play in our world today.

Pre-requisite: None

### **GELH1011 PHILOSOPHY AND HUMOUR**

This course offers an overview of humour in Western and Chinese philosophies. It looks at humour in philosophical works, as well as at philosophers' expressed attitudes to humour, and covers major contemporary philosophical theories and explanations of humour. Philosophy offers a great set of tools to help us understand humour, while, at the same time, humour is one of the most engaging ways to think on major philosophical questions.

Pre-requisite: None

### **GELH1012 ART APPRECIATION: A CLOSE READING OF MASTERPIECES**

This is an introductory course concentrating on masterpieces of art to foster students' visual intelligence and artistic sensitivity. It engages students with artworks in various media, forms, and styles, guiding them to interpret art through viewing, reading, discussing, and writing. Focusing on media and styles, this course unfolds its content through the three sections of fine arts, including sculptures, ink paintings, and oil paintings. Appreciating art aesthetically and intellectually is an indispensable ability for students to better perceive and participate in our contemporary society where images play an increasingly significant role in mass communication and transcultural exchange worldwide. The goal of this course is to provide students with opportunities to develop an in-depth understanding of art and to cultivate an aesthetic appreciation and intellectual interpretation of the visually cultured world.

Pre-requisite: None

### **GELH2000 CREATIVITY AND WRITING: ENGLISH FOR A GLOBAL READERSHIP**

In this course students learn to express themselves creatively through the medium of English. While the main emphasis is on story making, students experience a range of creative texts (including stories, poems, songs and films), as models for their own imaginative work.

Students will learn to write simple texts in key creative genres: for instance different types of poem, short story and life writing (biography and autobiography). Learning to tell and write stories, individually and in groups, students gain confidence in expressing themselves and in constructing a narrative from different points of view.

Working from lecture to discussion mode, class time is largely devoted to understanding how simple stories work and to practising basic techniques of storytelling. Group work, in-class performance and writing for a global audience are integral to the course. Reading and homework assignments set from week to week challenge the student to create engaging creative texts from memory and imagination. Assessment is by individual portfolio including an agreed combination of individual and group work in different genres.

Pre-requisite: None

### **GELH2001 SEX AND THE ARTS**

Physical relationship presents itself one way or another in everyday life and discourse. This

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course invites students to go beyond the biology and mechanics of human sexual behaviours and think about the aesthetics of eros as featured in the arts. Students will be introduced to an array of historical and contemporary representations, narratives and discussions of sex in visual arts (paintings, sculptures and films), music (from classical art songs and operas to hip hop lyrics and MVs) and literature. 'Sexuality in the Arts' considers how various forms of artistic creation reflect and shape perception and symbolism of sex in a range of historical and cultural domains. Material of discussion will be chosen from both Asian and Western contexts.

Pre-requisite: None

### **GELH2002 THE HOLOCAUST, GENOCIDE AND HUMAN RIGHTS**

This course introduces students to the Holocaust, the systematic murder of the Jews of Europe by the Nazi regime between the years 1939 and 1945. In seeking to understand how the Holocaust happened, students will be introduced first to concepts like racial prejudice and other forms of discrimination, anti-Semitism, and the role of nationalism in creating concepts of the Other. The course will study the rise of the Nazi Party in Weimar Germany, its accession to power in 1933 and the systematic denigration of, and discrimination against, Jews from the years 1933 to 1939. The course will discuss the power of propaganda, the effects of discriminatory laws excluding Jews from all areas of public life and how these lead first to the mass murder of Jews in eastern Europe (Operation Barbarossa) and then the Final Solution, with the establishment of death camps, of which Auschwitz-Birkenau is but the most infamous. This course will also address the issue of genocide, how the Holocaust led to the concept of genocide, first described as such by Raphael Lemkin in 1943 and subsequent international treaties seeking to prevent further genocides. The course will look at other genocides, including Armenia, Cambodia, Rwanda, and Darfur. Special attention will also be paid to the Japanese invasion of China, the Nanjing Massacre and Unit 731 in Manchuria.

Pre-requisite: None

### **GELH2003 VISUAL AND PERFORMING ARTS – DRAMA**

This course consists of two major components: art introduction and drama. This course is designed to acquaint students with the vocabularies and concepts for critiquing and analyzing performing arts. It examines the functions of dramatic art from social and global perspectives, and it encourages students to develop judgment in analysis and criticism of drama as a performing art form. Students will gain an overview of the generic concepts and historical movements in different forms of drama across eras and cultures. In the drama component, students will be introduced to the form and function of dramatic literature in relationship to theatrical performance. Study of plays as texts will lead to rehearsal and performance of selected scenes/acts from plays.

Pre-requisite: None

### **GELH2004 VISUAL AND PERFORMING ARTS – MUSIC**

This course aims to encourage students to explore an extensive array of music genres throughout the history of Western and non-Western cultures and nurture a positive attitude and appreciation toward music. The students will learn to comprehend the elements of music (i.e., pitch, melody, rhythm, harmony, and form) and commonly used terminologies illustrated in major compositions. The students will travel through different periods (i.e., from the Middle Ages to the Contemporary Era) and listen to distinguished musical features associated with major composers and their popular works. Finally, the students will connect this knowledge to the present context that music has become prevalent in our daily lives (i.e., music in movies or public places). The proportion of Western music is approximately 70%, whereas that of non-Western music (i.e., Chinese or other Asian cultures) is 30%.

Pre-requisite: None

### **GELH2005 VISUAL AND PERFORMING ARTS – VISUAL ART**

Artworks of different genres have been delighting people from all ages and all places. We enjoy their beauty and their articulation, but we know nothing or very little about their creation process. The practice of aesthetic appreciation of art enables us not only to enjoy art through deeper understanding of the works, but also to recognize and realize our creative potential and capability,

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as well as to cultivate and broaden our vision of artistic culture. The course will be taught in two parts: Firstly, Introduction to visual and performing arts, which includes common lectures on What is Art? Art and Culture, Understanding Art Genres, Approaches to Art Appreciation. Secondly, Introduction to Visual Arts—Form, Style & Culture, which includes lectures designed to equip the students with basic knowledge of the different visual art forms and teach them how to appreciate and interpret such artworks by illustrating the relationship between form/style and theme/culture. Masterpieces from different regions/places reveal not merely local colors, but also rich cultural contents, echoing profound problems of life for seeing and understanding the world.

Pre-requisite: None

### **GELH2006 DIALOGUE WITH THE PAST: HUMAN MEMORIES IN ARTS, LITERATURE, FILMS, AND MATERIAL CULTURES**

This is a thematic course for GE program. It will trace and examine the way that human memories have been represented in arts, literature, films and all material cultures, which is different from the professional history writings yet also reflecting history, and which has been probably more effective and influential method of recording the human past. The course will choose one of the historical themes, such as colonialism, imperialism, industrialization, revolution, war, independent movement, communism, reform, globalization, migration, trade, women, etc., as the topic of the class and encourage students to have a dialogue with the people who lived in the past about the evolved issues. Through comparing the historical documents and tangible cultural materials with the stories told by arts, literature and films, students will learn about how to tell the imagination of the past from the historical reality, the rhythm and pace of change from the historical continuity, as well as what the humanity and human strength is all about.

Pre-requisite: None

### **GELH2007 HISTORY OF WESTERN CIVILIZATION**

This course examines the evolution of western civilization from antiquity to the eighteenth century. Over the course of the semester, students will develop an understanding of how the concept of “western civilization” – that is taken to mean, the social and cultural norms, ethical values, traditional customs, religious beliefs and political systems of “the west” – were based historically on a series of cultural borrowings – artistic, literary, intellectual and political – between rivaling states and empires based mainly in Europe. With the rise of Christianity in the Late Roman Empire, students will examine how peoples in Europe gradually became aware of themselves and the lands they inhabited as being “western”, and of being part of a “western civilization” . Defining themselves first against other powerful civilizations, most notably Islamic civilizations in “the East”, this process quickly gathered speed in the sixteenth century as Europeans gradually moved to other parts of the world and began encountering other “non-western” peoples from Asia, Africa and the Americas.

Pre-requisite: None

### **GELH2008 ASIAN VALUES AND MORAL TRADITIONS**

This course introduces students to major moral traditions (for example: Hinduism, Buddhism, Confucianism, Daoism, Shinto, or Bushido) in Asia. Close attention is given to basic values and ethical categories (for example: karma, samsara, moksha, dharma, ren, li, or dao) that have informed Asian moral discourse with special reference to the pivotal role of these values and categories in shaping social, economic, and political life in Asian societies.

Pre-requisite: None

### **GELH2009 CREATIVITY FOR THE 21ST CENTURY**

This course introduces students to Creativity from a variety of perspectives. Instructors of the course take students through a challenging yet fun learning journey, which will nurture their creativity and help them see and hear differently.

This course is a combination of classroom teaching as well as online teaching. It is a SPOC (small, private online course) which includes materials designed for UM’s MOOC Creativity ([https://www.xuetangx.com/courses/course-v1:UMX+CRT101+2018\\_T4/about](https://www.xuetangx.com/courses/course-v1:UMX+CRT101+2018_T4/about)). Pedagogy

adopted in this course is blended learning through the use of various technologies (such as UMMoodle, Rain Classroom, mobile learning). Instructors will apply a range of teaching methods, including regular lectures and tutorials, discussion fora, practices and workshops.

Pre-requisite: None

### **GELH2010 PORTUGUESE LANGUAGE IN ASIA**

This course offers an engaging exploration of Language Contact within the context of Portuguese varieties across Asia. It welcomes students from various backgrounds, as it provides an introductory insight into the fascinating global phenomenon of the new language varieties emerging from contacts and interactions between different communities, cultures, and languages. We achieve this through a curated selection of case studies, focusing on the development of Portuguese language varieties in Asia.

Our primary objective is to examine the pivotal role played by cultural, socio-political, socio-historical and economic factors in shaping the emergence of these new language varieties. This course will underscore the various modes of contact between Southeast Asian and East Asian nations and the European languages, particularly Portuguese. This exploration extends to Greater China, with a special emphasis on Macao.

Pre-requisite: None

## ***Science and Technology***

### **GEST1001 QUANTITATIVE REASONING FOR BUSINESS**

This course aims at providing students a sound foundation in mathematics that is required for future courses in quantitative methods and economics, as well as for some business subjects. The course also discusses how to apply quantitative techniques in dealing with some business and economic problems. By exposing the students to various business and economic applications through a wide range of mathematical procedures, the students not only will get familiar with numerous business procedures that require the use of mathematics, but will also be able to use mathematics to solve some basic business problems.

Pre-requisite: None

### **GEST1002 QUANTITATIVE REASONING FOR SOCIAL SCIENCES**

The goal of this course is to develop students' quantitative reasoning skills through the enhancement of their mathematical and statistical literacy. The content of this course includes managing your money, logic, probability and statistics and basics of mathematical modelling. Real-life applications will be emphasized.

Pre-requisite: None

### **GEST1003 QUANTITATIVE REASONING FOR HEALTH SCIENCES**

The goal of this course is to develop students' quantitative reasoning skills through the enhancement of their mathematical and statistical literacy. The content of this course includes financial mathematics, logic, statistics, and linear programming and optimization. Application examples for health sciences will be emphasized.

Pre-requisite: None

### **GEST1004 QUANTITATIVE REASONING FOR SCIENCE AND TECHNOLOGY**

This course aims at providing a solid foundation of one variable calculus for science and technology students. The topics include basic reasoning skills, limit and continuity, derivative and its applications, integral and its applications.

Pre-requisite: None

### **GEST1005 INTERNET, BUSINESS AND SOCIETY**

The emergence of Internet has changed society significantly. One of the main reasons for the tremendous changes is the popularity of Internet services offered to Internet users who make use

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of them in both business and personal life. This course will, therefore, introduce some popular and important Internet services to students and describe how they improve the operational efficiency in business and society. In addition, there is discussion of Internet security and privacy issues.

Pre-requisite: None

### **GEST1006 LOGIC AND REASONING FOR BUSINESS**

This course is to introduce the basic concepts of logic, apply the knowledge in the context of daily applications and reasoning and to enhance student's generic analytical ability in the area of business operations and strategy. The course will make use of various business scenarios to provide the students with training in thinking methods, different ways in solving the same problem, not just only the knowledge of the techniques of logic. Topics include concepts of logic and reasoning, logic puzzles, propositional logic, syllogistic logic and predicate logic.

Pre-requisite: None

### **GEST1007 FUN IN HEALTH SCIENCE**

This course introduces important topics related to health in daily-life including the effect of environment, nutrition, and genetics on health, healthy aging, and mental and physical well-being. Biotechnology innovations and lifestyle modifications that can impact human health will be introduced. The course will be taught from a biological, biomedical, and biotechnological perspective. Students will participate in regular fun educational activities related to health sciences that illustrate and enforce the concepts learned in class.

Pre-requisite: None

### **GEST1008 EXPLORING THE EARTH**

An introduction to major principles of physical geology covering the structure of the Earth, plate tectonics, volcanism and mountain building processes, weathering, sedimentation and rock formation, metamorphism and rock cycle, mass movement, earthquake, surface and underground water process, water and climate change.

Pre-requisite: None

### **GEST1009 MULTIMEDIA TECHNOLOGY IN MODERN SOCIETY**

The aim of this course is to introduce and explore the impact of multimedia technology in different aspects of modern society. The contents include visual communications, digital content in website, digital effects, moving image, new media possibilities and experience. The course is also designed to provide the fundamentals and practices for popular technologies and application software for 2D and 3D composition in our daily lives, such as Adobe Photoshop, Autodesk 3DS Max, etc. Lastly the course explores the creativity in interactive and tangible media, and possible research areas in multimedia.

Pre-requisite: None

### **GEST1010 CHEMISTRY AND MODERN SOCIETY**

This course is designed for students that are non-chemistry majors and will be taught with a physical science basis. This course relates application of chemistry to the benefits of modern society. It provides an introduction to the study of the properties and changes in matter. Course emphasizes topics such as: sustainable future, global climates, energy usage followed by their applications in synthetic plastics, medical drugs, food nutrition, genetic engineering, and modern materials.

Pre-requisite: None

### **GEST1011 ENVIRONMENTAL SCIENCE**

Throughout this course, students can better understand the unity and diversity of life interacting with the surrounding environments. Such major topics as population ecology, community interactions, ecosystems/biogeochemical cycles, biosphere and human impact on biosphere, and animal and social behavior will be covered. Students will also learn the unifying concepts in biology, the cellular basis and the ongoing flow of life, plant and animal systems and their control,

and ecology and behavior; and so that students will be able to explore physical and biogeochemical processes and appreciate the importance of the quality of environment.

Pre-requisite: None

### **GEST1012 ELECTRICITY AND LIFE**

This course is about the study of physical science for non-engineering students with emphasis on basic electricity related topics. The focus of the course is not only the elementary physics of electricity; but also enlightening applications in Energy, Telecommunication, Health and Safety of electricity for the human life. Some demonstrations and hand-on experiments are also arranged to provide hand-one experiences and insights for the students on the relative topics.

Pre-requisite: None

### **GEST1013 MATHEMATICS IN MODERN SOCIETY**

The aim of this course is to enhance students' mathematical literacy and interest. It emphasizes the relevance and practicality of mathematics in modern society. Through the study of different applications, students will see how mathematics comes into our daily lives. The mathematical techniques involved are taught via hands-on applications. The topics discussed may vary from year to year.

Pre-requisite: None

### **GEST1014 MYSTERIES OF THE UNIVERSE**

In this course, we aim to explain the fundamental concepts including gravity, Einstein's relativity, cosmology, etc. Topics including the solar system, the climate of the earth, the life cycle of stars, gravitational lensing, cosmic microwave background radiation will also be discussed. No prior knowledge of astronomy is necessary.

Pre-requisite: None

### **GEST1015 PHYSICS AND MODERN SOCIETY**

To enable students to know the use of physics in modern society and technology. Fundamental laws of nature are emphasized with examples of various applications in daily life. Moreover, selected topics of physics relevant to modern society are included. Topics are presented at an introductory level for the students with little or no background in physical science.

Pre-requisite: None

### **GEST1016 MYSTERY OF CHEMISTRY**

This course will describe a series of interesting stories about the birth, evolution, and important discovery of chemistry. Students will learn fundamental chemistry knowledge from interesting chemistry stories, discovery of chemistry mysteries, and through in-class fancy chemistry demonstrations. The course will also bring students to the frontier of modern chemistry researches which are closely related to our daily life.

Pre-requisite: None

### **GEST1017 MODERN DRUG DISCOVERY: DRUGS AND HEALTH**

How many drug pills and tablets do you take in your lifetime? What's the role of drugs in human society and today's health care system? What separate drugs from food and toxins? How long does it take to find a new drug and why some drugs are so expensive? If you have ever had one of these questions, then consider taking this GE course. The course aims to enhance understanding and appreciation of the important and multifaceted roles that drugs play in our daily life. No previous background in pharmaceutical or life sciences is required.

Pre-requisite: None

### **GEST1018 NUTRITION AND FOOD SAFETY**

With the huge rise in diet-related illnesses such as obesity, type II diabetes and cardiovascular disease, and in food safety emergencies, this course aims to provide students with knowledge of the dynamic fields of human nutrition and food safety. It includes an overview of nutrition and human health, and various topics ranging from explanations of the fundamental nutrients (e.g.

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carbohydrate, lipid, protein and minerals) to the numerous risks to our food and water supplies (e.g. bacterial contamination, agricultural pesticides, food additives, allergens, and industrial chemicals). It will also introduce students to the serious effects of diet-related diseases/disorders and provide them with the knowledge required to make good food choices. This GE course will be of great interest to all learners because the contents are relevant to daily life.

Pre-requisite: None

### **GEST1019 MICROELECTRONIC CHIP TECHNOLOGY IN DAILY LIFE**

As enabled by powerful technology, microelectronics have become essential in our daily lives. They are also used in a wide range of fields such as healthcare, environmental monitoring, robotics or entertainment etc. This introductory course in microelectronics is tailored for non-engineering students and teaches how to use microelectronic chip components interacting with the environment through sensors and communicate wirelessly with other devices. It covers topics from evaluation and implementation of sensor interface, data conversion, signal processing and device communications. This customized course is bottom-up based, which starts from introducing basic components in information systems, such as 5G communication. Then, followed by system and architectural interface considerations. Finally, the students have a chance to complete a case study on one for Artificial Intelligence and Internet of Things (AIoTs) related system.

Pre-requisite: None

### **GEST2000 ACTIVE LIFESTYLES, WELLNESS AND SPORTS SCIENCE**

This course is designed to expose students to the relevant principles in sports science as related to health and fitness, and to discuss how students can apply the relevant sports science principles in one's daily life for making sustainable healthy life style choices to improve one's health and fitness. From the perspectives of sports science, topics relevant for health and fitness, such as health promotion, concepts and principles of exercise, self-evaluation and exercise prescription for health-related physical fitness, effective weight management and nutritional issues, building up healthy social relationships through fitness exercise and practice, sports injury prevention, first aid, etc., will be covered. The course emphasizes the relevance and application of the sports science principles for improving one's physical and mental health.

Pre-requisite: None

### **GEST2001 BIOLOGY IN OUR DAILY LIFE**

In this course, students will be introduced to basic concepts and principles of human biology and health, and recent technological advances in biomedical science. This class aims to highlight on how biology affects human daily life, from simply understanding human bodies to nutrition, treatment of diseases such as cancer and infection, and the personalized medicine. This course will not only broaden the scope of students' understanding of the world from life science perspectives, but also increase overall awareness of the fact that life science has profound effects in everyday life.

Pre-requisite: None

### **GEST2002 PSYCHOLOGY AND HEALTH**

How is stress linked to heart disease? Will the immune system change because of psychological stress? Can a sugar pill cure back pain? Do married people live longer? What influences healthy eating? What helps people to cope with illness? Are there ethnic variations in health? How can we change people's health behaviors to improve their health? This course tries to answer these questions, and provides an overview of Health Psychology — a young and exiting field of study that examines the bi-directional relationship between people's thoughts, feelings, behaviors, and their physical health.

Pre-requisite: None

### **GEST2003 EXPLORING CHINESE MEDICINE**

Traditional Chinese medicine (TCM) has been practiced in China and other Asian nations for more than 2,000 years and has gained increasing attention and popularity all around the world including



Europe and North America. The main objectives of this course are 1) to provide a historical overview of the discoveries our ancestors made from natural products; 2) to discuss how modern technologies are used for mining the treasure and uncovering the healing power of Chinese medicine; 3) to introduce the cultures developed along with the therapeutic philosophy in Chinese medicine. Students will learn the basic principles of TCM, and acquire up-to-date information on the medicinal use and scientific research of TCM.

Pre-requisite: None

## ***Society and Behaviour***

### **GESB1000 - ETHICS, VALUES, LAW AND SOCIETY**

- **GESB1001 APPLIED ETHICS**

This course component examines the role of ethics in building a just and fair society. Students will be introduced to typical ethical problems they will face in work and society, learn how to apply ethical principles to comprehend and analyse these problems, and make better decisions accordingly.

Pre-requisite: None

- **GESB1002 FOUNDATIONS OF MORAL VALUES**

How should we live? What is a right conduct and a good life? Why do moral values need foundations? The aim of this course is to help students to understand basic moral theories and ideas in philosophy and religion that shape values of our lives. The course will also provide students with the intellectual resources needed for thinking systematically and critically about some of moral and ethical issues in a contemporary context.

Pre-requisite: None

- **GESB1003 LAW AND SOCIETY**

This course component aims to introduce the basic knowledge of the Constitution of China and the Basic Law of Macao at both theoretical and practical levels. It is hoped that this course will help students to understand the basic concepts, theories, principles and spirit of the Constitution and the Basic Law, the basic system of the State and Macao, and the importance of the Constitution and the Basic Law to Macao SAR and the Macao residents.

Pre-requisite: None

### **GESB1004 DEVELOPMENT OF GAMES AND GAMBLING**

This course introduces the history of gambling and games. Gambling is a major leisure activity performed by many individuals worldwide. It can take various forms including lottery, sports, horse racing, and casino. This course will introduce students the history of gambling and wagering games across different national cultures including Chinese, Americans and Europeans. Students will examine how gambling and wagering games have evolved over time. It is hopeful that through the lens of time, students can begin to understand the reasons why people take risks and gamble.

Pre-requisite: None

### **GESB1005 MACAO LAW AND ITS REAL-LIFE APPLICATIONS**

This course will introduce Macao Law and its applications in real-life.

Due to a history of administration by Portugal, Portuguese Law was transplanted to Macao, which had been gradually localized, and eventually resulted in forming a distinctive Macao Legal System. Macao law is often described as the product of alien legal culture; citizens' perception and acceptance of Macao Law are very limited. However, citizens' perception and acceptance establishing public legal culture is the key to ensure the proper implementation of law.

Through introduction of Macao Law and its applications, this course aims to strengthen students' perception and acceptance of Macao Law, facilitate the establishment of public legal culture.

Pre-requisite: None

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### **GESB1006 ECONOMICS OF EVERYDAY LIFE**

This course provides an introduction to the basic ideas in economics. It will discuss how individuals and firms make their decisions and how to interact with each other. The operation of markets, including the competitive markets and monopolists markets, will also be discussed. The course will also explore the functioning of labor market, product market and other factor markets. The course will use real-world examples to illustrate the economic principles and their applications. Pre-requisite: None

### **GESB1007 UNDERSTANDING MACROECONOMIC POLICIES**

This course will introduce students to the study of macroeconomic policies by the government and central bank. Concepts such as national income, gross domestic product (GDP), unemployment, money, inflation, and exchange rate will be discussed. Fiscal policy from the government and monetary policy from the central bank will be introduced and their effects on these macroeconomic variables will be studied. The roles of macroeconomic policies in dealing with real-life economic problems, for example, fighting unemployment, curbing inflation, and so on will be analyzed. Interactions among different markets will be introduced to help students understand how macroeconomic policies work.

Pre-requisite: None

### **GESB1008 UNDERSTANDING GOVERNMENT**

To understand the structures, responsibilities and importance of government(s) in contemporary time. How governments respond to public needs and people's interests while maintaining the fundamental principles of legality, justice, equality, rights and democracy etc. make up the core of the course. How public policies are made and how they facilitate social progress and development will be another important content. Lastly, how governments interact with the public, community, private sectors, NGOs, and also the external environment will be a third concern introducing students to the important role of government. Examples will be drawn from various places. Reference to current issues or events will complement lectures.

Pre-requisite: None

### **GESB1009 PERSONAL GROWTH**

Personal and social competence is key to self-discovery and self-knowledge with the aim of becoming involved and succeed in the innovative global economy of the 21st century. The purpose of this is to engage students with the psychological approaches to self-development, leadership, creativity, and interpersonal competence that would help them deal with the unfamiliar and unexpected nature of an ever-changing future. The course will focus on topics such as self-esteem, life goals and careers, personality, the various forms of intelligence, and persuasion and conflict management. Other topics relate to friendship and love, coping mechanisms for difficult life situations, and socio-cognitive processes evident in interpersonal relations in daily life, and students will also actively engage in research through participation in psychological studies and experiments.

Pre-requisite: None

### **GESB1011 COURTSHIP, MARRIAGE AND FAMILY**

This course focuses on issues of love and intimacy, relationship development, sexuality, cohabitation, and marriage. It provides an overview of choices of mates and dating preferences, examines the ways that cultural, social, and personal factors shape these choices, and identify factors that contribute to happy and enduring relationships. Other topics covered in the course include planning for children, family formation, and parenting practices. We will also discuss common challenges facing love and marital relationships, including gender role, power and control, violence and abuse, and work and money.

Pre-requisite: None

### **GESB1012 CRITICAL PROBLEMS IN CONTEMPORARY SOCIETY**

This course describes social problems in contemporary societies especially Macao and China, and identifies how these problems affect and is affected by social forces, institutions, and culture.

We will examine a series of long-standing and emergent social problems including gambling, aging, prostitution, substance abuse, violence, crime, inequality, racial and ethnic conflict, sex discrimination, health care, family issues, urban problems, population and food, environmental problems, and terrorism. We will try to identify the causes, distribution, and consequences of these problems. We will learn about theoretical perspectives that provide insights into social problems and empirical research that contributes evidence to the understanding of the problems. We will also assess social policies designed to mitigate the negative consequences of social problems. Pre-requisite: None

### **GESB1013 EVERYDAY STATISTICS**

People nowadays are being connected globally in various ways, and statistics plays a role in giving basic international comparison. The first part of this course introduces some basic ideas in social and economic statistics for cross-national comparison. But, statistics is always considered as a hurdle for those not strong in mathematics. The second part introduces statistics which emphasizes intuitive thinking in daily life instead of technical mathematical jargon. This will equip students with minimal statistical literacy to cope with the data saturated society with confidence, and more advanced statistics courses in future studies. Emphasis is on statistical interpretation rather than analysis.

Pre-requisite: None

### **GESB1014 PSYCHOLOGY AND INTELLIGENT TECHNOLOGY**

This course provides an overview of psychology and Intelligent Technology (IT), including how the human brain produces intelligent behaviour and more importantly how the understanding of human intelligence would help to create intelligent machines. To this end, we will introduce how human intelligence emerges from computations at neural circuit level in multiple systems, such as visual system for vision, motor system for movement control and limbic system for emotions, with rigor sufficient to reproduce similar intelligent behaviour in machines.

Pre-requisite: None

### **GESB1015 ADOLESCENCE: BEYOND STORM AND STRESS**

This course will examine the biological, psychosocial, and contextual development and behaviours that characterize normal adolescent development. The course content will include:

- a) the developmental characteristics of adolescent physical, cognitive, and psychosocial development;
- b) the contextual influences (e.g., family, peers, teachers, community) on adolescent development;
- c) the epidemiology and etiology of adolescent problem behaviours across a variety of domains;
- d) the ways in which these behaviours relate to normal adolescent development in specific contexts;
- e) the specific ways parents and teachers can employ to prevent and, to a lesser extent, treat problem behaviours.

Pre-requisite: None

### **GESB1016 GOVERNANCE IN CHINA**

This course is a general introduction of China's state and society. It will include topics such as ways of understanding regimes in the world, social and ideational bases of the traditional and modern Chinese regimes, ways of mass participation and government responsiveness, disappearing rural and urban division through urbanization/modernization, central-local relations, and the impact of foreign relations on China's progress. After finishing this course, students should have obtained the basic knowledge about China's past and present in the context of internal and external conditions.

### **GESB2000 PERSONAL FINANCE AND WEALTH MANAGEMENT**

Financial literacy has become increasingly popular and important around the world. Every university students should know how to manage his or her wealth, pension, and insurance. This course teaches non-finance students the core concept of financial planning, including retirement

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planning. Popular financial instruments will be introduced from the risk-return perspectives, including mortgage and car loans, bank deposits, stocks, bonds, mutual fund, and insurance products. Quantitative tools such as Microsoft Excel will be used to solve various problems in personal finance.

Pre-requisite: None

### **GESB2001 FOOD, EATING AND CULTURE**

This course examines social theories of food, eating, etiquette and nutrition. It is divided into five broad components. The first examines relationships between scientific and folk concepts of nutrition. The second analyses theories of food preparation and meal structure in various international cultures. The third investigates how food and eating is governed by explicit and implicit rules of etiquette. The fourth part of the course investigates the role of public dining and the media in promoting particular images of food consumption. Finally, there will be a brief examination of the implication of current trends in food consumption for public health.

Pre-requisite: None

### **GESB2002 BUSINESS, SOCIETY AND ENTREPRENEURSHIP**

This course is designed to investigate the broad spectrum of business and society as well as sustainability issues that individuals have to face today and will face in the future. It will also provide students with the broad functions and role of business in society, and knowledge in balancing economic, legal, ethical, and philanthropic responsibilities to the variety of stakeholder groups with which businesses interact with the society. This course will explain the nature of business, its purpose and contribution to society as well as management's role in business and the overlapping influence of business, economy, and society. It involves discussion on these issues and debate that pertain to these relationships. Within the context of business, the course focuses on entrepreneurial behaviors which include social and business entrepreneurship (i.e. new venture creation and management), creativity, and innovation. Within its relationship to society, it will consider citizenship behaviors through topics as stakeholder management and corporate social responsibility.

Pre-requisite: None

### **GESB2003 CREATIVITY AND MARKETING**

Consumers, retailers and suppliers are demanding more creativity and innovation across every marketing activity, especially in such a highly globalized society with internet and mobile devices everywhere. In this course students will learn and experience how to combine creativity and marketing activities together. This course covers (a) the strategic basis for product development including sources and types of innovation, market entry timing, product market structure and competition, disruptive and entrepreneurial innovation, and the development of new services and service bundles; (b) latest and creative marketing practices including creative product design, creative promotion method, creative advertising example, creative business model; and (c) the management of the new product development and promotion process including collaboration and networks as well as strategies for launching and marketing new products and services.

Pre-requisite: None

### **GESB2004 PUBLIC SPEAKING**

The course aims to provide students with an introduction to the skills and practices of public speaking: this will be contextualized across the different socio-cultural and work situations in which they are likely to be required to speak, and with regard to the different groups they will have to address. The emphasis will be on four main areas:

1. speaking as a form of communication
2. the techniques of public speaking
3. understanding & addressing different kinds of audiences
4. researching the material to be dealt with in the speech
5. organizing the talk
6. using A/V aids
7. dealing with questions.

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Pre-requisite: None

**GESB2005 ART AND SOCIETY**

This course is to focus on the history of the use and function of art in global perspective. Images, with symbolic meanings and particular style, can be powerful visual language that speaks to the viewers directly. Art has been a meaningful endeavour that deals with basic human concerns from the dawn of civilization to the present day. In this course, art works are discussed in context with human survival, religion, politics, sexuality, technology, culture transmission and globalization. This course examines essential art ideas and makes them concrete using examples from around the world, and relates them to contemporary issues.

Pre-requisite: None

**GESB2006 UNDERSTANDING POPULATION**

This course provides an overview of how social factors can influence population characteristics and how the characteristics of population in turn affect society. We will focus on three primary demographic processes: mortality, fertility and migration. We will learn basic concepts, theories and measurements of each process from both historical and comparative approach. We will apply these basic demographic concepts to contemporary population issues such as concerns over the persistent low, below-replacement fertility level and the aging of the population in Macao, the consequences of the internal migration on urbanization in China or other developing countries. Population literacy is therefore an important part of an individual's knowledge to understand current social, economic and political debates. In addition, population literacy is essential for yourself as you think about planning your own life in terms of human capital investments, marriage, fertility, labor force participation, saving, migration and many related aspects. In understanding these issues, we will use the social science theories and concepts such as social stratification, social interaction, and continuity and change. We will bridge sociology, anthropology, history, political science, economics, and psychology, and will do a comparative analysis between Macao, China, and other societies.

Pre-requisite: None

**GESB2009 SMART TOURISM AND LEISURE TRAVEL BEHAVIOUR**

This course introduces concepts regarding people's travel decisions and behaviours through information technologies. In particular, the course is designed to allow students to gain a solid understanding about different aspects of travel activities, while utilizing technologies to make better travel decisions. The course is composed of four main modules: motivations and theories for leisure travel, special interest tourism and technology, information technology usage in tourism, and smart tourism case study. Through lectures, in-class discussions, case sharing, and homework assignments, students will learn how travel decisions and behaviors can be mediated through the usage of smart technologies. Student performance is evaluated through attendance, in-class participation, assignments, and the exam.

Pre-requisite: None