Macao Polytechnic Institute

School of Business

Bachelor of Management /

E-commerce / Business Administration in Marketing

Course Syllabus

Academic Year 2019 / 2020 Semester 2

Course	Environmental Management System			**Class Code**	BUSS0131-221 / 222 / 223
Pre-requisite Course	None				
Medium of Instruction	English			**Credit**	3
Course Duration (Theory)	45 hrs	**Course Duration (Practice)**	0 hrs	**Total Course Duration**	45 hours
Instructor	LEUNG, Pong Ping		**E-mail**	ppleung@ipm.edu.mo	
Office	521, Meng Tak Building		**Telephone**	8599-3347	

Course Description

This course presents the basic philosophy of environmental management system. It describes the impact of human activities on our environment including resource consumption, water quality, air quality, noise, and waste disposal. Integrated environmental tools including ISO14000 environmental management system, life cycle, assessment and eco-labeling would also be covered. Topics include: Interaction between business, technology, and environment; resource consumption and its impact on ecosystem; basic forms of pollution; application of life cycle assessment and econ-labeling to product development and introducing their effects on business activities.

Learning Outcomes

Upon completion of this course, the students should be able to:

1. Identify the role of human being in the environment. Describe the impact of human and business activities on the environment;
2. Describe the essential features of ISO14000 series;

3. Identify the damages which have been made to the environment. Describe and explain the concepts of environmental auditing and EMS; and
4. Suggest the remedies to the environment through scientific ways. Demonstrate the ability to identify environmental impacts and environmental aspects in a business environment.

Content

1 Science and the Environment (3 hours)

§1.1 Understanding Our Environnent
§1.2 The Environnent and Society

(UNDERSTAND: students need to know how to describe briefly Our Environnent, the Environnent and Society.)

2 The Dynamic Earth (3 hours)

§2.1 The Geosphere
§2.2 The Atmosphere
§2.3 The Hydrosphere and Biosphere

(UNDERSTAND: students need to know how to describe briefly the Geosphere, the Atmosphere, the Hydrosphere and Biosphere.)

3 The Organization of Life (3 hours)

§3.1 Ecosystems: Everything is Connected
§3.2 Evolution
§3.3 The Diversity of Living Things

(UNDERSTAND: students need to know how to briefly describe the Ecosystems, Evolution, and the Diversity of Living Things.)

4 Water (3 hours)

§4.1 Water Resources
§4.2 Water Use and Management
§4.3 Water Pollution

(UNDERSTAND: students need to know how to briefly describe Water Resources, Water Use and Management, and Water Pollution.)

5 Air (3 hours)

§5.1 What Causes Air Pollution
§5.2 The Ozone Shield
§5.3 Global Warming

(UNDERSTAND: students need to know how to briefly describe What Causes Air Pollution, the Ozone Shield, and Global Warming.)

6 Atmosphere and Climate Change (3 hours)

§6.1 Climate and Climate Change

(UNDERSTAND: students need to know how to briefly describe Climate and Climate Change.)

7 Nonrenewable Energy (3 hours)

§7.1 Energy Resources and Fossil Fuels
§7.2 Nuclear Energy

(UNDERSTAND: students need to know how to briefly describe Energy Resources and Fossil Fuels and Nuclear Energy.)

8 Renewable Energy (3 hours)

§8.1 Renewable Energy Today
§8.2 Alternative Energy and Conservation

(UNDERSTAND: students need to know how to briefly describe Renewable Energy Today and Alternative Energy and Conservation.)

Mid-term examination: Chapters 1-8 (3 hours)

9 ISO14000 Environmental Management System (6 hours)

§9.1 Impact Identification and Assessment
§9.2 Management Commitment and Registration Procedures
§9.3 Implementation
§9.4 Continual Improvement Programme

(UNDERSTAND: students need to know how to briefly outline Impact Identification and Assessment, Management Commitment and Registration Procedures, Continual Improvement Programme.)

10 Life Cycle Assessment (6 hours)

§10.1 Cradle to Grave Approach
§10.2 Applications of Life Cycle Assessment
§10.3 Examples and Lessons Learnt

(UNDERSTAND: students need to know how to briefly outline Cradle to Grave Approach Applications of Life Cycle, Assessment, Examples and Lessons Learnt.)

11 Eco-labeling (3 hours)

§11.1 Eco-labeling Schemes

(UNDERSTAND: students need to know how to briefly outline Eco-labeling Schemes.)

Final Exam (3 hours)

Total (45 class-hours)

Teaching Method

This course is delivered through a series of lectures that provide a detailed explanation and understanding of various environmental issues and core concepts. Class activities, exercises, case studies, and class discussions integrating with multimedia resources such as videos and websites are utilized to support students' learning. Specifically, different teaching and learning activities (TLAs) are adopted.

Attendance

Attendance during the course must meet the attendance requirements as stated in the "Academic Regulations Governing Bachelor's Degree Programmes of Macao Polytechnic Institute". Students who have less than the required attendance for the enrolled subject are not eligible to attend the final or re-sit examinations and will be given an "F" as their final grade.

Assessment

This course is graded on a 100 point scale, with 100 being the highest possible score and 50 the pass score.

	Item	Description	Percentage
1	Exercise	In-class exercises/quizzes (non-graded)	--
2	Assignment	Individual assignment (graded)	10%
3	Test	Mid-term examination (graded)	40%
4	Exam	Final examination (graded)	50%
		Total percentage:	100%

Teaching Material(s)

Textbooks

1. Macao Environmental Protection Bureau, (2017). Report on the State of the Environment of Macao 2016. Available at http://www.dspa.gov.mo/Publications/StateReport/report_2016_en.pdf
2. Macao Statistics and Census Service, (2017). Environmental Statistics 2012. Available at http://www.dsec.gov.mo/getAttachment/0A75A9A4-EEBC-4B39-969E-A7D3BF22E8D6/C_AMB_PUB_2016_Y.aspx
3. D.L. Goetsch & S.B. Davis (2000), ISO14000 Environmental Management, 1st edition, Prentice Hall.

Reference book(s)

1. Henry J.G. and Heinke, G.W. (1996) Environmental Science and Engineering, 2nd edition, Prentice-Hall.
2. Macao Environmental Protection Bureau, (2017). Published materials. Available at http://www.dspa.gov.mo/publish.aspx

Plagiarism Policy

When a student submits an assignment, he has a duty to ensure that his assignment has been checked by Turnitin software, and the similarity score given by Turnitin software cannot be higher than 30%. However, a special case can be determined by the instructor.