



FACULTY OF BUSINESS
BACHELOR OF E-COMMERCE
LEARNING MODULE OUTLINE

Academic Year	2026 / 2027	Semester	1
Module Code	ECOM3160 - 311		
Learning Module	Research Methodology in E-Commerce		
Pre-requisite(s)	Nil		
Medium of Instruction	English		
Credits	3	Contact Hours	45
Instructor	Billy Yu	Email	billyyu@mpu.edu.mo
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MODULE DESCRIPTION

This learning module covers the background knowledge needed to prepare students to perform research in Graduation Report I and II. Topics include the fundamentals of E-Commerce business study methodology, basic components of an E-Commerce business and system proposal.

MODULE INTENDED LEARNING OUTCOMES (ILOS)

On completion of this learning module, students will be able to:

M1.	describe the principles of research process in e-commerce
M2.	analyze research problems in e-commerce
M3.	describe the fundamentals of research in e-commerce
M4.	solve e-commerce business problems with appropriate research skills
M5.	develop a knowledge base of research skill(s) and tool(s)

These ILOs aims to enable students to attain the following Programme Intended Learning Outcomes (PILOs):

PILOs	M1	M2	M3	M4	M5
P1. demonstrate an understanding of the business processes and operations and the skillful realization of information technologies required to practice electronic commerce,					
P2. apply knowledge in business, mathematics, programming, computing, web development, database, and artificial intelligence to address complex problems in the context of electronic commerce,		✓	✓	✓	



P3. critically analyze the effect of information technology use on organizational performance and develop electronic commerce strategies that fit organizational objectives,		✓			
P4. select and apply tools and technologies, including AI-driven solutions, to effectively implement electronic commerce systems in business intelligence, enterprise resources planning, supply chain management, and customer relationship management,				✓	✓
P5. foster teamwork, manage conflicts, and lead change across multi-disciplinary electronic commerce projects while working effectively with diverse stakeholders,					
P6. communicate and work effectively using written and spoken word, non-verbal language, and electronic tools with fellow professionals and global stakeholders in the electronic commerce industry,					
P7. evaluate electronic commerce through a global lens as evidenced by an understanding of foreign languages, and the unique role of Macau as a bridge between East and West, and cross-border,					
P8. cope with and manage contemporary advancements, including rapid developments in AI, related to electronic commerce development and demonstrate lifelong learning attitudes and abilities,	✓	✓	✓		
P9. conduct research and devise innovative electronic commerce models leveraging emerging technologies to exploit business opportunities, and	✓	✓	✓		✓
P10. reflect on professional responsibilities and keep up with the latest electronic commerce issues on legal, environmental, ethical, and societal considerations to benefit society comprehensively.					

MODULE SCHEDULE, COVERAGE AND STUDY LOAD

Week	Content Coverage	Contact Hours
1	Chapter 1 Introduction - Overview and project briefing Chapter 2 Introduction to e-commerce research - Philosophies	3 hours
2	Chapter 2 Introduction to e-commerce research - Nature of Business and Management Research	3 hours
3	Chapter 3 Initial Conduction - The research process and proposal	3 hours
4	Chapter 4 Literature review - Assessment of a 'good' literature review - Critical review - Process and organization	3 hours
5	Chapter 5 Ethics in business and management - Data collection online and on social media - Ethics and the sponsor - Ethical approval procedures	3 hours



	Midterm Exam - Midterm Exam	
6	Chapter 6 Quantitative and qualitative research - Qualitative and quantitative research design - Exploratory, descriptive and causal studies	3 hours
7	Chapter 6 Quantitative and qualitative research - Knowledge applied to practice	3 hours
8	Chapter 7 Sampling - Unit of analysis - The nature of sampling - Sampling on the Internet Chapter 8 Primary data collection with surveys - Characteristics of the survey approach Quiz I	3 hours
9	Project Demo - Project audit, comments and corrections	3 hours
10	Chapter 9 Questions and measurement - Developing the instrument design strategy - The nature of measurement scales	3 hours
11	Chapter 10 Secondary data - Sources of secondary data - Secondary data in qualitative research - Data Mining Introduction	3 hours
12	Chapter 10 Content analysis - Qualitative interviews - Narrative analysis - Coding Schemes, Thematic Analysis	3 hours
13	Chapter 11 Case studies - How to conduct good case study research Quiz II	3 hours
14	Chapter 11 Experimentation - Conducting an experiment - Experimental research designs	3 hours
15	Project Presentation	3 hours

TEACHING AND LEARNING ACTIVITIES

Students are required to prepare for and actively participate in lectures. Other than passive listening, they are expected to practice, take notes and ask questions in class. The projects expect students to be creative. Students should apply the module material as well as knowledge from other subjects for their group project. For the examination preparation, they are encouraged to study in group discussions with all sorts of reference materials, including videos. Students are also strongly encouraged to participate in class learning activities. As mature university students, they should demonstrate the efforts to think and answer questions in classes and show active learning attitude. In this learning module, students will work towards attaining the ILOs through the following teaching and learning activities:

Teaching and Learning Activities	M1	M2	M3	M4	M5
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T1. Lectures: change management theories, concepts, and approaches will be presented using multimedia instructional materials. Q&A: It allows interactions between instructor and students.	✓	✓	✓	✓	✓
T2. Project: 5 to 6 students will be required to work as a group to complete a group project. This group project will be designed to promote students intellectual, social and presentation skills and help to prepare them for the real world in which teamwork and collaboration are important		✓	✓	✓	✓
T3. Preparation: Students must read teaching materials before coming to the class. They will be asked to work on problems or respond to key conceptual issues during the class hour. - Midterm exam will be given to students in order to motivate them to review what they have learned.	✓		✓		✓

ATTENDANCE

Attendance requirements are governed by the Academic Regulations Governing [Doctoral/Master's/Bachelor's] Degree Programmes of the Macao Polytechnic University. Students who do not meet the attendance requirements for the learning module shall be awarded an 'F' grade.

ASSESSMENT

In this learning module, students are required to complete the following assessment activities:

Assessment Activities	Weighting (%)	ILOs to be Assessed
A1. Project	40	M2 – M5
A2. Midterm	30	M1 – M5
A3. 2 Quizzes	30	M1 – M5

The assessment will be conducted following the University's Assessment Strategy (see www.mpu.edu.mo/teaching_learning/en/assessment_strategy.php). Passing this learning module indicates that students will have attained the ILOs of this learning module and thus acquired its credits. Project is not assignment. Students are required of their critical thinking, problem solving skills, collaboration, and various forms of communication. To answer a driving question and create high-quality work, students need to do much more than remember information. They need to use higher-order thinking skills and learn to work as a team. (ref. <https://www.pblworks.org/what-is-pbl>)

MARKING SCHEME

Assessment Tasks	Criteria	Excellent (A, A-)	Very Good, Good (B+, B, B-)	Satisfactory (C+, C, C-)	Pass (D+, D)	Fail (F)



			88-100	73 - 87	58 - 72	50 - 57	0 – 49
1.	Group Project	Demonstrate the understanding of the subject and the ability to solve problems with <u>articulated</u> arguments in <u>well-organized</u> oral presentation and written report	High	Significant	Moderate	Basic	Not even reaching marginal levels
2.	Mid-term test and Final examination	Demonstrate the ability to identify and apply appropriate concepts, methods and techniques	High	Significant	Moderate	Basic	Not even reaching marginal levels

REQUIRED READINGS

Textbook(s)

- Blumberg, Boris and MacRae, Claire (2024). Business Research Methods 5th Ed., McGraw-Hill Education. ISBN-10: 1526849755.
- Bougie, R., & Sekaran, U. (2025). Research Methods for Business, with eBook Access Code: A Skill Building Approach 9th Edition. Wiley ISBN 978-1394319008.
- Rose, S., Spinks, N., & Canhoto, A. I. (2024). Management research: applying the principles of business research methods. Routledge. ISBN 978-1032462950

REFERENCES

- J. F. Hair Jr, W. C. Black, B. J. Babin, R. E. Anderson, 2018, *Multivariate Data Analysis*, 8th ed., UK: Cengage Learning. ISBN 978-1473756540

STUDENT FEEDBACK

At the end of every semester, students are invited to provide feedback on the learning module and the teaching arrangement through questionnaires. Your feedback is valuable for instructors to enhance the module and its delivery for future students. The instructor and programme coordinators will consider all feedback and respond with actions formally in the annual programme review.

ACADEMIC INTEGRITY

The Macao Polytechnic University requires students to have full commitment to academic integrity when engaging in research and academic activities. Violations of academic integrity, which include but are not



limited to plagiarism, collusion, fabrication or falsification, repeated use of assignments and cheating in examinations, are considered as serious academic offenses and may lead to disciplinary actions. Students should read the relevant regulations and guidelines in the Student Handbook which is distributed upon the admission into the University, a copy of which can also be found at www.mpu.edu.mo/student_handbook/.

Note:

1. The above class schedule is tentative and subject to change depending on the progress of the students.
2. Students are responsible for ALL materials covered in class AND in the textbook.