MUTAH UNIVERSITY
Faculty of Engineering
Department of Electrical Engineering

Course Code	Course Name	Credits	Contact Hours
0401594	Information and Communication Technology	3	3 T

INSTRUCTOR/COORDINATOR

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Office Hours	

TEXTBOOK

Title	Tomorrow's Technology and You
Author/Year/Edition	Beekman and Beekman, 9e, Prentice-Hall, 2009

Other Supplemental Materials

Title	
Author/Year/Edition	

SPECIFIC COURSE INFORMATION

A. Brief Description of the Content of the Course (Catalog Description)

Stands for "Information and Communication Technologies." ICT refers to technologies that provide access to information through telecommunications. It is similar to Information Technology (IT), but focuses primarily on communication technologies. This includes the Internet, wireless networks, cell phones, and other communication mediums. In the past few decades, information and communication technologies have provided society with a vast array of new communication capabilities. Social networking websites like Facebook allow users from all over the world to remain in contact and communicate on a regular basis. Modern information and communication technologies have created a "global village," in which people can communicate with others across the world as if they were living next door. For this reason, ICT is often studied in the context of how modern communication technologies affect society.

B. Pre-requisites (P) or Co-requisites (C)

C. Course Type (Required or Elective)

Elective

SPECIFIC GOALS

A. Course Learning Outcomes (CLOs)

By the end of this course, the student should be able to:

CLO 1: Identify and describe the key aspects of modern information and communication technologies [1]

CLO 2: Effectively use ICT tools, software applications and digital resources, Acquire, organize and create students own digital resources. [7]

CLO 3: Practice safe, ethical and legal ways of using ICT and apply a number of popular software applications to solve real-world problems. [2]

CLO 4: Be able to describe how ICT integrates with and supports business-related activities. [1]

CLO 5: Exhibit a superior capacity to adapt to, and benefit from, the continued rapid development of information and communication technologies [7]

CLO 6: Raise awareness on how to keep ICT equipment healthy and to help students adhere to high ethical and academic standards. [1]

B. Student Learning Outcomes (SLOs) Addressed by the Course

1	2	3	4	5	6	7
✓	✓					✓

BRIEF LIST OF TOPICS TO BE COVERED

List of Topics	No. of Weeks	Contact Hours
Chapter 1: What are the foundation concepts for ICT?	1	6
Chapter 2: Computer Systems and generations, Computer Hardware and Software, data representation, different between RAM and ROM, components of new generation computers and operating systems.	2	9
Chapter 3: Traditional Computer Based Technologies that includes, Application Use Standard Office Applications – Introduction to the Computer and its Environment, Keyboard layout and usage, Word Processing, Spreadsheet and Graphics. Main Examples Write letters, reports etc Spreadsheets analyze financial information; calculations; create forecasting models etc. Make presentations, either directly using a computer screen or data projector. Publish in digital format via email or over the Internet. Graphics software, E.g Adobe Photoshop and Illustrator;; create and edit images such as logos, drawings or pictures for use in web sites or other publications	4	9
Chapter 4: Technology for teaching and learning, Determine the resources for teaching and learning. ICT infusion and going beyond the textbook (Presentation of a case study of how the availability of ICT resources can	4	9

actually result in a different learning experience). Distance learning with new communication technology, Educational applications of ICT online software packages, strategies of online learning and evaluation, society response to online learning		
Chapter 5: Evaluation of resources – Framework for assessing and valuating ICT resources - educational tools and applications for integrating ICT into lessons, Exhibition and peer evaluation of project lessons; portfolio submission and evaluation, Evaluation of technologies and ICT infused classrooms – criteria for effective technology use and effectiveness of technology in classrooms, Exhibition and peer evaluation of project lessons; portfolio submission and evaluation	3	9
Total	*14*	*42*

EVALUATION

Assessment Tool	Due Date	Weight (%)
Mid Exam	According to the university calendar	30
Course Work (Homeworks, Quizzes, Projects, …etc.)	One week after being assigned	20
Final Exam	According to the university calendar	50

ABET's Students Learning Outcomes (Criterion # 3)

		Relationship to program outcome
ABET 1-7		
1.	✓	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2.	✓	an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3.		an ability to communicate effectively with a range of audiences.
4.		an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5.		an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6.		an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7.	✓	an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.