



Course Description

International college

Program Information and Communication Technology

Program Bachelor of Science Information and Communication Technology

Academic Year 2568

1. General Information

ICT 112		Fundamental Information Technology	3	(3-0-6)
Co-requisite course(s)		-		
Pre-requisite course(s)		-		
Semester		1 / 2568		
Section		130, 131, and 132		
Curriculum	☒	Preparatory Courses		
	☐	General Education Courses		
	☐	Specialized Core Courses		
	☐	Free Elective Courses		
Responsible faculty member			Full-time Lecturers	
Instructors	Prashaya Fusiripong (Ph.D.)	☒	Full-time Lecturers	☐ Guest Lecturers
Place of study		☒	Onsite	☐ Off-site
Date of preparation	15 August 2568			

2. Course Objectives and Components

1. Learning objectives

This course aims to introduce students to the foundational concepts of information systems (IS) and their roles in organizations. Students will understand how information systems support business processes, organizational decision-making, and problem-solving. The course emphasizes practical understanding of system types, development approaches, and integration of IT into business environments.

2. Course description

Fundamentals of information systems; business organizations and processes; business environments; information systems in organizations; information system personnel; types of information systems; systems and application software; data and information organization; fundamentals of systems development: systems development life cycle (SDLC) and system deployment; integration of IT into business; government and community systems; and roles of IT professionals in solving organizational problems.

3. Number of weekly hours for advising and academic counseling for individual students.

.....3.....hours/week

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☐
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email:.....

Facebook:.....

MS Team: ICT112 SEC xxx (1/2025)

Other Specify.....

4. Course Learning Outcomes (CLOs):

CLO 1: Understand the fundamental concepts of information systems and their role in supporting business organizations and processes.

CLO 2: Analyze different types of information systems and their applications, including systems and application software used for organizing and managing data and information within organizations.

CLO 3: Demonstrate understanding of the systems development life cycle (SDLC) and the process of integrating information technology into various sectors such as business, government, and community systems.

3. Student Learning Outcomes

Development of subject learning outcomes following the desired learning standards for each domain is as follows:

1. Knowledge

PLOs	Course Learning Outcomes (CLOs)	Teaching methods	Assessment methods
1	Understand principles of IS, system types, organizational structures, and development methodologies.	Lecture, case study, and textbook-based readings.	Quizzes and final exam

2. Skills

PLOs	Course Learning Outcomes (CLOs)	Teaching methods	Assessment methods
2	Apply analytical thinking to identify appropriate IS solutions and evaluate IS implementation within business contexts.	Problem-based learning and IS scenario analysis	Case study report and final examination

3. Ethics

PLOs	Course Learning Outcomes (CLOs)	Teaching methods	Assessment methods
3	Collaborate with team members and present IS solutions to organizational problems.	Problem-based learning	Case study report and final examination

4. Characteristics

PLOs	Course Learning Outcomes (CLOs)	Teaching methods	Assessment methods
3	Use appropriate IT tools to demonstrate IS design, development, and data representation.	Software simulation, digital tools (e.g., diagrams, data flow models)	Assignment reports and final examination

4. Course Planning and Assessment

1. Course planning

Week	Topics/Details	Learning Activities/Media	Hours	Instructor
1	Introduction to Information System	Lecture/PowerPoint	3	Dr. Prashaya
2	Information Systems in Organization - Organizations and Information System - Change in the Organization - Organizational Culture and Change	Lecture/PowerPoint	3	Dr. Prashaya
3	Hardware and Mobile Devices - Anatomy of a Computer - Computer System Types - Server Farms, Data Centers, and Green Computing	Lecture/PowerPoint	3	Dr. Prashaya
4	Software and Mobile Application - An Overview of Software - System Software - Application Software	Lecture/PowerPoint	3	Dr. Prashaya
5-6	Database Systems and Big Data - Data Fundamentals - Data Modeling and Database Characteristics - Relational Database Management System (DBMSs) - Big Data - Technologies Used to Process Big Data	Lecture/PowerPoint and Demonstrate	6	Dr. Prashaya
7	Networks and Cloud Computing - Network Fundamentals - Internet and World Wide Web - Internet of Things - Cloud Computing	Lecture/PowerPoint and Demonstrate	3	Dr. Prashaya
Term break				
8	Electronic and Mobile Commerce - Introduction to Electronic Commerce - Introduction to Mobile Commerce - Electronic and Mobile Commerce Application	Lecture/PowerPoint and Demonstrate	3	Dr. Prashaya

Week	Topics/Details	Learning Activities/Media	Hours	Instructor
	- Strategies for Successful E-Commerce and M-Commerce			
9	Enterprise Systems - Transaction Process Systems - Enterprise Systems	Lecture/PowerPoint	3	Dr. Prashaya
10 – 11	Business Intelligence and Analytics - What are analytics and business intelligence? - Business Intelligence and Analytic Tools	Lecture/PowerPoint and Demonstrate	6	Dr. Prashaya
12 – 13	Knowledge Management and Specialized Information Systems - What is Knowledge Management? - Artificial Intelligence - Multimedia and Virtual Reality - Other Specialized Systems	Lecture/PowerPoint and Demonstrate	6	Dr. Prashaya
14	Strategic Planning and Project Management - Strategic Planning - Project Management	Lecture/PowerPoint	3	Dr. Prashaya
15	System Acquisition and Development - Buy versus Build - Waterfall System Development Process - Agile Development - Buying Off-the-Shelf Software	Lecture/PowerPoint	3	Dr. Prashaya
Total			45	

2. Assessment

PLO	CLO	Learning Outcome	Assessment Method	Assessment Week
1.1 and 1.2	CLO1 and CLO2	Final exams	16	50%
2.3 and 3.3	CLO2 and CLO3	Class attendance and case study report	Throughout the semester	10%
3.3	CLO2	Assignment and quizzes	4, 7 and 8 - 15	40%

3. The alignment of Course Learning Outcomes (CLOs) with learning results.*(For courses that use the standard curriculum criteria of B.E. 2565 only.)*

CLOs	1. Knowledge				2. Skills			3. Ethics				4. Characteristics			
	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.1	3.2	3.3	3.4	3.1	3.2	3.3	3.4
CLO 1: Understand the fundamental concepts of information systems	✓	✓													
CLO 2: Analyze different types of information systems and their applications,							✓			✓					
CLO 3: Demonstrate understanding of the systems development life cycle (SDLC)														✓	

*(Specify the CLOs for each item that aligns with the learning outcomes.)***5. Course Resources****1. Main textbooks and documents**

Stair, R., & Reynolds, G. (2021). Principles of information systems (13th ed.). Cengage.

*(Identify the main textbooks and documents used in teaching.)***2. Essential documents and information**

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*(Identify books, journals, reports, electronic media, websites, regulations, computer programs, and other important references that students should study further)***3. Recommended documents and information**

Interesting readings and recommended sources will constantly be shared in the class or social media groups

(Identify books, journals, reports, electronic media, websites, regulations, computer programs, and other important references that students should study further.)

6. Course Feedback and Improvement

1. Course evaluation by students

- ☐ Student evaluation of teaching effectiveness
- ☐ Course evaluation form
- ☐ Group discussions between instructors and learners
- ☐ Reflections based on learners' behavior
- ☐ Suggestions through online channels prepared by the instructor for communication with students
- ☐ Others (please specify)

2. Other methods of course evaluation

- ☐ Instructor evaluation form
- ☐ Reflected by students
- ☐ Exam results
- ☐ Review of the assessment of learning outcomes
- ☐ Evaluation by the academic standards oversight committee
- ☐ Observation of teaching by the teaching team members
- ☐ Others (please specify)

3. Course development and improvement

- ☐ Seminar on teaching management
- ☐ Research inside and outside the classroom
- ☐ Others (please specify)

4. The process of reviewing students' learning outcomes for a course.

- ☐ Committees are established in the department to review students' learning outcomes by examining exam reports, grading methods, and behavioral assessments.
- ☐ Review of grading for student work by the department and faculty committee.
- ☐ Review of grading based on random inspections of student work by instructors or other qualified individuals who are not regular course instructors.
- ☐ Others (please specify)

5. Course revision and development plan

- ☐ Revise the course annually based on suggestions and the review results per section 4.
- ☐ Revise the course annually based on the instructor evaluation results by students.
- ☐ Others (please specify)

Note: Please delete the red text explaining information or sample message and note it when submitting information to the Office of Academic Standard.