	Universitas Negeri Surabaya Faculty of Engineering, Undergraduate Study Program in Informatics Engineering	Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Introduction to Information Technology	5520202069		T=2	P=0	ECTS=3.18	1	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	.....	.....	Aditya Prapanca, S.T., M.Kom.

Learning model	**Case Studies**
Program Learning Outcomes (PLO)	**PLO study program that is charged to the course**
	Program Objectives (PO)
	PLO-PO Matrix

	P.O

PO Matrix at the end of each learning stage (Sub-PO)

P.O	Week															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Short Course Description	This course introduces the role of information technology in helping human work effectively and efficiently. Computer definition, Electronic data processing, Data processing cycle, Computer systems, Computer capabilities. Hardware developments, computer generations, Future computers. Development of software, development of application software, development of operating system software, input tools, processing tools, output tools, external storage, number and code systems. Introduction to data and network communication systems, basic software concepts. Introduction to Information Systems, introduction to databases and online systems. Introduction to the components of existing computer systems and information systems. Application of computers in the fields of business, industry, banking, education, medicine, aviation, crime. Introduction of various existing e-businesses in accordance with the development of information systems.
References	**Main :**

1. 1James A. Senn.2012. Information Technology Principles. Practices. Opportunities (3rd Edition).
2. Szymanski, Robert A. 1995. Computers and Information System, First Edition.
3. Pfaffenberger dan Bryan,. 2001.Computes in Your Future, 4th Edition. University of Virginia: Prentice Hall.
4. Spinello, Richard A. 2002. Case Studies in Information Technology Ethics, 2nd Edition. Prentice Hall.
5. O 19Brien, James A. 2004. Management Information systems: Managing Information Technology in the bussiness Enterprise, 6th Edition. McGraw Hill Irwin.

	Supporters:
Supporting lecturer	Dedy Rahman Prehanto, S.Kom., M.Kom. Ghea Sekar Palupi, S.Kom., M.I.M. Rindu Puspita Wibawa, S.Kom., M.Kom.

Week-	Final abilities of each learning stage (Sub-PO)	Evaluation		Help Learning, Learning methods, Student Assignments, [Estimated time]		Learning materials [References]	Assessment Weight (%)
		Indicator	Criteria & Form	Offline (*offline*)	Online (*online*)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

1	Know the objectives of the Introduction to Information Technology lecture, and understand the basic concepts of Information Technology.	Explain the basic concepts of Information Technology.	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Approach: Scientific Model: Cooperative Method: Discussion, Presentation 2 X 50			0%
2	Understand computing concepts in Information Technology	1. Identify the five components of a computer system. 2. Explain the four categories of hardware and their functions. 3. Discuss the relationship between hardware and software. 4. Distinguish between operating systems and application programs 5. Explain the difference between single and multi-user systems.	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Approach: Scientific Model: Cooperative Learning Method: Discussion, Presentation 2 X 50			0%
3	Describe the types and functions of components/Input Hardware and Output Devices	1. Identify the input devices used and explain how they work in a computer system 2. Identify types of output devices and identify their uses in business.	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Approach: Scientific Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			0%
4	Describe the types and functions of the main components/hardware in a computer system, namely: Processor, Memory and Storage	1. Explain the components and purpose of the central processing unit (CPU). 2. Distinguish between primary storage (also called memory) and secondary storage (also called storage), and between RAM and ROM. 3. Distinguish between two main types of magnetic storage, and identify three types of magnetic disk storage. 4. Understand the types of Optical storage media	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			0%

5	Describe the types and functions of the main components/hardware in a computer system, namely: Processor, Memory and Storage	1. Explain the components and purpose of the central processing unit (CPU). 2. Distinguish between primary storage (also called memory) and secondary storage (also called storage), and between RAM and ROM. 3. Distinguish between two main types of magnetic storage, and identify three types of magnetic disk storage. 4. Understand the types of Optical storage media	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Approach: Scientific Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			0%
6	Master the concept of the functions of Systems and Application Software	1. Understand the concept of Systems and Application Software 2. Understand the types of application software	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Approach: Scientific Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			0%
7	Know strategic issues and developments in Hardware as a component of Information Technology	Summarize material, articles, whitepapers or papers about the latest developments in hardware	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Approach: Scientific Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			0%
8	UTS (USS)			2 X 50			0%
9	Understand the concepts and functions of Telecommunications and Networks in Information Technology	1. Explain communication and networking in information technology. 2. Describe forms of communication in information technology 3. Understand the role of communication and computer networks in information technology.	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Approach: Scientific Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			0%

10	Understand the concept of databases in information technology and be able to identify the application of databases in information technology.	1. Understand basic database concepts. 2. Identify when a business should use spreadsheets and when it should use databases. 3. Identify the reasons organizations choose to share databases and the functions of database management systems. 4. Discuss database developments	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Approach: Scientific Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			0%
11	Understand the concept of the internet and Word Wide Web (WWW) and be able to identify the function of the internet and www in information technology	1. Understand how individual computers and server computers interact on the Internet. 2. Explain the concept and capabilities of the internet. 3. Identify communication skills and information retrieval from the Internet (information retrieval).	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Approach: Scientific Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			0%
12	Understand electronic trading in terms of concepts and developments	1. Explain the meaning of electronic commerce. 2. Identify the advantages of electronic trading compared to traditional trading 3. Identify the characteristics of electronic procurement. 4. Explain the purpose of electronic exchange and identify three forms that have emerged	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Approach: Scientific Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			0%
13	Understand programming concepts and functions, programming languages and programming paradigms in information technology	1. Explain programming concepts 2. Distinguish between programming and programming languages 3. Describe the types of programming paradigms	**Criteria:** 1. Observation Assessment Sheet 2. Character/Attitude Assessment Sheet 3. Performance Assessment Rubric	Approach: Scientific Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			0%

14	Able to understand and comprehend the Ethics of the Legal Framework in the Field of Information Technology (ethics of the use of information technology, crime on the internet, legal framework in the field of information technology, cyber law perspectives in law in Indonesia)	1. can and knows the ethics of using technology 2. know and understand crime on the internet 3. Understand and comprehend the legal framework in the IT sector 4. understand and understand the perspective of cyber law in law in Indonesia	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100	Approach: Scientific Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			0%
15	Know strategic issues and developments in information technology topics for the field of Informatics	Summarizes material, articles, whitepapers or papers about the latest developments in information technology in the field of Informatics	**Criteria:** 1. Observation Value Score 1 - 100 2. Character/Attitude Score Score 1 - 100 3. Performance Value Score 1 - 100 **Form of Assessment** : Project Results Assessment / Product Assessment	Approach: Scientific Model: Problem Based Learning and Cooperative Learning Method: Discussion, Presentation 2 X 50			100%
16							0%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Project Results Assessment / Product Assessment	100%
		100%

Notes

1. **Learning Outcomes of Study Program Graduates (PLO - Study Program)** are the abilities possessed by each Study Program graduate which are the internalization of attitudes, mastery of knowledge and skills according to the level of their study program obtained through the learning process.
2. **The PLO imposed on courses** are several learning outcomes of study program graduates (CPL-Study Program) which are used for the formation/development of a course consisting of aspects of attitude, general skills, special skills and knowledge.
3. **Program Objectives (PO)** are abilities that are specifically described from the PLO assigned to a course, and are specific to the study material or learning materials for that course.
4. **Subject Sub-PO (Sub-PO)** is a capability that is specifically described from the PO that can be measured or observed and is the final ability that is planned at each learning stage, and is specific to the learning material of the course.
5. **Indicators for assessing** abilities in the process and student learning outcomes are specific and measurable statements that identify the abilities or performance of student learning outcomes accompanied by evidence.
6. **Assessment Criteria** are benchmarks used as a measure or measure of learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be quantitative or qualitative.
7. **Forms of assessment:** test and non-test.
8. **Forms of learning:** Lecture, Response, Tutorial, Seminar or equivalent, Practicum, Studio Practice, Workshop Practice, Field Practice, Research, Community Service and/or other equivalent forms of learning.
9. **Learning Methods:** Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning, Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, and other equivalent methods.
10. **Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
11. **The assessment weight** is the percentage of assessment of each sub-PO achievement whose size is proportional to the level of difficulty of achieving that sub-PO, and the total is 100%.
12. TM=Face to face, PT=Structured assignments, BM=Independent study.