

21B33C304 – Introductory to Computer Science

Module designation	Introductory to Computer Science (Undergraduate)
Semester(s) in which the module is taught	2 nd
Person responsible for the module	Shabrina Syntha Dewi, S.Pd., M.Pd.
Language	Indonesia - English
Relation to curriculum	This course is a compulsory course
Teaching methods	Lecture, Presentation
Workload (incl. contact hours, self-study hours)	CH: 09.00-17.00 Face to face: 4x50 minutes / week Independent Study: 4x50 minutes / week Structured assignment: 4x50 minutes / week
Credit points	2 SKS (equivalent 3.4 ECTS)
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	<p>Program Learning Outcomes (PLO)</p> <p>PLO 2: Internalize academic values, norms and ethics.</p> <p>PLO 4: Mastering the concepts, theories and applications in the fields of computer engineering and informatics taught at the vocational secondary education level.</p> <p>PLO 8: Able to apply mathematics, science and engineering principles to solve complex engineering problems in informatics and computer engineering.</p> <p>PLO 10: Apply logical, critical, systematic and innovative thinking in the context of developing or implementing science and/or technology in accordance with the fields of informatics and computer engineering.</p> <p>Course Learning Objectives (CLO)</p> <p>The Introduction to Computer Science course is a basic course that discusses the development of computers, computer systems, devices used (hardware & software), networks, etc. This course is also a foundation for further study of other subjects related to computers.</p>

	<p>Sub CLO:</p> <p>Sub-CLO 1: Students are able to describe the definition, types and basics of computer support devices.</p> <p>Sub-CLO 2: Students are able to analyze the function and workings of Input Devices</p> <p>Sub-CLO 3: Students are able to analyze the function and workings of output devices</p> <p>Sub-CLO 4: Students are able to analyze the function and workings of storage devices</p> <p>Sub-CLO 5: Students are able to analyze the functions and workings of processing</p> <p>Sub-CLO 6: Students are able to describe the types of operating systems</p> <p>Sub-CLO 7: Students are able to explain network usage</p> <p>Sub-CLO 8: Students are able to explain the history and services of the internet.</p> <p>Sub-CLO 9: Students are able to describe information systems and technology.</p> <p>Sub-CLO 10: Students are able to explain the basics of computer security systems.</p> <p>Sub-CLO 11: Students are able to explain data base management and data transfer</p> <p>Sub-CLO 12: Students are able to explain software development</p> <p>Sub-CLO 13: Students are able to describe steps to protect privacy and data systems</p>
Content	<p>Students will learn about:</p> <ul style="list-style-type: none"> ● Definition, Types and Computer Support Devices ● Keyboard, Mouse and Other Input Output Devices ● Computer Prints Data (Monitor, Projector, Sound Card) ● Computer Processes Data (CPU, Memory and System Bus) ● Computer Stores Data (External Memory) ● Operating system ● Network Usage ● Internet History and Services ● Information Systems and Technology ● Computer Security ● Database Management ● Software Development ● Protecting Computer and Data Privacy
Examination forms	<p>Assessment Techniques: Exam, Presentation</p> <p>Assessment Forms: Assignment, Presentation Assessment</p>
Study and examination requirements	<ul style="list-style-type: none"> ● Students have to inform the lecturer when they are not able to attend the class due to sickness etc ● Active in making projects by showing participation in making projects in class ● Able to present and answer questions that exist during project presentations

Reading List

- Northon, Peter. 2008. The Intoduction to Computer 6th Edition. New York: Tata McGaw Hill
- Herlina, Rosika. 2021. Pengantar Ilmu Komputer. Malang: CV. Literasi Nusantara Abadi