21B33C304 – Introductory to Computer Science

Module designation	Introductory to Computer Science (Undergraduate)
Semester(s) in which the module is taught	2nd
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	**Program Learning Outcomes (PLO)** PLO 2: Internalize academic values, norms and ethics. PLO 4: Mastering the concepts, theories and applications in the fields of computer engineering and informatics taught at the vocational secondary education level. PLO 8: Able to apply mathematics, science and engineering principles to solve complex engineering problems in informatics and computer engineering. 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. **Course Learning Objectives (CLO)** 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.

	Sub CLO: Sub-CLO 1: Students are able to describe the definition, types and basics of computer support devices. Sub-CLO 2: Students are able to analyze the function and workings of Input Devices Sub-CLO 3: Students are able to analyze the function and workings of output devices Sub-CLO 4: Students are able to analyze the function and workings of storage devices Sub-CLO 5: Students are able to analyze the functions and workings of processing Sub-CLO 6: Students are able to describe the types of operating systems Sub-CLO 7: Students are able to explain network usage Sub-CLO 8: Students are able to explain the history and services of the internet. Sub-CLO 9: Students are able to describe information systems and technology. Sub-CLO 10: Students are able to explain the basics of computer security systems. Sub-CLO 11: Students are able to explain data base management and data transfer Sub-CLO 12: Students are able to explain software development Sub-CLO 13: Students are able to describe steps to protect privacy and data systems
Content	Students will learn about: ● 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	Assessment Techniques: Exam, Presentation Assessment Forms: Assignment, Presentation Assessment
Study and examination requirements	● 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