Module Description

Module name	3D Modelling and Animation
Module level, if applicable	Bachelor of Informatics
Code, if applicable	21D12140703
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	6th
Person responsible for the module	**Dr. Ir. Ingrid Nurtanio, MT.**
Lecturer	1. Dr. Ir. Ingrid Nurtanio, MT. 2. A. Ais Prayogi, ST. M.Eng
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is an elective course and is offered starting from the 6th semester.
Type of teaching, contact hours	Teaching methods: [group discussion], [project-based learning]. Teaching forms: [lecture] CH : 8.00 - 16.00
Workload	For this course, students are required to meet a minimum of 136.00 hours in one semester, which consist of: - 40.00 hours for lecture, - 48.00 hours for structured assignments, - 48.00 hours for private study
Credit points	3 credit points (equivalent with 5.1 ECTS)
Requirements	Students must have attended all minimum 80% of classes and submitted all class assignments that are scheduled before the final tests.

according to the examination regulations	
Recommended prerequisites	Algorithm and Data Structure, Basics of Multimedia,
Module objectives/intended learning outcomes	**Intended Learning Outcomes (ILO):** **ILO 1:** have the knowledge of fundamental in Computing Science that includes basic theory and concepts of computer science, Mathematics and Statistics, Programming Algorithm, Software Engineering, Information Management and Digital Resilience, also the advance topics of either Artificial Intelligence, Data Science, Computer Network, Cloud Computing or Internet of Things. **ILO 3:** Apply the knowledge of computing and other related disciplines to analyze and identify solutions for any computing-based problem. **Course Learning Objective (CLO):** After completing this course, students should be able to understand animation and 3D Modelling concepts, and be able to develop animation media. ILO 1 → CLO 1: Students able to able to understand animation dan 3D Modelling concepts ILO 3 → CLO 2: Students can create and animate 3D models using specific animation and 3D modelling tools.
Content	Students will learn about : 1. Animation Principles 2. Animation types 3. Animation techniques 4. 2D and 3D Animation 5. Animation Storyboard 6. Animation and 3D Modelling tools a. Primitive Objects b. Lighting and Material c. Camera and rendering d. Keyframes and timeline e. Character Rigging

Forms of Assessment	Assessment techniques: [observation], [participation], [written-test]. Assessment forms: [midterm exam], [assignment], [report], [presentation] CLO 1 => ILO 1: 30% (Midterm Exam: written test) and 20% (Assignment1: participation) CLO 2 => ILO 3: 30% (presentation: observation) and 20% (Assignment2: participation)
Study and examination requirements and forms of examination	**Study and examination requirements:** - Students must attend 15 minutes before the class starts. - Students must switch off all electronic devices. - Students must inform the lecturer if they will not attend the class due to sickness, etc. - Students must submit all class assignments before the deadline. - Students must attend the exam to get a final grade. **Form of examination:** Written exam: Essay and Practicum
Media employed	Video conference, slide presentation, Learning Management System (LMS)
Reading list	**Main :** Blender Documentations, https://docs.blender.org/manual/en/latest/ Shirley, Peter, 2009, “Fundamentals of Computer Graphics”, CRC Press Eck, David J. 2021. "Introduction to Computer Graphics". Hobart & William **Support :** Andy Beane, 2012, “3D Animation Essentials”, Wiley, Indiana