21B33C409 – Technological Innovation

Module designation	Technological Innovation
Semester(s) in which the module is taught	4^{th}
Person responsible for the module	1. Dr. Ir. Mustari Lamada, M.T, 2. M. Miftach Fakhri, M.Pd.
Language	Indonesian language
Relation to curriculum	Elective course
Teaching methods	Lecture, assigntments, discussion, and case-baed learning
Workload (incl. contact hours, self-study hours)	Total workload: 16 meeting Face to face : 2x50 minutes/week Independent Study : 2x50 minutes/week Structured assignment : 2 x50 minutes/week
Credit points	2 credit points (equivalent with 3.4 ECTS)
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	After completing the course, students are able : Program Learning Outcomes (PLO): **PLO 2:** Instill a sense of citizenship, national pride, and social responsibility. Learners will engage in activities that contribute to the betterment of society and demonstrate a commitment to upholding laws and regulations. **PLO 3:** Developing professional skills and a sense of independence. Learners will acquire the ability to take responsibility for their work, internalize academic values and ethics, and foster an entrepreneurial spirit. **PLO 6:** Research methodology in the fields of informatics and computer science. Students will also learn data analysis fundamentals for research and development in technical education. Additionally, they will acquire knowledge of entrepreneurship basics and effective public communication skills. **PLO 7:** Developing critical thinking, creativity, and innovative skills in the context of applying knowledge and technology while considering and implementing humanistic values relevant to their field of expertise. **PLO 11:** The preparation of learning materials aligned with the curriculum for schools and educational institutions in the field of computer science and informatics. It also covers the application of creative and innovative learning models and the use of mathematics,

	science, and engineering principles to solve complex engineering problems.
Content	1. Introduction to Technological Innovation 2. 21st Century Skills 3. Research and Innovation 4. Implementation of Technology 5. Innovation to Empower Community Potential through Technology 6. Creativity, Inventive Ideas, and Futuristic Ideas 7. Entrepreneurship Innovation 8. Ethics in Writing Ideas 9. Writing Background and Literature Review 10. Writing Proposal Implementation Methods 11. Proposal Scheduling and Financing Design 12. Writing References in Proposals
Examination forms	Oral presentation, quiz, and assignments.
Study and examination requirements	1. Students must attend at least 12 face-to-face (80%) meetings in the class based on academic regulation. 2. Students must be present 15 minutes before the class starts. 3. Students must submit all the assignments before the deadline. 4. Students must attend the exam to get final grade.