	INSTITUT TEKNOLOGI SEPULUH NOPEMBER FACULTY OF SCIENCE AND DATA ANALYTICS DEPARTMENT OF STATISTICS STATISTICS UNDERGRADUATE PROGRAM	
Course	Course Name	:	**Applied Technology and Digital Transformation**
	Course Code	:	UG234916
	Credit	:	3 SKS
	Semester	:	VII

COURSE DESCRIPTION

The Technology Application and Digital Transformation Courses (APTEKTRANSIDI) is one of the Institute's content courses that must be taken. This course is an ITS character, which will inspire students in developing insights into science, technology and innovative products that are competitive and the form of application in society and the environment. Students will receive material 1) Digital Literacy Knowledge and Concepts; 2) Systems Theory and Systemic Thinking; 3) Knowledge of the National Research Roadmap and ITS; 4) Introduction to Science Technopark (STP); 5) Knowledge and Concepts of Sustainable Development Goals (SDGs); 6)Opensource Mobile Application Technology, E Commerce; 7) Creative and Innovative Knowledge; and 8) Making Proposals for Student Creativity Programs (PKM) and similar programs in preparing project-based innovations along with PKM Proposal Outputs (Articles and Videos). At the end of the lecture, students are able to compile a Student Creativity Program Proposal (PKM) based on the knowledge that has been given in this lecture. The benefits of learning the APTEKTRANSIDI Course are: Students are able to explain, explain and implement problems in society and the environment with a Technology Application approach and expertise in their fields in accordance with the principles in the APTEKTRANSIDI teaching material.

PROGRAM LEARNING OUTCOME

S6	Able to cooperate and have social sensitivity, as well as concern for the community and the environment
KU1	Able to apply logical, critical, systematic, and innovative thinking in the context of the development or implementation of science and technology that pays attention to and applies humanities values in accordance with their field of expertise
KU3	Able to use Technology Applications for the development or implementation of science and technology based on scientific rules, procedures and ethics in order to produce solutions, and ideas
KU4	Able to compile a final report / Proposal or research / innovation project / Student Creativity Program (PKM).

COURSE LEARNING OUTCOME

CLO.1	Students understand the outline of the lecture from beginning to end, are able to understand the Knowledge and Concepts of Digital Literacy by thinking systematically in solving general problems properly and correctly
CLO.2	Students able to utilize research centers both locally and nationally with technological applications and innovative products that are competitive
CLO.3	Able to have conservation insights into natural and human resources in applying

	science and technology for the benefit of Sustainable Development with SDG's Theories and Concepts.
CLO.4	Able to complete the making of Student Creativity Program Proposals (PKM) and similar programs in preparing project-based innovations along with PKM Proposal Outputs (Articles, Posters and Videos)

MAIN SUBJECT

1. Digital Literacy Knowledge and Concepts
2. Theory of Systems Thinking and Information Transformation
3. Introduction and Knowledge of Science Technopark (STP)
4. Knowledge of ITS and National Research Roadmaps
5. The concept of SDGs (Sustainable Development Goals)
6. Open Source Technology and IT Ethics
7. Student Creative Program Proposal Concept (PKM)

PREREQUISITE

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REFERENCES

1. Digital Literacy : Tools and Methodologies for Information Society. Pier Casera Rivoltella, Universitas Cottolica del Sacro Cuore, Italy
2. Akhmad Hidayatno, "BERPIKIR SISTEM", Pola Pikir Untuk Pemahaman Masalah Yang Lebih baik. 2016. Universitay of Indonesia.
3. Gerakan Literasi Nasional, Kementrian Pendidikan dan Kebudayaan Jakarta, 2017
4. Buku Tim Pengembang Course Wawasan Teknologi dan Komunikasi Ilmiah , "Wawasan Teknologi & Komunikasi Ilmiah", ITS Press, Surabaya, 2015.
5. Alfred Watkins and Michel Ehst, "Science, Technology and Innovation: Capacity Building for Sustainable Growth and Poverty Reduction", The International Bank for Reconstruction and Development, Washington DC, 2008.
6. Frieder Meyer Krahmer, "Innovation and Sustainable Development-Lesson for Innovation Policies, " A Springer-Verlag Company, Heidelberg, 1998.
7. Book : ARAHAN Pelaksanaan Tujuan Pembangunan Berkelanjutan/SDGsTeam Leader Sekretariat SDGs Kementerian PPN/Bappenas, 1 Februari 2018, Alamat Kontak: Website : sdgs.bappenas.go.id