

<b>Course</b>	Course Name	: Insights and Applications of Technology (IAT/WASTEK)
	Course Code	: UG 184916
	Credit	: 3
	Semester	: > 5

#### COURSE DESCRIPTION

This course is intended to inspire students in developing the ability to develop scientific, technological, and innovative insights by utilizing information and communication technologies and their application for sustainable development based on the conservation of natural and human resources. During the course, students develop their capacity starting from the exploration ability stage, to the stage of improving communication skills and collaborating teams that work systematically in formulating technological ideas and innovations through problem-based learning activities, and observe facts and problems faced by the nation i.e. problems of energy, food, environment, climate change and so forth in order to train social sensitivity. At the end of course, students should be able to verbally explain creative and innovative technological ideas for the benefit of sustainable development by utilizing information and communication technology in order to overcome the nation's problems, and express it effectively in the form of scientific papers.

#### COURSE GRADUATE LEARNING OUTCOME

1. Contributing in the improvement of the quality of life in the community, nation, state, and progress of civilization based on Pancasila (Indonesia state principles).
2. Work together and have social sensitivity and social care for the community and the environment.
3. Work together to be able to make the most out of their potential.
4. Able to implement the principle of sustainability in developing knowledge.
5. Able to implement information and communication technology in the context of carrying out their work.

#### COURSE LEARNING OUTCOME

1. Students understand about the outline of lectures from the beginning to the implementation of Community Service Program (*Kuliah Kerja Nyata, KKN*).
2. Students are able to present information into something simpler to understand.
3. Students are able to make a Logical Frame Work (Log frame) Matrix.
4. Students have insight and are able to implement sustainable development principles according to their expertise in solving problems in the community and the surrounding environment.
5. Students are able to understand the basics of the use of technology by optimizing information and communication technology in solving problems in society and the environment.
6. Students are able to use open-source based information technology to create agency websites.
7. Students are able to use applied information technology to solve common problems in the community.
8. Students are able to develop attitudes to work together and have social sensitivity and high concern towards the society and the environment.

9. Students can be part of the solution of problems that exist in the community
10. Students are able to use technology and have creativity in order to solve problems that exist in the society and the environment.

## TOPICS

1. Introduction and Information Transformation
2. Logical Frame Work (Log Frame)
3. System Theory and Systemic Thinking
4. Concepts of Millennium Developments Goals (MDGs) and Sustainable Development Goals (SDGs)
5. Information and Communication Technology (ICT)
6. Community Service Program (*KKN*)

## REFERENCES

### Main reference:

1. Buku Transformasi Informasi, Dr.techn. Pujo Aji, ST.MT., ITS Pres., 2016
2. 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.
3. Frieder Meyer Kraemer, "Innovation and Sustainable Development-Lesson for Innovation Policies," A Springer-Verlag Company, Heidelberg, 1998.
4. Arahan Pelaksanaan Tujuan Pembangunan, Alamat Kontak: Website : [sdgs.bappenas.go.id](http://sdgs.bappenas.go.id)
5. PERPRES No 59 Tahun 2017 Tentang Pelaksanaan Pencapaian Tujuan Pembangunan (TPB/SDGs)

## PREREQUISITE

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