

Course Code	FIU200													
Course Name	Engineering and Civilization													
Course Instructors	Sasonggo Pramonohadi, Sujoko Sumaryanto, Priyatmadi, Tiyono, Eka Firmansyah,													
Course Type	Required													
Course Classification	General Education													
Credit / Contact Hour per Week	2 / 100 minutes per Week													
Course Description	This course explains the soul and the role of engineering. It gives understanding of the big picture of engineering in human civilization. Also it reveals the ethical aspect of engineering.													
Prerequisites Courses	-													
Covered Student Outcome	Knowledge of Contemporary Issues (f) Professional and Ethical Responsibility (i) Engineering Awareness and Society (j) Sustainable Learning (k)													
Learning Outcome	<ol style="list-style-type: none"> Students are able to explain about the role of engineers in the civilization. Students are able to explain about the holism epistemology within engineering. Students are able to understand ethics and its code. Students are able to understand Ethical code of Engineering in Indonesia. 													
Topic	<ol style="list-style-type: none"> Forewords: Explaining about the history of Engineering Faculty. Also about understanding difference among scientists and engineers. The contributions and importance of engineering in human civilization. Introduction about system thinking. Engineering Epistemologi from Social and Cultural Insight. Engineering Epistemologi from Political and Economic Insight. Engineering Epistemologi from Nature Perspective. Desain Principle Case study: Industrial Engineering (Mechanical-Electrical-Chemical) Case study: Earth Science (Geology-Geodetic) Case study: Civil and Planning. Case study: Energy. Attitude of engineers. Ethics in Engineering. Vision and Mission of Engineering Faculty Graduates. 													
Direct Assessment	<table border="1"> <thead> <tr> <th>Direct Assessment Plan</th> <th>Measured Learning Outcome</th> </tr> </thead> <tbody> <tr> <td>Holism Epistemology within Engineering</td> <td>LO2</td> </tr> <tr> <td>Mid Exam</td> <td>LO1</td> </tr> <tr> <td>Final Exam</td> <td>LO3, LO4</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>		Direct Assessment Plan	Measured Learning Outcome	Holism Epistemology within Engineering	LO2	Mid Exam	LO1	Final Exam	LO3, LO4				
Direct Assessment Plan	Measured Learning Outcome													
Holism Epistemology within Engineering	LO2													
Mid Exam	LO1													
Final Exam	LO3, LO4													
Indirect Assessment	Questionnaire (EDOM)													
References	<p>Anonim, 2000, Accreditation Board for Engineering and Technology</p> <p>Anonim, 2011, Engineering ethics in practice: a guide for engineers, The Royal Academy of Engineering, London SW1Y 5DG</p> <p>Hadikusumo, 2003, "Tagore, Kesatuan Kreatif", Benteng, Yogyakarta.</p> <p>Harris C., Pritchard M., MICHAEL J. Rabins M.J., 2009, Engineering Ethics Concepts And Cases, Wadsworth, Cengage Learning</p> <p>Martin M.W. dan Schinzinger R., 2010, Introduction to Engineering Ethics, Published by McGraw-Hill</p> <p>Wahyudi, 2001, Sikap mental dan Etika Profesi Teknik, Buku Saku mahasiswa, Fakultas Teknik UGM</p>													