

**Description of Course Unit according to
the ECTS User's Guide 2015**

Course unit title	Basic of Natural Science
Course unit code	FS191205
Type of course unit (compulsory, optional)	Compulsory
Level of course unit (according to EQF: first cycle Bachelor, second cycle Master)	First cycle Bachelor
Year of study (if applicable)	1 st year
Semester/trimester when the course unit is delivered	1 th semester
Number of ECTS credits allocated	4.83 ects
Name of lecturer(s)	<ol style="list-style-type: none"> 1. Dr. Ir. Wiwin Windriyanti, MP Office hours: mon-fri, 09.00-16.00 2. Dr. Elly Syafriani, SP Office hours: mon-fri, 09.00-16.00
Learning outcomes of the course unit	<ol style="list-style-type: none"> 1. Students can think critically, creatively, systematically and scientifically, and can apply the principles of basic experience in general. 2. Students can apply basic experience principles that can be applied in their respective fields of expertise.
Mode of delivery (face-to-face, distance learning)	Face to face / Online learning (ilmu.upnjatim.ac.id)
Prerequisites	N/A
Course contents	<p>For 14 weeks, students will learn:</p> <ol style="list-style-type: none"> 1. Basic Nature Principles 2. Various Human Behaviors 3. The development of natural science and the scientific method 4. Universal Process

	<ol style="list-style-type: none"> 5. The Ins and Outs of Life on Earth 6. Understanding Ecology 7. Matter and energy 8. Science and Technology Relations and Social Relations 9. Development of Communication 10. Science and Technology and Health Relations 11. The Role of Science and Technology in Natural Resources Management 12. The causal process between Science, Technology, and Life 13. Natural metamorphose process. 14. Biotechnology and its role in modern times
Recommended or required reading	<p>Required reading:</p> <ol style="list-style-type: none"> 1. Ardley Neil. Dkk, 1983. <i>Alam Semesta dan Bumi</i>. Jakarta: PT Gramedia. 2. Poedjawijatna, 1991. <i>Manusia Dengan Alamnya: Filsafat Manusia</i>. Jakarta: Bina Aksara. 3. Simamora P., 1984. <i>Ilmu Bumi Alam</i>. Jakarta: CV Pedjuang Bangsa. 4. Soeriaatmadja. 1981. <i>Ilmu Lingkungan</i>. Bandung: ITB. <p>Recommended reading:</p> <ol style="list-style-type: none"> 5. Nasibit, John dan Abuderne Patricia, 1990. <i>Megatren 2000</i>. Jakarta: Binarupa Aksara. 6. Soemarwoto, Otto. 1983. <i>Ekologi Lingkungan Hidup</i>. Jakarta: Djambantan. 7. Zen M.T., 1979. <i>Menuju Kelestarian Lingkungan Hidup</i>. Jakarta: PT Gramedia.
Planned learning activities and teaching methods	<p>Lecture and blended-learning consists of discussions, case studies and project-based examination.</p> <p>Mid-term exam : essay questions that must be done within the given time.</p> <p>Final exam: essay questions that must be done within the given time.</p>
Language of instruction	Indonesia-English
Work placement(s)	N/A