MODUL ENVIRONMENTAL POLLUTION CONTROL

MASTER PROGRAM OF ENVIRONMENTAL SCIENCE
SCHOOL OF POSTGRADUATE STUDIES
DIPONEGORO UNIVERSITY

A Modul Descriptions :

Modul design	Environmental Pollution Control
Modul level, if applicable	
Code, if applicable	P-CIL-8-209
Subtitles, if applicable	
Courses, if applicable	
Semester(s) in which the Modul is taught	2nd Semester
Person responsible for the Modul	Dr. Ing,- Sudarno Utomo, ST, MSc
Lecturer	1. Dr. Ing,- Sudarno Utomo, ST, MSc 2. Dr. Ir. Bambang Yulianto, DEA 3. Prof. Dr. Tri Retnaningsih Soeprobowati, M.App.Sc
Language	*Indonesian and English*
Relations to curriculum	
Type of teaching, contact hours	*Studying:1 x 120 minutes x 16 meetings = 32 hours/week* *Q&A:1x 20 minutes 16 meetings = 5.3 hours/week* *Discussion:1x 20 minutes 16 meetings = 5.3 hours/week* *Presentation:1x 20 minutes 16 meetings = 5.3 hours/week* *Individual assignments: 36 minutes/day = 3 hours/week*
Workload	*(Estimated) workload, divided into contact hours (lecture, exercise, laboratory session, etc.) and private study, including examination preparation, specified in hours,[1] and in total.*
Credit points	*2 credits / 4 ECTS*
Requirements according to the examination regulations	*Minimum attendance of lectures 75%*
Recommended prerequisites	*eg existing competences in…*

Modul objectives/intended learning outcomes	Student able to analyzing pollution problems, classifying pollution sources, knowing pollution materials, characterizing waste, pollution cycles, pollution impacts, prevention, control and prevention
Content	This course examines the analysis of pollution problems, classification of pollution sources: water, soil, air, toxicology of heavy metals, food and medicine, pesticides; pollution materials, waste characteristics, pollution cycles, pollution impacts, prevention, control and prevention: supervision, determination/estimation of environmental quality (water, air, and land).
Study and examination requirements and forms of examination	• *Open book and close book* • *Multiple choice, case studies, interviews*
Media employed	*Powerpoint, youtube, website*
Reading List	1. Liu, D.H.F., and B.G. Liptak. 2000. Air Pollution.CRC Press. Florida. 2. Noel de Nevers. 2000. Air Pollution Control Engineering. University of Utah, Chemical engineering. McGraw-Hill International 3. Moestikahadi. (2001). Pencemaran Udara. ITB. Bandung 4. Soemirat, Y. 2003. Environmental Toxicology. UGM. Yogyakarta. 5. Wardhana, W.A. 2004. Impact of Environmental Pollution. Andi. Yogyakarta. 6. A. Tresna Sastrawijaya. 2009. Pencemaran Lingkungan. Rineka Cipta. Jakarta.