

MODUL HANDBOOK DISASTER AND ENVIRONMENTAL RISK



MASTER PROGRAM OF ENVIRONMENTAL SCIENCE
SCHOOL OF POSTGRADUATE STUDIES
DIPONEGORO UNIVERSITY

Module Description :

Module designation	Disasters and Environmental Risk
Semester(s) in which the module is taught	2 nd Semester
Person responsible for the module	Prof. Dr. rer. nat. Imam Buchori, S.T. Prof. Dr.sc. agr. Iwan Rudiarto, S.T., M.Sc. Dr. Anang Wahyu Sejati, S.T., M.T.
Language	Indonesian and English
Relation to curriculum	Compulsory for Disaster Management Concentration/Specialization
Teaching methods	Mix Method or Blended Learning by incorporating Lecture Based-learning, Student Centred-Learning and Technological Learning <ul style="list-style-type: none">• Lecture Based-Learning: teacher lead a lesson by using presentation, showing visual• Student Centred-Learning: teacher promote individual learning so that student can exploring individual idea• Technological Learning, teacher leads to use high technology in information such as by exploring, utilizing internet/searching engine and social media.
Workload (incl. contact hours, self-study hours)	<ul style="list-style-type: none">• Lecture, 2 hours per week• Discussion and presentation (Q&A), 1 hours per week• Individual assignment, 3 hours per week• Total workload for semester = 100 hours
Credit points	2 credits / 4 ECTS
Required and recommended prerequisites for joining the module	No required prerequisite
Module objectives/intended learning outcomes	<ul style="list-style-type: none">• Able to formulate environmental management theory to foster disaster management strategies• Able to formulate and carry out scientific research to solve environmental problems caused by disaster• Able to find rules, method to solve problems environmental damage caused by disaster

	<ul style="list-style-type: none"> • Able to manage and control environmental degradation caused by disaster • Able to conduct quick studies to solve problems of pollution/environmental damage as a result of disaster events with management and/or technical approaches
Content	<p>Disaster and environment risk courses provide additional insight for students to be able to understand disaster risk, its phenomena, forms, and mitigation efforts so that students can prepare disaster risk mitigation effectively and efficiently. Disaster and environmental risk provide knowledge for student to explore environmental risk probability if the disaster impact cannot be handle properly, especially for Indonesia island which high level hazard.</p>
Examination forms	<ul style="list-style-type: none"> • Closed book or Open book • Essay • Individual and group assignments.
Study and examination requirements	Lecture attendance of at least 75%.
Reading list	<ol style="list-style-type: none"> 1. Erniati, B., et al (ed), (2021), Knowledge of Disasters and the Environment, Publisher of Our Writing Foundation, Medan 2. Musthofa (2019). Unraveling the Chaos of Environmental Disasters (Reflections on Environmental Journalism and Deep Ecology in Indonesia), UMM Press Publisher and UMM PSLK, Malang 3. Puji L. (2018),. Disaster Communication Important Aspects of Disaster Risk Reduction, Publisher PT Kanisius, Yogyakarta 4. Kelman, I., Mercer, J., & Gaillard, J. C. (Eds.). (2017). The Routledge handbook of disaster risk reduction including climate change adaptation. Routledge. 5. Madu, C. N. (2017). Handbook of disaster risk reduction & management: Climate change and natural disasters. World Scientific Publishing Company. 6. Khambali (2016). Disaster Management, ANDI Publisher, Yogyakarta 7. Djauhari N. (2014). Introduction to Geological Disaster Mitigation, Deepublish Publisher, Yogyakarta

	<ol style="list-style-type: none"><li data-bbox="608 105 1418 190">8. Pinkowski, J. (Ed.). (2008). Disaster management handbook. CRC press.<li data-bbox="608 190 1418 369">9. Andersson, W. A., Kennedy, P. A., & Ressler, E. (2007). Handbook of disaster research (Vol. 643). H. Rodríguez, E. L. Quarantelli, & R. R. Dynes (Eds.). New York: Springer.
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