

Module Name	Disaster Management
Code, if applicable	GEL 3107
Semester(s) in which the module	Fifth (5 th) Semester
Person responsible for the module	Prof. Dr. Muh Aris Marfai, S.Si., M.Sc.
Lecturer	Prof. Dr. Muh Aris Marfai, S.Si., M.Sc. Dr. Dyah Rahmawati Hizbaron, M.T., M.Sc.
Language	Bahasa Indonesia
Relation to curriculum	Elective
Type of teaching	STAR (<i>Student Teacher Aesthetic Role-Sharing</i>) is an optimal combination between SCL (<i>Student Centered Learning</i>) and TCL (<i>Teacher Centered Learning</i>). Lecture: 1400 minutes
Workload	Lecturer, including homework and discussion = 14 meetings x 100 minutes each Mid Semester Examination: 100 minutes Final Semester Examination: 120 minutes Total workload: 1620 minutes
Credit points	2
Requirements according to the examination regulations	Must attend lecture for more than 70%
Recommended prerequisites	-
Module objectives/intended learning aoutcomes	Students are able to explain : 1. Understanding of hazards, disasters and risks 2. Characteristics, causes and impact of earthquake 3. Characteristics, causes and impact of volcanic eruption 4. Characteristics, causes and impact of landslide 5. Characteristics, causes and impact of tsunami 6. Characteristics, causes and impact of flood 7. Characteristics, causes and impact of drought 8. Method of Prediction of Hazards 9. Method of Prediction of Vulnerability 10. Method of Prediction of Risk 11. Disaster Preparedness and Mitigation 12. Structural Disaster Mitigation 13. Non Structural Disaster Mitigation 14. Disaster Management in Indonesia
Content	1. Understanding of hazards, disasters and risks 2. Characteristics, causes and impact of earthquake 3. Characteristics, causes and impact of volcanic eruption 4. Characteristics, causes and impact of landslide 5. Characteristics, causes and impact of tsunami 6. Characteristics, causes and impact of flood 7. Characteristics, causes and impact of drought 8. Method of Prediction of Hazards 9. Method of Prediction of Vulnerability 10. Method of Prediction of Risk 11. Disaster Preparedness and Mitigation 12. Structural Disaster Mitigation 13. Non Structural Disaster Mitigation 14. Disaster Management in Indonesia

Study and examination requirements and forms of examination	Quiz (10%), Group or individual assignment (20 %), mid-semester examination (35 %) dan final examination (35 %). Examination is formed in written test.
Media employed	- ELISA website - Internet - Computers - Interactive video - LCD projector
Reading list	BAPPENAS. 2003. Pedoman Teknis Kekeringan. Jakarta BAPPENAS RI dan BAKORNAS PB. 2006. Rencana Aksi Nasional Pengurangan Risiko Bencana 2006-2009. Jakarta Carter, N. 1992. Disaster Management: A Disaster Manager Handbook. Published by Asian Development Bank. Manila, Philippines Christanto, Joko. 2011. Gempa Bumi, Kerusakan Lingkungan, Kebijakan Dan Strategi Pengelolaan. Penerbit Liberty. Yogyakarta, 323 hal. Cristady, Hary Hardiatmo. 2006. Penanganan Tanah Longsor & Erosi. Gajah Mada University Press. Yogyakarta, 450 hal. Cornforth, Derek H. 2005. Landslides in Practice: Investigations, Analysis, and Remedial/Preventative Options in Soils. Published by John Wiley and Sons, Inc. Hoboken, New Jersey, Canada Diposaptono, S. dan Budiman. 2008. Hidup Akrab dengan Gempa dan Tsunami. Penerbit Buku Ilmiah Populer. Bogor, 384 hal. Freudenrich, Craig., John Benner, David Bethel, Dana Desonie, Corliss Karasov, Mary Lusk, Erik Ong, Kurt Rosenkrantz, Julie Sandeen. 2009. Earth Science. Flexbook. US, 748 pp. Fryer, G. J., Smith, Jr., J.R., dan Watts, P. 2003. How is a Tsunami generated?. http:// www.soest.hawaii. edu /tsunami/ tsugen.html Hadi, A.R. 1997. Mikro zoning Untuk Pengkajian Risiko dan Mitigasi Bencana. BPPT. Jakarta Hadmer, John & Stephen Dovers. 2007. Handbook of Disaster and Emergency and Policies and Institutions. Earthscan. London, 187 pp. Hansell, A. L. C. J., Horwell, C. Oppenheimer. 2006. The Health Hazards of Volcanoes and Geothermal Areas. Occupational and Environmental Medicine, Vol. 63, No. 2 (Feb., 2006), pp. 149-156. Harjadi, Prih, Mezak A Ratag, Dwikorita Karnawati, Syamsul Rizal, Surono, Sutardi, Triwibowo, Hermono Sigit, Atik Wasiati, Yusharmen, Priatmono, Sugeng Triutomo, B Wisnu Widjaja . 2007. Pengenalan Karakteristik Bencana Dan Upaya Mitigasinya Di Indonesia. Direktorat Mitigasi, Lakhar BAKORNAS PB. Jakarta, 98 hal.

	Johnson, C., Tunstall, S., dan Rowsell, E.P. 2004. Crises as Catalysts For Adaptation: Human Response To Major Floods. ESRC Environment and Human Behaviour New Opportunities Programme. Flood Hazard Research Centre John Huggett Richard. 2007. Fundamentals of Geomorphology. Routledge Taylor and Francis. New York Latif Indra,Tito , Astrid Damayanti. 2006. Karakteristik Daerah Potensi Bencana Alam Gunung Api Pulau Ternate Maluku Utara. Departemen Geografi FMIPA UI. Jakarta. Lavigne, Franck., Thouret, Jean Claude. 2003. Sediment transportation and deposition by rain-triggered lahars at Merapi Volcano, Central Java, Indonesia. Geomorphology, Vol 49, No 1 (Jan, 2003), pp. 45-69. Doi : 10.1016/S0169-555X(02)00160-5 Lembaga Penelitian Dan Pengabdian Pada Masyarakat. 2009. Background Study on Opportunities and Challenges in Consolidating Indonesian Planning Processes Related to Disaster Risk Reduction. Universitas Gadjah Mada. Yogyakarta Marfai, Muh A dan King, Lorentz. 2008a. Tidal innudation mapping under enhanced land subsidence in Semarang, Central Java Indonesia. Natural hazards, Vol 44, No 1 , pp. 93-109. Doi : 10.1007/s11069-007-9144-z Marfai, Muh and King, Lorentz . 2008b. Coastal Flood Management in Semarang, Indonesia. Environmental Geology, Vol 55, No. 7, pp.1507-1518. Doi: 10.1007/s00254-007-1101-3 Marfai, Muh A and King, Lorentz. 2008c. Potential vulnerability implications of coastal inundation due to sea level rise for the coastal zone of Semarang city, Indonesia. Environmental Geology, Vol 54, No 6, pp. 1235-1245. Doi: 10.1007/s00254-007-0906-4 Marfai, Muh et al. 2008. Natural Hazards In Central Java Province, Indonesia. Enviromental Geology, Vol 56, No 2, pp. 335-351. Doi: 10.1007/s00254-007-1169-9 Maryono, Agus. 2005. Menangani Banjir, Kekeringan, Dan Lingkungan. Gadjah Mada University Press. Yogyakarta, 162 hal. Puspito, N.T. dan W. Triyoso. 1994. Aspek Kegempaan Tsunami di Indonesia, Suatu Tinjauan Awal. Dalam: Makalah Tsunami di Indonesia dan Aspek-aspeknya. Dewan Riset Nasional. Bandung. 211 hal. Rais, J. 2008. Gempa Bumi,Gunung Api dan Tsunami. UI. Jakarta Rafferty, John. 2011. Plate Tectonics, Volcanoes, and Earthquakes. Britannica Educational Publishing, New York, 314 pp.
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	Rito, S Hartoyo, Muh Aris Marfai, Novi Maulida Ni'mah, Rizki Yustiana Mukti, Qori'atu Zahro. Anisa Halim. 2011. Strategi Adaptasi Masyarakat Dalam Menghadapi Bencana Banjir Pasang Air Laut Di Kota Pekalongan. Percetakan Pohon Cahaya. Yogyakarta, 56 hal. Simandjuntak, T.O. 1994. Tsunami dan Gempa Bumi dalam Pinggiran Lempeng Aktif di Indonesia. Makalah Tsunami di Indonesia dan Aspek-aspeknya. Dewan Riset Nasional. Bandung, 211 hal. Sunarto dan Lies Rahayu WF. 2005. Manajemen Risiko Bencana Longsor Dan Gempabumi. Makalah Seminar. Presentasi Hasil Penelitian Lintas Klaster Riset UGM Sutikno, 2002. Panduan mitigasi bencana alam tanah longsor. PSBA. UGM, Yogyakarta Tim Pusat Bencana (PSBA) UGM. 2010. Panduan Mitigasi Bencana : Mengenal Bencana. Kementerian Sosial dan Pusat Studi Bencana UGM. Yogyakarta Twigg, John. 2004. Disaster Risk Reduction (Mitigation and Preparedness in Development and Emergency Programming). Good Practice Review No. 9 March 2004 Overseas Development Institute. London Winardi, A. G. 2006. Gempa Jogja, Indonesia dan Dunia. Gramedia, Jakarta, 96 hal Pemerintah Republik Indonesia. 2007. Undang-undang Nomor 24. Th 2007 Tentang Penanggulangan Bencana. Jakarta Menteri Pertambangan dan Energi. Keputusan Menteri Pertambangan dan Energi No 1054 K/12/MPE/2000 tentang Pedoman Mitigasi Bencana Gunung Api. Jakarta Menteri Dalam Negeri. 2006. Peraturan Menteri Dalam Negeri Nomor 33 Tahun 2006 Tentang Pedoman Umum Mitigasi Bencana. Jakarta http://bnpb.go.id
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