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MODULE HANDBOOK

Module name	Pengantar Teori Risiko Aktuaria 1 (Introduction to Actuarial Risk Theory 1)
Module level, if applicable	Bachelor
Code, if applicable	MMS-3432
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	5th Semester
Person responsible for the module	
Lecture(s)	Danang Teguh Qoyyimi, M.Sc., Ph.D.
Language	Bahasa Indonesia
Classification within the Curriculum	~~Compulsory course~~/ Elective Studies
Teaching format /class hours per week during the semester:	3 hours lecture
Workload	3 hours lectures, 6 hours individual study, 14 weeks per semester, and total 126 hours a semester
Credit points	3
Requirements	-
Module objectives/intended learning outcomes	This course introduces a variety of useful frequency and severity models. The students will be required to understand the steps involved in the modeling process and how to carry out these steps in solving business problems. Students should be able to: 1) analyze data from an application in a business context; 2) determine a suitable model including parameter values. By the end of this course, students should be able to: CO1 Apply the probability theory in modeling risks CO2 Apply transformation in random variable to loss modifications CO3 Compute aggregate claims distributions and use them to calculate loss probabilities
Content	1. Introduction: random variables, basic distributional quantities, tails of distribution, measures of risk 2. Characteristic of actuarial model 3. Creating new distributions 4. Selected distributions and their relationship 5. Discrete distributions 6. Frequency and severity with coverage modifications 7. Aggregate loss models This course will train the student in both knowledge and application setting but give more portion to the knowledge.
Study and xamination requirements and forms of examination	The weight of assignments will be as follows: i. Quiz, homework 10% ii. Group discussion 15% iii. Mid semester exam 35% iv. Final exam 40%

	Grade scale: A 85 ≤ score A/B 75 ≤ score < 85 B 60 ≤ score < 75 B/C 50 ≤ score < 60 C 40 ≤ score < 50 D 20 ≤ score < 40 E score < 20
Media employed	Slides and LCD projectors, blackboards
Reading List	1. Klugman, S. A., Panjer, H. H., dan Willmot G. E. (2012), Loss Model: From Data to Decision 4th edition, Wiley 2. Bowers, N.L. Gerber, H.U., Hickman, J.C., Jones, D.A. and Nesbitt, C.J. (1997), Actuarial Mathematics, Society of Actuaries, 2nd Edition

CO and PLO mapping

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7
CO 1	x						
CO 2		x					
CO 3				x			