



UNIVERSITAS GADJAH MADA
Faculty of Mathematics and Natural Sciences
Department of Mathematics

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Graduate Program in Mathematics

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MODULE HANDBOOK

Module Name	Komputasi Keuangan (Financial Computation)
Module level, if applicable	Master Program
Code, if applicable	MMS-5513
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	1/first year
Person responsible for the module	Chair of Statistics Laboratory
Lecturer(s)	Dr. Gunardi, M.Si.
Language	Bahasa Indonesia
Relation to curriculum	Elective <i>for</i> Master Degree in Mathematics,
Teaching methods	3 hours lecture
Workload (incl. contact hours, self-study hours)	3 hours lectures, 6 hours individual study, 14 weeks per semester, and total 126 hours a semester
Credit points	3
Required and recommended prerequisites for joining the module	MMS-1404 Metode Statistika I (Statistical Methods I)

Module objectives/intended learning outcomes	On successful completion of this course, students should be able to: : <ul style="list-style-type: none"> ● CO 1 Using computation on finance ● CO 2 understand algorithm analysis ● CO 3 able to create code on financial computation.
Content	Modern Finance, Analysis of Algorithms, Basic Financial Mathematics, Bond Price Volatility, Term Structure of Interest Rates, Option Pricing Models, Continuous-Time Financial Mathematics, Numerical Methods
Examination forms	<i>oral presentation and essay.</i>
Study and examination requirements	The weight of assignments will be as follows: <ol style="list-style-type: none"> 1. Quiz, home work, presentation 30% 2. Mid semester exam 35% 3. Final exam 35%
Media employed	online platform, Learning management system, LCD projectors, whiteboards.
Reading list	<ol style="list-style-type: none"> 1. Higham, D. J., 2004, <i>An Introduction to Financial Option Valuation</i>, Cambridge University Press, Cambridge. 2. Yuh-Dauh Lyuu, 2004, <i>Financial Engineering and Computation</i>, Cambridge University Press, Cambridge.

CO-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				

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