



# UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Department of Mathematics

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## Master in Mathematics

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## MODULE HANDBOOK

Module Name	Model Struktural (Structural Equation Modelling)
Module level, if applicable	Bachelor
Code, if applicable	MMM-5421
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	Semester
Person responsible for the module	Dr. Abdurakhman, S.Si, M.Si
Lecturer(s)	Dr. Abdurakhman, S.Si, M.Si
Language	Bahasa Indonesia
Relation to curriculum	<del>Compulsory course</del> / Elective Studies
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	-
Module objectives/intended learning outcomes	By the end of this course : <ol style="list-style-type: none"><li><b>CO 1 Students are able to understand and explain mathematically the equation of SEM</b></li><li><b>CO 3 Students are able to apply SEM in practical cases</b></li><li><b>CO 3 Students are able to compose a paper in SEM</b></li></ol>

Content	<p>Analisis regresi, analisis komponen utama, analisis faktor exploratory, analisis faktor konfirmatori, analisis jalur dan review hubungan antar metode.</p> <p>Model persamaan terstruktur tanpa variable laten perantara (first order), model persamaan terstruktur dengan variable laten perantara : Model Pengukuran dan model struktural,</p> <p>Estimasi parameter : maksimum likelihood. Uji kecocokan model Chi-Square, Ukuran indeks kecocokan model CFI, GFI,AGFI. Ukuran kesalahan terkecil, Analisis data menggunakan software amos.</p> <p>Analisis Multi Group dalam SEM, Model second order</p> <p>The level of this lecture is from knowledge until application however the weighting of this lecture is more knowledge</p>
Examination forms	<i>Essay, case study, and paper.</i>
Study and examination requirements	<p>The weight of assignments will be as follows:</p> <ul style="list-style-type: none"> <li>i. Quiz, homework 10%</li> <li>ii. Group discussion 15%</li> <li>iii. Mid semester exam 35%</li> <li>iv. Final exam 40%</li> </ul> <p>Grade scale:</p> <p>A 85 ≤ score</p> <p>A/B 75 ≤ score &lt; 85</p> <p>B 60 ≤ score &lt; 75</p> <p>B/C 50 ≤ score &lt; 60</p> <p>C 40 ≤ score &lt; 50</p> <p>D 20 ≤ score &lt; 40</p> <p>E score &lt; 20</p>
Media employed	Slides and LCD projectors, Blackboards, Software
Reading list	<ul style="list-style-type: none"> <li>- Abdurakhman, 2015, Handout Mata kuliah</li> <li>- Joseph F.Hair, Wiliam C. Black, Barry J. Babin,Rolph E, Anderson, dan Ronald L.Tatham, Multivariate Data Analysis,fifth edition, Pearson Education International.Inc.,New Jersey,2006.</li> </ul>

### CO-PLO Mapping

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

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