



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

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**MODULE HANDBOOK**

Module name	Pengendalian Kualitas Statistik (Statistical Quality Control)
Module level, if applicable	Bachelor
Code, if applicable	MMS-2425
Subtitle, if applicable	-
Courses, if applicable	Pengendalian Kualitas Statistik (Statistical Quality Control)
Semester(s) in which the module is taught	4/second year
Person responsible for the module	Dr. Herni Utami, M.Si.
Lecture(s)	Dr. Herni Utami, M.Si., Rianti Siswi Utami, S.Si., M.Sc.
Language	Bahasa Indonesia
Classification within the Curriculum	<del>Compulsory course</del> / Elective Studies
Teaching format /class hours per week during the semester:	2 hours lecture, 2 hours laboratory session
Workload	<ul style="list-style-type: none"><li>- 2 hours lecture+ 4 hours individual study, 14 weeks lecture persemester,</li><li>- 2 hours laboratory session + 2 hours individual study, 10 weeks laboratory session per semester,</li><li>- total 124 hours a semester</li></ul>
Credit points	3
Requirements	MMS-1404 Metode Statistika I (Statistical Methods I)
Module objectives/intended learning outcomes	By the end of this course, students are expected to be able to: CO 1. interpret the basic of statistical process control techniques; CO 2. explain the application of quality control to improve production process. CO 3. use statistical software to solve statistical quality control's problems; CO 4. apply statistical quality control's techniques in real data set; CO 5. construct control charts for attributes and variables.
Content	Modeling process quality, statistical process control, control charts for attributes, control charts for variables, other statistical control techniques, process capability analysis, acceptance sampling for attributes and acceptance sampling by variables, statistical software for quality control.

Study and xamination requirements and forms of examination	<p>The weight of assignments will be as follows:</p> <ul style="list-style-type: none"> <li>i. Quiz, homework, laborartory session 30%</li> <li>ii. Mid semester exam 30%</li> <li>iii. Final exam 40%</li> </ul> <p>Grade scale:  A: <math>85 &lt; \text{score} \leq 100</math>  A-: <math>80 &lt; \text{score} \leq 85</math>  A/B: <math>75 &lt; \text{score} \leq 80</math>  B+: <math>70 &lt; \text{score} \leq 75</math>  B: <math>65 &lt; \text{score} \leq 70</math>  B-: <math>60 &lt; \text{score} \leq 65</math>  B/C: <math>55 &lt; \text{score} \leq 60</math>  C+: <math>50 &lt; \text{score} \leq 55</math>  C: <math>45 &lt; \text{score} \leq 50</math>  C-: <math>40 &lt; \text{score} \leq 45</math>  C/D: <math>35 &lt; \text{score} \leq 40</math>  D+: <math>30 &lt; \text{score} \leq 35</math>  D: <math>20 &lt; \text{score} \leq 30</math>  E: <math>0 \leq \text{score} \leq 20</math></p>
Media employed	Slides and LCD projectors, whiteboards
Reading List	<ol style="list-style-type: none"> <li>1. Burr, J. T. 2004. Elementary Statistical Quality Control. 2<sup>nd</sup> edition. Taylor &amp; Francis Group. Boca Raton.</li> <li>2. Montgomery, D. C. 2005. Introduction to Statistical Quality Control. 5<sup>th</sup> edition. John Wiley &amp; Sons. New York.</li> </ol>

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				
CO 4				x			
CO 5	x						