

## MODULE HANDBOOK

Module name		Calculus II														
Module level, if applicable		1 <sup>st</sup> year														
Code, if applicable		SST-203														
Semester(s) in which the module is taught		2 <sup>nd</sup> (first)														
Person responsible for the module		Dr. Techn. Rohmatul Fajriyah, M.Si.														
Lecturer		Achmad Fauzan, S.Pd.Si., M.Si. Abdullah Ahmad Dzirkullah, S.Si., M.Sc. Sekti Kartika Dini, S.Si., M.Si. Arum Handini Primandari, S.Pd.Si., M.Sc. Ayudyah Kesumawati, S.Si., M.Si.														
Language		Bahasa Indonesia														
Relation to curriculum		Compulsory course in the first year (2 <sup>nd</sup> semesters) Bachelor Degree														
Types of teaching and learning	Class size	Attendance time (hours per week per semester)	Form of active participation	Workload (hours per semester)												
Lecture	50-60	2.5	Discussion	Face to face teaching	35											
				Structured activities	48											
				Independent study	48											
				Exam	5											
Total Workload		136 hours														
Credit points		3 CUs / 5.1 ECTS														
Requirements according to the examination regulations		Minimum attendance at lectures is 75%. Final score is evaluated based on quiz, assignment, mid-term exam, and final exam.														
Recommended prerequisites		Students have taken Calculus I (SST-102).														
Related course		Multivariable Calculus (SST-301)														
Module objectives/intended learning outcomes		After completing this course, the students: CO1. have the profound knowledge of the fundamental concept of integral CO2. have the ability to recognize and solve the simple theoretical and applied mathematical-calculus problems														
Content		<ol style="list-style-type: none"> <li>1. Definition of Indefinite Integrals, Definite Integrals and Approximating Definite Integral</li> <li>2. Integral basic formula for logarithmic, exponential, trigonometric, inverse trigonometric, hyperbolic, and cyclometric functions</li> <li>3. integration techniques: substitution, integration by part, Integrals Involving Trig Functions, Trig Substitutions, Integration using Partial Fractions, Integrals Involving Roots, and Integrals Involving Quadratics</li> <li>4. Improper Integral (non-continuous /infinite integral)</li> <li>5. Integral applications: Area Between Curves, Solids of Revolution, Arc Length, Surface Area, Center of Mass/Centroid, and Probability Concept.</li> </ol>														
Study and examination requirements and forms of examination		<p>The final mark will be weighted as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No</th> <th>Assessment components</th> <th>Assessment type</th> <th>Weight (percentage)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CO 1</td> <td>Quiz, Assignment, Midterm Exam</td> <td>50%</td> </tr> <tr> <td>2</td> <td>CO 2</td> <td>Quiz, Assignment, Final Exam</td> <td>50%</td> </tr> </tbody> </table>			No	Assessment components	Assessment type	Weight (percentage)	1	CO 1	Quiz, Assignment, Midterm Exam	50%	2	CO 2	Quiz, Assignment, Final Exam	50%
No	Assessment components	Assessment type	Weight (percentage)													
1	CO 1	Quiz, Assignment, Midterm Exam	50%													
2	CO 2	Quiz, Assignment, Final Exam	50%													
Media employed		Google Classroom, relevant websites, slides (power points), video, interactive media, white-board, laptop, LCD projector														

