

Module Handbook

Module Name:	Calculus II
Module Level:	Bachelor
Abbreviation, if applicable:	MAA103
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/term:	2 nd / First Year
Module coordinator(s):	Dr. Imam Utoyo, M.Si
Lecturer(s):	Dr. Windarto, M.Si., Dr. Miswanto, M.Si., Ahmadin, S.Si., M.Si, Abdullah Jaelani, S.Si., M.Si M. Yusuf Syaifuddin, S.Si., M.Si Dra. Utami Dyah Purwati, M.Si., Dra. Suzyanna, M.Si
Language:	Bahasa Indonesia
Classification within the curriculum	Compulsory Course / Elective Studies
Teaching format / class hours per week during semester:	3 hours lectures (50 min / hour)
Workload:	3 hours lectures, 3 hour structural activities, 3 hours individual study, 13 week per semester, and total 117 hours per semester ~ 3.9 ECTS *
Credit Points:	3
Requirements:	-
Learning goals/competencies:	<p>General Competence (Knowledge) : Students able to understand the concept of integration and their use</p> <p>Specific Competence:</p> <ol style="list-style-type: none"> 1. Evaluate integration as antiderivative 2. Choose the best technique of integration 3. Evaluate definite integrals using the Fundamental Theorem of Calculus 4. Determine the area between two curves 5. Evaluate an integrals with infinite intervals of integration and integrals with discontinuous integrands 6. Determine the volume of a solid of revolution 7. Determine the length of a curve 8. Determine the surface area of a solid of revolution
Content:	Integration as antiderivatives, Techniques of Integration (Substitution, Integration by Parts, Partial Fractions, and Trigonometric Methods), Definite Integration (The Definite Integral he Fundamental Theorem of the Calculus and Summation and the Definition of Area), improper integrals, and apply of integrals (volume, arc length, and surface area)
Attribut soft skill	Discipline and honesty
Study/exam achievements:	Students are considered to be competent and pass if at least get 55 of maximum mark of the exams (UTS dan UAS), and structured activities(group discussion).

	<p>Final score (NA) is calculated as follow: Test prerequisites ability (10%), test (20%), UTS (30%), UAS (30%), softskills (10%)</p> <p>Final index is defined as follow: A : 75 - 100 AB : 70 - 74.99 B : 65 - 69.99 BC : 60 - 64.99 C : 55 - 59.99 D : 40 - 54.99 E : 0 - 39.99</p>
Forms of Media:	Slides and LCD projectors, whiteboards
Metode pembelajaran	Lecture, discussion, structured activities(individual)
Literature:	<ol style="list-style-type: none"> 1. Stewart, J., 2008, Calculus Early Transcendentals, Ed. 6th, Thomson Laerning Inc. 2. Utoyo, I., 2011, Kalkulus I dan II, Departemen Matematika FST UniversitasAirlangga.
Notes:	<p>*Total ECTS = {(total hours workload x 50 min) / 60 min } / 25 hours</p> <p>Each ECTS is equals with 25 hours</p>