College of Natural & Applied Sciences
Division of Mathematics & Computer Science

MA204-01 Calculus II (5 Credits)

Spring (FAÑOMNÅKAN) 2025

Instructor: Dr. Hyunju Oh

Class Meeting: MTWTh 11:00-12:15pm Room: SC121

Office: ALS Rm316

Phone: 671-735-2142

Email: ohh@triton.uog.edu

Office Hours: (MTWTh) 12:30 – 1:30pm, (MW) 3:30-4:30pm, or by appointment

Course Code Moodle: MA-204 SP25 **https://moodle.uog.edu/course/view.php?id=13760**

Enrollment Key: ma204stu2025

Please Note: The Enrollment Key is CASE SENSITIVE, and there are NO spaces before and after the enrollment key.

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Textbook:
Single Variable Calculus: Early Transcendentals, 7th edition by James Stewart.
ISBN-13: 978-0-538-49867-8; ISBN-10: 0-538-49867-6

Catalog Description:
This is the second semester of a standard calculus course. Topics include techniques and applications of integration, differential equations, power series, and Taylor series.

Course Content:
The course covers: techniques and applications of integration, improper integrals, Taylor's formula, infinite series, Fourier series, topics from analytic geometry, plane curves and polar coordinates.

Prerequisite:
Grade of C or better in MA203 or placement or equivalent.

Calculators:
A scientific graphing calculator such as TI-84 is required for this course. Students are expected to have a working calculator for Quiz/Test/Exam with exception. No calculator sharing is permitted during quiz and test periods. **Laptop, tablet, and cellphone are NOT allowed to use during quizzes and tests.**

Rationale for Course:
The basic content of the course is needed by any student who is planning to continue in mathematics. The ideas introduced in this course provide a foundation for all upper division mathematics courses. It is a continuation of MA203 that covers the fundamental ideas of calculus: limits, derivatives and the definite integral. Though not highly stressed, the mathematical foundations of these ideas are provided, so that students receive an introduction to mathematical precision and rigor. Calculus is then used to investigate ideas from physics, such as velocity, acceleration, centers of mass, from geometry, such as areas and volumes, from finance, such as capital formation, and other disciplines. Students thus receive an introduction to mathematical modeling and applied mathematics, that is, how mathematics is used to study the physical world.

Tentative Course Schedule:

Weeks 1 – 3	Ch. 6: Application of Integration
Weeks 3 – 6	Ch. 7: Techniques of Integration
Week 7	Ch. 8: Further Applications of Integration
Weeks 8 – 9	Ch. 9: Differential Equations
Weeks 10 – 11	Ch. 10: Parametric Equations and Polar Coordinates
Weeks 12 – 16	Ch. 11: Infinite Sequences and Series

(This is a tentative schedule, and is subject to change, should a topic require more or less time in class)

Tentative Test Schedule:
Test 1: 6th Week (Feb. 24 – 27)
Test 2: 11th Week (March 31 – April 3)
Test 3: 16th Week (Apr. 29 – May 2)
Final Exam (Cumulative) May 21 (Wed) 10:00am – 1:50pm

Evaluation:
The grade distribution and grading scheme are as follows:

Quizzes 20%	Project 6%	Tests 54%	Final Exam 20%

Grading Scale:

98-100%: A+	93-97%: A	90-92%: A-	87-89%: B+	83-86%: B
80-82%: B-	77-79%: C+	70-76%: C	60-69%: D	0-59%: F

Students' work is usually graded on a partial credit basis. Students' written solutions must include all work needed to solve problems. Points will be deducted (or given none) for omitting any work even if the answer is correct.

Quiz:
We will have quizzes on **Monday** and **Wednesday** classes at the beginning of each week. Quizzes will be generated from homework and lecture notes. Your **five lowest grades** will be dropped for your final grade evaluation. **If you miss a quiz, that is one of the grades that will be dropped (i.e. No make-up quiz). Missing six or more quizzes will result in grade F as a course grade regardless of your total points.**

Homework:
Homework will be assigned to each class. To be successful, a student must complete all assigned homework even though it is **not collected and graded**. Keep in mind that quizzes/tests are based on homework problems, so practice, practice, and practice!

Tests/Final Exam:
We will have three tests and a cumulative final exam. All notes and the textbook are prohibited from use on tests and on the final exam. It is crucial to do well on Tests and Final Exam. Missing any single test or final exam will result in grade F. Very special circumstances will be handled very specially by **consultation** with the instructor. Except for true emergencies, these special cases are arranged in advance with the instructor.

Computer Algebra Systems and Apps:
We will try to incorporate some use of computer algebra systems or math apps in this course, to help illustrate certain topics. I will do my best to use software generally available via the internet. These apps and software systems are optional, additional tools to help you understand the material.

Attendance:
Students are expected to attend every scheduled class. It is the students' responsibility to keep informed of any announcements, syllabus adjustments or policy changes made during scheduled classes. In case you must leave early, you need to inform the instructor in advance about your leaving class early. Please inform the instructor if you will be absent.

Make-up policy:
There will be **no make-up** tests unless you contact the instructor IMMEDIATELY for extenuating circumstances. For example, you must go off-island, you will be hospitalized or under serious medical treatment, deployment, etc.

Any evidence of cheating will result in a "0" for that exam and an "F" for the entire course regardless of your total points!!!

Withdrawal from Class: [*UOG Student Handbook, p.33-34*]
Students may withdraw from a class or classes during the first week of instruction of a regular semester and the first two days of a summer session without anything being recorded on their transcripts. From the second through the eighth week of instruction of a regular semester and

from the third day of classes through the third week of a summer term, students may withdraw by using the Withdrawal feature in their Webadvisor account.

Academic Dishonesty:
All assignments and Quiz/Test/Exam must be your own work. The term plagiarism includes, but is not limited, to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. Plagiarizing in your essay or **CHEATING on Quiz/Test/Exam will result in Course Grade F regardless of your total points.** If you are not sure what plagiarism is and how to avoid it in using sources for your work, see www.indiana.edu/~wts/pamphlets/plagiarism.shtml but be careful when paraphrasing not to change the meaning of scientific information. Answers you write on Quiz/Test/Exam must come only from in your head or the information supplied in the test papers; anything else is cheating. The term cheating includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations, e.g., looking at other students answers, using crib notes (including electronic), getting information from another person via any kind of communication; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the University faculty or staff. If you need to use an electronic translator, you must discuss this with me in advance.

MA204 – Student Learning Outcomes

Ever wondered why we require certain courses for general education, or for a given major, or as a prerequisite for another course? Read on below to see what the MA204 student learning outcomes are (what you should expect to learn in this course), how they tie into the Math Program Learning Outcomes, and how they tie into the bigger picture – the University's Institutional Learning Outcomes.

MA204 Course Student Learning Outcomes (SLOs)

Course SLOs:	Program Learning Outcomes (PLOs)	University Learning Outcomes (ILOs)	Method of Assessment
SLO-1: Apply integrals to compute areas, volume and arc length.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.
SLO-2: Identify and **perform** various techniques to evaluate integrals.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.
SLO-3: Solve simple differential equations.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2 ILO-5	Questions on homework, workshops, quizzes and tests.
SLO-4: Describe objects in both rectangular and polar coordinate systems.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2 ILO-5 ILO-6	Questions on homework, workshops, quizzes and tests.
SLO-5: Construct Taylor series for different classes of functions.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2 ILO-6	Questions on homework, workshops, quizzes and tests.

(Note: Student Learning Outcomes for MA204 are undergoing revisions.)

Math Program Learning Outcomes:

MA PR-1: *demonstrate critical thinking*, *problem solving skills* and ability to use mathematical methods by *identifying, evaluating, classifying, analyzing, synthesizing* data and abstract ideas in various contexts and situations.
MA PR-2: *exhibit a sound conceptual understanding* of the nature of mathematics, and *demonstrate advanced mathematical skills* in mathematical analysis, modern algebra and other mathematical discipline(s).
MA PR-3: *argue and reason* using mathematics, *read, create* and *write down* logically correct mathematical proofs, *use exact mathematical language* and *communicate mathematics efficiently* orally, in writing and using information technology tools.
MA PR-4: *apply abstract thinking, mathematical methods, models* and *current practices* in the sciences, including state-of-the-art mathematical software, to solve problems in theoretical mathematics or in a diverse area of mathematical applications.
MA PR-5: *show maturity in mathematical knowledge and thinking* that prepares and encourages students to pursue graduate studies in mathematics or in related fields.
MA PR-6: *demonstrate an appreciation of* and *enthusiasm for* inquiry, learning and creativity in mathematical sciences, a sense of exploration that enables them to *pursue lifelong learning* and *up-to-date professional expertise* in their careers through various areas of jobs, including governmental, business or industrial jobs in mathematics, related sciences, education or technology.
(Note: Math Program Learning Outcomes are undergoing revisions.)

Institutional Expected Student Learning Outcomes:
UOG Expected Student Learning Outcomes December 2008

Some of the expected fundamental knowledge, skills, and values that the University of Guam student will have demonstrated upon completion of any degree are:
ILO1: Mastery of critical thinking & problem solving
ILO2: Mastery of quantitative analysis
ILO3: Effective oral and written communication
ILO4: Understanding & appreciation of culturally diverse people, ideas & values in a democratic context
ILO5: Responsible use of knowledge, natural resources, and technology
ILO6: An appreciation of the arts & sciences
ILO7: An interest in personal development & lifelong learning
(*For more information about the following ILOs, please refer to www.uog.edu/adminstration/academic-and-student-affairs/accreditation/assessment-and-program-review*)

Academic Integrity Policy:

Academic Integrity is about performing in your role as student in ways that are honest, trustworthy, respectful, responsible, and fair (see www.academicintegrity.org for more information). As a student, you will complete your academic assignments in the manner expected by the instructor. Academic dishonesty, including but not limited to cheating and plagiarism may result in suspension or expulsion from the University. Refer to the UOG Student Handbook and Code of Conduct for more information.

No Recording Policy

Recording of online class meetings is not allowed. Not only is the delivery of course content the intellectual property of the instructor, but students enrolled in the course have privacy rights. Unauthorized recording and distribution of online courses may violate federal law.

UOG Disabilities Policy

For individuals covered under the ADA (Americans with Disabilities Act), if you are a student with a disability requiring academic accommodation(s), please contact the Disability Support Services Office to discuss your confidential request. A Faculty Notification letter from the Disability Support Services counselor will be provided to me. To register for academic accommodation, please contact or visit Sallie S. Sablan, DSS counselor in the School of Education, office 110, disabilitysupport@triton.uog.edu or telephone/TDD 671-735-2460.

Office Hours: Monday to Thursday 9:00-noon and 1:00-3:00; Friday by appointment only
To schedule an appointment at https://calendly.com/sssablan
Office: School of Education, room 110
Office Phone Number/TTY: 735-2460
Email address: sssablan@triton.uog.edu
Disability Support Services email: disabilitysupport@triton.uog.edu
Scheduled appointments preferred.

Tobacco-free/Smoke-free/Vaping-free campus:

UOG is a tobacco-free/smoke-free, vaping/e-cigarette free campus. Thank you for not using tobacco products or e-cigarettes on campus, for helping to fight cancer, and for helping make UOG a healthy learning and living environment.

Notification of Rights Under FERPA:

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights for students, parents and school officials can be viewed at http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html