

MATH 242 — CALCULUS II — SECTIONS 1, 2, 5, 6

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Lectures:	Zoom PW:	982784	
	Sections 1 & 2:	MWF 9:30 - 10:20	Keller 302
	Sections 5 & 6:	MWF 1:30 - 2:20	Keller 303
Recitations:	Section 1:	Th 10:30 - 11:20	Keller 403
	Section 2:	Th 1:30 - 2:20	Keller 402
	Section 5:	F 11:30 - 12:20	Keller 403
	Section 6:	F 2:30 - 3:20	Keller 403
Office Hours: (subject to change, check Laulima.)	Patrick Collins:	TBA	
	Samuel Glickman:	TBA	
	Janitha Aswedige:	TBA	

Course description. Integration techniques and applications, sequences, series and approximations, and differential equations.

Prerequisites. A grade of C or better in Math 241 or Math 216 or an assessment as specified by the department.

Book. We will use *Calculus*, 8th Edition, by Stewart (ISBN-13: 9781285740621), including material from Chapters 6, 7, 9, and 11. Note: this is **not** the most current edition of the book. It should be available in the UH Manoa bookstore in the Campus Center. Contrary to popular belief, you are in fact expected to read the textbook in a math class. **We will NOT be using WebAssign**; however, a MultiTerm e-Pack (WebAssign and online text for up to 4 years) is available directly from the publisher, Cengage. It can be combined with a loose leaf printed version for an extra charge.

Calculators. Calculators are not allowed on any exam.

Attendance. All students are expected to attend and participate in each class, recitation, and exam. Unavoidable absences should be explained to the instructor, preferably beforehand. It is up to the student to learn the material covered in a missed class.

Out-of-class work. For a 4-credit-hour course, you are expected to spend at least 8 hours each week outside of class and recitations on work related to this course.

Exams. We will have 2 evening midterms and one final exam, all on Wednesdays. The midterms are on 2/16 and 4/6, 6:00 - 7:15 pm, and the final takes place at 12 noon on 5/11. The final is cumulative; the midterms are not.

Attendance on the exams is compulsory; otherwise, a grade of zero will be recorded. Any student who has an excused, documented conflict with a test time must inform their instructor **at least two weeks before the exam**.

For those students with an excused absence for a midterm, there will be a make-up exam which must be taken within two working days of the scheduled exam time (before or after). If you are unable to take a midterm for a valid reason, the score you attain in the final will count towards the missed midterm.

Conflicts arising from work or social obligations, or from personal travel plans do **not** qualify as excused absences. By registering for this course, you are agreeing to take all exams at the scheduled times.

The final exam must be taken at the scheduled time. No exceptions.

Past final exams can be found at <http://math.hawaii.edu/home/common-finals/242/>

Homework. Homework will be assigned weekly, to be turned in by 11:59 pm every Friday. Extensions may or may not be granted **if they are requested before the due date**, depending on the reason and the number of extensions already granted. Homework assignments submitted late with no explanation will not be accepted.

Each homework assignment is worth 100 homework points. For each assignment, the TAs will choose 6 problems to grade in detail, and will write up solutions and grading rubrics for those 6 problems, each of which will be worth 15 points. That accounts for 90 of the 100 points - the remaining 10 are at the TA's discretion. (Points can be deducted for missing problems, lack of shown work, etc.)

Recitations and Worksheets. In each recitation you will be given a worksheet. Each worksheet is worth 20 worksheet points. These worksheets will **not** be made available anywhere else - they are used in part to mark attendance to the recitation.

Grades. The overall grade will be assigned according to the following weights:

Homework	25%
Worksheets	10%
Midterm 1	20%
Midterm 2	20%
Final	25%
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TOTAL	100%

The following table gives a minimum grade for each score. For example, an overall score of 83% is guaranteed to earn at least a B grade. These cut-offs **may** be lowered at the end of the semester but not raised.

Grade	A	A-	B+	B	B-	C+	C	C-
Score (%)	93	90	87	83	80	77	73	70

Sources of Help. All students are encouraged to come to office hours to discuss homework questions or material from class. If the advertised times do not suit you, please email me or your TA for an appointment.

There is also tutoring available at the *Learning Emporium*, hosted by the College of Natural Sciences. Details will be posted when available.

Academic Integrity. All students are expected to abide by the university's Conduct Code. Academic sanctions for dishonesty may include receiving an F in the assignment or receiving an F in the class. There may be additional administrative sanctions.

<https://www.hawaii.edu/policy/?action=viewPolicy&policySection=ep&policyChapter=7&policyNumber=208>

Classroom Policies. Please refrain from using electronic items, including calculators, cell phones, music players, tablets, laptops, etc., during class, except for note-taking. Please arrive, be seated and ready to start each class on time. If you have a valid reason to leave early, please sit near the exit to minimize disruption.

KOKUA: I am happy to work with you and the KOKUA Program (Office for Students with Disabilities), if you need course accommodations due to a disability. KOKUA can be reached at (808)956-7511 or (808)956-7612 (voice/text), or in room 013 of the Queen Lili'uokalani Center for Student Services. All course modifications must be arranged through KOKUA. You are encouraged to start this process as early as possible.

Concerns: If at any time during the semester you have any questions or concerns about the class, please contact me during regularly scheduled office hours or via email to make an appointment. You may also contact the following people.

Director of Undergraduate Studies	Mirjana Jovovic (undergrad-dir@math.hawaii.edu)
Associate Chair	Bjørn Kjos-Hanssen (assoc-chair@math.hawaii.edu)

Tentative Schedule.

- Weeks 1 - 3, Transcendental Functions
 - (1) Inverse functions (6.1)
 - (2) The natural logarithmic function (6.2*)
 - (3) The natural exponential function (6.3*)
 - (4) General logarithmic and exponential functions (6.4*)
 - (5) Exponential growth and decay (6.5)
 - (6) Inverse trigonometric functions (6.6)
 - (7) Hyperbolic functions (6.7, optional)
 - (8) Indeterminate forms and L'Hôpital's Rule (6.8)
- Weeks 4 - 7, Techniques of Integration
 - (1) Integration by parts (7.1)
 - (2) Trigonometric integrals (7.2)
 - (3) Trigonometric substitution (7.3)
 - (4) Integration of rational functions by partial fractions (7.4)
 - (5) Strategy for integration (7.5)

- (6) Approximate integration (7.7)
- (7) Improper integrals (7.8)
- Weeks 8 - 12, Infinite Sequences and Series
 - (1) Sequences (11.1)
 - (2) Series (11.2)
 - (3) The integral test and estimates of sums (11.3)
 - (4) Comparison tests (11.4)
 - (5) Alternating series (11.5)
 - (6) Absolute convergence and the ratio and root tests (11.6)
 - (7) Strategy for testing series (11.7)
 - (8) Power series (11.8)
 - (9) Representation of functions as power series (11.9)
 - (10) Taylor and Maclaurin series (11.10)
 - (11) Applications of Taylor polynomials (11.11)
- Weeks 13 - 15, Differential Equations
 - (1) Modeling with differential equations (9.1)
 - (2) Direction fields and Euler's method (9.2)
 - (3) Separable equations (9.3)
 - (4) Models for population growth (9.4, optional)
 - (5) Linear equations (9.5)