

MATH 232 – CALCULUS IV (3 Credits)

INSTRUCTOR: Jody-Lynn Storm
OFFICE: Mana'opono 105A
OFFICE HOURS: MWF 10:00 am – 11:00 am
TR 11:30 am – 12:30 pm
And by appointment
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WEBSITE: <http://www.jodystorm.com>
EFFECTIVE DATE: Fall 2015

CRN	Days	Time	Classroom
60350	TR	8:30 am – 9:45 am	Mana'opono 115

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide O'ahu's Ko'olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

COURSE DESCRIPTION

Math 232 is the fourth course in the calculus sequence. Topics include multiple integrals, line integrals, Green's Theorem, surface integrals, Stokes' Theorem, Gauss' Theorem and differential equations. (3 hours lecture)

Pre-Requisite(s): "C" or better in Math 231 or equivalent or consent of instructor.

STUDENT LEARNING OUTCOMES

Upon completion of the course, the student will be able to:

1. Compute multiple integrals in various coordinate systems.
2. Use multiple integrals or vector calculus techniques to solve application and/or theoretical problems.
3. Solve basic differential equations and applications.
4. Utilize precise mathematical language and symbols and effectively communicate in written and/or oral form.

Note: All SLO assessments are embedded in class activities, homework, quizzes, or Exams.

DISABILITIES ACCOMMODATION STATEMENT

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale 'Akoakoa 213 for more information, or visit <http://windward.hawaii.edu/Disabilities/>

LEARNING RESOURCES & MATERIALS

REQUIRED MATERIALS:

- Textbook: Multivariable Variable Calculus for Scientists and Engineers, by Briggs & Cochran, bundled with MyMathLab
 - If preferred you may just use the ebook on MyMathLab
- MyMathLab (MML) Access Code with ebook
 - Register online at <http://pearsonmylabandmastering.com/>
 - Use Course ID: **storm79732**
- Calculator: TI-83, TI-83+, TI-84, or TI-84+

LEARNING RESOURCES:

- Math Lab: La'akea (Library Learning Commons) Room 226
http://windward.hawaii.edu/About_WCC/Math_Lab/index.php
- The Testing Center (TTC): La'akea (Library Learning Commons) Room 228
Phone: (808) 235-7498
http://windward.hawaii.edu/Testing_Center/index.php
- Brainfuse Online Tutors: <http://windward.hawaii.edu/brainfuse/>
- OLA (UH online tutoring program): <http://manoa.hawaii.edu/ola/>
- Khan Academy Videos: <http://www.khanacademy.org>

COURSE TASKS & GRADING

Grades are posted on the Lualima gradebook. Grades for this course are based on the following course tasks:

3 unit exams @ 100 pts ea	300 pts	54% of possible pts
Final Exam	120 pts	22% of possible pts
Course Activity:		
Graded Problems	102 pts	18% of possible pts
MyMathLab	<u>33 pts</u>	6% of possible pts
Total	555 pts	

Each letter grade for the course will be assigned according to the level of achievement as provided in the table below:

<u>Letter Grade</u>	<u>Definition</u>
A	90% - 100% of the cumulative points possible
B	80% - 89% of the cumulative points possible
C	70% - 79% of the cumulative points possible
D	60% - 69% of the cumulative points possible
F	Less than 60% of the cumulative points possible
CR	70% or above of the cumulative points possible
NC	Less than 70% of the cumulative points possible
W	Official Withdrawal
I	See below

Note: CR/NC grades require written instructor consent. Students must apply for CR/NC grading option at the Admissions Office by the posted deadline. If a student does not apply for CR/NC grading option at the Admissions Office by the required deadline and if s/he does not withdraw, a letter grade (A, B, C, D, F, N) will be assigned for the course.

Note: The W grade is given only when the student officially withdraws from the course by the posted deadline.

Note: The I grade is a temporary grade given at the instructor's option when a student has failed to complete a small part of a course because of circumstances beyond his or her control.

The I grade is given by student request and must be approved by the instructor. A student may qualify for the I grade if

- (a) They are unable to take the final exam and
- (b) Taking the final exam could possibly raise their course grade.

ADDITIONAL INFORMATION

ABSENCES

It is your responsibility to attend class. If you are absent, you are responsible for any important announcements or assignments given during the class you missed. It is your responsibility to meet with your instructor to review any missed lecture material. You may drop in during posted office hours or make an appointment to meet one-on-one. Please do not send email requests for missed lecture material.

MAKE-UP POLICY

Exams will be available for 2-3 days in the Testing Center. If you know in advance that you will be unable to take an exam during the assigned period, discuss your situation with the instructor. It may be possible for you to take the exam earlier than the specified dates. If there is an emergency preventing you from taking an exam during the assigned period, a make-up exam will be scheduled. For each student, **ONLY ONE** make-up exam may be taken. There are no make-up opportunities for assigned graded problems.

CALCULATORS

Some problems require the use of a graphing calculator. You are free to use any type of graphing device for homework problems, but may only use a TI-84+ or lower TI model graphing calculator on exams. You may not use higher models, such as the TI-89 or the TI -Nspire on exams as these come equipped with CAS.

EXAMS

There are no retests for exams. The final exam is cumulative.

HOMEWORK

There is one homework assignment per textbook section. Most of the assignments will be given in two parts:

- 1) MyMathLab Assigned problems
 - a) Submitted online
 - b) Due on the last day of each exam period
 - c) 20% point deduction for late submissions

- 2) Assigned graded problems (mostly from the textbook) to turn in.
 - a) 6 pts each
 - b) Must be turned in at the start of class
 - c) No late submissions

Assignments and due dates are posted on the instructor's webpage. You may need to do more than the assigned homework problems to become comfortable with the concepts and skills.

Note: Chapters 14 and 15 in the multivariable textbook (paperback) correspond to chapters 15 and 16 respectively in the eBook.

GRADING

To receive full credit for problems done on exams or graded homework, you must show sufficient work in a clear and organized manner. Your work must be neat and organized. "Messy" and/or disorganized work will not receive full credit.

CELL PHONES & OTHER ELECTRONIC DEVICES

Cell phones and other electronic devices should be silenced and put away prior to the start of class.

DISRUPTIVE BEHAVIOR

Please respect your fellow students and act accordingly. If a student takes part in disruptive behavior, the instructor reserves the right to exclude the student immediately from the class meeting. Examples are activated cell phones, texting, making offensive remarks, prolonged chattering, smokeless cigarettes, etc.

ACADEMIC HONESTY

All exams must be done by your own individual effort. You may not consult with any classmates while taking exams. This would fall under the guidelines of academic integrity and any evidence of cheating will result in a score of 0 for all parties involved. An "F" will be assigned to students involved in cheating and will be reported to the Dean. See <http://windward.hawaii.edu/Policies/> for more information on the UH system-wide student conduct code.

Graded homework assignments may be discussed with your classmates and you may seek guidance from the instructor, the Math Lab tutors, the Trio tutors (if you are a Trio client), or the SIL (if assigned to your course). However, the write up of the solution for each problem must be done on your individual effort.

MATH 232 – TENTATIVE SCHEDULE
TR 8:30 AM – 9:45 AM
STORM – FALL 2015

Important Dates	
AUG 28	Last day to register/add/drop and to receive 100% refund of tuition
SEP 14	Last day for 50% refund of tuition and to withdraw without a "W" grade.
OCT 30	Last day to withdraw with a "W" or choose CR/NC grade option. Last day to make up "I" grade from previous semester

	Tuesday		Thursday
AUG 25	Orientation	AUG 27	14.1
SEP 1	14.2	SEP 3	14.2
SEP 8	14.3	SEP 10	14.4
SEP 15	14.5	SEP 17	Exam Review
SEP 22	EXAM 1 (14.1-14.5)	SEP 24	14.6
SEP 29	14.7	OCT 1	15.1
OCT 6	15.2	OCT 8	15.2
OCT 13	15.3	OCT 15	Exam Review
OCT 20	EXAM 2 (14.6, 14.7, 15.1-15.3)	OCT 22	15.4
OCT 27	15.4	OCT 29	15.5
NOV 3	15.6	NOV 5	15.6
NOV 10	15.7	NOV 12	15.8
NOV 17	Exam Review	NOV 19	EXAM 3 (15.4-15.8)
NOV 24	DE 1st order	NOV 26	DE 1st order
DEC 1	DE 2nd order	DEC 3	DE 2nd order
DEC 8	Final Exam Review	DEC 10	Final Exam Review
DEC 15	FINAL EXAM In Testing Center 12/14-12/17	DEC 17	