UNIVERSITY of HAWAI'I®
WINDWARD
COMMUNITY COLLEGE

MATH 243 – CALCULUS III

3 Credits (CRN 62053)
8-Week Online Asynchronous (1/8/2024 – 3/1/2024)

INSTRUCTOR: Jody-Lynn Storm
OFFICE: Hale Manaʻopono 105A, Windward Community College
OFFICE HOURS: Tuesdays 2pm -3pm via Zoom
TELEPHONE: (808) 236 - 9277
EMAIL: jstorm@hawaii.edu

Email is the preferred method of communication. Instructor will respond within 24 hours excluding weekends and holidays.

EFFECTIVE DATE: Spring 2024

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

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

CATALOG DESCRIPTION

Vector algebra, vector-valued functions, differentiation in several variables, and optimization. (3 hours lecture)

Pre-Requisite(s): Grade of "C" or better in MATH 206 or MATH 242 or equivalent or consent of instructor.

STUDENT LEARNING OUTCOMES

As a result of taking this course, students can expect to attain the following outcomes:

1. Apply concepts and techniques in vector calculus.
2. Apply principles and concepts from calculus to multivariable functions.
3. Use strategies from this course to solve applied problems
4. Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.

COURSE TASKS AND GRADING

Grades are posted in the Laulima Gradebook. Grades for this course are based on the following course tasks:

ASSIGNMENT	POINTS	TOTAL
4 Quizzes	50 pts each	200
1 Final Exam	100 pts	100
21 MLM Homework Assignments	10 pts each	210
7 Forum Posts	5 pts each	35
Total		**545**

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

Letter Grade	Definition
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	Incomplete

Note: CR/NC grades require written instructor consent. Students must apply for CR/NC grading option at the Admissions Office by the posted deadline.

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 discretion when a student has failed to complete a small part of a course because of circumstances beyond his or her control. 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.

RESPONSIBILITIES OF STUDENTS

- Have access to a reliable high-speed internet connection
- Have adequate computer skills.
- Check emails regularly
- Be self-motivated
- Set aside adequate study time

COURSE CONTENT

- Parametric Curves, Polar Curves, and Conic Sections
- Vectors and the Geometry of Space
    - Vectors in the plane and in space
    - Dot and Cross Products
    - Lines and Planes in Space
- Vector-Valued Functions
    - Calculus of Vector-Valued Functions
    - Motion in Space
    - Length of Curves
    - Curvature and Normal Vectors
- Functions of Several Variables
    - Graphs and Level Curves
    - Limits and Continuity
    - Partial Derivatives
    - The Chain Rule
    - Directional Derivatives and the Gradient

- Tangent Planes and Linear Approximation
- Maximum and Minimum Problems

REQUIRED MATERIAL

The MyLab Math (MLM) Online Program. MLM comes with the eBook *Calculus* 3rd ed., by Briggs. MLM registration will be through IDAP via the VitalSource link in Laulima.

"This course will be participating in the Bookstore's Interactive Digital Access Program (IDAP). Through this program, you will access your course material digitally, and it will be available to you by the first day of class.

A charge for the digital course material through IDAP will be added to your MyUH account.

You have the option to opt-out of receiving your course material through IDAP. By opting-out, you will lose access to the course material and the charge will be refunded on your MyUH account. If you do not opt-out, the charge will stay on your MyUH account. Any unpaid charges on your MyUH account will turn into a hold. Holds on your account will prevent you from accessing various services within the University.

You may opt-out by visiting your unique Inclusive Access Student Portal, which can be found in your IDAP welcome email (Subject Line: "IMPORTANT: You have enrolled in an IDAP Course").

For more information regarding IDAP, please contact your campus bookstore."

ADDITIONAL RESOURCES

WCC Resources

- Ka Piko Tutoring: https://windward.hawaii.edu/services-for-students/tutoring/ka-piko/

UH System Resources

- OLA (UH online tutoring program: http://manoa.hawaii.edu/ola/
- Tutor.com: https://windward.hawaii.edu/tutor.com/
- Distance Learning Homepage: http://www.hawaii.edu/dl/home

Other Online Resources

- Symbolab: https://www.symbolab.com
- Wolfram Alpha: http://www.wolframalpha.com
- Desmos Calculator: https://www.desmos.com
- Professor Leonard Videos: https://www.youtube.com/user/professorleonard57
- Khan Academy Videos: http://www.khanacademy.org

ADDITIONAL INFORMATION

Attendance and Class Preparation

This is an online class and students are expected to keep pace with module assignments. Students are required to complete assignments by the posted deadlines, and interact with the instructor and other members of this online class with professionalism. This is an 8-week accelerated course. It is vital to keep up with the material. Thus, there will be no make-up work and no extensions of due dates.

Exams & Quizzes

- There are 6 computer-based quizzes due on Fridays. The 2 lowest quiz score will be dropped.
- There is one cumulative computer-based final exam due the last Friday of the term.
- The quizzes & final exam are timed, but not proctored and can be taken on any computer or device that runs MLM.
- For each quiz and exam, show work on paper or a tablet. Work will be uploaded to Laulima. There is a penalty for quizzes and exams submitted with no work.

MyLab Math (MLM) Homework

There are 21 computer-based homework assignments at 10 points each. Homework is due Fridays by 11:59 pm. There will be a 1% deduction per day for problems submitted after the due date. Final submission for homework will be Wednesday, February 28, 2023.

Forum Posts

There will be 7 forums due on Fridays. Each post is worth 5 points.

Extra Credit

- The final exam review is worth up to 10 points of extra credit.
- The end of semester student survey (CES) is worth 10 points of extra credit.
- Each quiz review is worth up to 5 points of extra credit. A maximum cummulative total of 20 points may be earned on quiz reviews.

DISABILITIES ACCOMMODATIONS

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 Accessibility Counselor to discuss reasonable accommodations that will help you succeed in this class. Jodi Asato can be reached at (808) 235-7472, jodiaka@hawaii.edu, or you may stop by Hale Kākoʻo 105 for more information.

SEX DISCRIMINATION AND GENDER-BASED VIOLENCE RESOURCES (TITLE IX)

Windward Community College is committed to providing a learning, working, and living environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking.

If you or someone you know is experiencing any of these, WCC has staff and resources to support and assist you. To report an incident of sex discrimination or gender-based violence, as well as receive information and support, please contact one of the following:

Desrae Kahale, Mental Health Counselor & Confidential Resource
Phone: (808) 235-7393
Email: dkahale3@hawaii.edu
Office: Hale Kākoʻo 101

Mychal Ozoa-Aglugub, Title IX Coordinator/Confidential Advocate
Phone: (808) 235-7468
Email: mozoa@hawaii.edu
Office: Hale Kakoʻo 109

To file a report online: https://report.system.hawaii.edu/student

As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and I cannot guarantee confidentiality, you will still have options about how your case will be handled. My goal is to make sure you are aware of the range of options available to you and have access to the resources and support you need.

For more information regarding sex discrimination and gender-based violence, the University's Title IX resources and the University's Policy, Interim EP 1.204, go to manoa.hawaii.edu/titleix/

ALTERNATE CONTACT INFORMATION

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

- Location: Alakaʻi 121
- Phone: (808) 235-7422

SCHEDULE

IMPORTANT DATES	
Jan 9	Last day to register & and drop with 100% refund of tuition
Jan 17	Last day to withdraw without a “W” grade and to receive 50% refund of tuition
Feb 9	Last day to withdraw with a "W" grade or to choose CR/NC grade option.

MATH 243 – SPRING 2024 SCHEDULE		
Week	Dates (Mon - Fri)	Assignments Due by Friday (Unless stated otherwise)
1	1/8 – 1/12	IDAP (MLM) Registration MLM: My Lab Tutorial (optional), 12.1, 12.2
2	1/15 – 1/19	MLM: 12.3, 12.4, 13.1 Forum #1 Quiz 1
3	1/22 – 1/26	MLM: 13.2, 13.3, 13.4 Forum #2 Quiz 2
4	1/29 – 2/2	MLM: 13.5, 14.1, 14.2 Forum #3 Quiz 3
5	2/5 – 2/9	MLM: 14.3, 14.4, 14.5 Forum #4 Quiz 4
6	2/12 – 2/16	MLM: 15.1, 15.2, 15.3 Forum #5 Quiz 5
7	2/19 – 2/23	MLM: 15.4, 15.5, 15.6 Forum #6 Quiz 6
8	2/26 – 3/1	MLM: 15.7 Forum #7 Final Exam