



Math 241 (Calculus I) Course Syllabus

(Credits: 4 / CRN#: 64414 / Mode: F2F / Semester: Fall 2018)

Instructor: *Navtej (Johnny) Singh*

E-Mail: navtej@hawaii.edu << This is the best way to get in touch. Provide name & class info>>

Office Location: *Manaopono 110*

Office Hours: *MF 9am – 10am, MWF 11:30am – 12:30pm, & by appointment*

Office Telephone #: *(808) 236 – 9278 << Use this during office hours for elaborate help>>*

Website: www.MyMathLab.com (Secondary Site: <https://laulima.hawaii.edu>)

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 the Ko'olau region of O'ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

Catalog Description

Basic mathematical concepts, topics in differentiation, and introductory integration of algebraic and trigonometric functions. Applications of differentiation and integration will be demonstrated. (4 hours lecture). Pre-Requisite(s): Grade of "C" or better in MATH 140 or equivalent, satisfactory math placement test score, or consent of instructor.

Learning Resources and Materials

Primary textbook for this online course is "Calculus for Scientists and Engineers" by Briggs, Cochran, & Gillett (single variable portion or full textbook). If you are going to purchase a hard copy of this textbook, make sure that your textbook comes with a valid access code to register at MyMathLab.com. I recommend that you get a graphing calculator/utility to help you with homework. If you are planning to buy a stand along graphing calculator, I recommend getting TI 83/84 (regular or plus). You can also borrow a graphing calculator from the WCC library for the entire semester (limited availability). In addition, there are various free graphing apps for iOS, Android, and Windows 10. It is also important to have a reliable computer with access to broadband internet for this course.

Registering for MyMathLab

- Go to www.MyMathLab.com and click on Register under students.
- Enter the Course ID **singh81848** when required.
- Follow the online instructions to complete the registration process.
- There will be an option to either buy an access code or enter the one that came with your textbook.
- Tech support: <https://support.pearson.com/getsupport/s/contactsupport> or call 1-800-677-6337.

Tasks and Grading

Point Distribution		
Participation		030 pts
Homework	32 Assignments on MML @ 10 points each	320 pts
Portfolio	Written Work for HW and Exam Reviews	050 pts
Exams	Four @ 100 points each	400 pts
Final Exam	Combination of Everything Learned in Class	200 pts
Total Points		1000 pts

Letter grades will be assigned based on the following standard scale:

A ⇒ 90% ↑ ; B ⇒ 80% ↑ ; C ⇒ 70% ↑ ; D ⇒ 60% ↑ ; F ⇒ below 60%;

Other grade options include N, CR, NR, I, and W. See the following information for detail:

"The 'N' grade indicates that the student has worked conscientiously, attended regularly, finished all work, fulfilled course responsibilities, and has made measurable progress. However, either the student has not achieved the minimal student learning objectives and is not yet prepared to succeed at the next level, or the student has made consistent progress in the class but is unable to complete the class due to extenuating circumstances, such as major health, personal or family emergencies." If you would like to request for N grade in this class, you must provide a formal letter of request to me no later than the time of final examination addressing how you have met the criteria for N grade. Then I will make a decision on whether or not you qualify for the N grade.

The CR/NC grades require written instructor consent. Overall score of 70% or higher is consider CR and below 70% is NC. 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.

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

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.

Exams

There will be four scheduled written chapter exams (worth 100 points each) and a comprehensive computer based final exam (worth 200 points) for this course. I will be conducting a review before each exam. Best way to prepare for the exams is to study homework problems and examples presented in the textbook. Make sure to show your work for the written exams since there will be an opportunity to earn partial credit. All exams will be taken in class on dates provided on the schedule page of this syllabus. Make-up for any missed exams is not allowed after the due date.

Homework

There are total of 32 homework assignments in this course that are available online at MyMathLab.com. Due date for each homework is indicated on the schedule page of this syllabus. We will be covering one section per class meeting and your homework from that section is due during the next class meeting. You may attempt a homework problem as many times as needed, till you get it right. You may continue to work on the homework assignments after the due date; however, there will be a 1% penalty per day on the homework done after the due date. While this may not be much for a day or two late submissions, it will add up to a high percentage over longer period. Note that December 13th is the absolute last day you will be allowed to work on homework assignments. I encourage you to work together on homework and utilizing the online tools available through MyMathLab. To receive help on the homework, students are welcome to come by my office during the office hours or make an appointment for consultation.

Portfolio

Since MyMathLab only requires you to enter the final answer, it is important that you understand the correct process leading to the final answer. Therefore, I am asking you to show your work for each homework problem on a separate sheet of paper that will be part of your portfolio. In addition, your portfolio should include written work for exam review and worm-up exercises. Note that your portfolio work will be graded based on neatness, completion, and organization. Your portfolio is due by the last day of instruction.

Getting Additional Help

I encourage you to stop by my office anytime you need help. You may get additional help by utilizing the free walking tutoring service by going to the math lab located in WCC library room 226 or at your native campus. There is a free online 24 hours live tutoring available through Brainfuse (wcc.hawaii.edu/brainfuse) via myuh.hawaii.edu (find Brainfuse link under my tools). You may also utilize the following websites:
<http://manoa.hawaii.edu/ola> - Provides free live interactive tutoring during weekdays
<http://www.khanacademy.org> – Provides small lecture videos on selected topics
www.wolframalpha.com – Provides computational tools, facts, and examples.
<https://www.youtube.com/playlist?list=PLF797E961509B4EB5> – Provides complete lecture videos on topics in Calculus I by Professor Leonard.

Class Participation and Attendance

Students are expected to attend the class regularly and be present in the class for the entire duration. A student should be consistently working and progressing on assigned tasks during the class. Proof is required for an excused absence. To create a comfortable learning environment in the classroom, all students are expected to come to class on time with positive attitude and respect everyone present in the classroom. As a courtesy to your classmates, please turn off your cell phones and do not distract them from doing their work. If you have trouble understanding any concept or problem, ask for help by raising your hand. If you are absent from the class, it is your responsibility to check on announcements made while you were absent. To encourage class participation, I have allocated 30 points toward participation grades. If you stop attending this class for any reason, it is your responsibility to drop it. Last day to withdraw without a W grade is on September 11, 2018.

Basic Rubrics for Grading Multistep and Word Problems	
Full Credit	<ul style="list-style-type: none"> - Shows complete understanding of a problem's mathematical concepts and procedures - Performs algorithms correctly using appropriate notation and precise mathematical language - Gives an elaborate and effective explanation of the solution process in an organized way
Partial Credit	<ul style="list-style-type: none"> - Shows near understanding of the problem's mathematical concepts and procedures - Using appropriate notation, performs algorithms completely that may contain minor errors. - Identifies most relevant information and shows a general understanding - selects an appropriate strategy for solving the problem - Shows effective explanation and some evidence of a systematic solution process
Very Little Credit	<ul style="list-style-type: none"> - Shows some understanding of a problem's mathematical concepts and procedures - Performs algorithms that may contain major computational errors - Identifies some relevant information and shows limited understanding - Shows little evidence of a solution process or use of appropriate mathematical language - Gives some explanation of the solution process but may be vague or difficult to interpret
No Credit	<ul style="list-style-type: none"> - Shows no understanding of a problem's mathematical concepts and procedures - Identifies no relevant information, algorithmic pattern, or evidence of a solution process - Fail to explain significant parts of the problem or omit it altogether

Student Learning Outcomes

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

- Demonstrate proficiency in determining limits, derivatives, and integrals.
- Use calculus techniques to analyze and solve applied problems.
- Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.

All SLOs assessment are embedded in class activities, homework, quizzes, or exams.

Foundations Symbolic Reasoning Hallmarks

Math 241 fulfills the three credits General Education Requirement for Foundations Symbolic for both the AA degree at WCC and a Bachelor's degree at UH Manoa as well as UH West Oahu. Consequently, it meets the hallmarks of the symbolic reasoning requirement.

- Students will be exposed to the beauty, power, clarity and precision of formal systems.
- Instructors will help students understand the concept of proof as a chain of inferences.
- Instructors will teach students how to apply formal rules or algorithms.
- Students will be required to use appropriate symbolic techniques in the context of problem solving, and in the presentation and critical evaluation of evidence.
- The course will not focus solely on computational skills.
- Instructors will build a bridge from theory to practice and show students how to traverse this bridge.

Foundations Quantitative Reasoning Hallmarks

Math 241 also fulfills 3 credits of the General Education requirements for both an A.A. degree at WCC and a Bachelor's degree at 4 year UH institutions. Consequently, it meets the hallmarks of the quantitative reasoning requirement. This course will:

1. provide students with theoretical justifications for, and limitations of, mathematical or statistical methods, and the formulas, tools, or approaches used in the course.
2. include application of abstract or theoretical ideas and information to the solution of practical quantitative reasoning problems arising in pure and applied research in specific disciplines, professional settings, and/or daily and civic life.
3. provide opportunities for practice and feedback that are designed to help students evaluate and improve quantitative reasoning skills by including a course component at least once per week with a maximum 30:1 student-to-teacher ratio.
4. be designed so that students will be able to
 - a. identify and convert relevant quantitative information into various forms such as equations, graphs, diagrams, tables, and/or words;
 - b. select appropriate techniques or formulas, and articulate and evaluate assumptions of the selected approaches;
 - c. apply mathematical tools and perform calculations (including correct manipulation of formulas);
 - d. make judgments, create logical arguments, and/or draw appropriate conclusions based on the quantitative analysis of data, the assumptions made, the limitations of the analysis, and/or the reasonableness of results; and
 - e. effectively communicate those results in a variety of appropriate formats.

Important Information

Please check your @hawaii.edu e-mail account frequently for important announcements. Note this syllabus is subject to change in extenuating circumstances. All online homework assignments are due by midnight of the deadline date. All due dates for homework assignments and exams are listed on the schedule below. If you need to discuss your performance, I recommend you get in touch with me as soon as possible. E-mail is the preferred method of communication. Instructor will inform you of any additional opportunity such as extra credit when or if they become available. For important academic information refer to WCC website www.windward.hawaii.edu or go to www.hawaii.edu for system wide information. Plagiarism, or copying and use of another's work without proper acknowledgment, is not permitted and may result in failing grade for the course. In the event instructor cannot be reached, you may contact the Academic Affairs Office (located in Alakai 121) at (808) 235-7422 or email wccaa@hawaii.edu.

Disabilities Accommodation

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 (808) 235-7448, lemke@hawaii.edu, or you may stop by Hale 'Akoakoa 213 for more information.

Title IX

Title IX prohibits discrimination on the basis of sex in education programs and activities that receive federal financial assistance. Specifically, Title IX prohibits sex discrimination; sexual harassment and gender-based harassment, including harassment based on actual or perceived sex, gender, sexual orientation, gender identity, or gender expression; sexual assault; sexual exploitation; domestic violence; dating violence; and stalking. For more information regarding your rights under Title IX, please visit: https://windward.hawaii.edu/Title_IX/.

Windward Community College is committed to the pursuit of equal education. If you or someone you know has experienced sex discrimination or gender-based violence, Windward CC has resources to support you. To speak with someone confidentially, contact Karla Silva-Park, Mental Health Counselor, at 808-235- 7468 or karlas@hawaii.edu or Kaahu Alo, Designated Confidential Advocate for Students, at 808-235- 7354 or kaahualo@hawaii.edu. To make a formal report, contact the Title IX Coordinator at 808-235-7393 or wcctix@hawaii.edu.

Math 241 - Fall 2018 Schedule for Assignments and Exams

(All HWs are Due by Midnight of Assigned Date)

Week (M-F)	Monday	Wednesday	Friday
1 8/20 – 8/24	Go Over Syllabus Intro to Calculus	Discuss Section 2.1 (Sign up for MML)	Discuss Section 2.2 (HW #01 - Section 2.1 Due)
2 8/27 – 8/31	Discuss Section 2.3 (HW #02 - Section 2.2 Due)	Discuss Section 2.4 (HW #03 - Section 2.3 Due)	Discuss Section 2.5 (HW #04 - Section 2.4 Due)
3* 9/3 – 9/7	Holiday (Labor Day)	Discuss Section 2.6 (HW #05 - Section 2.5 Due)	Discuss Section 2.7 (HW 06 – Section 2.6 Due)
4^ 9/10 – 9/14	Exam 1 Review (HW #07 - Section 2.7 Due)	Exam 1 (In class)	Discuss Section 3.1 Go over Exam 1
5 9/17 – 9/21	Discuss Section 3.2 (HW #08 - Section 3.1 Due)	Discuss Section 3.3 (HW #09 - Section 3.2 Due)	Discuss Section 3.4 (HW #10 - Section 3.3 Due)
6 9/24 – 9/28	Discuss Section 3.5 (HW #11 - Section 3.4 Due)	Discuss Section 3.6 (HW #12 - Section 3.5 Due)	Discuss Section 3.7 (HW #13 - Section 3.6 Due)
7 10/1 – 10/5	Discuss Section 3.8 (HW #14 - Section 3.7 Due)	Exam 2 Review (HW #15 - Section 3.8 Due)	Exam 2 (In class)
8 10/8 – 10/12	Discuss Section 4.1 Go Over Exam 2	Discuss Section 4.2 (HW #16 - Section 4.1 Due)	Discuss Section 4.3 (HW #17 - Section 4.2 Due)
9 10/15 – 10/19	Discuss Section 4.4 (HW #18 - Section 4.3 Due)	Discuss Section 4.5 (HW #19 - Section 4.4 Due)	Discuss Section 4.6 (HW #20 - Section 4.5 Due)
10 10/22 – 10/26	Discuss Section 4.7 (HW #21- Section 4.6 Due)	Exam 3 Review (HW #22 - Section 4.7 Due)	Exam 3 (In Class)
11 10/29 – 11/2	Discuss Section 4.9 Go Over Exam 3	Discuss Section 5.1 (HW #23 - Section 4.9 Due)	Discuss Section 5.2 (HW #24 - Section 5.1 Due)
12 11/5– 11/9	Discuss Section 5.3 (HW #25- Section 5.2 Due)	Discuss Section 5.4 (HW #26 - Section 5.3 Due)	Discuss Section 5.5 (HW #27- Section 5.4 Due)
13* 11/12 – 11/16	Holiday (Veterans' Day)	Exam 4 Review (HW #28 - Section 5.5 Due)	Exam 4 (In Class)
14* 11/19 – 11/23	Discuss Section 6.1 Go Over Exam 4	Discuss Section 6.2 (HW #29- Section 6.1 Due)	No School (Thanksgiving Break)
15 11/26 – 11/30	Discuss Section 6.3 (HW #30 - Section 6.2 Due)	Discuss Section 6.4 (HW #31- Section 6.3 Due)	Begin Final Exam Review (HW #32 - Section 6.4 Due)
16 12/3 – 12/7	Continue Final Exam Review	Discuss Pre-Final Grades	Non-Instructional Day

Final Exam Date, Location, and Time to be Announced in Class