MATH 205 – CALCULUS I - 4 credits
MWF 10:00 – 11:15 a.m.

INSTRUCTOR: Jean Okumura
OFFICE: Mana'opono 112A
OFFICE HOURS: M: 8:30 – 9:30 am
W: 1:00 – 2:00 pm
R: 11:30 am – 12:30 pm
Other Hours by Appointment
TELEPHONE: 236-9282
FAX NUMBER: 247-5362   Attention: Jean Okumura
EMAIL ADDRESS: jokumura@hawaii.edu
EFFECTIVE DATE: Spring 2016

MYMATHLAB (MML) COURSE ID: okumura62708

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.

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 hrs lecture)

PREREQUISITES: Grade of "C" or better in Math 140 or equivalent, satisfactory placement test score, or consent of instructor.

WCC: FS

Suggested Basic Skills

Good study skills and habits; Competency with Math 135 (PreCalculus: Elementary Functions) and Math 140 (PreCalculus: Trigonometry and Analytic Geometry).

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.

Learning Resources and Materials

Required Text: Calculus for Scientists and Engineers, Single Variable, by Briggs, Cochran, & Gillett (You may use the full textbook - Calculus for Scientists and Engineers, by Briggs, Cochran, & Gillett.)

Required Technology Tool: TI-83, TI-83+, TI-84, or TI-84+ calculator

Required Material: MyMathLab (MML) access code

MyMathLab (MML) Course ID: **okumura62708**

MATH LAB: La'akea 220 – free drop-in tutorial assistance

THE TESTING CENTER (TTC): La'akea 228 – phone number 235-7498

UH Manoa Online Learning Academy: http://manoa.hawaii.edu/ola/
        Free online tutorial assistance M – F: 9 am to 10 pm and Sundays: 5 to 10 pm

Brainfuse: http://windward.hawaii.edu/Brainfuse/
            Free online tutorial assistance accessed via the MyUH portal.

STUDENT LEARNING OUTCOMES

These student learning outcomes will be assessed via course activities (homework, in-class work, and/or additional assignments) and via tests or quizzes.

1.   Understand and use the formal and intuitive definitions of limits and apply them in limit calculations and in determining continuity.

2.   Demonstrate proficiency in determining derivatives and apply different interpretations of the derivative.

3.   Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.

4.   Use Calculus techniques to analyze and solve applied problems.

5.   Use derivatives to analyze and sketch graphs and/or to solve related problems.

6.   Demonstrate proficiency in determining antiderivatives and integrals.

7.   Utilize integration in applied problems.

Foundations Hallmarks:

Math 205 fulfills the 3 credits General Education requirement for Foundations: Symbolic for both the A.A. degree at WCC and a Bachelor's degree at UH Manoa and UH West Oahu. Consequently, it meets the following hallmarks of the symbolic reasoning requirement:

1.   Students will be exposed to the beauty, power, clarity and precision of formal systems.

2.   Instructors will help students understand the concept of proof as a chain of inferences.

3.   Instructors will teach students how to apply formal rules or algorithms.

4.   Students will be required to use appropriate symbolic techniques in the context of problem solving and in the presentation and critical evaluation of evidence.

5.   The course will include computational and/or quantitative skills.

6.   Instructors will build a bridge from theory to practice and show students how to traverse this bridge.

Course Goals

1.   To engender the learning of the fundamental precepts, concepts and properties of differential calculus and introductory integral calculus.

2.   To nurture the student's problem solving skills.

3.   To facilitate the student's comprehension of the nature of proofs through logical, deductive means, and to simultaneously augment the student's understanding through intuitive means.

4.   To inculcate the relevance of calculus through applications.

5.   To prepare the student for endeavors which have calculus as a prerequisite.

Activities Required at Scheduled Times Other Than Class Times

Homework; quizzes; possibly exams; consultation with instructor.

It is expected that students spend, at the minimum, 12 hours per week outside of class time studying, attending Supplemental Instruction sessions (if available), and doing homework and readings for this class.

Email and Laulima Website

You are responsible for checking your UH email regularly for important announcements. You are also expected to check the Math 205 Laulima site for important resources for the course.

Responsibilities of Students

Success in this course will be enhanced by:

1.   A positive, inquiring attitude toward mathematics;

2.   Setting aside adequate time for studying, working on problems, and careful cogitation of the material;

3.   Reading the text carefully and making use of other learning materials whenever necessary;

4.   Seeking assistance from the instructor and the Math Lab whenever necessary;

5.   Regularly attending class and, notifying the instructor of an absence and responsibly obtaining and completing assignments by the designated date.

Course Content

- The Idea of Limits, Definitions of Limits, Techniques for Computing Limits, Infinite Limits, Limits at Infinity, Continuity, Precise Definitions of Limits.

- The Derivative, Rules of Differentiation, Product and Quotient Rules, Derivatives of Trigonometric Functions, Derivatives as Rates of Change, Chain Rule, Implicit Differentiation, Related Rates.

- Maxima and Minima, What Derivatives Tell Us, Graphing Functions, Optimization Problems, Linear Approximation and Differentials, Mean Value Theorem, L'Hopital's Rule, Antiderivatives.

- Approximating Areas Under Curves, Definite Integrals, Fundamental Thedorem of Calculus, Working with Integrals, Substitution Rule.

- Velocity and Net Change, Regions Between Curves, Volume by Slicing, Volume by Shells, Physical Applications.

Supplemental Instruction

This course might utilize Supplemental Instruction (SI), if an SI leader can be found. If there are SI sessions, students are encouraged to attend 2 one-hour sessions per week.

MyMathLab (MML)

This course will utilize MML for many homework assignments. The new textbook purchased from the WCC bookstore is packaged with MML. If you purchase the textbook from elsewhere, be sure that it comes with the MML access code.

The MML access code also provides an e-book for the textbook for this course so if you prefer not to purchase a physical textbook, you may purchase just the MML access code online through by MML Math 205 course.

Before you start using MML for assignments, be sure to do the browser check. A link to do a browser check is available at the MML home. Your computer needs to have certain programs. The browser check will check what you have and let you know what you need to obtain and how to download it.

After doing the browser check, it is recommended that you view the "How to Enter Answers" tour that is also available from MML Home. Then, do the first assignment – "Orientation" found at the Homework site of MML.

For most MML problems, you will have 3 chances to get the right answer for a given problem. If you still get the problem wrong after 3 chances, then the correct answer is given. If after 3 chances, you still get the problem wrong, you may be able to request a similar problem and have another 3 chances to get the problem correct. For each problem, you may be able to have at most 3 similar problems to be able to get that problem correct. When the MML problem is a multiple choice problem with very few choices or if the problem is just a true or false problem, you will not be able to have as many chances or similar problems to be able to get the problem correct.

For MML homework/course activities, a deadline will be given. You may do MML problems/activities past the deadline and a 25% penalty on the points earned after the initial due date will be assessed.   There will be a final deadline when you will not be able to earn any more points on that assignment.

Disruptive Behavior

Disruptive Behavior leads to a loss of learning time. Examples are activated beepers and cell phones, texting messages, making offensive remarks, packing books before class is over, making noise, leaving class early, coming to class late, sleeping in class, prolonged chattering, reading other materials not relevant to this class, etc. If a student takes part in disruptive behavior, the instructor reserves the right to exclude the student immediately from the class meeting, and will be marked absent.

Remember that class time is learning time.   Also, be respectful of others and their learning time.

Academic Honesty

All quizzes and exams are **closed books and notes and must be done by your individual effort.** You may not consult with any classmates while taking quizzes or exams. You are not allowed to tell a friend the type of questions on the quiz or exam, the answers, or help a classmate in any way (e.g. by explaining how to solve the problem). This would fall under the guidelines of academic integrity and any evidence of cheating will result in a score of 0 for the quiz or exam for all parties involved. Also keep in mind that we are assessing your knowledge and understanding of the concepts and strategies – attempting to find the answers online or through other sources is not in the spirit of academic honesty. If cheating persist, an "F" will be assigned to students involved in **cheating** and this will be reported to the Dean.

Graded assignments that apply to the course activities portion of your grade may be discussed with your classmates and you may seek guidance from the instructor, the Math Lab tutors, or the Trio tutors (if you are a Trio client), however, the write up of the solution for each problem must be done on **your individual effort** unless otherwise specified by the instructor. Graded assignments are **not group assignments** where all members of the group write the same responses for each problem. Any evidence of plagiarism will result in a score of 0 for the assignment for all parties involved. If plagiarism persists, then an "F" will be assigned to the students involved in **plagiarism** and this will be reported to the Dean.

All students are required to follow the Student Conduct Code described at http://www.hawaii.edu/apis/ep/e7/e7208.pdf.

Course Tasks and Grading Information

Grades for this course are based on the following course tasks:

4 exams @100 pts	400 pts	(62% of possible pts)
Course Activities	125 pts	(19% of possible pts)
(Total % correct)(125) = pts for CA		
Final Exam	<u>125 pts</u>	(19% of possible pts)
	650 pts	

Course activities may include but are not limited to:

Textbook, in-class, or other problems	MML Homework
Journal entries (writing assignments)	Reports or Presentations
Other Assignments	Announced quizzes

There are no make-up opportunities for missed or late assignments, in-class activities, quizzes or other activities that are graded for the course activities portion of your grade. However, you will have 5 one-business day late graces (LG) for the written homework for course activities. There may also be a <u>few</u> opportunities to earn extra credit points for the course activities portion of your grade. The total percent correct will be multiplied by 125 and will be rounded to the nearest whole number to obtain your score for the course activities portion of your grade. The <u>maximum</u> score for the course activities portion of your grade is 125 points.

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% - 100% of the cumulative points possible
NC	Less than 70% of the cumulative points possible
W	Official Withdrawal
I	Incomplete - given when a student has failed to complete a SMALL part of the course due to circumstances beyond his/her control.

Note: CR/NC grades require written instructor consent. Students <u>must</u> 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) will be assigned for the course.

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

Additional Information

1.   ABSENCES:

It is your responsibility to attend class. If you are absent, borrow a classmate's notes and copy them for the day you were absent. Or, you may see the instructor to copy her notes. You are responsible for those topics and examples discussed on the day of your absence. Furthermore, you are responsible for any important announcements or homework assignments given during the class you missed. Frequent absences can negatively affect your grade.

2.   MAKE-UP POLICY:

There are no make-up opportunities for any quizzes, graded assignments, or graded in-class activities that you miss due to absences, tardiness, or leaving class early. A few extra credit opportunities may be available for the course activities portion of your grade. You will have 5 one-business day late graces (LG) for the written homework for course activities.

If you are unable to attend class on an exam day, discuss your situation with the instructor as soon as possible before the exam day. It may be possible for you to take the exam earlier than the specified day/time. IF YOU UNEXPECTEDLY MUST BE ABSENT ON AN EXAM DAY, NOTIFY THE INSTRUCTOR BY THE END OF THAT EXAM DAY. YOU CAN LEAVE A VOICE MAIL MESSAGE FOR THE INSTRUCTOR (236-9282) OR EMAIL THE INSTRUCTOR. BE SURE TO STATE THE REASON FOR THE ABSENCE. If no notification is received by the day of the exam or if the reason is not justified, then you will receive a 0 for that exam and no make-up will be allowed. If notification is received and the reason is justified then a make-up exam will be scheduled. You must take the make-up exam as soon as possible after you return to school. The instructor has the right to request documentation of the student's absence and determine if the reason for the absence is justified. FOR EACH STUDENT, NOT MORE THAN ONE MAKE-UP EXAM MAY BE TAKEN.

3.   There are NO RETESTS for this course.

4.   FINAL EXAM: The final exam is cumulative.

5.   CALCULATOR:

A TI-83, TI-83+, or TI-84+ calculator is required for this class. The calculator may be required for some parts of the exams, quizzes, and assignments and not allowed for other parts. The TI-89 and TI-NSPIRE calculators are not allowed for exams or quizzes.

Additional Information (continued)

6.   CELL PHONES:

Please put your cell phone on silent mode or turn it off prior to the start of the class so that it does not disturb the class session.

7.   HOMEWORK:

Read the sections to be covered in a class session prior to that class session. As you read each section, write down terminology or symbols and its definition and properties/rules that are important. This will become helpful additional notes. Try to do problems from the textbook or study plan. Start working on the MML homework problems for the sections to be covered in the next class meeting.

After the class lecture/discussion on a section, you should continue to work on and complete the MML homework problems from that section(s). Those problems and concepts that you still do not understand or that you need further clarification on should be asked about on the class meeting after the section is discussed in class or during an SI session (if available). Because there is very little class time, you will probably need to seek further assistance from the instructor, from the SI Leader (if available), from the Math Lab, or from other resources such as Brainfuse or the Online Learning Academy, if not all your questions on problems are handled during class time or if you are still having difficulties. Complete, review, and analyze all of the MML homework, activity sheets, worksheets, and other problems that were graded to help you learn and get a better understanding of the material or notation. You may need to do more than the MML homework problems to become comfortable with the concepts and skills – there are textbook problems and MML study plan problems available for extra practice.

Any written item collected for grading purposes for the course activities portion of your grade are due at the <u>BEGINNING OF CLASS</u> unless otherwise specified by the instructor and <u>WILL NOT RECEIVE ANY POINTS IF TURNED IN LATE</u>. However, you will have 5 one-business day late graces (LG) for written homework for course activities. You may turn in your graded work before the due date and/or time without losing points. There may be a <u>few</u> opportunities to earn some extra credit points towards your course activities (CA) portion of your grade. However, the maximum score for the CA portion of your grade is 125 points.

Although there are usually no points associated with the MML study plan problems or additional problems that you do from the text or on handouts that have answers provided as a way to practice the strategies learned, it is expected that students do some additional problems to assist them in their learning. Not doing additional non-graded problems and/or waiting to work on additional non-graded problems until right before an exam generally results in poor exam results and a lack of success or minimal success in this course.

Be sure to review and analyze any graded course activities after it is returned to you. This will help you to get a better understanding of the material and concepts.

Additional Information (continued)

8. HELP:

    Your instructor and SI Leader (if available) are your primary human resources for help when you are lost or having trouble. Seek help immediately if you are encountering problems even after reading and re-reading the text section(s) and listening to/thinking about the discussion in class on that section(s). See the instructor during office hours, see the SI leader during SI sessions (if available), make an appointment, email or call. Don't wait too long to get help!!

    If a crisis comes up that interferes with the class, communicate with your instructor in a timely manner. Too many students wait until it is too late to inform their instructor about their crisis and that reduces the options that students may have to complete the course with a grade of C or better.

9. GRADING ON HOMEWORK, QUIZZES, OR EXAMS:

    <u>To receive full credit for problems done on exams, on quizzes, or for graded homework, you must show sufficient work in a clear, logical, mathematically precise and organized manner.</u> This is to assess student learning outcome #6 and Foundations Hallmark #4. It also helps me determine where your error is (hence, you might be able to obtain partial credit) and if you are logically applying the mathematical tools learned to solve the given problem. Your work must be neat and organized. "Messy" and/or disorganized work will not be accepted.

10. DON'T PROCRASTINATE

    Mathematics is not a subject that you can consistently be successful in by "cramming" a day or two before the test.   By "cramming" you don't develop proficiency in doing the problems, knowledge of what to do on a particular problem and long-term understanding of the process. Also, if you procrastinate, you may fall so hopelessly behind that it becomes impossible to catch up. It requires constant work to keep on top of the material.

11. N Grade

    The N grade indicates that the student 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.

    The N grade is an optional grade. Instructors do not have to give an N grade.

GRADING INFORMATION
MATH 205 - OKUMURA

Grades for this course are based on the following:

4 exams @100 pts	400 pts	(62% of possible points)
Course Activities	125 pts	(19% of possible points)
(Total % correct)(125) = pts for CA		
Final Exam	125 pts	(19% of possible points)
Total Possible Points	650 pts	

Course activities may include but are not limited to:

Textbook, in-class, or other problems	MML Homework
Journal entries (writing assignments)	Reports or Presentations
Other Assignments	Announced quizzes

COURSE ACTIVITIES THAT ARE TURNED IN LATE WILL NOT RECEIVE ANY POINTS (no matter what the reason). All assignments are due at the **BEGINNING** of class on the due date unless otherwise specified by the instructor. The "beginning of class" means that assignments must be given to the instructor by 5 minutes after the start of class. For example, if the class meets 8:30 – 9:45 then, the assignment must be turned in by 8:35. The clock of the classroom is the official time clock. Any homework turned in after 8:35 is considered late.

There are no make-up opportunities for missed written assignments, quizzes, in-class activities, or other activities that are graded for the course activities portion of your grade. You will have 5 one-business day late graces (LG) for the written homework for course activities. There may also be a <u>few</u> opportunities to earn extra credit points for the course activities portion of your grade. The total percent correct will be multiplied by 125 and will be rounded to the nearest whole number to obtain your score for the course activities portion of your grade. The <u>maximum</u> score for the course activities portion of your grade is 125 points.

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Office:	Mana`opono 112A	Email: jokumura@hawaii.edu
Office Hrs:	M: 8:30 – 9:30 am	School Fax Number: 247-5362
	W: 1:00 – 2:00 pm	Attention: Jean Okumura
	TH: 11:30 am – 12:30 pm	
	Other hours by appointment	

TENTATIVE SCHEDULE - MATH 205
FALL 2014 – OKUMURA – MWF 8:30 – 9:45 am

	MONDAY		WEDNESDAY		FRIDAY
JAN 11	Orientation, Review	JAN 13	2.1, 2.2	JAN 15	2.2, 2.3 *Last Day for 100% Refund*
JAN 18	HOLIDAY: M. L. King Day	JAN 20	2.4	JAN 22	2.4, 2.5
JAN 25	2.6	JAN 27	2.7	JAN 29	3.1
FEB 01	3.2 *50% Refund Deadline*	FEB 03	**EXAM 1 – Ch 2**	FEB 05	3.3
FEB 08	3.4	FEB 10	3.6	FEB 12	3.5
FEB 15	HOLIDAY: President's Day	FEB 17	3.7	FEB 19	3.8
FEB 22	3.8	FEB 24	4.5	FEB 26	4.5, 4.1
FEB 29	4.2	MAR 02	**EXAM 2 – Ch 3**	MAR 04	No Class Conference
MAR 07	4.3	MAR 09	4.3	MAR 11	4.4
MAR 14	4.4	MAR 16	4.6	MAR 18	4.7
MAR 21	No Class Spring Recess	MAR 23	No Class Spring Recess	MAR 25	No Class Spring Recess
MAR 28	5.1 *W & CR/NC Deadline-3/29*	MAR 30	**EXAM 3 – Sections 4.1 – 4.7**	APR 01	5.2
APR 04	4.9	APR 06	5.3	APR 08	5.4
APR 11	5.5	APR 13	6.1	APR 15	6.2
APR 18	6.3	APR 20	**EXAM 4 – Ch 5, Sections 4.9 & 6.1**	APR 22	6.3
APR 25	6.4	APR 27	6.6	APR 29	6.6
MAY 02	Final Exam Review	MAY 04	Final Exam Review	MAY 06	No Class Study for Final Exam
MAY 09	**FINAL EXAM !!! 9:30 am - 12:30 pm**				

ADDENDUM TO THE MATH 205 COURSE OUTLINE/SYLLABUS

Supplemental Instruction

This class is supported by the Supplemental Instruction (SI) program. SI is a FREE, collaborative, peer-study program that helps students succeed in difficult classes. Your SI Leader, Makiko Kuwahara, is a peer who has taken this class (or a higher level class) previously and has an understanding of the course material. In SI sessions, students will work together with SI Leader Makiko to explore important concepts, review class notes, discuss reading assignments, and review for tests. All students in this class are encouraged to attend!

Note: WCC data has shown that students who attend SI sessions are 20% more likely to receive A, B, or C grades than non-attendees and are less likely to withdraw from their courses. This data has also shown that the more sessions students attend, the more likely they are to pass.

Students are encouraged to attend at least 2 one-hour sessions per week. SI participation is optional but you will be able to earn extra credit points for the course activities portion of your grade by participating in SI. There is a maximum of 20 extra credit points from SI participation that you may earn toward the course activities portion of your grade. You will be able to earn 1 point of extra credit for each hour of SI participation and you can only earn a maximum of 2 extra credit points per week.