MATH 205 Calculus I (FS)  
4 Credits  
Spring 2011  
T,TH 10:00 ~ 12:00 pm (61083)

INSTRUCTOR: Young-A Choi  
OFFICE: Hale Manaopono #105  
OFFICE HOURS: MWF 10:00-10:30am, 12:30-1:30pm  
T,TH 12:00-1:00pm  
TELEPHONE: (808) 236-9277 (recommend using email rather than phone)  
Email: choiya@hawaii.edu  
EFFECTIVE DATE: Spring / 2011

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College is committed to excellence in the liberal arts and career development; we support and challenge individuals to develop skills, fulfill their potential, enrich their lives, and become contributing, culturally aware members of our community.

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)

Prerequisite: Grade of “C” or better in MATH 140 or equivalent, satisfactory math placement test score, or consent of instructor.

WCC: FS

Activities Required at Scheduled Times Other Than Class Times

- Homework and learning the functions of a scientific calculator.  
- Reading the text carefully before and after the lecture.  
- Math Lab (Hale Mana’opono Room # 113) or TTC activities as necessary.

STUDENT LEARNING OUTCOMES

The student learning outcomes are:

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.
HALLMARKS FOR THE SYMBOLIC REASONING (FS) OF FOUNDATION

1. Expose students to the beauty, power, clarity and precision of formal systems.
2. Help students understand the concept of proof as a chain of inferences.
3. Teach students how to apply formal rules or algorithms.
4. Require students to use appropriate symbolic techniques in the context of problem solving, and in the presentation and critical evaluation of evidence.
5. Not focus solely on computational skills.
6. Build a bridge from theory to practice and show students how to traverse this bridge.

COURSE CONTENT

Concepts or Topics

- Limits
- Derivatives
- Applications of Differentiation
- Integrals
- Application of Integration

Skills or Competencies

1. understanding the fundamental concepts
2. analyzing the problem
3. memorizing properties
4. developing similar problems
5. practical application
6. be able to explain to others

COURSE TASKS

The mode of instruction will be focusing on logical and analytical thinking and problem solving. The new material will be introduced by the instructor in every lecture, then the student will apply the new material to textbook problems. However, the goal for this procedure is not just getting the right answer. The ultimate goal should be to build the ability to explaining how and why he/she gets such a result. During the semester, 2~3 students may work together as a group, so that they can improve thinking skill in alternative ways.

ASSESSMENT TASKS AND GRADING

The student will demonstrate competency in the objectives via assignments, in-class activities, unit exams and final exam covering concepts and skills covered in the entire course. Exams and quizzes are to be taken within the classroom environment without any references unless otherwise stipulated by the instructor.

Each exam will be covered in the following percentages:

<table>
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<tr>
<th>Exam #1</th>
<th>100 points (14%)</th>
<th>Percentage (%)</th>
<th>Scores (points)</th>
<th>Letter Grade</th>
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<tbody>
<tr>
<td>Exam #2</td>
<td>100 points (14%)</td>
<td>90% or Above</td>
<td>700~630</td>
<td>A</td>
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<tr>
<td>Exam #3</td>
<td>100 points (14%)</td>
<td>80 ~ 89%</td>
<td>629~560</td>
<td>B</td>
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<tr>
<td>Final Exam</td>
<td>200 points (28%)</td>
<td>70 ~ 79%</td>
<td>559~490</td>
<td>C</td>
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<tr>
<td>Homework</td>
<td>100 points (14%)</td>
<td>60 ~ 69%</td>
<td>489~420</td>
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<td>Quizzes and</td>
<td>100 points (14%)</td>
<td>Below 60%</td>
<td>419~Below</td>
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<td>Class activities</td>
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<td>Total</td>
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Or the grade can be given among one of these:

- **Cr**: 70% or above of the cumulative points possible
- **N or NC**: Less than 70% of the cumulative points possible
- **W**: Official Withdrawal
- **I**: Incomplete—given when a student has failed to complete a small portion of the course due to circumstances beyond his/her control.

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

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**LEARNING RESOURCES**


**CALCULATOR:** A calculator is required for this course. A TI-series (TI-82, 83, 83+, 85,86, or 89) scientific calculator is recommended.

**RECOMMENDED MATERIALS:** Student Solutions Manual.

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**Additional Information**

**A. ATTENDANCE**

Students are expected to be on time and to stay for the entire period. Attending every lecture is very important, because, absence from a class will make it difficult to keep up with the topics for that day. Even though you are absent from class, you will be still responsible for the topics, homework assignments, and announcements on the day of your absence. Please let me know ahead of time to discuss your situation for frequent absences with a reasonable excuse. Frequent absences can negatively affect your grade.

**B. HOMEWORK**

Two homework will be assigned with every lecture or week and collected at the beginning of the next class. It is very important to keep up with your homework and the material covered that day. Practicing solving a lot of problems is one way to succeed in this course. There will be 20~35 problems to solve in each homework assignment. Messy” and/or disorganized work will not be accepted.

**Late Homework Policy:** Everyone will be allowed two late homeworks. After that late homework will be still graded, however the score won’t be recorded in the instructor’s grade book. Any kind of excuses or situations is not negotiable after the second late homework.

There are no make-up opportunities for any quizzes, graded assignments, or graded in-class activities that you miss due to absences or tardiness, some extra credit opportunities are available for the course activities portion of your grade.
C. EXAMS AND ACADEMIC HONESTY

Three comprehensive exams and a cumulative final exam will be given. If you don’t offer a reasonable excuse in advance, a make-up exam will not be possible. **There is NO make-up for any exam and in-class activity that you miss due to an unexcused absence.** IF YOU MUST BE ABSENT ON A TEST DAY, NOTIFY THE INSTRUCTOR AT LEAST ONE HOUR PRIOR TO THE TEST. YOU CAN LEAVE A MESSAGE ON MY VOICE MAIL. BE SURE TO STATE THE REASON FOR THE ABSENCE. If no notification is received PRIOR TO the test or if the reason is not justified, then you will receive a “zero” for the test and then you must take the test as a retest. If notification is received and the reason is justified then a make-up test will be arranged as soon as you are able to return to class.

WCC does not tolerate academic dishonesty. Academic honesty is expected at all times – cheating is not tolerated! Any student found guilty will be dropped from the course and a grade of “F” will be entered in the student’s permanent record.

D. CALCULATORS

Calculators are allowed for tests and during the lecture unless otherwise specified by the instructor. However, sharing a calculator is forbidden during an exam.

E. CLASSROOM RULES

Classroom rules are very simple. Be POSITIVE, be HONEST and be RESPECTFUL!! Students are expected to behave as ADULTS. Please, avoid any kind of behavior that shows disrespect to others or causes disruption. RESPECT any of members in a classroom.

F. MATH LAB SCHEDULE

Math Lab(TBA) opens to every WCC student during school weeks. Your instructor will announce to you if there is any changes or updates.

- Mon 8:00am ~ 3:00pm
- Tue 8:00am ~ 5:30pm
- Wed 8:00am ~ 3:00pm
- Thr 8:00am ~ 5:30pm
- Fri 8:00am ~ 1:30pm
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.

Young-A’s Office hours during Spring 2011

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<tr>
<th>Time</th>
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<td>Math 205 (10:00~12:00) Mana 114</td>
<td>Math24/25 (10:30~12:20) Mana 103</td>
<td>Math 205 (10:00~12:00) Mana 114</td>
<td>Math24/25 (10:30~12:20) Mana 103</td>
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# Math 205 Calculus I (61083)  
**Spring 2011**  
T,TH 10:00am~12:00pm  
Manaopono #114

Young-A Choi  
Office: Manaopono #105  
Phone: (808) 236 - 9277  
Email: choiya@hawaii.edu

## TENTATIVE SCHEDULE – MATH 205

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<th>Mon</th>
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<tbody>
<tr>
<td>Jan.10</td>
<td>Jan.11</td>
<td>Syllabus</td>
<td>Jan.12</td>
<td>Jan.13 Sec 2.1/2.2</td>
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<td>Jan.17</td>
<td>Jan.18</td>
<td>Sec 2.3</td>
<td>Jan.19</td>
<td>Jan.20 Sec 2.4</td>
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<td>no class</td>
<td>Martin Luther King day</td>
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<td>Jan.24</td>
<td>Jan.25</td>
<td><em>Take home Quiz 1</em></td>
<td>Jan.26</td>
<td>Jan.27 Sec 3.1/3.2</td>
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<td>Jan.31</td>
<td>Feb.1</td>
<td>Sec 3.3</td>
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<td>Feb.3 Sec 3.4</td>
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<td>Feb.7</td>
<td>Feb.8</td>
<td>Exam #1</td>
<td>Feb.9</td>
<td>Feb.10 Sec 3.5/3.6</td>
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<td>Feb.14</td>
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<td>Sec 3.6/3.7</td>
<td>Feb.16</td>
<td>Feb.17 <em>Take home Quiz 2</em></td>
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<td>Feb.21</td>
<td>Feb.22</td>
<td>Sec 3.8/3.9</td>
<td>Feb.23</td>
<td>Feb.24 Sec 3.9</td>
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<td>no class</td>
<td>Presidents day</td>
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<td>Feb.28</td>
<td>Mar.1</td>
<td>Sec 4.1/4.2</td>
<td>Mar.2</td>
<td>Mar.3 Sec 4.2/4.3</td>
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<td>Mar.7</td>
<td>Mar.8</td>
<td>Sec 4.4/4.5</td>
<td>Mar.9</td>
<td>Mar.10 <em>Take home Quiz 3</em></td>
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<td>Mar.14</td>
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<td>Sec 4.6/4.7</td>
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<td>Mar.17 <em>Exam #2</em></td>
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<td>Last day of official withdrawal</td>
<td>Mar.30</td>
<td>Mar.31 Sec 4.9/5.1</td>
<td>Apr.1</td>
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<td>Apr.4</td>
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<td>Sec 5.1/5.2</td>
<td>Apr.6</td>
<td>Apr.7 Sec 5.2/5.3</td>
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<td>Apr.11</td>
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<td><em>Take home Quiz 4</em></td>
<td>Apr.13</td>
<td>Apr.14 Sec 5.5</td>
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<td>Apr.18</td>
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<td><em>Exam #3</em></td>
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<td>Apr.21 Sec 6.1/6.2</td>
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<td>Sec 6.3/6.4</td>
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<td>Apr.28 <em>Take home Quiz 5</em></td>
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<td>May.2</td>
<td>May.3</td>
<td>Review for Final Exam</td>
<td>May.4 Last day of Instruction</td>
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Mar.21 ~ Mar.25 Spring Break  
Mar.28 Last day of official withdrawal  
Mar.29 Sec 4.7/4.9  
Mar.30 Mar.31 Sec 4.9/5.1  
Apr.1  
Apr.4  
Apr.5 Sec 5.1/5.2  
Apr.6 Apr.7 Sec 5.2/5.3  
Apr.8  
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Apr.12 *Take home Quiz 4*  
Sec 5.4  
Apr.13 Apr.14 Sec 5.5  
Apr.15  
Apr.18  
Apr.19 *Exam #3*  
Apr.20 Apr.21 Sec 6.1/6.2  
Apr.22 No class Good Friday  
Apr.25  
Apr.26 Sec 6.3/6.4  
Apr.27 Apr.28 *Take home Quiz 5*  
Sec 6.4/6.5  
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May.2  
May.3 Review for Final Exam  
May.4 Last day of Instruction  
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May.9 ~ May.12 Finals week  
FINAL DATE: _______________  
FINAL TIME: _____________