Math 191 – Calculus with Analytic Geometry II – Summer 2016

Instructor: Zach Marks
Units: 5.0
Section#: 0380

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Voicemail: (310) 660-3593 x3220

Website: www.elcamino.edu/faculty/zmarks

Office Hours: M T W Th 9:55 am – 10:40 am in MBA 239

Lecture times and location: M T W Th from 7:15 am – 9:50 am in MBA 217

Textbook: “Calculus: Early Transcendentals” Stewart, 8th Edition

Calculator: A scientific (non-graphing) calculator is allowed on exams. No sharing of calculators during exams. A cellphone cannot be used as a calculator (nor should it be visible or in use during class at all).

Course Description: This course includes a study of methods of integration; applications of integration; improper integrals; numerical integration; infinite sequences, series and power series, parametric equations, polar coordinates and conic sections.

Prerequisite(s): passing grade in Math 190 or approved equivalent

SLO Statements:
SLO #1 Understanding Concepts: Students will explain and demonstrate advanced integration techniques and convergence of sequences and series.
SLO #2 Solving Problems: Students will use integrals to evaluate volumes, surface area and arc length.
SLO #3 Graphs: Students will use limits, derivatives and integration to analyze graphs of parametric equations, polar equations, and conic sections.
SLO #4 Proofs: Students will analyze and construct proofs to determine convergence and divergence of sequences and series.

Course Objectives:
Use integration to solve application problems involving: areas between curves; volumes of solids of known cross section; volumes of solids of revolution; work; arc length and areas of surfaces of revolution.
Evaluate integrals using integration techniques including: integration by parts; trigonometric substitutions; partial fraction decomposition and tables of integrals.
Use numerical techniques (both with and without technology) to approximate the values of integrals.
Determine the convergence or divergence of sequences, series and power series.
Solve problems using Taylor series, including differentiation and integration of power series.
Solve problems involving parametric equations, polar coordinates and conic sections. Examples include the graphing of parametric and polar curves and the calculation of the arc length of curves so defined. Additional problems involve the calculation of the area bounded by such curves.
Grading: Grades will be assigned based on the following weighted scale:

10% - Homework / classwork
60% - Tests (4 tests each worth 15%)
30% - Final Exam

Letter Grades: 90% = A   80% = B   70% = C   60% = D   below 60% = F
(lower bounds)

Tests: Tests will verify student understanding of problem solving techniques and reasoning utilized in the problems assigned for homework, demonstrated during the lectures and covered on any in-class handouts. Complete review and understanding of these sources will provide the best preparation.

Final Exam: The final exam is cumulative over the course’s material. All students must take the final in order to potentially receive a passing grade in the course.

Homework: Homework problems from the textbook are assigned for every section covered in class. The problem sets are to be handwritten on standard letter-sized paper (plain, lined, or graphing is fine). Assignments are collected in class on the days of the tests – the entire packet of assignments must be stapled together (or in a folder – do not hand in a binder, spiral notebook, etc…)
Assignments are in order, neat, complete, with all work shown. Full credit is awarded for assignment packets that demonstrate complete solutions written up with integrity and effort throughout. Collaboration is encouraged however all students must submit their own handwritten work. Late packets earn half credit at most. No work is accepted after 1 class meeting past the test.

* We will often spend the first 15-20 minutes of each class discussing assigned homework from the previous lecture. Keep up with homework and don’t hesitate to ask questions!

Classwork: We will occasionally complete in-class problem sets and/or short quizzes during the lecture. These assignments cannot be made up in the event of absence.

Makeup Policy: If you cannot make it to any of the tests, please email me BEFOREHAND to schedule a make-up. Any make-up requests received AFTER a missed exam will be denied. Make-ups are only granted in the event of unavoidable circumstances verifiable by official documentation (ex: court summon, jury notice, hospital document, police report, etc…) Only one test at most can be made up during the term.

Attendance / Adding / Dropping: Missing more than 3 class meetings unexcused may result in being dropped from the class. Be sure to email the professor ASAP should an unavoidable circumstance arise. It is ultimately the student’s responsibility to properly drop the course in a timely manner. Tardy arrival to class and leaving class early is disrespectful to your classmates and instructor. Chronic tardiness (or leaving class early) will result in being dropped from the class. Students are responsible for all lecture materials and announcements made during class.

Code of Conduct: All students have the right to learn in an environment free of disruption. There should be no side conversations during the lectures and absolutely no cellphone or other electronic devices in use during class. Interruptions and/or distractions will not be tolerated. Students and the instructor are respectful of one another. Any violation of the code of conduct will result in dismissal from the class.
**Academic Honesty:** Any incident of academic dishonesty (including but not limited to cheating, plagiarism, theft of exam materials, etc…) will not be tolerated. A zero on the assignment in which academic dishonesty has occurred and suspension from class are among the disciplinary actions for academic dishonesty (AP 5520). Cheating of any kind on a test or exam will result in a zero score on the test.

**Accommodations:** Students with disabilities who believe they may need accommodations in this class should contact the campus Special Resource Center as soon as possible. As well one may contact the instructor privately to discuss your specific needs. The Special Resource Center is located in the southeast wing of the Student Services Center, (310) 660-3295.

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**Tentative Schedule:**

*Changes to the schedule can be made at the instructor’s discretion. Any changes will be announced in class. All students are responsible for any such announcements.

<table>
<thead>
<tr>
<th>Week</th>
<th>Start Date</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>6/20</td>
<td>Intro / 5.5</td>
<td>6.1 / 6.2</td>
<td>6.2 / 6.3</td>
<td>6.4 / 6.5</td>
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<tr>
<td>2</td>
<td>6/27</td>
<td>6.5 / 7.1</td>
<td>7.1 / 7.2</td>
<td>7.2 / Review</td>
<td>HW Due / TEST 1</td>
</tr>
<tr>
<td>3</td>
<td>7/4</td>
<td>No Class (Holiday)</td>
<td>7.3</td>
<td>7.4 / 7.5</td>
<td>7.7 / 7.8</td>
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<tr>
<td>4</td>
<td>7/11</td>
<td>7.8 / 8.1</td>
<td>8.2 / 8.5</td>
<td>8.5 / Review</td>
<td>HW Due / TEST 2</td>
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<tr>
<td>5</td>
<td>7/18</td>
<td>11.1 / 11.2</td>
<td>11.2 / 11.3</td>
<td>11.4 / 11.5</td>
<td>11.5 / 11.6</td>
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<tr>
<td>6</td>
<td>7/25</td>
<td>11.7 / Review</td>
<td>HW Due / TEST 3</td>
<td>11.8 / 11.9</td>
<td>11.9 / 11.10</td>
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<tr>
<td>7</td>
<td>8/1</td>
<td>11.10</td>
<td>10.1 / 10.2</td>
<td>10.2 / 10.3</td>
<td>10.3 / Review</td>
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<td>8</td>
<td>8/8</td>
<td>HW Due / TEST 4</td>
<td>10.4 / 10.5</td>
<td>Final Review</td>
<td>FINAL EXAM</td>
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**Important Registration Deadlines:**

Monday June 27 – Last day to add classes / Last day to drop with a refund and without notation
Thursday July 28 – Last day to drop with a ’W’ notation

**Holidays:**

Monday July 4 – Independence Day – No classes