SYLLABUS - Calculus I MATH-1634-09 Spring 2016

Location: Boyd 304   Time: MWF: 9:00-9:52 am  T:9:30-10.22 am
Instructor: Senmei Yao.   Office: Boyd 106 E
Phone: 678-839-4738
email: syao@westga.edu

OFFICE HOURS: M: 10:00 am-12:00 pm, 2:00-3:00pm;   T: 8:30 9:30 am, 10:30-11:30 am
W: 10:00 am-12:00 pm, 2:00-3:00pm;   F: 10:00 am-12:00 pm,
Additional hours by appointment

COURSE DISCRPTION:
• 4 hours
• Prerequisite: MATH 1112 or MATH 1113, C or better
• The first of a three-course sequence in calculus. Limit, applications of
derivatives to problems in geometry and the sciences. Problems which lead to
antiderivatives.

Topics: Limits, Continuity, Tangents and Velocity as Rates of Change, Differentiation Rules
(including the Power Rule, Product Rule, Quotient Rule, and Chain Rule), Differentiation of
Trigonometric Functions, Implicit Differentiation, Higher Derivatives, Derivatives of
Logarithmic Functions, Related Rate Problems, Maximum-Minimum Problems, The Mean Value
Theorem, L'Hospital's Rule and Indeterminate Forms, Curve Sketching, Newton's Method,
Antiderivatives, Definite Integrals, the Fundamental Theorem of Calculus, and Integration by
Substitution.

Learning Outcomes:
1. The student will be able to compute limits.
2. The student will be able to compute derivatives of polynomial, rational, exponential,
logarithmic, and trigonometric functions.
3. The student will be able to apply calculus to related rate, maximum-minimum, and curve
sketching problems.
4. The student will understand the definition of the indefinite and definite integral.
5. The student will understand and be able to apply the Fundamental Theorem of Calculus.
6. The student will be able to compute definite integrals using the techniques of integration
by inspection and integration by substitution.

TEXT: Single Variable Calculus, Early Transcendental Vol. 1, by James Stewart, 7th edition,
Brooks/Cole Publishing Company

Required: scientific calculator. Graphing calculators equivalent to the TI 83, 84, 85, and
86 will be allowed on the exam, as will scientific calculators. The TI-89 and other
equivalent calculators will not be allowed.
Instructors reserve the right to make changes on this syllabus as needed.

ATTENDANCE: Attendance will be taken every class day. Students are not allowed to come to class late or to leave early. Three tardies/early leaves are counted as one absence. Absence will not be counted if official document is provided.

GRADING CRITERIA

<table>
<thead>
<tr>
<th>Quizzes (lowest three will be dropped)</th>
<th>100 points</th>
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</thead>
<tbody>
<tr>
<td>Four Unit Exams (100 points each)</td>
<td>400 points</td>
</tr>
<tr>
<td>Comprehensive Final Exam</td>
<td>200 points</td>
</tr>
<tr>
<td>Bonus (Attendance)</td>
<td>10 points</td>
</tr>
<tr>
<td>Bonus (other)</td>
<td>12 points</td>
</tr>
<tr>
<td>Total</td>
<td>700 points</td>
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<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>&gt;=90%</td>
</tr>
<tr>
<td>B</td>
<td>80%-89%</td>
</tr>
<tr>
<td>C</td>
<td>70%-79%</td>
</tr>
<tr>
<td>D</td>
<td>60%-69%</td>
</tr>
<tr>
<td>F</td>
<td>&lt;=59%</td>
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Absences: Absences will be assigned points as follows:

<table>
<thead>
<tr>
<th>Absences</th>
<th>Points</th>
</tr>
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<tbody>
<tr>
<td>0-3</td>
<td>10 points</td>
</tr>
<tr>
<td>4-5</td>
<td>5 points</td>
</tr>
<tr>
<td>6 or more than 6</td>
<td>0 points</td>
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Quizzes: Quizzes may be given with or without announcement in class.


Exam 4: Apr-15-2016

The lowest grade of the four unit exams will be replaced by the grade of the final exam (if grade of the final exam is better).

Final Examination: Monday, Apr-25-2016, 8:00am-10:30 pm.

The common final examination will be comprehensive.

Cellphone Policy: The students are not allowed to use cellphones during the tests or quizzes for any reasons.

Homework: Students are expected to finish homework (listed on the next page on time).

Late Assignment Policy: Students’ absence will NOT change the due day of any assignment. Assignments will NOT be accepted after the due day.

Makeups:

- There is no make up for quizzes and make up/reschedule for final exam.
- Official documents are needed in order to make up a unit exam. The student has to contact the instructor before the exam is given. And the make up for a unit exam has to be arranged within 7 days from the date of the exam.

Other Course Policies: Other course policies, including information regarding students with disabilities and the UWG Honor Code can be found at http://tinyurl.com/UWGRollabusPolicies. You should read this at the beginning of each semester.