Math 122 - Introductory Calculus

Instructor:  Prof. Jan Minton  461 Trexler Hall
Office Hours: 2-4  Monday – Thursday
Appointments available at other times also.
Office Phone:  375-2488
email:  jminton@roanoke.edu

Course Objective: Students should continue development of sound understanding of concepts and techniques of calculus. Coverage will include applications of integration and an introduction to infinite series, parametric equations, vectors, and vector valued functions. Furthermore students should become stronger problem solvers and more independent “mathematicians”.

Required Text: Calculus: Early Transcendental Functions, Smith and Minton, 3rd Edition

Materials
- Calculator: TI-83 Calculator or similar. NOTE: a calculator with symbolic calculation of derivatives or integrals will not be allowed on graded work.
- iClicker device
  optional – Laptop with Mathematica installed

Attendance Policy: Full attendance is expected and you are responsible for everything done and assigned in class and lab. Also see the Academic Catalog regarding attendance.

Participation: This course requires a high level of engagement on the part of the students. Students must come to class prepared. The attached course calendar lists sections by day. Students are expected to read the section for a given day, complete a small number of related introductory problems, and be prepared to respond to reading questions (see below) BEFORE class.

Reading: Students are expected to read from the textbook in preparation for class. Guided reading questions will be assigned for each section. These will be available on Blackboard. Students will use an electronic response system to answer the questions during class.

Homework: Homework will be collected and graded daily. Homework assignments will be in two parts: introductory problems for the upcoming section as stated above and practice problems from the section discussed in class. Homework will be graded partly on effort and partly on correctness. Homework will be collected at the beginning of class and late homework is not accepted. Two homework grades will be dropped. Group work is encouraged on the homework but each individual must understand what he/she turns in and be prepared to answer questions about it in class.

Lab: The Thursday lab (8:30-10:00) time will be used primarily for extended exploration of a topic. Lab write-ups are due by class time on the following Monday.

Co-curricular Involvement: The Math, Computer Science and Physics department offers a series of discussions that appeal to a broad range of interests related to these fields of study. These co-curricular sessions will engage the community to think about ongoing research, novel applications and other issues that face our discipline. Dates and times for these sessions will be made available at a later time. In addition to in-class announcement, flyers about upcoming talks are posted on the third floor of Trexler Hall.

Members of this class are encouraged to be involved with all of these meetings; however participation in at least two of these sessions is mandatory. A response form is available in Blackboard as a Course Document. Within one week of attendance, students must submit this completed form to the instructor.
Tests/Exams: There will be four tests and a final exam. Anticipated test dates are Thursdays: Feb 5, Feb. 26, Mar. 26, and Apr. 16. Make-up tests will be given only under very extenuating circumstances that prohibit you from physically appearing in the classroom. The final exam is Wednesday April 22, 8:30-11:30.

Support: In addition to the help available to students during the instructor’s general office hours stated above, evening support is also available 7-9 pm on Tuesday and Thursday in Trexler 271. A member of the calculus teaching faculty will be available during the evening to assist Math 122 students with reading comprehension and offer problem solving guidance. This time can also be used to form calculus study groups so students of all levels of expertise are encouraged to attend.

Academic Integrity and Electronic Devices: The college policy is fully supported. All tests and will be closed book and closed notes. Group work is allowed on the homework but it must be written up individually. Collaboration is required for in-class lab work and rules regarding related outside of class work will be clearly indicated on the assignment.

Cell phones and pagers must be turned off prior to entering the classroom. In the unlikely event that you need to turn on your cell phone during class, you must have permission of the instructor to do so. Otherwise, anyone using a cell phone for any reason during class is subject to being dropped (DF) from the course.

The use of any electronic device during a quiz or exam is strictly prohibited. This includes PalmPilots, Pocket PCs, and Blackberrys. Any use of such devices during a quiz or exam will be considered a breach of academic integrity. The TI-89 calculator may be used unless specified otherwise.

Grading: Weights for the various components of the course and final course letter grade assignments are given below:

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<th>Component</th>
<th>Weight</th>
<th>A</th>
<th>B+</th>
<th>B</th>
<th>C+</th>
<th>C</th>
<th>D+</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each Test</td>
<td>15%</td>
<td>93-100</td>
<td>80-82</td>
<td>67-69</td>
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<tr>
<td>Homework/Reading</td>
<td>5%</td>
<td>90-92</td>
<td>77-79</td>
<td>63-66</td>
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<td>Lab Average</td>
<td>15%</td>
<td>87-89</td>
<td>73-76</td>
<td>60-62</td>
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<td>Final Exam</td>
<td>20%</td>
<td>83-86</td>
<td>70-72</td>
<td>below 60</td>
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Failure to complete the co-curricular component of the course will result in the lowering of the final course grade by one level. For example an A becomes an A-, and an A- becomes a B+, and so on.

Note: Material, content, and scheduling are subject to change if deemed appropriate or necessary by the instructor.