SPRING 2014  MATH 251 CALCULUS I SYLLABUS  CRN Lecture 20029/Lab 20029

Bldg 2 Room 247  TIME: Lecture  Mon, Wed 11:30 AM – 12:50 PM  CREDITS: 4  Lecture 3
TIME: Lab  Mon, Wed 1:00 PM – 2:20 PM  Lab 1

Note: On exam days, lab will be held before the exam.

INSTRUCTOR:  Jerry Kissick  Office:  Bldg 2 Room 244c
Phone  971 722–7606
e–mail  jkissick@pcc.edu
Fax  971 722–7887

OFFICE HOURS:
Mon and Wed  2:30 – 2:50 PM  Bldg 2 Room 244c
5:00 – 5:50 PM  Bldg 2 Room 244c
Wed  3:00 – 4:50 PM  Bldg 7 Room 218

COURSE TEXT:

CALCULUS, Concepts and Contexts 4th edition, by James Stewart

LAB MANUAL:
Available in the PCC bookstore or labs may be downloaded from the following address or directly from the PCC Mathematics Department Web page:

http://spot.pcc.edu/math/download.htm

Labs are not to be printed in the classroom.

PREREQUISITES:
MTH 112 or CMET 131 and placement into WR 121.

COURSE DESCRIPTION:
Develop an understanding of limits, continuity, derivatives and applications of derivatives. Students will communicate their results in oral and written form. Graphing calculator required; TI 89 , TI 92 Plus, Voyage 200 Casio Classpad 330 recommended. Technology is integrated throughout the course. Students must enroll in both a lecture and a lab section. For complete information on this course see the Course Content and Outcome Guide at:

http://www.pcc.edu/ccog/default.cfm?fa=ccog&subject=MTH&course=251

COURSE OBJECTIVES:
MTH 251 is taught in a 3 hour lecture (3 credits) and 3 hour lab (1 credit) format. You will be assigned a single grade for MTH 251. 75% of your grade will be determined based upon activities which occur during the lecture section; these activities will include testing, quizzes and unannounced group activities. 25% of your grade will be based upon lab activities; your lab score will be based upon attendance, a group project, and lab reports (which will be turned in during lecture).
While most of the material in this course will be addressed in both lecture and lab, some of the material will only be covered in lecture and some of the material will only be covered in lab. Material which is only covered in lab will be tested in the lecture section. You should plan on spending 8 to 12 hours a week outside of class working on activities related to this class. Every week you will be expected to do the following.

Work the textbook problems listed in the course schedule. These problems will not be collected! These problems have been assigned to help you practice the concepts covered in both lecture and lab. A portion of the following week’s lecture section will be spent addressing any questions which arise while you work these problems.

Work and write up the problems which were assigned during your lab section. These problems will be collected the following week during your lecture section! Stated another way, the lab report which will be collected for grading purposes in lecture section will have been assigned to you the previous week during your lab section.

Read the sections of the text which will be covered the following week. This is not an "optional" part of your homework!! All lectures and lab activities will be given under the assumption that you have done this reading.

In addition, some weeks you will need to engage in the following activities outside of class.

Learn/practice new skills on your graphing calculator.
Work on a group project assigned in your lab section.
Study for a test.

**TECHNOLOGY:**

A graphing calculator is required. The TI-89 Titanium, Voyage 200 or Casio Classpad 330 recommended. All demonstrations will be done using a Voyage 200. A Computer Algebra System (Maple) will be used to assist your work in this course. You will need to provide your own storage device. Recommend you get your own copy of Maple. See me for details. Cell phones and PDA’s may not be used as your calculator on exams.

**ATTENDANCE:**

It is important that you attend all class meetings. Class time will be spent reviewing homework problems, doing group activities, as well as lectures. Excessive absenteeism will affect your grade! If you arrive at class after attendance has been taken or if you leave class before attendance has been taken, you will be counted absent that day. Attendance will be taken in both the lecture and lab sections.
**COMMUNICATION:** You may communicate with me by any of the methods given above, but I must be able to identify that it is you communicating and not someone saying they are you. **All e-mail must be sent from your PCC e-mail account.** I am not allowed to respond to any other addresses.

**HOMEWORK:** It is very important that you complete your homework before the next class meeting. Part of the class time will be spent discussing homework problems and you will need to have read the textbook and completed the problems to participate. Homework will be checked on exam day for effort and completeness. A grade of 0, 1 or 2 will be assigned as follows: 0 if less than 50% of the problems have been attempted. 1 if 50% to 90% of the problems have been attempted and 2 if 90% to 100% of the problems have been attempted and problems have been worked from every section. **All work for problems must be shown, not just answers.** A grade of 2 is required in order to correct an exam. Homework assignments are given in the course schedule. The use of engineering or graph paper is required for all graphs.

During class time we may not have time to go over all homework problems. If your questions are not answered in class, get help in the Learning Center, come to see me during my office hours, or ask other students.

**QUIZZES:** Quizzes will be given on Wednesdays on all material covered since the previous quiz or exam. Surprise quizzes may also be given at other times.

**PROJECT:** One group project will be assigned during the term. Due date is shown in the schedule.

**EXAMS:** There will be 3 exams plus the final as indicated in the schedule. The problems will be similar to homework problems and material found in the textbook. No makeup exams will be given. Final exam score will be substituted for any missed exam. Maximum of 1 exam will be replaced in this manner. If exam will be missed, you must notify your instructor in advance with reason for missing exam. If you take all 3 exams, you may replace one of your exam scores with your final exam score if you choose to do so in writing prior to taking the final exam. **If you received a grade of 2 on your homework for that exam.** When you receive your graded test, you may correct problems for the in-class exam problems missed on one exam **if you received a grade of 2 on your homework for that exam.** The problem is to be written on another piece of paper with all calculations shown for the solution. A written explanation stating why you missed the problem on the test is required. If your correction is 100% correct, you will receive 50% of the points missed to be added to your test score.

**Note:** On exam days, lab will be held before the exam.
DIFFERENTIATION SKILLS TEST
A differentiation skills test must be passed with a 100% score in order to pass this course. The test will be given in class once and may be retaken multiple times if necessary until the required 100% score is achieved. This test does not count in the determination of the course grade other than having to be passed.

FINAL EXAM:
The final exam is a comprehensive examination.

CLASS ACTIVITIES:
This is work done in class with other students and also includes participation in class discussions and presenting homework problems to the class. No opportunity will be made available to receive credit for any in–class activity you miss due to an absence.

CELL PHONES:
All cell phones and pagers should be turned off while class is in session. If you feel you have special circumstances and need to leave your phone or pager on, it must be turned to vibrate or silent. If there is an emergency situation and you must use your phone during class time, please leave the classroom before accepting and/or conducting your call. No electronic communication with anyone else is allowed during class time. That means no text messaging, e-mailing, etc.

LAB REPORTS:
These will be from weekly assignments made at the conclusion of the last lab period each week. They are due at the beginning of the first lecture period of the following week. Lab reports must be extremely neatly written or word processed. All reports, including equations, graphs, and tables must follow the writing guidelines presented on your instructors web page. One late report will be accepted without penalty. Missing class is not an exception to this policy. If you must miss class, your report can be faxed or e–mailed to me before the time and date it is due.

WEB PAGE
Most of the documents to be used in this course may be found at the following web page (Note that this address is case sensitive.):
http://spot.pcc.edu/~jkissick/

WITHDRAWING FROM A CLASS
The following link gives all the deadlines for withdrawing from classes.
http://www.pcc.edu/registration/dropping.html
GRADING
Percentages for determination of final grade are as follows:
- Attendance: 2%
- Homework: 5%
- Classroom activities: 3%
- Quizzes: 5%
- Lab: 25%
  - Attendance: 5%
  - Project: 10%
  - Lab Reports: 10%
- Exams: 35%
- Final Exam: 25%

COURSE GRADE:
- 90 – 100% A
- 80 – 89% B
- 70 – 79% C
- 60 – 69% D
- below 60% F

EXTRA HELP: Extra help is available during the instructor’s office hours and in the Learning Center. The Learning Center is a place where you can use a computer with Maple, work with other students, and a mathematics tutor is available. The Learning Center at Rock Creek Campus is in Building 7 Room 218.

The following provide valuable information about PCC policies.

Students are required to complete this course in accordance with the Student Rights and Responsibilities Handbook. Dishonest activities such as cheating on exams and submitting or copying work done by others will result in disciplinary actions including but not limited to receiving a failing grade on that assignment. See the Academic Integrity Policy in the Students Rights and Responsibilities Handbook (link below) for further details.

http://www.pcc.edu/about/policy/student-rights/

Student Code of Conduct – In order to provide a safe learning environment all students taking courses at PCC will conduct themselves according to school policy:

www.pcc.edu/about/policy/student-rights/student-rights.pdf#code-of-student-conduct

Academic Integrity - Students are required to complete this course in accordance with the Student Rights and Responsibilities Handbook. Dishonest activities such as cheating on exams and submitting or copying work done by others will result in disciplinary actions including but not limited to receiving a failing grade. See the Academic Integrity Policy for further details.

www.pcc.edu/about/policy/student-rights/student-rights.pdf#academic-integrity
Grading Guidelines

http://www.pcc.edu/resources/academic/standards-practices/AcademicStandardsandPractices-GradingGuidelines.html

Children on PCC Properties

www.pcc.edu/about/policy/student-rights/student-rights.pdf#children

PCC is committed to supporting all students. If you have an accommodation form from the Disability Access Services (DAS), please make arrangements to meet with me privately to discuss your needs. Accommodations are not retroactive, but begin when the instructor receives the DAS Approved Academic Accommodations form from the student. To request academic accommodations due to a disability, please contact DAS using the information at the following link:

http://www.pcc.edu/resources/disability/
**SCHEDULE:** This schedule is tentative and we may go faster or slower at times and additional material may be included.

<table>
<thead>
<tr>
<th>Date</th>
<th>Before Class Read These Sections</th>
<th>In Lecture we will...</th>
<th>In Lab we will...</th>
<th>After Class Work These Problems</th>
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<tbody>
<tr>
<td>3/31</td>
<td></td>
<td>cover sections 2.1 and 2.2 Quiz</td>
<td>Rate of Change/Limits and Continuity (1-4), E1 (all)</td>
<td>Chapter 1 review. Be sure you are familiar with all the material in this chapter and in the concept check on p 80 and be sure you can work problems p 80 1 – 13, and 1 – 12 p 81 – 82 1 – 34 2.1: 1,2,3,5,7,8,9 2.2: 1,2,3,5,8,10,15,17,19,22,25,28,30</td>
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<td>4/2</td>
<td>2.1 and 2.2</td>
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<td>4/7</td>
<td>2.3, 2.4, and 2.5</td>
<td>cover sections 2.3 and 2.4 Quiz</td>
<td>Limits and Continuity (4-16) E2 (all)</td>
<td>2.3: 1,2,3,5,6,7,8,9,10,13,15,17,18,20, 21,25,27,28,32,35,38,39,41,43,46 2.4: 1,2,3,4,6,7,9,10a,10b,11,12, 13,14,15,17,18,19,23,25,26,29,31, 32,33,34,35,36,39,41,42,45 2.5: 1,2,3,4,5,7,9,11,12,13,15,16, 19,23,25,27,28,31,33,35,37,39,43, 47,51,54</td>
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<td>4/9</td>
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<td>4/14</td>
<td>2.6</td>
<td>Exam #1 sections 2.1 - 2.5</td>
<td>Introduction to the First Derivative (17-20), E3 (all)</td>
<td>2.6: 1, 2, 3, 4, 7, 10, 11, 13, 14, 15, 17, 19, 21, 22, 24, 25, 28, 32, 41, 44, 47, 48</td>
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<tr>
<td>4/21</td>
<td>2.7</td>
<td>Finish section 2.6 and cover section 2.7 Quiz</td>
<td>Functions, Derivatives, and Antiderivatives (21-24) E4.1-E4.5</td>
<td>2.7: 1, 2, 3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 19, 20, 25, 27, 28, 31, 32, 33, 35, 36, 41, 42, 43, 49</td>
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<tr>
<td>4/23</td>
<td>3.1 and 3.2</td>
<td>cover sections 2.8, 3.1 and 3.2 Quiz</td>
<td>Functions, Derivatives, and Antiderivatives (25-26) E4.6-E4.10 Project assigned</td>
<td>2.8: 1, 3, 5, 7, 8, 9, 11, 13, 15, 16, 17, 19, 21, 23, 25, 27, 28, 29, 32 3.1: 3, 5, 7, 9, 11, 13, 17, 19, 21, 23, 27, 29, 31, 33, 37, 39, 41 3.2: 3, 5, 7, 9, 11, 13, 15, 19, 21, 25, 31, 33, 35, 38, 40</td>
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<td>4/30</td>
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<td>5/5</td>
<td>3.3 and 3.4</td>
<td>cover sections 3.3 and 3.4</td>
<td>Derivative Formulas (27-37) E5 (all)</td>
<td>3.3: 1, 5, 9a, 11a, 13, 15, 17, 25, 27, 29 3.4: 1, 5, 7, 9, 11, 19, 31</td>
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<td>5/7</td>
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<td>Exam #2 sections 2.6 - 2.8</td>
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<td>5/12</td>
<td>3.5, 3.6 and 3.7</td>
<td>cover sections 3.5, 3.6, and 3.7 Quiz</td>
<td>The Chain Rule (38-41) E6 (all)</td>
<td>3.5: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 22, 25, 27, 29, 31, 35, 41, 43, 45 3.6: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 39, 40 3.7: 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 27, 29</td>
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<td>5/19</td>
<td>3.8 and 4.1</td>
<td>cover sections 3.8 and 4.1</td>
<td>Implicit Differentiation (42-43) E7 (all)</td>
<td>3.8: 1, 7, 11a, 13a, b, 15, 23, 31 4.1: 1, 2, 3, 4, 6, 12, 19, 20, 23, 26, 29, 37</td>
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<td>5/21</td>
<td>4.2 and 4.3</td>
<td>cover sections 4.2 and 4.3 Quiz and Differentiation Skills Test</td>
<td>Related Rates (44-47) E8 (all) Project due</td>
<td>4.2: 1, 4, 5, 9, 10, 11, 17, 26, 29, 35, 37, 40, 43, 45, 47, 51, 59, 61, 63, 64 4.3: 1, 2, 3, 6, 7, 9, 13, 14, 18, 19, 20, 23, 27, 30, 32, 36, 41, 49, 65, 66</td>
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<td>5/26</td>
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<td>Holiday</td>
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<td>5/28</td>
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<td>Finish 4.2 and 4.3, Review/makeup</td>
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<td>6/2</td>
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<td>Exam #3 sections 3.1-3.7 and 4.1 Review for Final Exam</td>
<td>Critical Numbers and Graphing from Formulas (48-54) E9 (all)</td>
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<tr>
<td>6/9</td>
<td>FINAL EXAM</td>
<td>NO LAB</td>
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