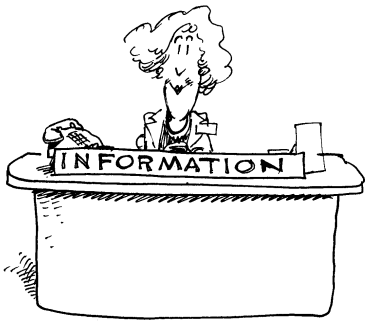
Course: MTH 251: Calculus I (4 credits)
Term and Section Number: Winter 2015, CRN 10272
Meeting Times: TTh 11:00 am – 1:50 pm
Meeting Location: SS 120
12000 SW 49th Ave.
Portland, OR 97219



Instructor: Kandace Kling
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PCC email address: kkling@pcc.edu
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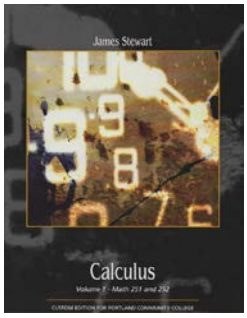
PO Box 19000
Portland, OR 97280



Office Hours
Mondays, Tuesdays, and Thursdays, 10:00 am – 10:50 am in ST 203
Wednesdays, 10:00 am – 10:50 am in the math center in the library

Required Materials
Textbook: Calculus Volume 1 – Math 251 and 252
(Taken from: Calculus Concepts & Contexts, 4th Ed *by James Stewart*)
Supplement: Lab Manual (available for purchase at bookstore or download at http://spot.pcc.edu/academ/math/download.htm)

Calculator: Graphing calculator required. TI-89 Titanium or Casio Classpad 330 recommended.
Pencil: Only work done in pencil will receive full credit. Work done in pen will be heavily penalized. This holds for all graded work, group work, tests and exams.
Multi-colored pencils for graphs: We will draw multiple lines on the same grid. You need to use different colors for the different lines.
A ruler for graphs: You must use a straight-edge to draw all lines and line segments.

Course Description
Includes limits, continuity, derivatives and applications of derivatives. Graphing calculator required. TI-89 Titanium or Casio Classpad 330 recommended. Prerequisites: MTH 112 or CMET 131; and their prerequisite requirements. Audit available.

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 and unannounced group activities. 25% of your grade will be based upon lab activities; your lab score will be based upon attendance/participation and graded homework. To receive full attendance/participation credit for lab, you must arrive on time, work on the assigned lab activities with a group and stay for the entire lab. If you arrive late or leave early, you will automatically lose half of your lab attendance/participation credit for the day.

Course Outcomes

Upon successful completion students should be able to:

- Analyze real world scenarios to recognize when derivatives and limits are appropriate, formulate problems about the scenarios, creatively model these scenarios (using technology, if appropriate) in order to solve the problems using multiple approaches, judge if the results are reasonable, and then interpret and clearly communicate the results.
- Appreciate derivatives and limit-related concepts that are encountered in the real world, understand and be able to communicate the underlying mathematics involved to help another person gain insight into the situation.
- Work with derivatives and limits in various situations and use correct mathematical terminology, notation, and symbolic processes in order to engage in work, study, and conversation on topics involving derivatives and limits with colleagues in the field of mathematics, science or engineering.
- Enjoy a life enriched by exposure to Calculus.

View the Course Content and Outcome Guide at:
http://www.pcc.edu/ccog/default.cfm?fa=ccog&subject=MTH&course=251

Grading Policy

Each week you will be given a graded work assignment in your lab. It is due at 11:00 am the following Tuesday in your lecture meeting, unless I state otherwise. Assignments not turned in by 11:00 am will be considered late and will receive a 20% point deduction. Assignments not turned in by 11:30 am **will not** be accepted for any credit.

Assignments are handed out in lab and are collected in lecture.

Neither of the late work policies is negotiable.

Homework may be FAXED or scanned and emailed.

The practice problems listed in the course schedule are never collected, but should be completed each week to gain an understanding of the course and to prepare for the tests. The primary purpose of graded homework is for you to get feedback before a test. If you just copy someone else's homework or if you ask a tutor to work all of the problems for you, the assignments will lose all of their intrinsic value and you will probably pay a price when you take a test.

Table 1: Percentage Breakdown

Test 1	15%
Test 2	17%
Test 3	20%
Final Exam	23%
Graded HW	20%
Lab Scores	5%
Total	100%

Table 2: Grade Requirements

Grade	Min. Requirement
A	90 %
B	80 %
C	70 %
D	60 %
F	
Pass	70 %
Audit	70% attendance

All exams must be taken on the scheduled date unless **prior** arrangements are made (arrangements are made to take the exam **prior** to the scheduled date). **Absolutely NO make-up exams will be given - NO EXCEPTIONS.**

Absolutely no opportunity will be made available to receive credit for any in-class activity you miss due to an absence.

Link to Portland Community College's Grading Guidelines
http://www.pcc.edu/resources/academic/standards-practices/documents/G301GradingMarch2011.pdf

Keys to Success in MTH 251

- Completion of all prerequisites before taking the course.
- Purchase and active use of all materials listed as required materials.
- Attending all lecture and lab periods and actively listening/participating during said periods.
- Spending 8 to 12 hours a week outside of class working on activities related to this class.
- Reading 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.
- Writing **all** graded homework assignments and test responses in accordance with the MTH 251 documentation guidelines.
- Turning assignments in on time. (**I will not accept late assignments** - don't ask - if you do ask, I will refer you to this document which states three times that **I will not accept late homework assignments**. ☺)
- Seeking outside help when needed.
- Completing **all** of the practice problems **every week** and asking for help on those problems which you cannot successfully complete. (I will allot *some* class-time for answering homework questions. Please seek individual help, though, if you simply want someone to find an algebra error and/or you have no idea how to attack a given section of problems. ☺)

Information about auditing, dropping, or withdrawing from the course
The college has very tight deadlines for auditing, dropping, or withdrawing from a course. For example, during most terms the paperwork to audit a course must be signed and submitted by the end of the first week of the term. Similarly, to receive a refund for a class a drop must be completed the first week of the term. These time frames are even shorter for some summer term courses. In all cases, it is 100% the student's responsibility to process the change in registration status by the due date and time. Term specific information for these deadlines is available at: http://www.pcc.edu/registration/dropping.html

Deadlines
Friday of week **one**.....last day to drop with full refund
Friday of week **one**.....last day to withdraw without 'W' on transcripts
Friday of week **one**.....last day to designate "Audit" option for a course
Friday of week **eight** .....last day to withdraw
Friday of week **eight** .....last day to designate "Pass/No Pass" option for a course

Flexibility Statement
The instructor reserves the right to modify course content and/or substitute assignments and learning activities in response to institutional, weather or class situations.

School Closures
In the unlikely event the college is closed on the day of an exam, graded in-class activity, or graded work due date, the exam/activity/work due date will be the following class period unless otherwise informed by instructor via MyPCC email.

Policies regarding Cell Phones and Other Electronic Devices
Your cell phone must be in some sort of "silent mode" while you are in the classroom. You may not read or send text messages while class is in session. If there is an unusual situation where you simply must be able to read and/or send a message without delay, have your phone in vibrate mode and leave the room before reading and/or responding to the message. No other electronic devices (other than calculators) may be used during class without the express permission of the instructor. Neither cell phones nor mobile devices may be used during exams.

ADA Statement
Students who have a documented disability and require a classroom adjustment or accommodation should contact Disability Services [http://www.pcc.edu/resources/disability] and provide the Approved Academic Accommodations letter to the Instructor.

Academic Integrity Statement
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 Student Rights and Responsibilities Handbook to read the college's Academic Integrity Policy.

Link to Portland Community College's Student Rights and Responsibilities Handbook
http://www.pcc.edu/about/policy/student-rights/student-rights.pdf

Email communications
Because of federal privacy laws, all email communications related to this class need to be sent from and to your PCC email address. You may access your PCC email via MyPCC. Please visit me during my office hours if you are unfamiliar with MyPCC.

PCC's policies on discrimination and harassment
The College's goal is to provide an atmosphere that encourages individuals to realize their potential. Therefore, it is against the College's policy for any manager, supervisor, faculty, staff, or student to engage in harassment or discrimination of any member of the College community based on his/her race, color, religion, national origin, age, sex, marital status, veteran status, height/weight ratio, physical or mental disability, sexual orientation, creed, organizational affiliation, or political affiliation.

For more information and/or if you feel these policies have been violated please visit:

http://www.pcc.edu/about/affirmative-action/nonharassment.html

Course Evaluations
Near the end of the term, students are encouraged to complete course evaluations by answering on-line questions about the class and the instructor. You will receive a PCC email notification when the

evaluations become available. You are strongly encouraged to complete the evaluations to provide me feedback on the course and my teaching.

Resources For Students:

I have regularly scheduled office hours; other times may be arranged by appointment. You may see me for help with homework and calculator questions. You may not see me for an "individualized" lecture over material you missed during a scheduled class. If you want information about activities which happened during a class you missed, you need to (kindly) ask a fellow (willing) student.

- **Student Computing Center** (SY Library, 971-722-4325)
  - internet access, mathematics computer programs
  Visit the following address for more information

  http://www.pcc.edu/resources/computer-labs/

  Among other services, you have been allocated 100 double-sided pages of free printing for the term. Visit the following address for more information on printing services.

  http://www.pcc.edu/resources/printing/

- **Multicultural Center** (SY CC 202, 971-722-4112)
  - one-on-one help for math courses, drop-in or by appointment

  http://www.pcc.edu/resources/culture/

- **Student Learning Center** (SY Library, 971-722-4540)
  - district-wide tutoring information (including hours) can be found at

  http://www.pcc.edu/resources/tutoring/

- **College Success Courses**
  There are several one credit courses available to help you find maximum success in your college experience. These include courses specifically geared to study skills. The following site offers information on these courses as well as on-line tips for success at PCC.

  http://www.pcc.edu/resources/panther-tracks/college-success/study-skills.html

- **Calculator Handbooks**
  Revised handbooks for TI-89, TI-Voyage 200, and the Casio ClassPad 330 are available for download at http://spot.pcc.edu/academ/math/download.htm

Your best resource is your fellow students. You will be given ample opportunity to work with your fellow students in both lecture and lab; most students who extend these relationships outside of the classroom find that it enhances their learning of the material.

Week of	Before Class Read These Sections	In Lecture we will...	In Lab we will...	After Class Work These Problems (For practice only!!) Do not turn these in!!!!!
Jan. 5	2.1-2.2	cover sections 2.1 and 2.2	work on writing mathematics properly finding limits from tables and graphs	Chapter 1 Review Exercises p. 84 (1 – 19 odd, 23 - 29 odd) 2.1: 1-9odd 2.2: 1-27odd Lab Manual – Supplementary E1
Jan. 12	2.3-2.5	cover sections 2.3 – 2.5	cover sections 2.3 – 2.5	2.3: 1-23 odd, 35,37, 39, 48 2.4:3-15odd,19,23,33,35,37a,b,39,41 2.5: 1-41odd,47,49,50 Lab Manual – Supplementary E2
Jan. 19	2.6	cover section 2.6 **TEST** sections 2.1 - 2.5 on Thursday	cover section 2.6	2.6: 1-33odd, 37-49odd Lab Manual – Supplementary E3
Jan. 26	2.7	cover sections 2.6 and 2.7	cover sections 2.6 and 2.7	2.7: 1-31odd,35,37,41,43,45 Lab Manual – Supplementary E3
Feb. 2	2.8	cover section 2.8	cover section 2.8	2.8: 1 - 31 odd Lab Manual – Supplementary E4
Feb. 9	3.1, 3.2, 3.3	cover sections 3.1,3.2,3.3 **TEST** sections 2.6-2.8 on Thursday	cover sections 3.1,3.2,3.3	3.1: 3-27odd,31-53odd,55-65odd 3.2: 1-47odd,51,52,53,59 3.3: 1-33odd,39,47 Lab Manual – Supplementary E5
Feb. 16	3.4, 3.5, 3.7	cover sections 3.4, 3.6, and 3.7	cover sections 3.4, 3.6, and 3.7	3.4: 1 - 63 odd,67 3.6: 1-39 odd 3.7: 3-31 odd Lab Manual – Supplementary E6
Feb. 23	3.6 and 4.1	cover sections 3.5, 3.8, and 4.1	cover sections 3.5, 3.8 & 4.1	3.5: 3-29odd,53 3.8: 1-11odd,15,21,29,31 4.1: 1-13odd,14,15-33odd,37,39 Lab Manual – Supplementary E7&8
Mar. 2	4.2 and 4.3	cover sections 4.2 and 4.3 **TEST** sections 3.1-3.8 and 4.1 on Wednesday	cover sections 4.2 and 4.3	4.2: 1,4,5-39odd 4.3: 2,3-15odd Lab Manual – Supplementary E9
Mar. 9		cover section 4.3 review	cover section 4.3	4.3: 19-41odd,49 STUDY ☺ Lab Manual – Supplementary E9
Mar. 16	STUDY ☺	Comprehensive **FINAL EXAM** **Tuesday, March 17** **11:00 – 12:50**	**NO LAB**	

MTH 251
Documentation Guidelines

All work in this course will be evaluated for presentation, process and mathematical correctness. Examples in class always follow formats that will earn you full credit provided that your mathematics is totally correct. Examples typed into the lab always follow formats that will earn you full credit provided that your mathematics is totally correct. If you take complete and accurate notes, then your notes serve as a guidebook for how your work should be presented and for what amount of work you are expected to show. Consult the writing guidelines below for further clarity. Papers which are submitted that show no attempt to meet the writing objectives will receive a score of 0!

1. Every solution must be written in such a way that the question that was asked is clear simply by reading the submitted solution.
2. Any table or graph that appears in the original problem *must* also appear somewhere in your solution.
3. All graphs that appear in your solution *must* contain axis names and scales. All graphs must be accompanied by a figure number and caption. When the graph is referenced in your written work, the reference must be by figure number. Additionally, graphs for applied problems must have units on each axis and the explicit meaning of each axis must be self-apparent either by the axis names or by the figure caption.
4. All tables that appear in your solution *must* have well defined column headings as well as an assigned table number accompanied by a brief caption (description). When the table is referenced in your written work, the reference must be by table number.
5. A brief introduction to the problem is almost always appropriate.
6. In applied problems, all variables and constants must be defined.
7. If you used the graph or table feature of your calculator in the problem solving process, you must include the graph or table in your written solution.
8. If you used some other non-trivial feature of your calculator (e.g., SOLVER), you must state this in your solution.
9. All (relevant) information given in the problem must be stated somewhere in your solution.
10. A sentence that orients the reader to the purpose of the mathematics should usually precede symbol pushing.
11. Your conclusion shall not be encased in a box, but rather stated at the end of your solution in complete sentence form. You do not need to write a sentence for a simply algebraic (symbol pushing) problem. However, do not write your answer in a box. I look at all of your work for mathematical correctness, not just the final answer.
12. Remember to line up your equal signs. ☺
13. If work is word-processed all mathematical symbols must be generated with a math equation editor.