Text We will be using University Calculus, (First Edition), by Hass, Weir \& Thomas as our primary textbook. The bookstore is also stocking an optional text, Just-in-time Algebra and Trig for Early Transcendentals by Mueller for those needing a review of high school algebra or trigonometry.

I will also be referencing an open content (i.e. free) text, Whitman Calculus, by David Guichard of Whitman College. Look for a link on the course web page, along with links to other free texts.

Home Page Start at http://buzzard.ups.edu/courses.html to locate course information.
Office Hours My office is in Thompson 303; the telephone number is 879-3564. Making appointments or simple, non-mathematical questions can be handled via electronic mail - my address is beezer@ups.edu. Office Hours are 2:00-2:50 on Monday, Tuesday, Thursday and Friday. You may make an appointment for other times, or just drop by my office. Office hours are your opportunity to receive extra help or clarification on material from class, or to discuss any other aspect of the course.

Homework Problems will be assigned from each section covered, and collected at the start of the next class session. Of course, you are not limited to working just these problems.

It is your responsibility to be certain that you are learning from these exercises. The best ways to do this are to work the problems diligently when assigned and to participate in the classroom discussions. If you are unsure about a problem, then a visit to my office is in order. Making a consistent effort outside of the classroom is the easiest way to do well in this course.

Mathematics not only demands straight thinking, it grants the student the satisfaction of knowing when he [or she] is thinking straight.

- D. Jackson

Mathematics is not a spectator sport.

- Anonymous

I hear, I forget.
I see, I remember.
I do, I understand.

- Chinese Proverb

An education is not received. It is achieved.

- Anonymous

Computations You may use a calculator or a computer program as you work homework problems, however exams will be designed so as to not require a calculator (and therefore will not be allowed). At a few points in the course, a graphing calculator or a laptop for connecting to Sage will be useful.

Exams There will be seven 50-minute timed exams - they are all listed on the tentative schedule. The lowest of your seven exam scores will be dropped. The comprehensive final exam will be given on Friday, December 16 at Noon. The final exam cannot be given at any other time and also be aware that I will allow you to work longer on the final exam than just the two-hour scheduled block of time. In other words, plan your travel arrangements accordingly.

Grades Grades will be based on the following breakdown: Exams - 70\%; Final - 30\%. Homework, attendance and improvement will be considered for borderline grades. Scores will be posted anonymously at http://buzzard.ups.edu/courses.html.

Reminders Three reminders about university policies contained in the Academic Handbook. These are described thoroughly online, or a printed copy may be requested from the Registrar's Office (basement of Jones Hall).
"Regular class attendance is expected of all students. When non-attendance is in the instructors judgment excessive, the instructor may levy a grade penalty or may direct the Registrar to drop the student from the course." See
http://www.pugetsound.edu/student-life/student-resources/student-handbook/ academic-handbook/registration-for-courses-of-in/\#Attendance.

Withdrawal grades are often misunderstood. A Withdrawal grade (W) can only be given during the third through sixth weeks of the semester, after that time (barring unusual circumstances), the appropriate grade is a Withdrawal Failing (WF), even if your work has been of passing quality. See the attached schedule for the last day to drop with an automatic 'W'. See
http://www.pugetsound.edu/student-life/student-resources/student-handbook/ academic-handbook/grade-information-and-policy/\#withdrawal.

All of your graded work is expected to be entirely your own work. Anything to the contrary is a violation of the university's comprehensive policy on Academic Integrity (cheating and plagiarism). Discovered incidents will be handled strictly, in accordance with this policy. Penalties can include failing the course and range up to being expelled from the university. See
http://www.pugetsound.edu/student-life/student-resources/student-handbook/ academic-handbook/academic-integrity/.

Attendance Daily attendance is required, expected, and overall a pretty good idea. Thus I expect your attendance and I expect you to arrive to class in time to be prepared at the start of the hour. To this end, I will take track attendance and late-arrivals. If you arrive late to class, you will want to check with me afterwards to be sue I have not recorded you as absent. If attendance becomes a problem in your case, I will give you a warning before imposing a grade penalty.

Purpose One of the goals of your college education is to progress to becoming an independent scholar. To this end, you will be given a great deal of freedom in how you choose to learn calculus. Of course, with freedom comes responsibility. Read the book before the lectures, work the exercises diligently, tidy up your class notes each evening, and ask questions. Arriving late to class, or having conversations with others during class, not only disrupts your peers, but tells me you are not serious about your education. Our class is small enough that I will notice when you are not here, and again this will be another way that you signal me about your commitment to the endeavor.

Calculus is one of the most amazing intellectual developments of the past several hundred years and is responsible in large part for many of the advances in science and engineering that we take for granted today. Your commitment to this course will be rewarded, and your inattention will be a waste of your tuition and your time.

## Tentative Daily Schedule

| Monday | Tuesday | Thursday | Friday |
| :---: | :---: | :---: | :---: |
| Aug 29 <br> Syllabus <br> Section 1.1 | Aug 30 <br> Section 1.2 | Sep 1 <br> Section 2.1 | Sep 2 <br> Section 2.2 |
| Sep 5 <br> Labor Day <br> Holiday | Sep 6 <br> Section 2.3 | Sep 8 <br> Discussion | Sep 9 <br> Exam 1 |
| Sep 12 <br> Section 1.3 | Sep 13 <br> Section 2.4 | Sep 15 <br> Section 2.5 | Sep 16 <br> Section 2.6 |
| Sep 19 <br> Section 2.7 | Sep 20 <br> Discussion | Sep 22 <br> Exam 2 | Sep 23 <br> Section 1.4 |
| Sep 26 <br> Section 3.1 | Sep 27 <br> Section 3.2 | Sep 29 <br> Section 3.3 | Sep 30 <br> Section 3.4 |
| Oct 3 <br> Section 3.5 | Oct 4 <br> Section 3.5 | Oct 6 <br> Discussion | Oct 7 <br> Exam 3 |
| Oct 10 <br> Section 1.5 <br> Last day to drop | Oct 11 <br> Section 3.6 | Oct 13 <br> Section 3.7 | Oct 14 <br> Section 3.8 |

Midterm
Monday Tuesday Thursday Friday

Oct 17
Fall Break

Oct 24
Section 3.11

Oct 31
Section 4.1
Nov 1
Section 4.2
Oct 25
Section 3.10
Oct 18
Fall Break
Oct 20
Section 3.9

Oct 27
Discussion
Oct 28
Exam 4

Nov 7
Discussion

Nov 14
Section 4.6
Nov 15
Section 4.7

Nov 22
Section 5.1
Nov 24
Thanksgiving
Holiday

Dec 1
Section 5.4
Section 5.3

Nov 3
Section 4.3

Nov 10
Section 4.5

Nov 17
Section 4.8

Nov 21
Exam 6

Nov 28
Section 5.2

Dec 5
Exam 7

Dec 6
Housekeeping Snow Day

Nov 18
Discussion

Dec 2
Discussion
Nov 11
Section 4.5

Nov 25
Thanksgiving
Holiday

## Final Examination

Friday, December 16 at Noon

| Section | Page | Exercises |
| :---: | :---: | :---: |
| 1.1 | 11 | 5, 15, 20, 55, 58 |
| 1.2 | 20 | 10, 17, 21, 22, 56, 57 |
| 2.1 | 61 | 1-4, 7, 9, 11, 15, 17 |
| 2.2 | 71 | 71, 78, 79, 3, 4, 14, 20, 28, 50, 61, 65 |
| 2.3 | 80 | 7, 10, 15, 16, 25, 26, 37, 38 |
| 1.3 | 28 | $4,6,9,13,14,25,33,35,39,41,60 \mathrm{ab}$ |
| 2.4 | 94 | 3, 6, 9, 22, 29, 47, 55, 57 |
| 2.5 | 102 | 4, 8, 17, 21, 30, 31, 36, 37, 40, 41, 61 |
| 2.6 | 113 | $5-10,15,18,20,35,36,41,46,47$ |
| 2.7 | 118 | $5,8,9,13,18,28,29$ |
| 1.4 | 35 | 2, 9, 25, 28, 29, 30, 31, 33, 34 |
| 3.1 | 132 | 1, 4, 9, 15, 23, 27-30, 33, 39, 40 |
| 3.2 | 144 | 1, 3, 7, ..,46 (by 3's), 50, 51, 54 |
| 3.3 | 153 | 7, 10, 13, 15, 17, 23, 24, 28 |
| 3.4 | 162 | 1-29 odd, 31, 36, 41, 48, 49 |
| 3.5 | 173 | $2,5,11,16,19,24-72$ by 3's, 78, 109, 110 |
| 1.5 | 47 | 10, 16, 25, 28, 31, 45, 51, 52 |
| 3.6 | 181 | 1-13 odd, 21, 24, 28, 39, 44 |
| 3.7 | 192 | 13-40 by 3 's, $51,52,57,61,67-88$ by 3's |
| 3.8 | 199 | 21-41 odd, 48, 65 |
| 3.9 | 205 | 13, 14, 16, 17, 19, 24, 33 |
| 3.10 | 218 | 5, 11, 12, 17, 27, 31, 40, 43, 45, 48, 54 |
| 3.11 | 225 | 2, 8, 11b, 13-35 odd, 45 |
| 4.1 | 243 | $1,3,5,7,9,17,18,19,20,29,30,31,39,47,57,58$ |
| 4.2 | 251 | 1, 3, 5, 23, 24, 29, 48, 53, 55 |
| 4.3 | 258 | 1, 3, 5, 7, 11, 19, 29, 32, 37, 43 |
| 4.4 | 267 | $1,3,13,15,25,27,29,33,35,42$ |
| 4.5 | 276 | 8, 11, 15, 20, 22, 25 |
| 4.7 | 294 | 2, 3, 6, 10, 18 |
| 4.6 | 289 | 4, 5, 13, 18, 21, 29, 37, 46, 58, 66 |
| 4.8 | 302 | 27-69 by 3's, 92, 93, 119 |
| 5.1 | 322 | 2, 3, 6, 10, 11 |
| 5.2 | 331 | 7, 8, 13, 14, 19, 36, 37 |
| 5.3 | 341 | $9,10,15,16,17,18,39,42,45,47,59$ |
| 5.4 | 345 | $3-33$ by 3's, 41, 42, 52, 53 |

