Winter ’15  Math 152  Calculus II - Hybrid

Instructor:  Dr. James Howell  Phone:  475-7716
Office:  Sci-Tech 117  Email:  jhowell@olympic.edu
Office Hrs:  M: 1:20 - 3:20pm  Web:  http://faculty.olympic.edu/jhowell
W: 9:30 - 11:00am
By Appointment
Classroom:  ST-149  Times:  T,Th: 5-6:05pm

Text:  Calculus (Early Transcendentals), (2nd edition) by Briggs, Cochran, Gillet.

Required Materials:  A willingness to work hard, graph paper, patience.

Prerequisite:  Math 151 (formerly Math 124), or its equivalent with a grade of C (2.0) or better, or satisfactory placement test score.

Course Description:  It includes the study of the Fundamental Theorem of Calculus, definite integrals, techniques of integration, numerical approximations, application of integration. Linear and non-linear differential equations are studied along with growth and decay applications. To be successful in this course, you will need to understand limits and derivatives, be able to calculate derivatives of polynomials, trig functions, exponential and logarithmic functions, and use the product, quotient and chain rules. Also, be proficient with algebra and trigonometric identities.

Course Objectives:  Upon completion of Math 152, students will be able to:

1. Find and evaluate anti-derivatives and definite integrals graphically, numerically, and analytically;
2. Apply the definite integrals to problems from geometry and physics;
3. Make inferences and generalizations about solutions to differential equations by observing changes in the solution under changing conditions;
4. Use differential equations to model various real-world relevant processes;
5. Write precisely about the meaning of differential equations and integrals from the point of view of rates of change, graphical interpretations and physical applications;
6. Demonstrate a conceptual understanding of The Fundamental Theorem of Calculus;
7. Compare convergence rates and approximation errors for various numerical integration techniques.

Course Outline:  We will cover chapter 5 thru chapter 7 with minor omission, plus the appendix on Differential Equations.

Reading:  You will find it helpful if you have read the material the night before (or earlier). This is a hard habit to get into (and keep), but is well worthwhile. It does not matter if you do not understand all or some of the reading - simply exposing yourself to the text and concepts is very valuable. MyMathLab has an electronic interactive textbook which will be very conducive to student learning.

Schedule:  Please see the schedule on-line. Please be aware that quizzes, projects and exams are subject to change at the discretion of the professor.

Inclement Weather:  If the weather permits you from attending school, chances are I am in the same position. Check the main Olympic College website or call the main operator at (792-6050) to check the status of classes. You may also call my office.

Learning Disabilities/Special Needs and Requests:  If you have a learning disability or any other special needs or requests please make an appointment with me, as soon an possible, so we can discuss any assistance that would be helpful.

Learning Resources:  Free tutoring is available in the Math Study Center (ST-126) Mon-Thurs (8-7pm), Fri (8-5pm) & Sat (10-3pm). You may also come to my posted office hours or drop by and check to see if my door is open, or make an appointment in advance. Best of all, I would encourage you to find a group to collaborate with outside of class.
Assessment:

1. **Homework** - This is an integral part to one's success in mathematics. A set of homework problems will be graded using the online homework system referenced below. If you do not keep up with the daily homework on a regular basis, you should not expect to do well in this course.

   An online homework system at www.pearsonmylab.com has been setup using the MyMathLab webplatform. The courseid for this course is howell81446

2. **Project(s)** - Guidelines for these assignments will be given at a later date.

3. **Quizzes** - The online quizzes will closely resemble those problems from the suggested homework. You will have two chances to get the best score possible.

4. **Exams** - There will be Two in-class exams during the term each with a take-home portion; and a Comprehensive Final Exam.

Policies:

- Attendance is highly encouraged, but **NOT** mandatory. Be warned, however, that should you miss a class, you will be held responsible for all the material and work done during your absence. **Ignorance will not be admitted as an excuse for missed work.**
- Class conduct is governed by the Olympic College Student Conduct Code (by contract upon enrollment). Its substance is mostly common courtesy and common sense.
- If you MUST miss a QUIZ/EXAM, you will need to make prior arrangements or leave a message in case of unexpected illness or emergency. If you do not call, or it the earliest reasonable opportunity to make-up the exam has passed, you will (probably) not be allowed to make it up.
- Students are **RESPONSIBLE** for material covered in class whether or not it is in the text.
- Students are **RESPONSIBLE** for material covered in the text whether or not it is discussed in class.
- Graded assignments, such as the Projects or take-home portions of exams, are due at the beginning of class or at the designated time. Any late work will be penalized 10% per day. No work will be accepted after graded assignments are handed back.
- All work is to be completed in PENCIL, however (Projects must be typed).
- It is important that your work be organized and easy to follow.

Grading Policy:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>32%</td>
<td>Exam 1 &amp; Exam 2</td>
</tr>
<tr>
<td>18%</td>
<td>Quizzes</td>
</tr>
<tr>
<td>10%</td>
<td>Online Homework</td>
</tr>
<tr>
<td>27%</td>
<td>Comprehensive Final Exam</td>
</tr>
<tr>
<td>13%</td>
<td>Project(s) &amp; Take Home work</td>
</tr>
</tbody>
</table>

Decimal Grade points are calculated using the following piecewise functions where $x$ represents the percentage for the course:

$$G(x) = \begin{cases} 
3.9 - 4.0 & x \geq 94 \\
0.1 \text{int}(72.90411 \ln(x) - 291.79845) & 60 \leq x < 94 \\
0.0 & x < 60 
\end{cases}$$

No grade points will be given except those listed above. Students who quit coming to class and do not officially withdraw through the registration office will receive an "F" (0.0) for the course. **I do not assign "WP" or "WF" grades. The last day to drop and receive a "W" is Wednesday February 18, 2015.**

Final Exam: Mark your calendar for your final exam, NO EXCEPTIONS!!!

Hybrid Night Class will meet - Tuesday March 17, 2015 from 5:30 - 7:30pm

These times are set by the college and are **not** subject to change.

**DO NOT FALL BEHIND!!!** It is very difficult to catch up. Catch up work never represents your best efforts. Remember: **If going to college is worth anything to you, it deserves your best effort.**

Disclaimer: Please be aware that certain aspects of the course may be modified in order to meet the needs of the class. You are responsible for knowing about all announcements, changes in the syllabi, exam, etc. made in class.

You will leave this course having learned a lot, and hopefully having had fun learning it despite the work it entailed!!!