M – F: 8 – 8:50am Item #6330 in 17-106	**Math 125: Calculus II** **Spring 2009**	M – F: 10 – 10:50am Item #6332 in 17-106

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Course Description: Second quarter in the calculus of functions of a single variable. Emphasizes integral calculus. Emphasizes applications and problem solving using the tools of calculus.

Course Objectives: *The student will be able to …*

- Apply the definition of the Riemann Integral
- Evaluate definite, indefinite, and improper integrals.
- Approximate integrals.
- Apply the Fundamental Theorem of Calculus to compute areas.
- Calculate areas, volumes, and other physical applications.
- Solve basic differential equations.

Text: *Calculus, Early Transcendentals* (**6th ed**.), by James Stewart. Bring the book to class!

Prerequisite: Math 124 with a minimum grade of 1.7.

Calculators: A graphing calculator is required for this course.

i. The TI-83/4 family of calculators is recommended. The use of symbolic calculators such as the TI-89 will not be allowed during exams. Furthermore, the use of all calculators may be prohibited during some exams (forewarning will be given).
ii. Very limited class time will be spent explaining the use of calculators.
iii. Calculators may be rented from the math department on a first come first serve basis.

Homework: Homework will be given assigned and graded through Enhanced WebAssign.

i. The website is: https://www.webassign.net/login.html
ii. Use the following login information:
   - Username: Your student ID number, e.g., "880-12-3456"
   - Institution: "highline.cc.wa"
   - Password: "mathematics" which should be changed after you log in.
iii. You will have multiple attempts to solve problems, but must complete assignments in a timely manner to receive credit.
iv. The first assignments are due on Friday of the first week.

Tests: There will be three tests given during the quarter.

i. The exams will be cumulative, but will emphasize the material covered since the last test.
ii. If you miss a test, a score of 0% will be assigned. All tests must be taken during the scheduled class time. *No make-up tests*.
iii. Spoken and written communication as well as sharing of calculators during exams is prohibited.

Final Exam: A comprehensive final exam will be held in the regular class meeting room. See the quarterly class schedule for dates and times. The final exam is mandatory and a grade of 0.0 may be assigned at the instructor's discretion to those who fail to take the final exam.

Grading: Homework: 10%, Exams: 60%, Final Exam: 30%. GPA's will be given according to:

95-100%	4.0	**%%%**	**GPA**	**%%%**	**GPA**	**%%%**	**GPA**	**%%%**	**GPA**
93-4%	3.9	81%	3.1	73%	2.3	65%	1.5	57%	0.7
91-2%	3.8	80%	3.0	72%	2.2	64%	1.4	56%	0.6
89-90%	3.7	79%	2.9	71%	2.1	63%	1.3	55%	0.5
87-8%	3.6	78%	2.8	70%	2.0	62%	1.2	54%	0.4
85-6%	3.5	77%	2.7	69%	1.9	61%	1.1	53%	0.3
84%	3.4	76%	2.6	68%	1.8	60%	1.0	52%	0.2
83%	3.3	75%	2.5	67%	1.7	59%	0.9	51%	0.1
82%	3.2	74%	2.4	66%	1.6	58%	0.8	0-50%	0.0

Policies and Notes:

i. **Attendance**: You are responsible for all material covered in class including all announced changes to the schedule and assigned course work. (If you miss class, *you* are still responsible for everything in class).

ii. **Cell Phones**: The use of cell phones, pagers, and palm pilots in class is strictly prohibited. Failure to comply may result in your removal from the classroom.

iii. **Corrections**: Changes and corrections to grading must take place during the week following the original distribution of the graded material. It is your responsibility to confirm accurate grading and bring it to my attention in a timely fashion.

iv. **Math Resource Center**: Cost-free individual and group mathematics tutoring is available at the *Tutoring Center*. The *Tutor Center* is located in building 26, room 319. Their hours may be found at: http://flightline.highline.edu/tutoring/

v. **Academic Dishonesty**: Cheating, plagiarism, and other forms of academic dishonesty are unacceptable at Highline Community College and may result in lower grades and/or disciplinary action. It is both your right and responsibility to be familiar with the document entitled: Student Rights and Responsibilities code WAC 132I-1210 adopted by the Board of Trustees of Community College District 9 on December 13, 2007. This is available in the counseling center.

vi. **Special Concerns**: If you have any special concerns about this class, please talk to me personally in my office. The more I know about you individually, the more I can help you be successful in this course. If you need course adaptations or accommodations because of dis-Ability; if you have emergency medical information to share with me; or if you need special arrangements in case the building must be evacuated, please provide me with the Letter of Accommodation you have received from the Office of Access Services. Access Services is located in Building 6 in the Student Development Center.

vii. **Emergency Procedures**: In the event of an emergency, follow your instructor's directions. If you are told to evacuate the building, take your valuables because you may not be allowed to re-enter. Do not leave campus until your instructor or another campus official tells you to do so. If you may need assistance evacuating, notify your instructor today. To prepare yourself for an emergency, review the evacuation map on the last page of the emergency placard in your classroom and subscribe to HCC Alert, a text message service for emergencies (https://bob.highline.edu/hccalerts/).

viii. **Important Dates**: The last day to drop without incurring a "W" and the last day to officially withdraw with a "W" are listed in the quarterly.

Date		Sec.	Topic	Important Dates	HW Due
3/30	Mon	5.1	Areas and Distance		
3/31	Tue	5.1&2	Areas and Distance		
4/1	Wed	5.2	The Definite Integral		
4/2	Thu	5.2&3	The Definite Integral		
4/3	Fri		Intro to Enganced WebAssign		
4/6	Mon	5.3	Fundamental Theorem of Calculus		5.1 and 5.2
4/7	Tue	5.3	Fundamental Theorem of Calculus		
4/8	Wed	5.4	Indefinite Integrals		
4/9	Thu	5.5	Substitution		5.3
4/10	Fri	6.1	Areas and Distance		5.4
4/13	Mon	6.2	Volumes		5.5
4/14	Tue	6.2	Volumes		6.1
4/15	Wed	6.3	Volumes by Cylindrical Shells		
4/16	Thu		Questions and Review		6.2
4/17	Fri	6.4	Work		6.3
4/20	Mon	6.4	Work		
4/21	Tue	6.5	Average Value of a Function		
4/22	Wed		*Review*		
4/23	Thu		**Test 1**		6.4 and 6.5
4/24	Fri	7.1	Integration by Parts		
4/27	Mon	7.1	Integration by Parts		
4/28	Tue	7.2	Trigonometric Integrals		
4/29	Wed	7.3	Trig Substitution		7.1
4/30	Thu	7.3	Trig Substitution		7.2
5/1	Fri		Group Work - Find the Error		
5/4	Mon	7.4	Partial Fractions		7.3
5/5	Tue	7.4	Partial Fractions		
5/6	Wed	7.5	Jeopardy		
5/7	Thu	7.5	Double Jeopardy		7.4
5/8	Fri	7.6	Integration using tables (no homework)	**Test 2** assigned	
5/11	Mon	7.7	Numerical Integration	**Test 2** due at the start of class	
5/12	Tue	7.7	Numerical Integration		
5/13	Wed	7.8	Improper Integrals		
5/14	Thu	7.8	Improper Integrals		7.7
5/15	Fri	7.8	Improper Integrals and intuition		
5/18	Mon	8.1	Arclength		
5/19	Tue	8.1	Arclength		7.8
5/20	Wed	8.2	Area of a Surface of Revolution		
5/21	Thu	8.2	Gabriel's Trumpet		8.1
5/22	Fri	8.3	Applications to Physics and Engineering		8.2
5/25	Mon		Memorial Day - class optional		
5/26	Tue	8.3	Applications to Physics and Engineering		
5/27	Wed	8.3	Applications to Physics and Engineering		
5/28	Thu		*Review*		
5/29	Fri		**Test 3**		8.3
6/1	Mon	9.1	Modeling with Differential Equations		
6/2	Tue	9.3	Separable Equations		
6/3	Wed	9.4	Exponential Growth and Decay		9.1
6/4	Thu	9.4	Exponential Growth and Decay		9.3
6/5	Fri		*Review*		
6/8	Mon		**Finals begin**		9.4
6/9	Tue		**See quarterly for scheduled times**		
6/10	Wed				

Subject to change