



Differential Calculus

MTH 251 Spring 2014 CRN 40378

Class Times: M-F 9:00-9:50

Class Location: WOH-128

Instructor: Mike Storrs

Office: Math Help Desk

Office Hours: TBA

Email: storrs@linnbenton.edu

Course Description: This course is the first course in the calculus sequence for students majoring in the fields of mathematics, computer science, science or engineering. Topics we will cover will include functions and their characteristics; limits; continuity; tangent lines; rates of change; differentiation of polynomial, exponential, logarithmic and trigonometric functions; related rates; optimization; curve sketching; and antidifferentiation.

Prerequisites: MTH 111 – College Algebra and MTH 112 – Trigonometry

Required materials:

- *Calculus: Early Transcendentals*. James Stewart, Seventh ed.
- A graphing calculator (I will be using a TI-84)
- Regular, reliable internet access for completing online homework assignments
- Notebook for homework. You will need graph paper/sticky notes or engineering paper

Optional materials:

- *Graphing Calculator Manual*, by Dennis Pence
- *Student Solutions Manual*

Grading: Your grades will be approximately based on the following:

Homework	20%
Quizzes/Class Work/Projects	18%
Two Tests (15% each)	30%
Proficiency Test	7%
Final Exam	25%

Scale: 90%-100% A

80%- 89%	B
70%- 79%	C
60%- 69%	D
0 – 59%	F

No Y or WP grades will be given in this class.

A grade of Incomplete may be assigned at the discretion of the instructor under special circumstances. The student must have completed the majority of the course, been in regular attendance and passing the course prior to the “special circumstance.”

Homework: WeBWork is an online homework tool that we will use in Math 251. Each assignment will be available for a given length of time and you must complete the assignment and enter your answers online by the deadline date and time. If you find that you need an extension on the due date, contact me **before the solutions become available** (at 9am the following day.) There is a link to WeBWork on my [instructor website](#).

URL: http://webwork.linnbenton.edu/webwork2/LB_Math251_Storrs/
Login: Your school ID number (X00... or 931.....) Be sure to use a capital “X”
Password: changeme (all lowercase)

For each assignment, you can print out a hard copy (PDF) to use anywhere. Once you have completed the problems, return to the website and enter your answers. For regular homework assignments, WebWork will allow you to re-enter answers as many times as you like prior to the close of the assignment. WebWork accepts answers very similarly to a TI-84 calculator. Your first assignment is an orientation where you will practice using WebWork. You will need to **enter a valid e-mail address after you login.**

Important Note: WeBWork will take the place of traditional textbook homework. These problems are carefully selected to be the bulk of your learning Calculus. Occasionally, additional problems may be assigned from the textbook.

WeBWork Homework Expectations:

You are expected to keep a notebook of loose leaf paper (preferably engineering paper or blank paper) for your WeBWork assignments. **You are expected to work through each problem of the assignment and then write up neat, readable solutions for your notebook. Include the original problem unless it is a lengthy word problem.**

Hand-Graded Assignments – “Write-Ups”: I will collect a selected few problems from WeBWork, so always bring your notebook to class. They will be graded based on correctness, but more so on **presentation, readability and the communication of your solution.** A list of the “write-up” problems to be turned in will be provided. If you have received an extension on WebWork, be aware that the write-up due dates are the class day following the original WebWork due date. At least one score from the WebWork/Write-Ups Homework category will be dropped.

Tests: All tests (including the final) will be given in our classroom. All tests will have a time limit and are closed book. Tests must be taken on the scheduled day. If you miss a test you will get a score of zero. There are no make-up tests. I will replace your lowest test score with your Final Exam score up to a maximum of 80%. The *tentative* test dates are listed on the course calendar. The date and time of the final will not change: **Wednesday, June 11, 2013 10:00-11:50 a.m.**

Quizzes: Some, but not all of these will be announced. Make sure that you stay up to date with all homework assignments and ask questions when you have them in order to be prepared.

Class work and Projects: These will be assigned in class. They will be assignments that allow you to put what you are learning into immediate practice. Assignments that are completed outside of class are due at the **beginning of class** on the due date. Such assignments will not be accepted more than one class meeting past the due date. For example, if an assignment was due on Tuesday, I will not accept it after the **beginning of class** on Wednesday. **Late work will receive a 20 percentage point penalty.** It is important that you seek out help with such assignments **before** the class when they are due.

Attendance: If you are not in class for a homework check, quiz or in-class assignment you will receive a score of 0 for it. They **cannot be made up**, but at the end of the quarter, your **lowest score from this category will be dropped**. If you know you will not be in class on a certain day let me know in **advance, not after you are absent**. If you miss class, it is your responsibility to check my instructor website for possible handouts that will be turned in. *Attendance, effort and attitude will be noted by the instructor and may be used to help determine "borderline" grades.*

Proficiency test: A proficiency test must be passed at 90% or better in order to count toward your grade in Math 251. It will be given in class during Week 6 or 7, and must be passed before finals week. It will be 10 questions designed solely to test your differentiation skills without a calculator. You will have multiple opportunities to retake it if needed. If the proficiency test is not passed with 90% or better, a score of 0 will be averaged into your grade for it.

HELP! If you have questions, PLEASE **come see me** and ask! I have scheduled office hours but you're welcome to come in at other times too. Visit my **instructor website** for helpful links, class notes, handouts and other information.

Notes online: I will post pdf files of the smartboard notes and some handouts from class online on my instructor website.

Form a study group: Your classmates are important resources for understanding and completing the homework. Often a fellow student can explain things in terms that an instructor cannot. You gain a deeper understanding of mathematical concepts when you express them in your own words and explain them to someone else. It is *strongly recommended* that you study together with other students in small groups. The most successful calculus students form study groups early and keep them throughout the calculus sequence.

Use the Learning Center: The Learning Center, WH226, is an excellent place to study and to get help with your homework. Check out what the Learning Center has to offer:

- There is free wireless available in the Learning Center (and lots of places to plug in so your battery won't be depleted.)
- The relaxed atmosphere and table arrangement in the Learning Center provide a great location for study groups to meet and work.
- Instructional assistants are available to answer your calculus, algebra, trigonometry, and graphing calculator questions.
- Graphing calculators, textbooks, and copies of the *Student Solutions Manual* can be checked out to be used in the Learning Center.
- The Learning Center offers some free individual and small group tutoring in addition to the help desk.

Expectations:

- I expect that my students will **be involved in class**. This includes being present, asking questions and participating in discussions.
- You should **come to class prepared** (this means you should bring your book, calculator, etc. in addition to having your homework with you). Read ahead! You should expect to spend 10 hours per week outside of class on this course.
- **Be respectful** of everyone in the class, in word as well as behavior. Along these lines, I ask that you **turn off and put away your cell phone**, mp3 player, laptop, etc. during class so as to avoid causing a distraction.

Special Circumstances: Students who have any emergency medical information the instructor should know of, who need special arrangements in the event of evacuation, or students with documented disabilities who may need accommodations, should **make an appointment with the instructor as early as possible, no later than the first week of the term**. If additional assistance is required the student should contact the Office of Disability Services (ODS) at ext. 4789.

LBCC Comprehensive Statement of Nondiscrimination: LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws.

Statement of Inclusion: The LBCC community is enriched by diversity. Each individual has worth and makes contributions to create that diversity at the college. Everyone has the right to think, learn, and work together in an environment of respect, tolerance, and goodwill. (related to Board Policy #1015)

Academic Honesty: I assume that you are ethical and honest. However, if there is an incident of academic dishonesty (cheating), you will receive a score of zero for that test/assignment and the incident will be reported to the college administration for possible further disciplinary action. If there is a second offense, you will receive a grade of F for the course and the incident will be reported to the college administration with a recommendation for disciplinary action.

The instructor reserves the right to make changes to the syllabus as necessary.

Math 251 – Differential Calculus

SPRING 2014

(Tentative schedule)

	Monday	Tuesday	Wednesday	Thursday	Friday
WEEK 1 3/31	Introduction	1.1	1.5	1.6	2.1
WEEK 2 4/7	2.2	2.2	2.3	2.4	2.5
WEEK 3 4/14	2.6	2.7	2.7	No School In-Secrvice	2.8
WEEK 4 4/21	2.8 Catch-up	Review	Test 1	3.1	3.1
WEEK 5 4/28	3.2	3.3	3.4	3.5	3.5
WEEK 6 5/5	3.6	3.7	3.8	3.8	3.9
WEEK 7 5/12	Proficiency Test	3.9	3.10	Review	Test 2
WEEK 8 5/19	4.1	4.1	4.2	4.3	4.3
WEEK 9 5/26	Memorial Day Holiday	4.7	4.4	4.4	4.5
WEEK 10 6/2	4.8	4.9	4.9	Catch Up <i>Proficiency Test Due</i>	Review for Final Exam
WEEK 11 6/9			Final Exam 6/11/14 10-11:50 AM		

