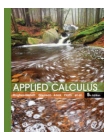# MA151.01S Spring 18: Programming in Mathematics Syllabus

 12:00 MWF, 9:25-10:15 Th   100 Butler Hall

Dr. Lisa Oberbroeckling (o-burr-brek-ling)   **Office:** 312 Knott Hall   **Phone:** 410-617-2516

E-mail: loberbro "at" loyola "dot" edu OR loberbroeckling "at" loyola "dot" edu

Class webpage: math.loyola.edu/~loberbro/ma151/index.html

Moodle: moodle.loyola.edu

WeBWorK: https://webwork.loyola.edu/webwork2/MA151-SP18-OBER/

Office Hours: 11-12 MWF. Also by appointment (see my schedule)

NOTE: I teach at noon in Butler Hall, so I will have to leave my office by 11:45. I realize that my office hours may conflict with your schedule. I'm around many other times than just my office hours so feel free to stop by or make an appointment. You can also email me with questions, but please be patient for my response. There may be an opportunity to do online office hours through ZOOM (https://loyola.zoom.us). (Get the APP!) I also have another office in 138L Maryland Hall.

⚠️ I reserve the right to make changes to the syllabus at any time during the term by announcing them in class and on the webpage. You are responsible for knowing not only what is discussed/announced in class but also what is posted on Moodle/class website.

Prerequisites
MA109 (Precalculus) or a score of 48 or better on Part II of the Math Placement Test or a year of high school calculus.

Course Description:
A one semester introduction to calculus. Definition, interpretation, and applications of the derivative especially in business and social sciences. A graphing calculator and/or computer will be used.*Closed to students minoring in mathematics or statistics. Degree credit will not be given for both MA151 and MA251.*

Learning Goals:
By the end or this course, you should be able to

- demonstrate an understanding of rates of change and derivatives;
- apply concepts of derivatives;
- demonstrate an understanding of accumulated change and definite integrals;
- apply these skills in business applications.

In addition, this course follows the broader University Learning Aims and the Natural and Applied Sciences Learning Aims.

Text:
Required: *Applied Calculus: 5th edition* by Hughes-Hallett, et. al. The student solutions manual is not required but you may find it useful. The custom textbook only has chapters 1-5.

Calculators:
A graphing calculator is not required but may be useful FOR HOMEWORK. You need nothing fancier than a TI-83 or its equivalent. It is up to you to learn how to use one. **YOU MAY NOT USE GRAPHING CALCULATORS ON EXAMS.**

Grading:

Based on:		Basic Scale:		
WeBWorK/Homework	15%	A	90-100%	I give +/- grades, the cutoffs
Participation	10%	B	80-89%	being at the 7's and 3's,
2 Exams*	20% and	C	70-79%	respectively. Thus 80-82.9 =
	25%	D	60-69%	B-, 83-86.9 = B, 87-89.9 = B+.
*The higher of the two exams counts 25%		F	0-59%	
Final Exam	30%			

Homework and WeBWorK:

This course will emphasize problem solving and some applications of mathematics, especially business applications. You will be asked to do homework on the computer through WeBWorK. Homework problems will be assigned and posted on the homework webpage for you to WRITE NEATLY ON YOUR OWN PAPER AND TURN IN BY THE DUE DATE. It is important for you to be able to do all of the problems, even ones I do not collect, and understand the concepts behind them.

Late Assignments:

Late WeBWorK assignments are not accepted, so manage your time wisely. Late written homework is accepted but 4 points (out of 20) will be deducted from your score. No late written homework will be accepted one week after the due date.

Participation and Attendance:

I will not take attendance every single day, but will frequently, especially for Enrichment Hours and Messina events. If you must miss class, it is your responsibility to find out what you missed. It is best to get notes from a classmate; my lecture notes will not be useful to you. If you cannot make it to an exam because of illness or family emergency, let me know **in advance** by phone or e-mail. Make-ups will be given only under these circumstances. Don't abuse this. No changes can be made to the date and time of the final exam.

The Messina reflections, etc. all are part of this participation grade. More than two unexplained absences for Enrichment or Messina will automatically lower your participation grade.

Exams:

There will be 2 in-class exams during the term. They are tentatively scheduled on the calendar. Other information about the exams will be announced in class as each exam approaches.

Final Exam:

The final exam is cumulative and is on **Monday, May 7 at 9 AM**

Extra Credit:

Do not count on extra credit in this course to boost your grade. I make it a policy to not give extra credit on an individual basis so do not ask for it, especially at the end of the semester.

Classroom Etiquette:

When you come to class, I expect you to not only be in attendance physically but also mentally. That means no cell phones, no leaving class during lecture, no extraneous chatter, etc. If you know you must leave class, sit by the door to minimize the disruption. If cell phones and texting become a problem, I will confiscate the phone.

The goals of this course are best accomplished when in a setting of mutual respect. The study of mathematics does not usually lead to much controversy. That being said, we must all work to provide a safe environment that is conducive to learning. All are welcomed and encouraged to actively participate in the learning of analysis, regardless of gender, race, nationality, native language, sexual orientation, gender identity, political ideology, and especially personal mathematical history. Any student who feels she or he is experiencing a hostile environment should speak to me immediately.

Honor Code:

All students of the University are expected to understand the meaning of the [Loyola University Honor Code](). Ignorance of the Code is not a valid reason for committing an act of academic dishonesty. The following constitute violations of the Code and are defined in the Community Standards Handbook: cheating, stealing, lying, forgery, plagiarism and the failure to report a violation.

As it pertains to this course: I expect you to work with others on homework (by collaborating, not copying!). I will ask you to sign a pledge on exams but not on other turned-in work although I will expect the same honesty on all of them. Any questions or concerns should be directed immediately to me.

Student Athletes:

If you are a student athlete, please provide me with your travel and game schedule indicating when you will need to miss class to participate in athletic events. While travel for athletics is an excused absence, you will need to make up any missed work. Absences only on the travel letter will be accommodated.

Students Needing Accommodations:

If you have a disability that is documented with the Disability Support Services Office (DSS) and wish to discuss academic accommodations, please contact me as soon as possible. If you have a learning disability that has not been documented, you may contact the Disability Support Services Office (410-617-2602) for assistance.

GENERAL SUGGESTIONS:

- This course will test your study and time management skills. The **homework/WeBWorK exercises WILL be time consuming** until you get the hang of them, so DO NOT put off the homework until the night before they are due. I cannot and will not give extensions on these due dates.
- Don't use the fact that I don't collect all of the book homework to blow them off. You will also need to know that material for the exams and later material!
- Participate in class, ASK QUESTIONS, **make use of my office hours**. If you get behind or stuck, see me or work with other students RIGHT AWAY.
- This course will be much more enjoyable if you form a study group with others in the class. You may work together on homework but everyone must join in and work.
- READ THE BOOK. Lectures will be much more understandable. It will be important to READ the book, not just look at the highlighted boxes because I will not be able to cover all of the details or show nearly enough examples in class.
- If you think you'll need extra help, get it as soon as possible. Do not wait until right before an exam! There are tutoring services available -- some are FREE.