Fall 2016 **MATH 115 Lecture Schedule** (subject to change) Last updated: 8/28/2016

DATE	SECTION	Practice Problems*
M Aug. 29	**1.5, 1.8, 2.1**	**p. 56**: 27, 37, 39, 51, 61, 71, 78, 89, 95, 103, 107, 113; **p.88**: 2-4; p. 89: 27, 33, 45, 47, 55, 63, 71, 81, 83, 85, 111, 121; **p. 156**: 9, 14, 25, 27, 31, 43, 55, 63, 73, 85; **p. 132**: Concept checks 1-8, 10-19, 21-23, 28, 29-40
F Sept. 2		Algebra Test (MANDATORY), Question answering session
W Sep. 7	**2.2, 2.3, 2.4**	**p. 167**: 9, 15, 19, 23, 35, 37, 57, 61, 81**; p. 179**: 7, 31, 35, 41, 43, 57; **p. 188**: 15, 19, 23, 25, 31;
M Sep. 12	**2.6, 2.7**	**p. 206**: odd 7-15, 25-28, odd 29-47, 71ace; **p. 216**: 9, 17, 29, 49, 55, 59, 63, 77;
M Sep. 19	**3.1, 11.1**	**p. 252**: 15, 27, 29, 35, 37, 51, 55, 63**; p. 788**: 11, 13, 15, 31, 37, 55, 63;
F Sep. 21	Review Friday	
M Sep. 26	**Exam 1**	(Sections 1.5, 1.8, 2.1-2.4, 2.6, 2.7, 3.1, 11.1)
W Sep. 28	**11.2, 11.3**	**p. 797**: 9, 15, 29, 33, 45, 51; **p. 805**: 5-9, 19, 29, 32, 41
M Oct. 3	**3.2, 3.6**	**p. 266**: 19, 21, 23, 25, 27, 33, 39, 41; for each of the graphs II-V, write an appropriate polynomial and then check by matching the graphs with the functions on p.266; **p.308** 1,7,15, 17, 21, 27, 33, 35, 45,53,55,63
M Oct. 10	**4.1, 4.2, 4.3, 4.4a**	**p. 336**: 17, 21, 23, 27, 29, 31, 53; **p. 341**: 7, 9, 11, 13, 25; **p. 351**: 7, 9, 11, 13, 17, 23, 25, 29, 31, 35, 37, 43, 49, 51, 53, 55, 61, 63, 67, 97
M Oct. 17	**4.4b, 4.5**	**p. 359**: 9, 11, 13, 21, 23, 31, 37, 39, 41, 43, 47, 51, 53, 55, 57, 61, 69, 72; **p. 368**: 3, 7, 15, 17, 21, 33, 37, 39, 45, 59, 61, 63, 65, 67, 99
F Oct. 21	Review Friday	
M Oct. 24	**Exam 2**	(Sections 11.1-11.3, 3.2, 3.6, 4.1-4.5)
M Oct. 26	**5.1, 5.2**	**p. 407**: 5, 9, 13, 17, odd 23-31, 37, 39, odd 41-47, 55, 59; **p. 417**: odd 5-21, 41, odd 45-57, odd 61-67, 79
M Oct. 31	**5.3, 5.4**	**p. 429**: 5, 7, 9, 11, 23, 25, 33, 35, 39, 43, 47, 51, 69, 83; **p. 438**: 3-8, 11. 13, 15, 19, 21, 29, 31, 35, 39, 47, 51, 59, 61
M Nov. 7	**7.1, 7.2, 7.3**	**p. 542**: odd 3-25, 33, 39, 45, 53, 65, 89-84; **p. 551**: 9, 11, 13, 17, 20, 21, 32, 39, 42, 55, 57, 59, 63; **p. 561**: 3, 9, 11, 13, 51, 53, 75, 113
M Nov. 14	**7.4, 7.5**	**p. 569**: 5, 7, 13, 17, 21, 23, 27, 33, 53, 59; **p. 574**: 3, 5, 7, 11, 13, 17, 23, 27;
F Nov. 18	Review Friday	
M Nov. 21	**Exam 3**	(Sections 5.1-5.4, 7.1-7.5)
		No Wed or Friday meetings this week --- Enjoy your Thanksgiving break!
M Nov. 28	**6.1, 6.3, 6.2**	**p. 478**: 5, 7, 9, 13, 17, 19, 21, 27, 29, 31, 33, 35, 37, 47, 48, odd 51-59, 63, 77; **p. 499**: 47, 53, 54, 72; **p. 487**: 5, 15, 23, 25, 27, 29, 36, 37, 39, 47, 49, 53, 55, 61, 65
M Dec. 5	**6.5, 6.6**	**p. 513**: 5, 7, 13, 17, 19. 21, 23, 29, 31, 33, 37; **p. 520**: 3, 7, 13, 15, 17, 39, 41, 43, 45, 47, 51

M. Dec 12 in class - review for the final

T. Dec. 13 study day—extra review for the final (time and room to be announced)

W Dec. 14 **Final exam 1:30-3:30** (room to be announced in December)

*page numbers are for *Precalculus Mathematics for Calculus* (*University of Maryland*), 7th edition by Stewart, Redlin and Watson (available in Maryland Book Center in loose-leaf form packaged with an Enhanced WebAssign access code)

Math 115 has two types of class sessions, a lecture that is usually on Monday in PHY1412 and lab sessions (MWF or TTh) in PHY4207. **The midterm exams will be given on Mondays (Sep. 26, Oct. 24. Nov. 21).** In the weeks with a Monday exam, lecture will be on Wednesday, except for Exam 3 (as the Wednesday before Thanksgiving is free). The second lecture of the semester is on a Wednesday (Sept. 7) due to Labor Day. When there is a lecture on Monday, the 9-9:50 time on Wednesday will be used to answer your questions and the same time on Friday will be office hours. When there is a lecture or an Exam on Wednesday, the 9-9:50 time on Friday will be used to answer your questions about problems.

In general there will be a lab assignment and a homework assignment for each section. In addition there is a pre-lecture assignment due at 8 am on lecture day covering basics in the sections for that week. Lab assignments are password protected and can only be done in the computer lab (there will be a penalty if we learn that you have done the assignment outside lab hours and/or outside the lab). For labs bring your own laptop or you may borrow one of the 22 laptops available in PHY4207. The lab is open from 10am-3:50pm MWF and 8:00am-1:50pm TTh. You are expected to attend your scheduled lab although you may use the lab at other times to complete assignments if there is space available. If you are in a MWF lab section, you have one lab due at 3:50 pm on

Wednesday and the remaining labs due at 3:50 pm each Friday; TTh labs have the first lab assignments due at 2:00 pm on Tuesday and the other(s) on Thursday at 2:00 pm. These deadlines, as well as your homework deadlines, will also appear in WebAssign.

The once-a-week lectures will cover only highlights of the sections for that week—the big ideas of the sections, examples chosen to illustrate more difficult or challenging concepts or computations. Most lectures will also include a graded quiz that covers the preceding week's material; lectures that follow exams will have white papers (open notes applications to things just learnt). The pre-lecture assignments are designed to give the lecturer some indication of where help may be needed and to prepare you better for the lecture. During lab sessions you will be able to ask for help with concepts and problems that you are having trouble with.

Before going to lecture you should read through each section, making note of definitions and major concepts. Read the text and examples with pencil and paper handy so you can work out the mathematics and make notes. After reading an example, try the suggested exercise to see if you understand the work involved. Then do the pre-lecture assignment. Do not leave the reading until just before lecture. It takes time to read mathematics and it is not easily done if you are rushing or tired.

Before going to lab read through the section you plan to work on. Plan enough time in the computer lab to be able to finish each of the lab assignments. They can only be done in the computer lab. Pace your work. Do not plan to do all of the week's labs Thursday morning or Friday afternoon. You will be frustrated and won't have time to think about the problems. **Homework assignments, will be due one at a time, generally at midnight on Wednesday, Friday, and Monday, and they involve material from a previously due lab.** Suppose Labs 10, 11, and 12 are due in the same week. Download the related homework assignments and look at them before lecture. Work Lab 10 on Monday (or Tuesday). Look through the related homework assignment and try the more difficult problems before leaving the lab. Complete the homework assignment that night if possible while the material is still fresh in your mind. Use the homework assignment as a quiz on what you learned from that section with the goal of getting every question right on the first submission (with book and notes closed if possible). Continue this way with Lab 11 on Wednesday (or Tuesday) and the homework assignment completed Wednesday night, Lab 12 on Friday (or Thursday) with its related homework assignment completed as soon as possible over the week end. If your labs are scheduled TTh, you should plan to work at least one and a half lab each day.

You may be asked to turn in your work for a problem in a Lab assignment and several Lab assignments and homework assignments have graphs that are to be turned in. Graphs will be graded and included in the "homework" grade for the course. Lab Assignments count **50 points or 7.69% of the course total.**

Homework: Homework is an integral part of this course. The graded homework is done online in WebAssign and counts **45 points or about 6.92% of the total points** for the course. Most WebAssignments are based on exercises in the textbook (so do those practice problems!). WebAssignments are graded as soon as they are submitted and you have up to three submissions for each question. Start your homework early enough so that you can get help if needed before the assignment is due. More information about WebAssign is available on the math department's web site via ter.ps/wainfo **Be aware** that for 2- and 3-choice multiple choice questions you will not get points if you use more than 1 or 2 submissions, respectively. Credit is not given for getting the answer by eliminating incorrect ones through successive submissions.

Use the listed practice problems and the Student Solutions Manual, which is part of our custom text, to help you in learning to solve problems. When you work practice problems, try to work the problems on your own. If you reach a point where you are stuck, look up the solution in the solutions manual and see how the authors proceeded or began. Then close the book and try to make the next steps on your own. Always try to answer the question, "Why did they do it that way?" If you have trouble with an even-numbered problem, try working the problem just before or just after it (or any other odd problem that looks similar), using the solutions manual if needed. Then try the even problem again.

Quizzes: You can expect quizzes or white-paper work almost any lecture day and hand-in work in any lab. White-paper work is generally open-note work done during lecture after examples given by the lecturer. Quizzes are closed-book checks on your work and generally do not allow calculator use. Quiz questions may be based on practice problems or WebAssign problems. Written work (quizzes, hand-in work, white papers) counts **55 points or 8.46% of the course grade**. There are no makeups for missed quizzes or white papers but **the two lowest / missed quizzes will be dropped at the end of the semester,** whether the absence is excused or not.

The average time spent on non-examination studying for a math course at this level should be about two hours for every hour spent in class; in other words **you should plan to spend an average of ten hours a week on homework and studying for quizzes**. This is in addition to time actively spent in lecture, problem solving session or lab. Please plan your schedule accordingly.

Exams: There will be three 50-minute, 100-point exams during the semester plus a two-hour, 200-point uniform final exam. **The midterm exams are scheduled Mondays:** Sep. 26, Oct. 24. Nov. 21 (all in our classroom, unless you have a DSS accommodation). The uniform **final exam** is scheduled for 1:30-3:30 pm on **Wednesday, December 14** (rooms will be announced in December). **Mid terms total 300 points or 46.2% of the course grade; the final is 200 points or 30.8% of the course grade**. *If you miss a lecture (thus a quiz) or an exam because of illness or a University sponsored activity, you should write to Dr. Rosca rarosca@math.umd.edu as soon as possible and the validation for the absence should be presented on your first class day back.*
The university policy on absences or missed assignments as well as the Honor pledge, information about disability support accommodations policies and other relevant university policies are available at http://www.ugst.umd.edu/courserelatedpolicies.html

Course Expectations: We expect that you attend lectures and labs on a regular basis. We expect that you focus during this time (no phone calls, texting or other messaging is allowed during lab or lecture) and ask questions if you are confused or need clarification. Our jobs are to help you understand and succeed in this class, and we truly want everyone to succeed.

We expect that you study the assigned material BEFORE lecture in order to complete the pre-lecture assignment (ideally, before Sunday night). We expect that you study the material AFTER lecture and lab to solidify your understanding of the concepts you learned. Doing the assigned problems in the book, listed on the syllabus, is a GREAT way to master material.

We expect that you complete WebAssign homework assignments using minimal assistance so that **you** can gauge how much of the material you know. We expect that you sufficiently attempt each question to the best of your ability before asking for help. You are encouraged to work on these assignments in lab to take advantage of the help offered by the teaching assistant(s) during that time. You are encouraged to work with classmates during the lab time.

Help: We expect that if you are having significant difficulty with material that you will contact us (instructor and TA) for help either in lab or by email or during the instructor's office hours. We expect that if you do not want to contact us for help, you will use the free resources offered by the University to get the help you need. Outside of lab hours, you can get help at Math Success (6-9 Su-Th in Oakland Hall) as well as during Guided Study Sections =GSS (roughly 4-5pm, M-Th, starting second week of school, details will be announced on ELMS/Canvas as well). Finally, we will also have a PIAZZA discussion board for this course, where you can ask questions about homework, anonymously or using your name, and your colleagues, TA and I will answer your questions. Please see the following webpages for more information about Math Success http://www.resnet.umd.edu/programs/math_success/ , for it and other campus resources click on the links for Undergraduate , then Resources at www-math.umd.edu

We cannot overemphasize the desire that each of us has to see each of you succeed. WE ARE HERE TO HELP YOU. **However, we can help you only if you see us on a regular basis and do your best to study the material outside of class and prepare for lecture and lab each day.** It takes planning, time, and hard work to succeed in Math 115 and be well prepared for the Calculus.

GRADE POLICY:	
3 midterm exams (100 points each)	= 300 pts.
Labs	= 50 pts.
Quizzes, other written in-class work	= 55 pts.
Homework	= 45 pts.
Final Examination	= 200 pts
TOTAL	= 650 pts.
Average = (Total)/6.5	

The expectation is that a letter grade will be given using the following scale for the semester average: 90-100 (A), 80-89 (B), 70-79 (C), 60-69 (D), 0-59 (F). There will be no curving of exam grades during the semester. If there is any adjustment to this curve, it will only be done for the course totals and the final grade at the end of the semester. In the case of borderline grades, you need at least two exam grades at or above the higher grade level in order to have the higher grade considered. For example, suppose the lowest total for a C is 455 points and you have received exam scores of 65 (D), 57 (F), 84 (B) and 117 (D) and 126 points for homework, labs, and quizzes for a total of 449 points and an average of 69.1%. In this case your grade for the course would be a D. If you had two grades of C or higher on the midterm exams, we would look at attendance, work on lab and homework assignments, and the final exam questions related to the low-scoring exams to be certain that that material had been mastered.

Honor Code: You are expected to abide by the University Honor Code on all examinations, quizzes, and homework assignments. Copying homework solutions or quiz or test answers from someone else is cheating as is altering a quiz or examination after it has been graded or giving answers to someone during an exam or quiz. Copying solutions from the solutions manual is plagiarism. You will be asked to write and sign the following honor pledge on each assignment, quiz and exam unless exempted on assignments by your instructor:

Lecturer: Raluca Rosca — Email: rarosca@math.umd.edu
Office: MTH0206 — Office Hours: MW 8-9 am, F 9-10 am
Assistants: MWF (0111, 0121) Danielle Middlebrooks dmiddle1@math.umd.edu
MWF (0131, 0141) Brad A. Sanders brad@math.umd.edu
MWF (0191, 0192) Charles Daly cdaly69@umd.edu
TTh (0151, 0161) Cara Peters cpeters3@umd.edu
TTh (0171, 0181) Ian Johnson ijohnso6@umd.edu

Lab Hours (PHY4207): 10am – 3:50 pm MWF, 8am-1:45 pm TTh
Tutoring for Math 115 and TA office hours are held in the lab (PHY4207) during lab hours.

Keep handy: