

COURSE SYLLABUS - Fall 2016

1. **Course Prefix and Number:** MAT 151-01
2. **Course Title:** Precalculus II (LEC) and **MyMathLab Course ID Number:** _____
3. **Credits:** 3:3
4. **Course Prerequisites/Corequisites:** An acceptable score on the mathematics placement test; or a grade of C or better in [MAT 115](#) (College Algebra) or [MAT 150](#) (Precalculus I).
5. **For Whom Planned:** This course is the second part of a two-semester Precalculus sequence. Students must earn a C or better in this course to satisfy the **prerequisite** for MAT 191 (Calculus I).

6. **Instructor Information:**

Ms. Walker Weigel

Email: wgweigel@uncg.edu

Tel: 336-334-5836 (main office)

Office: 113 Petty Building

Office Hours: 9:00am-10:30am MWF, also by appointment

Email policy: You may contact me at any time via email. I plan to answer each of your messages within 48 hours (Monday-Friday). Please realize that this might not always be possible, due to the number of students in my classes.

7. **Bulletin Description:** Properties, graphs, and applications of exponential, logarithmic, trigonometric functions.
8. **Department of Mathematics & Statistics Mission Statement:** *The mission of the Department of Mathematics and Statistics at the University of North Carolina at Greensboro is to provide intellectual leadership in the mathematical sciences that is of direct benefit to the State of North Carolina and that commands national and international respect for the quality of its educational programs and for its depth of scholarship. To achieve this mission, the Department has identified goals directed at achieving excellence in all three of the University's major functions - teaching, research and service. In particular, we are committed to offering well-rounded academic programs, which will provide our graduates with competitive job skills, to contribute to the advance of knowledge and techniques in Mathematics and Statistics through an active research program and to advance our role in providing high quality training in mathematics teacher education to supply the anticipated need for well-prepared, competent elementary and secondary school mathematics teachers.*
9. **Student Learning Outcomes:** MAT 150 provides students an opportunity to appreciate certain concepts in fundamental mathematics, especially functions and graphs with a variety of applications. The emphasis is on abstract reasoning, not routine manipulations. MAT 150 satisfies the mathematics (GMT) requirement of the General Education Program. It is open to and appropriate for all undergraduate students, regardless of major.

The General Education learning goals attached to the GMT marker are

- LG1: Foundational Skills: Think critically, communicate effectively, and develop fundamental skills in quantitative and information literacies.
- LG2: The Physical and Natural World: Understand fundamental principles of mathematics and statistics, and recognize their relevance in the world.

At the successful completion of this course, the student will be able to

- SLO1 Reason in mathematical systems beyond data manipulation. (LG1, LG2)

- SLO2 Formulate and use mathematical models to solve real-world problems. (LG1, LG2)
- SLO3 Communicate mathematical solutions clearly and effectively. (LG1)

Course Objectives:

- Define and graph exponential and logarithmic functions
- Construct growth and decay models and solve models using logarithms
- Use the unit circle to define trigonometric functions and graphs
- Compute trigonometric function values for quadrantal angles and multiples of $\pi/4$ and $\pi/6$
- Apply trigonometric properties to verify identities and solve equations
- Use trigonometric functions and right triangles to solve geometric applications
- Construct composite and inverse functions using transcendental functions

10. Teaching Methods and Assignments for Achieving Learning Outcomes:

Abstract reasoning (SLO1) and clear, effective communication (SLO3) are a part of every lesson and assignment in this course. The student, through regular and frequent attention to the lessons and assignments, will make progress on each of these learning objectives. The formulation and use of mathematical models (SLO2) are integrated in the application of the fundamental techniques covered in the course. Assignments are designed to reinforce these mathematics learning objectives. The student will demonstrate achievement of learning objectives through satisfactory completion of assignments and tests.

Description of LEC course format: Traditional lecture format. Three tests will be given during scheduled class time and students will take the final exam during the common final exam time for mathematics courses.

iClicker assignments: All points from the iClickers are used as a single homework grade. On any given day, the iClicker software counts the number of correct answers and adds a point if the student responded to at least 75% of the iClicker questions in that class period. All points will be accumulated in Canvas and added as a single homework grade to the MyMathLab gradebook at the end of the semester. It is considered a violation of the Academic Integrity Policy to use a clicker registered to another student in the class.

Homework assignments: Homework can be accessed in MyMathLab by clicking on the Assignments & Videos button. Homework assignments do not have a time limit and do not have to be finished in one sitting. While working on these homework assignments, you will have unlimited attempts and will have access to all of the help options that MyMathLab provides. For instance, you can follow the steps in “Help me solve this”, watch a video, or e-mail me for help. Note that if you choose to use the “Ask My Instructor” button, you will need to tell me all steps that you have attempted to solve the problem so that I can best assist you. You can also rework problems that you miss. These homework assignments are due by midnight on their due date. You have to have a score of 70% or above on a given section’s homework assignment to access the quiz for that section.

You will also see Video Homework Assignments listed with each of your MyMathLab homework assignments. These Video Assignments are links to videos that we have made for you for each section that we cover in this course. While these video assignments are not graded, it is definitely in your best interests to watch each of the videos, preferably before coming to class each week.

Quizzes: Quizzes can be accessed in MyMathLab by clicking on the Assignments & Videos button. Quizzes have a 60 minute time limit and must be finished in one sitting. Each quiz may be attempted 2 times and only the highest score will be used to calculate your overall grade. While working on these assignments, you

will NOT have access to the help options. Quizzes are due by midnight on their due date. You have to have a score of 70% or above on a given section's homework assignment to access the quiz for that section.

In-class tests: For each test, you will need to bring your ID, #2 pencils, and your scientific calculator. Note that you will not be allowed to use a graphing calculator, any other calculator capable of symbolic manipulation, or the calculator on your cell phone. The dates for our tests are listed on the Schedule of Assignments (below). If you must miss a test, you should contact me BEFORE the date of the test in order to schedule a makeup test. You must have a valid excuse and written evidence of it to be allowed to take a makeup test.

Final exam: The final exam in this course is scheduled for Wednesday, December 7, 2016 from 8am – 11am. The location will be announced later in the semester. For the exam, you will need to bring your ID, #2 pencils, and your scientific calculator. Note that you will not be allowed to use a graphing calculator, any other calculator capable of symbolic manipulation, or the calculator on your cell phone.

11. Evaluation Methods and Guidelines for Assignments: The primary student products are the tests and final exam. Due to the nature of the course, each test will address all of the SLOs. Specifically, SLO1 will be present in most of the questions. Several questions on each test will be designed to address SLO2 and SLO3. Since the final exam is cumulative, all of the SLOs will be addressed there. The student will demonstrate achievement of learning objectives through satisfactory completion of graded assignments and tests. The questions on graded assignments and tests are designed to evaluate each of the three learning objectives, and in this way the grade reflects the attainment of the objectives.

The final course grade will be determined by online homework assignments and quizzes (Note: iClicker and classwork grades are included in with your MML Homework Assignments), in-class tests, and the in-class comprehensive final exam. The weights of these evaluations on the final grade are as follows:

- MyMathLab Homework – 10%
- MyMathLab Quizzes – 15%
- Three In-Class Tests – 45% (Each test – 15%)
- Comprehensive Final Exam – 30%

Grade Scale:

A+ 97-100	B 83-86	C- 70-72
A 93-96	B- 80-82	D+ 67-69
A- 90-92	C+ 77-79	D 63-66
B+ 87-89	C 73-76	D- 60-62
		F 59 or less

12. Required Materials:

- **Access to MyMathLab.com** is required for this class. You can purchase the access code through the college bookstore, or through the publisher at <http://www.mymathlab.com/> Anyone not registered in MyMathLab by 12noon on the first Friday of the semester may be dropped from the course. (Note that the website allows students to register on a temporary basis for up to 14 days.)
- **A scientific calculator**, such as TI-30XIIS, is suggested for the tests in this course. If you prefer to use another type of calculator, make certain that it has an exponent key and a square root key.

GRAPHING CALCULATORS (AS WELL AS ANY TYPE OF CALCULATOR CAPABLE OF SYMBOLIC COMPUTATION) WILL NOT BE PERMITTED DURING TESTS AND THE FINAL EXAM. Also note that the calculators on cell phones will not be permitted during tests and the final exam.

- **iClicker2** will be used in this class. They may be purchased at the UNCG bookstore and must be registered through **Canvas**. Bring your i>clicker2 to each class meeting.
- **OPTIONAL TEXTBOOK:** Sullivan, *Precalculus*, 10th edition, Prentice Hall, 2016. There is an online version of the text available through MyMathLab that is exactly the same as the hardcover version.

13. Topical Outline/ Schedule of Assignment: This information is provided at the end of this syllabus.

14. Other Information:

Office of Accessibility Resources: You are responsible for contacting OARS in 215 EUC (334-5440, <http://ods.uncg.edu>) and for filling out the necessary forms if you wish to have special accommodations. Without these forms the services provided by OARS will not be available to you. OARS cannot schedule or reschedule tests without consent from the instructor.

Academic Integrity Policy: Each student is required to adhere to the Academic Integrity Policy on all work submitted for the course. **You are expected to abide by the UNCG Academic Integrity Policy at all times and any cases of academic dishonesty will not be tolerated.** Each student is required to sign the Academic Integrity Policy on all major work submitted for the course.

I have abided by the UNCG Academic Integrity Policy on this assignment.

Signature _____ Date _____

More information can be found at <http://sa.uncg.edu/handbook/academic-integrity-policy/>.

Attendance Policy: **Any notes, written work, announcements, clicker points, etc., you miss by being absent for all or any part of a class meeting cannot be made up.**

Extensions: All of your online homework assignments and quizzes are available to you from the date that classes start. Computers are unpredictable. Therefore, you need to complete the assignments well BEFORE the due date. **If you decide to work on the day an assignment is due, you are taking a risk.** Work ahead of the deadlines and this will not be a problem. Extensions will be granted at the discretion of the instructor and only in the event of extreme circumstances. Please note that computer issues on the evening an assignment is due do not meet this criteria!

MyMathLab Support: The MyMathLab Technical Support number is 1-800-677-6337. **Also you can reach MyMathLab Tech Support 24/7 from the recently launched MyMathLab support site:** <https://support.pearson.com/getsupport>

“UNCG Cares” Statement: UNCG cares about your success as a student. We recognize students often balance many challenging personal issues and demands. Please take advantage of the University resources designed to help. For assistance accessing these resources contact the Dean of Students Office at 334-5514 or Student Academic Services at 334-5730. The Counseling and Testing Center is available for mental health assistance, 334-5874.

Copyright Policy: Selling or purchasing notes from classes for commercial gain is a violation of the UNCG Copyright Policy. Any student who sells notes taken in class for commercial gain, or who purchases notes taken by another student for commercial gain is in violation of this policy and, by extension, is committing a violation of the Student Code of Conduct. <http://sa.uncg.edu/handbook/student-code-of-conduct/>

Inclement Weather: If the university is closed, class will be cancelled. In case you are unsure, check your e-mail and Canvas or call the UNCG “inclement weather announcement” at 336-334-4400.

Add/Drop Dates Affecting this Course: <https://reg.uncg.edu/calendars/>

Additional Resources:

Free Tutoring: The Department of Mathematics and Statistics provides free walk-in tutoring in the Curry 210. For the details, see <http://www.uncg.edu/math/mathhelpcenter>

Student Success Center: Find more academic support at the Student Success Center.
<http://success.uncg.edu/>

Special Support Services: Tutoring may be available from Special Support Services.
<http://success.uncg.edu/sss/tutoring.php>

Schedule of Assignments:

						<u>Due Date</u>
<u>1</u>	5	5.1-5.2 HW REVIEW			04/16/13	08/27/16
<u>2</u>	5	Sections 5.3 & 5.4 Video			12/23/15	08/29/16
<u>3</u>	5	5.3-5.4 HW			08/17/14	08/29/16
<u>4</u>	5	5.3-5.4 Quiz			08/19/14	08/31/16
<u>5</u>	5	Sections 5.5 & 5.6 Video			12/23/15	09/06/16
<u>6</u>	5	5.5-5.6 HW			08/22/14	09/06/16
<u>7</u>	5	5.5-5.6 Quiz			08/26/14	09/07/16
<u>8</u>	5	Section 5.7 Video			12/23/15	09/12/16

9	5	Section 5.8 Video			12/23/15	09/12/16
10	5	5.7-5.8 HW			08/29/14	09/12/16
11	5	5.7-5.8 Quiz			09/02/14	09/14/16
12	5	Test 1, 9/16/2016 (Offline)				
13	6	Section 6.1 Video			12/23/15	09/26/16
14	6	Section 6.2 Video			12/23/15	09/26/16
15	6	6.1-6.2 HW			09/12/14	09/26/16
16	6	6.1-6.2 Quiz			09/16/14	09/28/16
17	6	Section 6.3 Video			12/17/15	10/03/16
18	6	Section 6.4 Video			12/17/15	10/03/16
19	6	6.3-6.4 HW			09/19/14	10/03/16
20	6	6.3-6.4 Quiz			09/23/14	10/05/16
21	6	Sections 6.5 & 6.6 Video			12/17/15	10/10/16

22	6	6.5-6.6 HW			09/26/14	10/10/16
23	6	6.5-6.6 Quiz			09/30/14	10/12/16
24	6	Test 2, 10/14/2016 (Offline)				
25	7	Sections 7.1 & 7.2 Video			12/17/15	10/25/16
26	7	7.1-7.2 HW			10/10/14	10/25/16
27	7	7.1-7.2 Quiz			10/17/14	10/27/16
28	7	Sections 7.3 & 7.4 Video			12/17/15	11/01/16
29	7	7.3-7.4 HW			10/21/14	11/01/16
30	7	7.3-7.4 Quiz			10/24/14	11/03/16
31	7	Sections 7.5 & 7.6 Video			12/17/15	11/08/16
32	7	7.5-7.6 HW			10/28/14	11/08/16
33	7	7.5-7.6 Quiz			10/31/14	11/10/16
34	8	Section 8.1 Video			12/17/15	11/15/16

35	7, 8	7.7-8.1 HW			11/07/14	11/15/16
36	8	8.1 Quiz			11/12/14	11/17/16
37	7, 8	Test 3, 11/18/2016 (Offline)				
38	8	Sections 8.2 & 8.3 Video			12/17/15	11/30/16
39	8	8.2-8.4 HW			11/13/14	11/30/16
40	8	8.2-8.4 Quiz			11/13/14	12/02/16
41	5-8	Final Exam, 12/07/2016, 8- 11AM (Offline)				
42	5-8	Clicker points (Offline)				