

Syllabus for Math 111i, Section 004 Fall 2022

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Office: LeConte 114
Office Hours: Monday, Friday 2:30 - 3:30 PM

Course Description

MATH 111i - Intensive Basic College Mathematics

Credits: 3

Basic college algebra; linear and quadratic equations, inequalities, functions and graphs of functions, exponential and logarithmic functions, systems of equations. Credit may not be received for both MATH 111 and 115.

Prerequisites: Qualification through the Algebra version of the Math Placement Test score of 8 or higher: https://sc.edu/study/colleges_schools/artsandsciences/mathematics/study/math_placement/index.php

Class Meetings: This is an in-person class. We will meet in person on Monday, Tuesday, Wednesday, and Thursday for as long as the university will allow us. In the event that the course moves online, we will meet at our scheduled class time via Blackboard.

Schedule:

Class Meetings — MW 4:40 - 5:30 PM Carolina Coliseum 3020D
TTh 4:25 - 5:40 PM Carolina Coliseum 115

Text: Stewart, Redlin, and Watson, *College Algebra*, 7th Edition, 2016. ISBN: 978-1-305-11554-5 (eBook strongly recommended)

Online Homework System: WebAssign (<http://www.webassign.net>) (Required)

Sections: Sections P.1-P.9, 1.1, 1.2-1.4, 1.6-1.7, 1.10, 2.1-2.8, 3.1-3.2, 4.1-4.6, 5.1

Students are required to purchase WebAssign access. Students are strongly encouraged to purchase WebAssign with eBook access for this course. (See Getting Started with Enhanced WebAssign handout.) **Students do not need a hard copy of the text.**

Attendance and Participation: Regular attendance and participation is expected. Attendance will be kept throughout the semester. More than three (3) unexcused absences will result in a full letter grade deduction from your final grade. **Withdrawal:** Any student wishing to withdraw from the class should do so by November 2nd. Students dropping after this date will receive a WF for the course.

Cell Phones/Laptops/Smart Watches: In accordance with CAS policy, I will ask that all cell phones be turned off (or at the very least be put on vibrate) during class. Also, please refrain from texting during class – it is disrespectful and distracting. **Your cell phone should not be out at any time during an exam or quiz.** The use of any laptop during class is prohibited. (If you feel you can justify using your laptop during class, come talk to me.) Smart watches should not be worn on exam or quiz days.

Learning Outcomes: Upon successful completion of this course, students should be able to:

- Factor various polynomial expressions using the methods: finding a common factor; using special formulas, including difference of squares and sum or difference of cubes; factoring a quadratic whose leading coefficient is 1; factoring a quadratic whose leading coefficient is not 1; and factor by grouping.
- Solve polynomial equations using factoring and solve quadratic equations using factoring, completing the square, and the quadratic formula.
- Work effectively with rational expressions including simplification of sums, differences, products, and quotients and solving equations involving rational expressions.
- Use order of operations, properties of exponents, function notation, properties of logarithms

- Find and interpret the average rate of change of a function using an equation, a table of values, or an equation.
- Write the equation of a linear or exponential function using two points, a table of values, or a general description of the function. Write equations of vertical, horizontal, parallel, and perpendicular lines.
- Distinguish between the growth or decay of linear and exponential functions. Solve real-world applications involving linear and exponential functions.
- Differentiate between interest compounded annually, interest compounded continuously, and other types of compound interest. Convert from one form to the other and understand the difference between the nominal and effective rates.

Exams: There will be three exams and a cumulative final exam. The *tentative* dates for these are:

- Exam 1: Monday, September 19th on Sections P.1-P.9, 1.1
- Exam 2: Monday, October 24th on Sections 1.3-1.4, 1.6-1.7, 1.10, 2.1-2.6
- Exam 3: Monday, November 21st on Sections 2.7-2.8, 3.1-3.2, 4.1-4.6, 5.1
- Final Exam: TBD

Make-up exams will be available in the event of documented illness/family emergency/quarantine. Those with acceptable excuses must contact me within 24 hours of the scheduled exam time to schedule a make-up. **Exams given in class must be made up in person.**

Exams: All exams will be administered during the face-to-face class session.

- **Exam Description:** All three exams and the final exam will be a combination of short answer questions and applications where you will work out math problems. You will be graded based on a completely correct solution – not just the final answer. All steps must be correct for full credit.

WebAssign Homework: Graded Assignments will be given once a week and graded via WebAssign. Students must complete each assignment online before the due date. The lowest graded assignment grade will be dropped regardless of excuse. If you have a legitimate excuse for missing more than one graded assignment, please come talk to me.

- **WebAssign Graded Assignment Description:** Graded assignments will be posted once a week and graded via WebAssign. If you miss a question on a Graded Assignment, you will have 2 more chances to get the question correct, but you will not be able to view tutorials or hints. Graded assignments are usually due on Sunday before midnight. You will be able to access the key to these solutions after the due date.

In-Class Quizzes: Quizzes will be given weekly during the face-to-face class session and will be based on the material seen in class the week before. The lowest quiz grade will be dropped regardless of excuse. If you miss more than one quiz, make-up quizzes will be available for those with **documented** excuses, but you must contact me within 24 hours of the scheduled quiz time to schedule a make-up. **Make-up quizzes must be taken in person.**

- **In-Class Quiz Description:** Quizzes will be given once a week during the face-to-face class session and will be based on the most recent WebAssign Graded Assignment and material presented in class. Quizzes will be given in the last 30 minutes of each Thursday. Questions will be a combination of short answer questions and applications where you will work out math problems. You will be graded based on a completely correct solution – not just the final answer. All steps must be correct for full credit.

Typical Weekly Schedule: A typical week will look like this:

- **Monday** New Graded Assignment distributed via WebAssign.
- **Tuesday** Group Work assignment
- **Thursday** Quiz

Calculators: A scientific or graphing calculator is required for the course. (Students should be able to evaluate exponential and logarithmic functions.) Use of the TI-83/84 is strongly recommended. Use of the TI-89,

TI-Nspire, or other calculator with a built-in CAS (computer algebra system) is prohibited. **You may NOT use your cellphone as a calculator.**

Note: You may NOT store notes or formulas of any kind on your calculator. You will be asked to clear the memory on your calculator before each exam. Also, you may not share calculators during a exam or quiz.

Grading:

Quizzes:	15%
Homework (WebAssign):	15%
Attendance/Groupwork:	10%
3 Exams:	45% (15% Each Exam)
Final Exam:	15%

Letter grades will be given according to the following scale:

A :	90-100
B+:	85-89
B :	80-84
C+:	75-79
C :	70-74
D+:	65-69
D :	60-64
F :	below 60

Additional Help: For (free!) additional assistance, visit the math tutoring center. Tutors there will be able to answer most questions. The Math Tutoring Center is currently virtually hosted at Blackboard Collaborate Ultra. Tutoring in the math lab is open to all students enrolled in a 100-level MATH class. You do not need an appointment – you can drop in whenever the lab is open. In addition, look for peer tutoring resources, including online tutoring, at the Student Success Center <http://www.sc.edu/success/> Finally, you are always welcome to come ask me questions. My office is LeConte 114 If you cannot make it during office hours, just send me an email to request an appointment. The university offers many options for help. Do not wait until you are completely lost to seek assistance! **Supplemental Instruction:** SI sessions are led by an undergraduate student who has taken this course and excelled in the course material. Your SI leader will facilitate a discussion and activities that encourage you to practice, discuss, and ask questions about the most current course material. Each SI leader holds three sessions per week.

Minimum Technical Skills and Technology Requirements

Minimal technical skills are needed in this course. All graded homework assignments in this course must be completed and submitted online via WebAssign. In addition, course handouts and examples are posted on Blackboard. Therefore, students **must** have consistent and reliable access to a computer and the Internet. Before starting this course, students must feel comfortable doing the following.

The minimal technical skills students should have include the ability to:

- organize and save electronic files,
 - use email and attached files,
 - check email and Blackboard daily,
 - register for and submit assignments via WebAssign.
- (See Getting Started with WebAssign handout.)

If you have problems with your computer, please contact University Technology Support (UTS) Help Desk at 803.777.1800 or helpdesk@sc.edu. The UTS Help Desk is open Monday – Friday from 8:00 AM – 6:00 PM. If you have problems with WebAssign, please visit the Student Support section of WebAssign <https://webassign.com/support/student-support/>

Academic Integrity

All students must review the Office of Academic Integrity sanctions. This information may be found at https://www.sc.edu/about/offices_and_divisions/student_conduct_and_academic_integrity/index.php

One or more of the following sanctions may be imposed for Academic Integrity violations: 1) Expulsion from the University; 2) Suspension from the University for a period of no less than one semester; and/or Probation. A combination of the above sanctions may be implemented. It should be noted that submitting someone else's work is cheating and against the Carolina Code. Cheating, or any other Academic Integrity violations, will result in failure of the course for all involved parties. All parties will also be referred to the Office of Academic Integrity for additional retribution.

Copyright – As an instructor, I will provide citations and acknowledgement of any instructional materials that I use in this course that I do not create myself. All materials in this course are copyrighted and you as a student may not distribute them in any format outside of this course. This includes all materials provided either electronically or as class handouts.

Student Disability Services

Students with disabilities should contact the Office of Student Disability Services. The contact information is below:

MAIN OFFICE

1705 College Street

Close-Hipp, Suite 102

Columbia, SC 29208

Phone: 803-777-6142 Fax: 803-777-6741

Email: sadrc@mailbox.sc.edu

Web: <http://www.sa.sc.edu/sds/>

These services provide assistance with accessibility and other issues to help those with disabilities be more successful. Additionally, students with should review the information on the Disabilities Services website and communicate with the professor during the first week of class. Other academic support resources may help students be more successful in the course as well.

- Library Services (http://www.sc.edu/study/libraries_and_collections)
- Writing Center (<http://www.cas.sc.edu/write>)
- Student Technology Resources (<http://www.sc.edu/technology/techstudents.html>)

Tentative Course Schedule

Week	Sections	Topics
1	P.1-P.3	Modeling the Real World with Algebra and Real Numbers, Integer Exponents and Scientific Notation
2	P.4-P.5	Rational Exponents and Radicals and Algebraic Expressions
3	P.6-P.7	Factoring, Rational Expressions
4	P.8-P.9, 1.1	Solving Basic Equations, Modeling with Equations, The Coordinate Plane
5	1.3-1.4	Lines, Solving Quadratic Equations
6	1.6-1.7	Solving Other Types of Equations, Solving Inequalities
7	1.10, 2.1-2.2	Modeling Variation, Functions, Graphs of Functions
8	2.3-2.4	Getting Information from the Graph of a Function, Average Rate of Change of a Function
9	2.5-2.6	Linear Functions and Models, Transformations of Functions
10	2.7-2.8, 3.1	Combining Functions, One-to-One Functions and Their Inverses, Quadratic Functions and Models
11	3.2, 4.1-4.3	Polynomial Functions and Their Graphs, Exponential Functions and The Natural Exponential Function, Logarithmic Functions
12	4.4-4.6	Laws of Logarithms, Exponential and Logarithmic Equations, Modeling with Exponential Functions
13	5.1	Systems of Linear Equations in Two Variables
14/15		Review for the Final Exam