

# Syllabus for Math 151-001 and 152-001

## Calculus Workshop I & II

Math 152 Section 001: TR 6:00-6:50 PM Coliseum 2008  
CRN: 56827

Math 151 Section 001: TR 7:35-8:25 PM Coliseum 2008  
CRN: 56826

**Instructor:** Jack R Dalton  
**Office:** Coliseum 1009

**Email:** [jrdalton@math.sc.edu](mailto:jrdalton@math.sc.edu)  
**Office Hours:**

**Website:** [jrdalton.github.io](http://jrdalton.github.io)

In person: TR 4:25-5:40, 7:00-7:15,  
Online by Appointment on BB

### COURSE DESCRIPTION AND OBJECTIVES

**Co-requisites:** For Math 151, you must be enrolled in Math 141. For Math 152, you must be enrolled in Math 142.

**Course Description:** Math 151/152 is a pilot program at U of SC to help at-risk students at Calculus I/II. It is for elective credit only. The class will consist of small study group practice in applications of calculus.

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

- Persist and work through perceived failure.
- Collaborate productively with classmates.
- Develop a personal framework of problem solving techniques.
  - Make sense of problems.
  - Sketch and label diagrams.
  - Restate and clarify questions.
  - Identify important information and variables.
  - Use analytical, numerical, and graphical solution methods.

### COURSE POLICIES AND EXPECTATIONS

**Design:** Each class meets twice per week for lecture for 50 minutes. Most of the class will be you and your classmates presenting problems.

**Participation:** Participants are expected to attend **every** class meeting and to get involved in the discussion. We will learn much more if we explore the mathematics together. All participants are expected to show respect to other students, the instructor, and any guests who may be visiting the class during the year (Golden Rule). Any behavior that negatively affects the learning of your classmates WILL NOT BE TOLERATED. I have no problem kicking a student out for being disruptive. Out-of-class participation is also expected, so get to know the other students in class; work together; and give each other moral support.

# Syllabus for Math 151-001 and 152-001

## Calculus Workshop I & II

**Presentations:** Each student will work out problems at the board. Additionally, during the last day of class, you each will present an original question (and solution) you wrote. More on that at a later date!

**Cell Phones and Laptops:** Make sure that your **cell phone is off and away** during our sessions. If you have an emergency, go into the hall to text or make calls. Laptops in class are not needed for this course, and will therefore not be allowed, unless approved by the instructor.

**Attendance:** Attendance is expected and will be taken daily. You are also expected to be punctual. For excused absences, proper documentation is required, and the sooner you tell me, the better. Your attendance will also be highly considered in borderline grade cases.

**Academic Integrity:** I expect you to familiarize yourself with the Honor Code found in the current student handbook. Repercussions for violations of this Honor Code can be severe. Keep in mind that “Any student who violates this Honor Code or who knowingly assists another to violate this Honor Code shall be subject to discipline.” Honor Code can be found here:

[https://sc.edu/about/offices\\_and\\_divisions/student\\_conduct\\_and\\_academic\\_integrity/index.php](https://sc.edu/about/offices_and_divisions/student_conduct_and_academic_integrity/index.php)

**Students with Disabilities:** Students who would like to request accommodations for disabilities must talk to me as soon as possible. Students must register with the Office of Student Disability Services BEFORE I can make any accommodations.

**Face Coverings:** Face coverings protect you and your classmates in case the wearer is unknowingly infected but does not have symptoms. Faculty, students and staff are required to wear an appropriate face covering in all classrooms and in other designated areas on campus. Face coverings **should cover your nose and mouth** in a community setting. Students with conditions that prohibit them from wearing a face covering must register with the Student Disabilities Resource Center (SDRC); appropriate accommodations will be approved by the SDRC, and I will be notified. Failure or refusal to wear the required face coverings in designated areas may result in your immediate removal from the classroom and corrective action, including referral to the Office of Student Conduct, in accordance with University policies and procedures (UNIV 3.04). No eating in the classroom as food cannot be consumed through a mask.

# Syllabus for Math 151-001 and 152-001

## Calculus Workshop I & II

### EVALUATION/GRADES

Presentations..... 30%  
 Attendance/Participation..... 80%

This course is **Pass/Fail** and is based off participation and overall completion of the daily activities.

P	F
100-60%	59% and below

### IMPORTANT DATES:

- 1/20 - Course begins
- 3/6-3/13 – Sprang Break
- The add/drop dates and W/WF dates are special for this course, contact the registrar for details.
- 4/25 - Last day of classes

### PROPOSED CONTENT (SUBJECT TO CHANGE)

Exponents (Rational & Integral)	Polynomials	Radicals
Factoring Polynomials	Rational Expressions	Absolute Value Equations
Graphs in 2 Variables	Systems of Linear Equations	Linear Equations
Functions & Relations	Domain and Range	Function Transformations
Zeros of Polynomials	Rational Inequalities	Exponential Functions
Logarithms and Logarithmic Functions	Angles	Sine and Cosine Functions
Other Trig Functions	Inverse Trig Functions	Right Triangle Trig
Trig Identities	Law of Sines & Cosines	Polar Coordinates
Polar Equations	Polynomial Long Division	Basic Differentiation
Basic Integration	Infinite Series	Manipulating Trig Identities
Limits and Continuity	Tangent lines	Critical Points
Derivative Rules	Implicit Differentiation	Related Rates
Optimization	Newton's Method	Arc Length
Surfaces of Revolution	Integration by Parts	Trig Integrals
Trig Sub	Partial Fractions	Sequences and Series
Convergence Tests	Taylor Series	Parametric Equations