

**UNIVERSITY OF NORTH GEORGIA  
DEPARTMENT OF MATHEMATICS  
MATH 1450-CALCULUS I  
(CRN 9161-TTH 12:30-2:15-Room 320)**

**I. GENERAL INFORMATION**

Instructor: Julian D. Allagan

Office: Rm.542

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Fax Number: 706-310-6202

Office Hours: M-F: 9-11; T&Th: 2-3

- Important Dates:
1. Course Changes and Late Registration (drop/add): Aug 17-21
  2. Mid-Semester Drop Date: Oct 12  
Dropping a course after this date means an automatic "WF" unless the Dean gives specific approval. Prior to this date, a "W" will be awarded.
  3. Final Exam: TBA.

**II. RESOURCES**

1. **Textbooks**

- **(Optional)** Calculus. Early Transcendental Functions by Larson & Edwards; 5<sup>th</sup>/6<sup>th</sup> ed. **(Sections to be covered: Chap 2-5)**
- (Free e-book) <http://www.whitman.edu/mathematics/calculus/calculus.pdf> **(Corresponding sections: Chap 2-7)**
- **Online course resources:** <http://faculty.ung.edu/jallagan/>

2. **Tutorials and Practice Exercises**

- Tutorials: <http://archives.math.utk.edu/visual.calculus/>
- Tutorial Animation: <http://www2.latech.edu/~schroder/animations.htm>
- Tutorials: <https://www.math.ucdavis.edu/~kouba/ProblemsList.html>
- Tutorials: [http://www.straighterline.com/landing/online-calculus-video-tutorials/#.Vb\\_en\\_lVhBc](http://www.straighterline.com/landing/online-calculus-video-tutorials/#.Vb_en_lVhBc)
- <https://en.wikibooks.org/wiki/Calculus>
- **Online Educational Resources (OER)** from Affordable Learning Georgia (**ALG:** <http://www.affordablelearninggeorgia.org/>)

3. **Technology Resources:**

- Desmos Graphic Calculator at <https://www.desmos.com/calculator>
- Maple
- <http://www.geogebra.org/>
- A graphing calculator such as a TI-83 Plus

4. **Other web-based Resources:**

- Khan academy at: <http://www.khanacademy.org>
- Google at: <http://www.google.com> Google any topic (**For example:** Google Square root of 2 or pi or any topic)
- You tube at: <http://www.youtube.com> (**For example:** write “linear equations” in the YouTube.com browser bar)

### III. COURSE DESCRIPTION

An introduction to differential calculus. Topics include limits, differentiation of algebraic and trigonometric functions, applications of derivatives, antidifferentiation, simple differential equations, the area under a curve, the fundamental theorem of calculus, and differentiation and integration of exponential and logarithmic functions.

**Credit:** 4 semester hours

**Corequisite:** READ 0099.

**Prerequisite:** One year of high school trigonometry with a SAT Math score of 640 or higher or an ACT Math score of 26 or higher, or MATH 1113 with a grade of C or higher or approval of the department head.

### IV. COURSE OBJECTIVES

After completion of the course the student will be able to:

- Apply the concept of a limit.
- Describe the behavior of a function using limits.
- Investigate the value of a limit by using numerical, graphical, and analytic techniques.
- Evaluate limits exactly, using analytic methods.
- Define continuity.
- Investigate the global behavior of a function by investigating its continuity.
- State the definition of the derivative and use it to find the derivatives of simple functions.
- Analyze the behavior of a function by using derivatives, asymptotes, and “rules of thumb” concerning its behavior at infinity.
- Interpret the value of a derivative as a rate of change.
- Prove derivative rules.
- Find derivatives of algebraic, exponential, logarithmic, and trigonometric functions by using the basic differentiation rules.
- Find the derivative of an implicitly defined function.
- Solve problems that involve related rates.
- Make inferences about a function by analyzing the graph of the functions derivative.
- Find the local and global maxima and minima of a function.
- Solve applications involving optimization.
- Determine the concavity and inflection points of the graph of a function.
- Approximate the solutions of nonlinear equations by using Newton’s Method.
- Estimate the value of a function by using the linear approximation method.
- Find a function whose derivative is given.
- Solve application problems involving simple differential equations.
- Interpret the solution of an application problem in the context of the application.
- Find antiderivatives of functions that are algebraic, exponential, logarithmic, and/or trigonometric.
- Approximate the area under a curve by using Riemann sums.
- Develop and apply the Fundamental Theorem of Calculus.

## V. METHODS

### A- INSTRUCTIONS

The methods of instruction are determined by the instructor; however, the instructor is encouraged to use a variety of methods. These methods may include, but are not limited to lecture; problem-solving sessions with informal assessment by the student or instructor; discussion; group projects; timely feedback from test, quiz, or project results (formative assessment); question and answer; computer or calculator based explorations; and student presentations. Students will be encouraged to assess and monitor their own problem-solving process to determine when an error has been made or a new strategy should be used.

### B- EVALUATION

Formative assessment will be in the form of written tests and/or short quizzes and summative assessment will be in the form of a final examination. Special projects and daily grades may be used at the discretion of the instructor.

## VI. COURSE CALENDAR (Number of 50 minute lessons is approximate)

1. Limits and Continuity-10 Days
2. Differentiation-16 Days
3. Applications of Differentiation-16 Days
4. Integration-9 Days

## VI. OTHERS:

### *Attendance Policy:*

Attendance is not mandatory, however, make-ups are not allowed.

### *Makeup Information:*

Make-ups are not allowed.

### *Term grade:*

Final grades will be determined as follows:

|             |         |                             |
|-------------|---------|-----------------------------|
| Activities: | 20 pts. | (Once or twice a week)      |
| Exam One:   | 15 pts. | (Thursday, <b>Sept 10</b> ) |
| Exam Two:   | 15 pts. | (Thursday, <b>Oct 1</b> )   |
| Exam Three: | 15 pts. | (Thursday, <b>Oct 29</b> )  |
| Exam Four:  | 15 pts. | (Thursday, <b>Nov 19</b> )  |
| Final Exam: | 25 pts. | ( <b>TBA</b> )              |

*Final grades are determined as follows:* 90-100=**A**, 80-89=**B**, 70-79=**C**, 60-69=**D** and below 60=**F**

**Students are expected to refer to the Supplemental Syllabus on page4, for other detailed instructions which include in addition to other supplementary materials, the following:**

- 1. Academic Exchange**
- 2. Academic Integrity Policy**

3. Academic Success Plan Program
4. Class Evaluations
5. Course Grades and Withdrawal Process
6. Disruptive Behavior Policy
7. Inclement Weather
8. Smoking Policy
9. Students with Disabilities

SPECIFIC DETAILS OF THIS SYLLABUS MAY BE SUBJECT TO CHANGE

## SUPPLEMENTAL SYLLABUS

### SUPPLEMENTARY MATERIALS:

#### 1. Library Resources:

- Apostol, Calculus, Volume I, Blaisdell, Waltham, MA, 1967.
- Dudley, Readings for Calculus, MAA, 1993.
- Dunham, The Mathematical Universe: An Alphabetical Journey Through the Great Proofs, Problems, and Personalities, Wiley & Sons, New York, 1994.
- Halmos, Problems for Mathematicians, Young and Old, MAA, Washington, D.C., 1991.
- Hight, A Concept of Limits, Prentice-Hall, Englewood Cliffs, N.J., 1966.
- Nolan, Women in mathematics: scaling the heights, MAA, 1997.
- Parker, She Does Math!, MAA, 1995.
- Sawyer, What is Calculus About?, Random House, 1961.
- Sterrett, 101 careers in mathematics, MAA, 1996.
- Women, Minorities and Persons with Disabilities in Science and Engineering, National Science Foundation, 1999 (NS 1.49).
- Weaver, Conquering calculus: the easy road to understanding mathematics, Plenum, 1998.
- Young, Excursions in calculus: an interplay of the continuous and the discrete, MAA, 1992.
- Yount, A to Z of women in science and math, Facts on File, 1999.
- Zaslowsky, Number Sense and Nonsense, Chicago Review Press, 2007 Multicultural

#### 2. Web-based Resources:

- Association for Women in Mathematics - <http://www.awm-math.org>
- The Math Forum – <http://www.mathforum.org>
- Waterloo Maple's Student Center - <http://www.maplesoft.com/academic/students/index.aspx>
- Texas Instruments - <http://education.ti.com/educationportal/>
- Key Curriculum Press <http://www.keypress.com>
- Eric Weisstein's World of Mathematics (Encyclopedia of Mathematics) - <http://mathworld.wolfram.com>
- Math Nerds - <http://www.mathnerds.com>
- SOS Mathematics <http://www.sosmath.com>

- Project Interactivate - <http://www.shodor.org/interactivate>
- Multicultural Pavilion – <http://www.edchange.org/multicultural>
- Women in Mathematics – <http://www.agnesscott.edu/lriddle/women/women.htm>
- Careers in mathematics - <http://www.ams.org/early-careers/>
- Calculus Applets- <http://www.calculusapplets.com>
- Related Rates Applets - [http://www.usna.edu/MathDept/website/courses/calc\\_labs/index.html](http://www.usna.edu/MathDept/website/courses/calc_labs/index.html)

### 3. Technology Resources:

- Maple
- Geogebra
- A graphing calculator such as a TI-83 Plus

### **ACADEMIC SUCCESS PLAN PROGRAM**

UNG has implemented an Academic Success Plan Program to identify and provide assistance to at-risk students. Refer you to your campus Academic Advising Center for the development of strategies that will enhance your academic success. You will be expected to take advantage of advising and other campus resources to achieve your academic goals.

### **STUDENTS WITH DISABILITIES**

University of North Georgia is committed to equal access to its programs, services, and activities, and welcomes otherwise qualified students with disabilities. Students who require accommodations and services must register with Disability Services and submit supporting documentation. Disability Services provides accommodation memos for eligible students to give to their instructors. Students are responsible for making arrangements with instructors, and must give reasonable prior notice of the need for accommodation.

#### ***Contact Information for Disability Services:***

Gainesville Campus: Carolyn Swindle, Assistant Director, carolyn.swindle@ung.edu, Dunlap-Mathis Building, Room 107, 678-717-3855

Dahlonega Campus: Thomas McCoy, Assistant Director, thomas.mccoy@ung.edu, Stewart Student Success Center, Room 313, 706-867-2782.

Oconee Campus: Erin Williams, Assistant Director, erin.williams@ung.edu, Administration Building, Room 112, 706-310-6202.

Cumming Instructional Site: Nicola Dovey, Director nicola.dovey@ung.edu or Beth Bellamy, Test Facilitator, beth.bellamy@ung.edu 678-717-3855. (For on-site assistance, contact Rebecca Rose, Head Librarian, rebecca.rose@ung.edu, Library University Center 400, 470239-3119.

### **ACADEMIC INTEGRITY POLICY**

**Student Code of Conduct:** Please review the Student Code of Conduct found here:

<http://ung.edu/student-affairs/student-code-of-conduct.php>

**Plagiarism and Turnitin.com:** Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

**Copyright:** Both Federal and State laws forbid the unlawful duplication of copyrighted computer software or other reproductions of copyrighted material. In accordance with these policies, University of North Georgia expressly forbids the copying of such materials supplied by or used in the College. Unlawful duplication of copyrighted materials by a user may result in disciplinary action by the College under the Student Code of Conduct (Non-Academic Infractions--Prohibitions, Theft), and/or possible criminal action by the owner of the copyright.

## **DISRUPTIVE BEHAVIOR POLICY**

Students who exhibit behaviors that are considered to obstruct or disrupt the class or its learning activities are subject to sanctions under the Board of Regents Policy on Disruptive Behavior. Behaviors which may be considered to be inappropriate in this classroom includes, but is not limited to, sleeping, coming in late, talking out of turn, inappropriate use of laptops or mobile devices, verbal behavior that is disrespectful of other students or the faculty member, or other behaviors that may be disruptive. Students who exhibit such behavior may be temporarily dismissed from the class by the instructor and will be subject to disciplinary procedures outlined in the Student Handbook.

## **CLASS EVALUATIONS**

Class evaluations at UNG are conducted online. Evaluation of the class is considered a component of the course and students will not be permitted to access their course grade until the evaluation has been completed. The evaluations will be accessible beginning one week prior to Final Exam week.

## **ACADEMIC EXCHANGE**

Universities welcome diversity, free speech and the free exchange of ideas. Discussion should be held in an environment characterized by openness, tolerance of differences and civility. The values of an intellectual community are trust, honesty, free inquiry, open debate, respect for diversity, and respect for others' convictions. Further, the intellectual community always seeks to foster the virtues and characteristics of intelligence, curiosity, discipline, creativity, integrity, clear expression, and the desire to learn from others. It is these that must guide our work and exchanges in this class. These principles are delineated further in the [ACE Statement on Academic Rights and Responsibilities](#).

If these values and principles are breached, students have the right and responsibility to discuss their concerns with the course instructor and, as needed, the department head. Usually, the concerns are addressed at this level, but sometimes the department head may refer students to another resource. In the event that either the student or the instructor is not satisfied after discussion with each other, he/she may take his/her concerns in writing to the Associate Provost for Academic Administration.

## **INCLEMENT WEATHER**

TV and radio stations will announce if the college is closed. Information on closing will also be available on our Web site <http://www.ung.edu>. Students, faculty and staff who have registered under Blackboard Connect Emergency Notification System will receive information not only about college and individual campus closures but also about the status of college and campus hours, including late openings.

### **Blackboard Connect Emergency Notification System**

Emergency situations - from natural disasters to health scares to the threats of violence - require that our campus community be fully prepared and informed. Accordingly, University of North Georgia has implemented the Blackboard Connect service to enhance university communication and emergency

preparedness. The Blackboard Connect system is a communication service that enables key administrators and Public Safety personnel to quickly provide all students, faculty, and staff with personalized voice and text messages.

All UNG emails are added into the system automatically. In addition, you may enter a phone number so that emergency announcements can be sent to you via voice and text message. To do this, go to our Banner self-service environment; click on the tab labeled "Personal Information"; then, click on the tab named "Enter Emergency Contacts for Blackboard Connect." Here you can update your information for the Blackboard system.

If you have questions, please contact Public Safety at 706-864-1500 or send an e-mail to [emeralert@ung.edu](mailto:emeralert@ung.edu).

## **COURSE GRADES AND WITHDRAWAL PROCESS**

Grades: A, B, C, D, F, W, WF, MW

**Incomplete grades (I)** - This grade indicates that a student was doing satisfactory work but, for non-academic reasons beyond her/his control, was unable to meet the full requirements of the course. For undergraduate programs, if an I is not satisfactorily removed after one semester (excluding summer), the symbol of I will be changed to the grade of F by the appropriate official. For graduate programs, if an I is not satisfactorily removed after two semester (excluding summer), the symbol of I will be changed to the grade of F by the appropriate official. Under special circumstances, this period of time can be increased with the approval of the department head and the dean.

**IP (In Progress)** - This grade is appropriate for thesis hours, project courses, Learning Support and English as a Second Language (ESL) courses. It is not appropriate for traditional credit courses. If an IP grade isn't satisfactorily removed after 3 semesters, the symbol of IP will be changed to the grade of F by the appropriate official. Under special circumstances, this period of time can be increased with the approval of the dean. However, students who receive a grade of IP in a learning support course or an ESL will retain this grade due to the nature of the course.

**K** - This symbol indicates that a student was given credit for the course via a credit by examination program.

**MW** – Withdrawal for military exigencies.

**CR** – Credit (for Military experience).

**NR** - This symbol indicates that the grade was not reported by the instructor.

**S-** This symbol indicates that a student completed the course with satisfactory work.

**U-** This symbol indicates that a student did not complete the course with satisfactory work.

**V** - This symbol indicates that a student was given permission to audit the course. Students may not transfer from audit to credit status or vice versa. If an audit student withdraws from a course prior to the end of the term, a "W" will be assigned as the grade rather than a grade of "V." An audit student who is dropped by the instructor for excessive absences will be assigned a grade of "W."

**W or WF** – A W grade indicates that a student was permitted to withdraw from without academic penalty. Students may withdraw from courses prior to the midterm and receive a grade of W. Withdrawals without penalty will not be permitted after the midpoint of the total grading period except in cases of hardship as

determined by the appropriate official. If a student withdraws before the deadline, the grade of W will be given. The grade of WF is for students who withdraw after the deadline for the term or commit academic integrity violations.

**University of North Georgia**  
**College of Science and Mathematics**  
**Mathematics Department**  
**Mathematics 1111, College Algebra CRN 9076**

**Meeting Time:** 9:00 am – 9:50am MWF;   **Room:** O. Class 320  
**Semester:** Fall (2015)  
**Instructor:** Berhanu Kidane  
**Office:** Room 311B (Oconee)  
**Office Phone:** (706) 310 – 6363  
**E-Mail:** [berhanu.Kidane@ung.edu](mailto:berhanu.Kidane@ung.edu)

**Office Hours:**        MW    **11:00 – 12:00 pm**  
                              TR    **12:00 – 01:30 pm**  
                              Fri    **11:30 – 02:00 pm:** Room 320 (Math Gym)

**Important Dates:**

1. Course changes and late registration: Drop/Add: August 17 – 21
2. Full Session withdrawal Monday October 12  
Dropping a course after this date means an automatic "WF" unless the Dean gives specific approval. Prior to this date, a "W" will be awarded.
3. Holiday, Monday September 7 (no Class Labor Day):
4. Fall Break Monday Nov 23 - 27(no classes)
5. Class end: Friday, Dec 04; Final Exams (Dec 07 - 11)
6. **Final Exam: (Monday Dec 7 from 8:00 – 10:00)**

**Texts and Other Materials are available free online for students:**

1. **Online Educational Resources (OER)** from Affordable Learning Georgia (ALG: <http://www.affordablelearninggeorgia.org/>) and other online resources:

**Text Books, e – books**, students can download a free pdf copy:

- <http://www.stitz-zeager.com/szca07042013.pdf> (Main Text Book)
- <http://msenux.redwoods.edu/IntAlgText/> (Chapters 3 – 9 Supplementary Text )

**Tutorials and Practice Exercises**

- [http://www.wtamu.edu/academic/anns/mps/math/mathlab/col\\_algebra/index.htm](http://www.wtamu.edu/academic/anns/mps/math/mathlab/col_algebra/index.htm)
- <http://www.ixl.com/math/algebra-2>
- <http://www.ixl.com/math/precalculus>
- <http://www.ltconline.net/green/java/index.html>

2. **Technology Resources**

- Desmos Graphic Calculator at <https://www.desmos.com/calculator>
- Graphing calculator, Calculator-Based Laboratory (CBL), Calculator-Based Ranger (CBR)

3. **Web-based Resources**

- Khan academy at: <http://www.khanacademy.org>
- **Google** at: <http://www.google.com> Google any topic (**For example:** Google Square root of 2 or pi or any topic)
- You tube at: <http://www.youtube.com> (**For example:** write “linear equations” in the YouTube.com browser bar)

4. **COURSE DESCRIPTION:**

Topics include algebraic and absolute value equations and inequalities; piece-wise defined, polynomial, rational, exponential and logarithmic functions with their graphs and applications; and systems of equations. This course is designed to prepare students for MATH 1113 or MATH 2040. Students in majors that do **not** require these courses are encouraged to take MATH 1001 or MATH 1101.

**Credit:** 3 hours. **Prerequisite:** Regular placement or successful completion of MATH 0099.

**Co-requisite:** READ 0099, unless exempt

## 5. COURSE OBJECTIVES:

After completion of the course the student will be:

- Prepared for further work in mathematics.
- Able to Represent and solve real-world problems and applications of mathematics.
- Exposed to technology that enhances understanding of mathematics.
- Able to apply the distance and midpoint formulas.
- Able to graph and find the equation of a circle in standard form.
- Able to apply a variety of problem solving strategies including algebraic, numerical, and graphical techniques to analyze and/or solve piece-wise defined, polynomial, rational, and absolute value equations and inequalities.
- Able to apply function concepts and notation including function composition and inverse function.
- Able to set up and solve variation problems.
- Able to identify polynomial functions and perform sums, products, and quotients of polynomials (including the Remainder and Factor Theorems.)
- Able to identify rational functions, find the domain of a rational function, find asymptotes and sketch graphs
- Able to apply a variety of problem solving strategies including algebraic, numerical, and graphical techniques to solve exponential and logarithmic functions.
- Able to solve and classify systems of linear equations.

## 6. General outline for course coverage based on the 50 minute class duration.

- Equations, Inequalities and Variation: 8 days
- Coordinates and Graphs: 4 days
- General Functions: 7 days
- Polynomial and Rational Functions: 7 days
- Exponential and Logarithmic functions: 7 days
- Systems of Equations: 3 days

## 7. COURSE CONTENTS AND COVERAGE

|   | Dates | No of Weeks |
|---|-------|-------------|
| <b>Chapter 1: Sets and The Real Number System (P. 1 – 17 )</b>        |       |             |
| 1.1.0. Sets   |       | 1           |
| 1.1.1. Review on the Real Number System                               |       |             |
| 1.1.2. The Coordinate and Graphs                                      |       | 2&1/2       |
| 1.1.3. The Coordinate Plane and Graphs                                |       |             |
| 2.4. Solving Equations and Inequalities (P. 208)                      |       |             |
| <b>1.2 – 1.7. Relations, Functions and Their Graphs (P. 20 – 144)</b> |       | 3&1/2       |
| 1.2. Relations  |       |             |
| 1.3. – 1.7. Functions and Properties, Basic Functions;                |       |             |
| Getting Information from Graphs                                       |       |             |
| Average and Instantaneous Rate  |       |             |
| Graphing Techniques: Transformations                                  |       |             |
| <b>Chapter 5. Further Topics on Functions (P. 359 – 411)</b>          |       |             |
| 5.1 Combining Functions   |       |             |
| 5.2 One to one Functions and Their Inverses                           |       |             |
| <b>Chapter 2&amp; 3. Polynomial Functions (P. 151 – 297)</b>          |       | 4           |
| 2.1. – 2.2. Linear, Quadratic Functions and Models (P. 151 – 203)     |       |             |
| 3.1. – 3.4. Polynomial Functions and Their Graphs (P. 235 – 297)      |       |             |

|  |  |   |
|--|--|---|
| Dividing Polynomials   |  |   |
| Real Zeroes of Polynomials   |  |   |
| Complex Zeroes of Polynomials  |  |   |
| <b>Chapter 4. Rational Functions</b> (P. 301 – 353)                    |  |   |
| 4.1 – 4.3. Rational Functions and Graphs                               |  |   |
| <b>Chapter 6. Exponential and Logarithmic Functions</b> (P. 417 – 490) |  | 2 |
| 6.1. – 6.3. Exponential Function                                       |  |   |
| 6.2. – 6.4. logarithmic Functions and Laws                             |  |   |
| <b>Chapter 8. Systems of Equations and Inequalities</b> (P 549 – 566)  |  | 1 |
| 8.1. System of Linear Equations in Two variables                       |  |   |
| System of Linear Equations in Several Variables                        |  |   |

## 8. METHODS

- i. **Methods of Instruction:** The methods of instruction are determined by the instructor; however, the instructor is encouraged to use a variety of methods. These methods may include, but are not limited to lecture; problem-solving sessions with informal assessment by the student or instructor; discussion; group projects; timely feedback from test, quiz, or project results (formative assessment); question and answer; computer or calculator based explorations; and student presentations. Students will be encouraged to assess and monitor their own problem-solving process to determine when an error has been made or a new strategy should be used.
- ii. **Evaluation Methods:** Formative assessment will be in the form of written tests and/or short quizzes and summative assessment will be in the form of a final examination. Special projects and daily grades may be used at the discretion of the instructor. Final grades are determined by the percentage as follows:  
**90 – 100 = A, 80 - 89 = B, 70 – 79 = C, 60 – 69 = D and below 60 = F.** (Although a grade of "D" is passing, you must have a "C" or better in MATH 1111 to take any course for which MATH 1111 is a prerequisite.)

## 9. OTHERS:

- **Tests and other assignments:** In class or Take-Home Quizzes (Homework), Four Exams/Tests (of the Four one with the least grade will be dropped)
- **Final:** The final is comprehensive, covers everything discussed during the semester
- **Make-up Information:** Generally Make-ups are not allowed for missed Tests; however, if a student provides an acceptable authorized documentation for the absence, the student might be allowed to make up for the missed work. No make-up for homework and no make ups for missed classes.
- **Attendance Policy:** The attendance policy is concurrent with UNG's attendance policy. Attendance will be taken each class.
- **Student Grade Calculator:** An excel spread sheet **student grade calculate** will be posted in the **shared class files**. Students are responsible for calculating their up to date grades using the grade calculator.

## 10. FINAL GRADES:

Final grades will be determined as follows:

|                    |         |                                  |
|--------------------|---------|----------------------------------|
| Homework and Quiz: | 30 pts. |                                  |
| Exam/Test One:     | 15 pts. | (September 9)                    |
| Exam/Test Two:     | 15 pts. | (September 30)                   |
| Exam/Test Three:   | 15pts.  | (October 28)                     |
| Exam/Test Four:    | 15 pts. | (November 18)                    |
| Final Exam:        | 25 pts. | (Monday Dec 7 from 8:00 – 10:00) |
| Total:             | 100     |                                  |

- ❖ *The instructor reserves the right to alter the syllabus, in whole or in part, in order to meet the needs of all the students*

## 11. SUPPLEMENTARY MATERIALS:

### i. Library Resources:

- Mathematics Teacher, NCTM, Reston, VA.
- Schaum's easy outlines. *College algebra* : based on Schaum's Outline of *college algebra* by Murray R. Spiegel and Robert E. Moyer [computer file] / abridgement editor, George J. Hademenos
- Bell, E. T. Men of Mathematics. New York: Simon & Schuster, 1937.
- Osen, Lynn. Women in Mathematics. Cambridge MA, MIT Press, 1974.

ii. **Optional Books:** Any college Algebra or pre-calculus book of **any edition** whose contents overlap the contents on page 3 of this syllabus can serve as a reference for this course. For Example: College Algebra by John Colburn; College Algebra by Michael Sullivan; College Algebra by Margaret Lial and John Hornsby; College Algebra by James Stewart and Lothar Redlin; College Algebra by Robert Blitzer etc.

### iii. Other Web-based Resources:

- Purplemath.com at: <http://www.purplemath.com>
- Project Interactive - <http://www.shodor.org/interactivate>
- Association for Women in Mathematics – <http://www.awm-math.org>
- The Math Forum - <http://mathforum.org/>
- Texas Instruments - <http://education.ti.com/educationportal>
- Eric Weisstein's World of Mathematics (Encyclopedia of Mathematics) - <http://mathworld.wolfram.com>
- Math Nerds – <http://www.mathnerds.com/mathnerds>
- SOS Mathematics – <http://www.sosmath.com>
- Multi cultural Pavillon - <http://www.edchange.org/multicultural>
- Women in Mathematics - <http://www.agnesscott.edu/lriddle/women/women.htm>
- Careers in Mathematics - <http://www.ams.org/early-careers/>

## SUPPLEMENTARY SYLLABUS

Students are expected to refer to the Supplemental Syllabus, given below, for other detailed instructions which include in addition to disability services, the following:

1. Academic Exchange
2. Academic Integrity Policy
3. Academic Success Plan Program
4. Class Evaluations
5. Course Grades and Withdrawal Process
6. Disruptive Behavior Policy
7. Inclement Weather
8. Smoking Policy
9. Students with Disabilities

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UNG has implemented an Academic Success Plan Program to identify and provide assistance to at-risk students. Refer you to your campus Academic Advising Center for the development of strategies that will enhance your academic success. You will be expected to take advantage of advising and other campus resources to achieve your academic goals.

### STUDENTS WITH DISABILITIES

University of North Georgia is committed to equal access to its programs, services, and activities, and welcomes otherwise qualified students with disabilities. Students who require accommodations and services must register with Disability Services and submit supporting documentation. Disability Services provides accommodation memos for eligible students to give to their instructors. Students are responsible for making arrangements with instructors, and must give reasonable prior notice of the need for accommodation.

### Contact Information for Disability Services:

- Gainesville Campus: Carolyn Swindle, Assistant Director, [carolyn.swindle@ung.edu](mailto:carolyn.swindle@ung.edu), Dunlap-Mathis Building, Room 107, 678-717-3855
- Dahlonega Campus: Thomas McCoy, Assistant Director, [thomas.mccoy@ung.edu](mailto:thomas.mccoy@ung.edu), Stewart Student Success Center, Room 313, 706-867-2782.
- Oconee Campus: Erin Williams, Assistant Director, [erin.williams@ung.edu](mailto:erin.williams@ung.edu), Administration Building, Room 112, 706-310-6202.
- Cumming Instructional Site: Nicola Dovey, Director [nicola.dovey@ung.edu](mailto:nicola.dovey@ung.edu) or Beth Bellamy, Test Facilitator, [beth.bellamy@ung.edu](mailto:beth.bellamy@ung.edu) 678-717-3855. (For on-site assistance, contact Rebecca Rose, Head Librarian, [rebecca.rose@ung.edu](mailto:rebecca.rose@ung.edu), Library University Center 400, 470239-3119.

### ACADEMIC INTEGRITY POLICY

**Student Code of Conduct:** Please review the Student Code of Conduct found here: <http://ung.edu/student-affairs/student-code-of-conduct.php>

**Plagiarism and Turnitin.com:** Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

**Copyright:** Both Federal and State laws forbid the unlawful duplication of copyrighted computer software or other reproductions of copyrighted material. In accordance with these policies, University of North Georgia expressly forbids the copying of such materials supplied by or used in the College. Unlawful duplication of copyrighted materials by a user may result in disciplinary action by the College under the Student Code of Conduct (Non-Academic Infractions--Prohibitions, Theft), and/or possible criminal action by the owner of the copyright.

### **DISRUPTIVE BEHAVIOR POLICY**

Students who exhibit behaviors that are considered to obstruct or disrupt the class or its learning activities are subject to sanctions under the Board of Regents Policy on Disruptive Behavior. Behaviors which may be considered to be inappropriate in this classroom includes, but is not limited to, sleeping, coming in late, talking out of turn, inappropriate use of laptops or mobile devices, verbal behavior that is disrespectful of other students or the faculty member, or other behaviors that may be disruptive. Students who exhibit such behavior may be temporarily dismissed from the class by the instructor and will be subject to disciplinary procedures outlined in the Student Handbook.

### **CLASS EVALUATIONS**

Class evaluations at UNG are conducted online. Evaluation of the class is considered a component of the course and students will not be permitted to access their course grade until the evaluation has been completed. The evaluations will be accessible beginning one week prior to Final Exam week.

### **ACADEMIC EXCHANGE**

Universities welcome diversity, free speech and the free exchange of ideas. Discussion should be held in an environment characterized by openness, tolerance of differences and civility. The values of an intellectual community are trust, honesty, free inquiry, open debate, respect for diversity, and respect for others' convictions. Further, the intellectual community always seeks to foster the virtues and characteristics of intelligence, curiosity, discipline, creativity, integrity, clear expression, and the desire to learn from others. It is these that must guide our work and exchanges in this class. These principles are delineated further in the [ACE Statement on Academic Rights and Responsibilities](#).

If these values and principles are breached, students have the right and responsibility to discuss their concerns with the course instructor and, as needed, the department head. Usually, the concerns are addressed at this level, but sometimes the department head may refer students to another resource. In the event that either the student or the instructor is not satisfied after discussion with each other, he/she may take his/her concerns in writing to the Associate Provost for Academic Administration.

### **INCLEMENT WEATHER**

TV and radio stations will announce if the college is closed. Information on closing will also be available on our Web site <http://www.ung.edu>. Students, faculty and staff who have registered under Blackboard Connect Emergency Notification System will receive information not only about college and individual campus closures but also about the status of college and campus hours, including late openings.

### **Blackboard Connect Emergency Notification System**

Emergency situations - from natural disasters to health scares to the threats of violence - require that our campus community be fully prepared and informed. Accordingly, University of North Georgia has implemented the Blackboard Connect service to enhance university communication and emergency preparedness. The Blackboard Connect system is a communication service that enables key administrators and Public Safety personnel to quickly provide all students, faculty, and staff with personalized voice and text messages.

All UNG emails are added into the system automatically. In addition, you may enter a phone number so that emergency announcements can be sent to you via voice and text message. To do this, go to our Banner self-service environment; click on the tab labeled "Personal Information"; then, click on the tab named "Enter Emergency Contacts for Blackboard Connect." Here you can update your information for the Blackboard system.

If you have questions, please contact Public Safety at 706-864-1500 or send an e-mail to [emeralert@ung.edu](mailto:emeralert@ung.edu).

## **COURSE GRADES AND WITHDRAWAL PROCESS**

**Grades: A, B, C, D, F, W, WF, MW** – Should this date be listed at the end of this section?

**Incomplete grades (I)** - This grade indicates that a student was doing satisfactory work but, for non-academic reasons beyond her/his control, was unable to meet the full requirements of the course. For undergraduate programs, if an **I** is not satisfactorily removed after one semester (excluding summer), the symbol of **I** will be changed to the grade of **F** by the appropriate official. For graduate programs, if an **I** is not satisfactorily removed after two semester (excluding summer), the symbol of **I** will be changed to the grade of **F** by the appropriate official. Under special circumstances, this period of time can be increased with the approval of the department head and the dean.

**IP (In Progress)** - This grade is appropriate for thesis hours, project courses, Learning Support and English as a Second Language (**ESL**) courses. It is not appropriate for traditional credit courses. If an **IP** grade isn't satisfactorily removed after 3 semesters, the symbol of **IP** will be changed to the grade of **F** by the appropriate official. Under special circumstances, this period of time can be increased with the approval of the dean. However, students who receive a grade of **IP** in a learning support course or an **ESL** will retain this grade due to the nature of the course.

**K** – This symbol indicates that a student was given credit for the course via a credit by examination program.

**MW** – Withdrawal for military exigencies.

**CR** – Credit (for Military experience).

**NR** – This symbol indicates that the grade was not reported by the instructor.

**S** – This symbol indicates that a student completed the course with satisfactory work.

**U** – This symbol indicates that a student did not complete the course with satisfactory work.

**V** – This symbol indicates that a student was given permission to audit the course. Students may not transfer from audit to credit status or vice versa. If an audit student withdraws from a course prior to the end of the term, a "**W**" will be assigned as the grade rather than a grade of "**V**". An audit student who is dropped by the instructor for excessive absences will be assigned a grade of "**W**".

**W** or **WF** – A **W** grade indicates that a student was permitted to withdraw from without academic penalty. Students may withdraw from courses prior to the midterm and receive a grade of **W**. Withdrawals without penalty will not be permitted after the midpoint of the total grading period except in cases of hardship as determined by the appropriate official. If a student withdraws before the deadline, the grade of **W** will be given. The grade of **WF** is for students who withdraw after the deadline for the term or commit academic integrity violations.

### **Link for Supplemental Syllabus:**

<http://ung.edu/academic-affairs/policies-and-guidelines/supplemental-syllabus.php>



# FOUNDATIONS FOR COLLEGE ALGEBRA

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MATH 0989, FALL 2015

*University of North Georgia*

CRN # 10644; 1:00 pm - 2:50pm MW; Room 320

## INSTRUCTOR

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Name Michael Goodroe

Office 311 B

Phone (706) 310 - 6334

Email [michael.goodroe@ung.edu](mailto:michael.goodroe@ung.edu)

Hours T 01:00pm - 03:00pm

Important Dates 1.) Add/Drop August 17 - 21

2.) Withdrawal October 12

3.) **Final Exam** December 7

@12:40 pm - 2:40 pm

4.) **Math Jam Fridays 12:00pm - 2:00pm**

**Room 320**

## UNG Supplemental Syllabus Links:

<http://ung.edu/academic-affairs/policies-and-guidelines/supplemental-syllabus.php>

<http://ung.edu/academic-affairs/faculty-handbook/3-faculty-responsibilities/3.7-class-attendance-policies/3.7.1-student-attendance-policy.php>

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## COURSE

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### DESCRIPTION

A course for students needing in-depth preparation in basic mathematics and beginning algebra. The course is required for students whose MPI scores indicate a need for the course and whose major requires College Algebra, MATH 1111. The course will cover the following topics: Real Numbers, Linear Equations and Problem Solving, Exponents and Polynomials, Linear Inequalities, Factoring Polynomials, Rational Expressions and Equation and introduce the following topics: Functions, Systems of Linear Equations, Radicals and Complex Numbers, Quadratics Equations and functions. Students required to take this course must pass with a grade of C or higher before enrolling in MATH 0999. Other students may volunteer to take the course to enhance their current math skills.

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### COURSE OBJECTIVES

To develop and support the student's math knowledge and skills enabling the student to be successful in MATH 0999 Support for College Algebra along with MATH 1111, College Algebra.

After completion of the course, the student will be able to:

- Identify and perform basic operations on real numbers.
  - Translate sentences to algebraic expressions and equations.
  - Solve linear equations..
  - Use exponential notation and properties of exponents.
  - Perform basic operations on polynomials.
  - Factor polynomials.
  - Perform basic operations on rational expressions.
  - Solve a variety of application problems.
  - Perform basic operations on radical expressions.
  - Solve radical equations.
  - Define complex numbers.
  - Add complex numbers.
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## MATERIALS

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Course Website: <http://faculty.ung.edu/mgoodroe/index.html>

- Texts:
- 1.) eTextbook - College of the Redwoods - Pre Algebra (COR)  
<http://mathrev.redwoods.edu/PreAlgText/>
  - 2.) eTextbook - College of the Redwoods - Elementary Algebra  
<http://mathrev.redwoods.edu/ElemAlgText/>
  - 3.) eTextbook - College of the Redwoods - Intermediate Algebra  
<http://msenux2.redwoods.edu/IntAlgText>
  - 4.) eTextbook - College of the Sequoias - Intermediate Algebra  
<https://www.cos.edu/Faculty/jonb/Pages/Math-230-Intermediate-Algebra.aspx>
  - 5.) Desmos Graphing Site  
<https://www.desmos.com>

## GRADING

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Your final grade will be determined as follows:

|                     |     |
|---------------------|-----|
| Exams (3)           | 45% |
| Assignments/Quizzes | 30% |
| Final(Cumulative)   | 25% |



## EXAMS

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Students need to be in the classroom and prepared to take the exam **five minutes prior** to the scheduled class start time. If you will be late, please notify me via email as soon as possible prior to the start of the exam. **If you miss the exam or come late without prior notification and re-scheduling, a grade of zero will be recorded** (see make -up policy below).

**Calculator use:** you may use a **simple hand-held calculator for exams**. However, you will not be permitted to use the calculator function on your cell phone or any Wi-Fi device.

If you need to leave the classroom during the exam, please do so quietly and be respectful of other students.

## MAKEUP WORK

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**No make-up of exams/quizzes/homework assignments/Projects will be given.** If you miss one of the exams, then your Final Exam score will replace the missed exam. If you take all exams, then the Final Exam score will replace your single lowest score, assuming your final exam score is greater than your lowest exam score.

If you know in advance that you will not be present during an exam, please notify me via email as soon as possible to schedule taking the exam prior to the actual exam date. No exams will be scheduled **after** the actual exam date, only prior.

## POLICIES

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### ATTENDANCE

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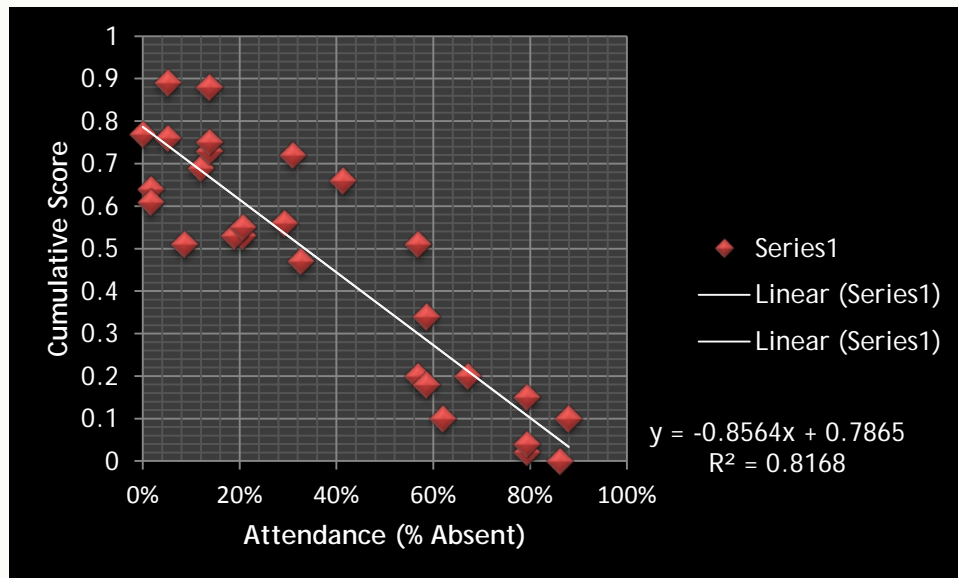
UNG Student Attendance Policy: <http://ung.edu/academic-affairs/faculty-handbook/3-faculty-responsibilities/3.7-class-attendance-policies/3.7.1-student-attendance-policy.php>

Data support the fact that when students regularly attend their mathematics courses, they are much more likely to succeed. Learning mathematics requires students to engage and actively participate in mathematics. Being absent from class greatly reduces your chances to be involved in your own learning. Though attendance in this course is not an element of your cumulative score, students who regularly miss class tend to have very low scores. Therefore, I will record your attendance daily.

Below is a linear graph from a recent class, which relates the percent of student absences with student's cumulative scores. All my classes have a similar graph! As you can see, as the percent of absences increases to the right on the horizontal axis, cumulative scores decrease on the vertical axis. Conversely, the less a student is absent, say between 0% and 20%, student scores increase. I encourage you to make a personal commitment to attend class regularly and to be proactive in your own education.

**Please be aware that UNG policy states that a student who has missed 10% or more in a class can/will be "WITHDRAWN" from class either receiving a grade of "W" or "WF" depending if absences occur before or after the withdraw date! I will be recording**

attendance everyday starting on the first day through the last day of classes.  
Therefore, you can miss 6 days during the semester.



## SCHOLASTIC DISHONESTY

See attached link of UNG's Student Conduct Code:

<http://ung.edu/academic-affairs/policies-and-guidelines/supplemental-syllabus.phpb>

## DISRUPTIVE BEHAVIOR

Students who exhibit behaviors which are considered to obstruct or disrupt a class or its learning activities will be considered under the Board of Regents Policy on Disruptive Behavior. Behaviors which will be considered to be inappropriate in our classroom include sleeping,

eating, coming in late/leaving early, interrupting others, talking out of turn, cell phone use of any kind, inappropriate behavior during group work, verbal or nonverbal behavior that is disrespectful of other students or the teacher. Students who exhibit disruptive behavior will be given a verbal warning for the first infraction. If the behavior continues, the student will be asked to leave the classroom. Prior to returning to our classroom, the student will need to make an appointment to see me during office hours. Any further infractions would be referred to the Disciplinary Committee of the College.

Cell phones:

1. Should be turned off or in silent mode during all classes.



2. Should be put away and not visible during class.
3. Any use of a cell phone, including but not limited to, sending/receiving calls, texting, checking the Internet is not permitted during class, with the exception of Instructor permitted use.

Computers or Tablets:

1. Are not permitted unless prior arrangements are made with your Instructor.

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## MISCELLANY

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### USEFUL LINKS

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<http://ung.edu/learning-support/academic-resources.php>

**KHAN Academy:**

<http://www.khanacademy.org/>

Pearson's Intermath:

<http://interactmath.com/ChapterContents.aspx>

MathTV YouTube Channel:

<http://www.youtube.com/user/MathTV>

Purplemath:

<http://www.purplemath.com/>

UNG- Oconee Math

<https://web.ung.edu/media/MathHelp>

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### ACADEMIC SUPPORT

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You are strongly encouraged to go to the SRC or LS Math Lab, study in groups, and see me for help outside of class. All of these are free! Students who get help outside of class are typically much more successful than those that do not.

SRC hours are: (Math Tutoring)

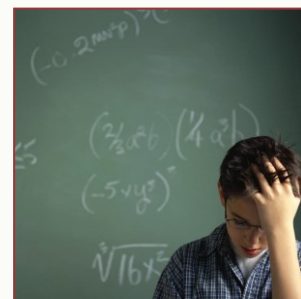
Monday-Friday      8:00 AM - 9:00 PM

<http://www.gsc.edu/academics/labs/oconee/Pages/Math.aspx>

LS Math Lab hours are: (Room 311 B)

Same as Office Hours

**Math Jam Fridays 12:00pm - 02:00pm in room 320**





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# FOUNDATIONS FOR COLLEGE ALGEBRA

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MATH 0989, FALL 2015

*University of North Georgia*

CRN # 10482; 9:00am - 9:50 MTWF; Room 316

## INSTRUCTOR

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Name Michael Goodroe

Office 311 B

Phone (706) 310 - 6334

Email [michael.goodroe@ung.edu](mailto:michael.goodroe@ung.edu)

Hours T 01:00pm - 03:00pm

Important Dates 1.) Add/Drop August 17 - 21

2.) Withdrawal October 12

3.) **Final Exam** December 7

@08:00 am - 10:00 am

4.) **Math Jam Fridays 12:00pm - 2:00pm**

**Room 320**

## UNG Supplemental Syllabus Links:

<http://ung.edu/academic-affairs/policies-and-guidelines/supplemental-syllabus.php>

<http://ung.edu/academic-affairs/faculty-handbook/3-faculty-responsibilities/3.7-class-attendance-policies/3.7.1-student-attendance-policy.php>

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## COURSE

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### DESCRIPTION

A course for students needing in-depth preparation in basic mathematics and beginning algebra. The course is required for students whose MPI scores indicate a need for the course and whose major requires College Algebra, MATH 1111. The course will cover the following topics: Real Numbers, Linear Equations and Problem Solving, Exponents and Polynomials, Linear Inequalities, Factoring Polynomials, Rational Expressions and Equation and introduce the following topics: Functions, Systems of Linear Equations, Radicals and Complex Numbers, Quadratics Equations and functions. Students required to take this course must pass with a grade of C or higher before enrolling in MATH 0999. Other students may volunteer to take the course to enhance their current math skills.

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### COURSE OBJECTIVES

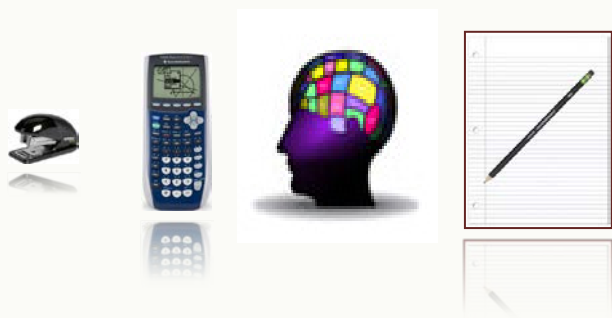
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  - Perform basic operations on rational expressions.
  - Solve a variety of application problems.
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## GRADING

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|                     |     |
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| Exams (3)           | 45% |
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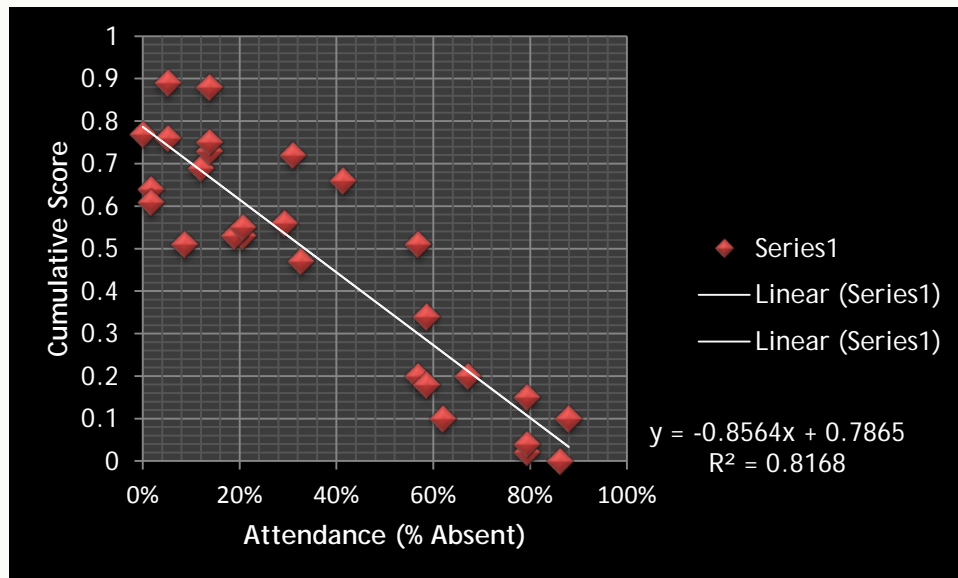
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## MISCELLANY

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### USEFUL LINKS

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Pearson's Intermath:

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<http://www.youtube.com/user/MathTV>

Purplemath:

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UNG- Oconee Math

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### ACADEMIC SUPPORT

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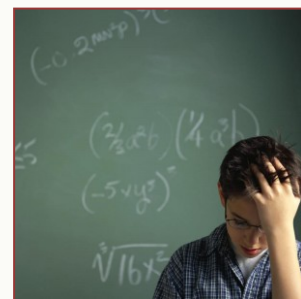
Monday-Friday                      8:00 AM - 9:00 PM

<http://www.gsc.edu/academics/labs/oconee/Pages/Math.aspx>

LS Math Lab hours are: (Room 311 B)

Same as Office Hours

**Math Jam Fridays 12:00pm - 02:00pm in room 320**





# INTERMEDIATE ALGEBRA

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MATH 0099, FALL 2015

*University of North Georgia*

CRN # 9064; 10:00 a.m. - 10:50 a.m. MTWF, Room 316

## INSTRUCTOR

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Name Michael Goodroe

Office 311 B

Phone (706) 310 - 6334

Email [michael.goodroe@ung.edu](mailto:michael.goodroe@ung.edu)

Hours TR 01:00 PM - 03:00 PM

Important Dates 1.) Add/Drop August 17 - 21

2.) Withdrawal October 12

3.) **Final Exam December 11**

@ 10:20 a.m. - 12:20 p.m.

4.) **Math Jam Fridays 12:00pm - 2:00pm**

**Room 320**

UNG Supplemental Syllabus Links:

<http://ung.edu/academic-affairs/policies-and-guidelines/supplemental-syllabus.php>

<http://ung.edu/academic-affairs/faculty-handbook/3-faculty-responsibilities/3.7-class-attendance-policies/3.7.1-student-attendance-policy.php>

## COURSE

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### DESCRIPTION

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A course for students needing supplemental preparation in intermediate algebra skills. The course is required for students whose placement test scores indicate a need for the course, or any student who placed in and completed MATH 0097 with a "C" or better. Topics include linear equations, graphing, systems of equations, inequalities, polynomials, factoring, functions, rational expressions, radicals, quadratic equations and functions, complex numbers, and problem solving.

### COURSE OBJECTIVES

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#### Global Math Goals:

1. To present the basic algebraic skills necessary in a beginning level college algebra course.
2. To present algebra as a tool useful in subsequent math, natural science and social science coursework.

#### Performance Objectives:

1. To solve linear equations.
2. To perform basic operations on polynomials.
3. To factor polynomials.
4. To solve quadratic equations
5. To perform basic operations on rational expressions.
6. To solve linear inequalities.
7. To define functions, using standard function notation.
8. To evaluate functions.
9. To graph linear functions.
10. To find equations of lines.
11. To solve systems of equations.

*Review of Beginning Algebra*

12. To solve rational equations.
13. To perform basic operations on radical expressions.
14. To solve radical equations.
15. To define complex numbers.
16. To add complex numbers.
17. To graph quadratic functions.
18. To find the distance between two points.
19. To solve a variety of application problems.

### MATERIALS

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**Course Website:** <http://faculty.ung.edu/mgoodroe/index.html>

- Text:**
- 1.) eTextbook - College of the Sequoias - Intermediate Algebra (**Main**)  
<https://www.cos.edu/Faculty/jonb/Pages/Math-230-Intermediate-Algebra.aspx>
  - 2.) eTextbook – College of the Redwoods – Intermediate Algebra (Supplemental)  
<http://msenux2.redwoods.edu/IntAlgText/>
  - 3.) Desmos Graphing Site (**Log on and Create an Account for FREE**)  
<https://www.desmos.com>

### GRADING

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Your final grade will be determined as follows:

|                     |     |
|---------------------|-----|
| Exams (3)           | 45% |
| Assignments/Quizzes | 30% |



Final(Cumulative)

25%

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## EXAMS

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Students need to be in the classroom and prepared to take the exam **five minutes prior** to the scheduled class start time. If you will be late, please notify me via email as soon as possible prior to the start of the exam. **If you miss the exam or come late without prior notification and re-scheduling, a grade of zero will be recorded** (see make -up policy below).

**Calculator use:** you may use a hand-held calculator for exams. However, you will not be permitted to use the calculator function on your cell phone.

If you need to leave the classroom during the exam, please do so quietly and respectful of other students.

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## MAKEUP WORK

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**No make-up of exams/quizzes/homework assignments will be given.** If you miss one of the exams, then your Final Exam score will replace the missed exam. If you take all exams, then the Final Exam score will replace your single lowest score, assuming your final exam score is greater than your lowest exam score.

If you know in advance that you will not be present during an exam, please notify me via email as soon as possible to schedule taking the exam prior to the actual exam date. No exams will be scheduled **after** the actual exam date, only prior.

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## POLICIES

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### ATTENDANCE

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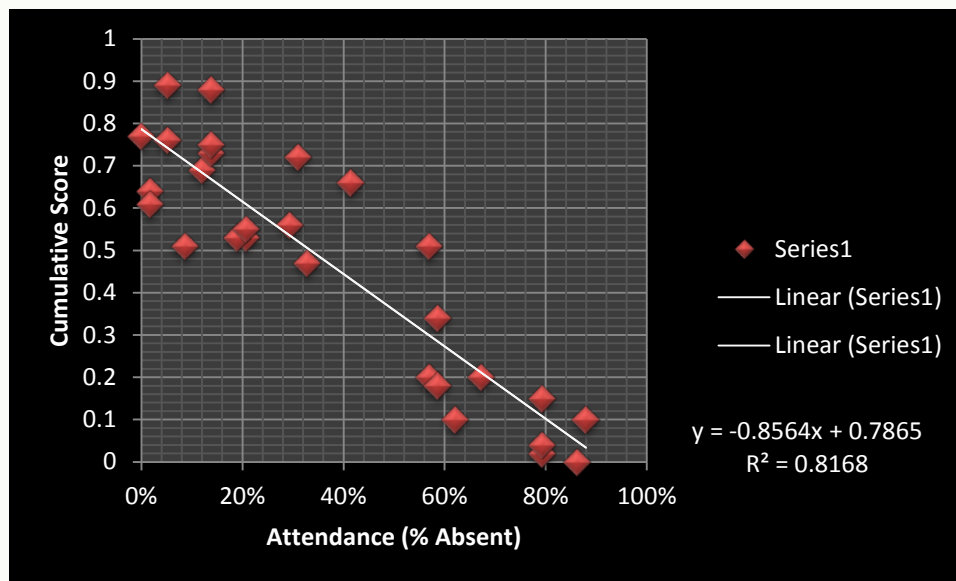
UNG Student Attendance Policy: <http://ung.edu/academic-affairs/faculty-handbook/3-faculty-responsibilities/3.7-class-attendance-policies/3.7.1-student-attendance-policy.php>

Data support the fact that when students regularly attend their mathematics courses, they are much more likely to succeed. Learning mathematics requires students to engage and actively participate in mathematics. Being absent from class greatly reduces your chances to be involved in your own learning. Though attendance in this course is not an element of your cumulative score, students who regularly miss class tend to have very low scores. Therefore, I will record your attendance daily.

Below is a linear graph from a recent class, which relates the percent of student absences with student's cumulative scores. All my classes have a similar graph! As you can see, as the percent of absences increases to the right on the horizontal axis, cumulative scores decrease on the vertical axis. Conversely, the less a student is absent, say between 0% and 20%, student scores increase. I encourage

you to make a personal commitment to attend class regularly and to be proactive in your own education.

Please be aware that UNG policy states that a student who has missed 10% or more in a class can/wil be "WITHDRAWN" from class either receiving a grade of "W" or "WF" depending if absences occur before or after the withdraw date! I will be recording attendance everyday starting on the first day through the last day of classes. Therefore, you can miss 6 days during the semester.



### SCHOLASTIC DISHONESTY

See attached link of UNG's Student Conduct Code:

<http://ung.edu/academic-affairs/policies-and-guidelines/supplemental-syllabus.phpb>



### DISTRUPTIVE BEHAVIOR

Students who exhibit behaviors which are considered to obstruct or disrupt a class or its learning activities will be considered under the Board of Regents Policy on Disruptive Behavior. Behaviors which will be considered to be inappropriate in our classroom include sleeping, eating, coming in late/leaving early, interrupting others, talking out of turn, cell phone use of any kind, inappropriate behavior during group work, verbal or nonverbal behavior that is disrespectful of other students or the teacher. Students who exhibit disruptive behavior will be given a verbal warning for the first infraction. If the behavior

continues, the student will be asked to leave the classroom. Prior to returning to our classroom, the student will need to make an appointment to see me during office hours. Any further infractions would be referred to the Disciplinary Committee of the College.

**Cell phones:**

1. Should be turned off or in silent mode during all classes.
2. Should be put away and not visible during class.
3. Any use of a cell phone, including but not limited to, sending/receiving calls, texting, checking the Internet is not permitted during class, with the exception of Instructor permitted use.

**Computers or Tablets:**

1. Are not permitted unless prior arrangements are made with your Instructor.

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## MISCELLANY

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### USEFUL LINKS

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<http://ung.edu/learning-support/academic-resources.php>

**KHAN Academy**

<http://www.khanacademy.org/>

Pearson's Intermath

<http://interactmath.com/ChapterContents.aspx>

MathTV YouTube Channel

<http://www.youtube.com/user/MathTV>

Purplemath

<http://www.purplemath.com/>

UNG-Oconee Math

<https://web.ung.edu/media/MathHelp>

**Class Files** - All in-class notes using the Smartboard will be posted daily after each class. Additionally, exam keys will be posted after each exam has been taken.

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### ACADEMIC SUPPORT

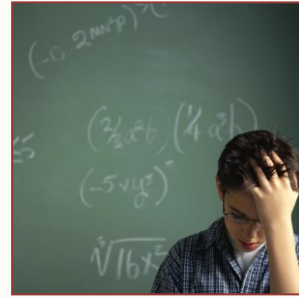
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You are strongly encouraged to go to the SLC or LS Math Lab, study in groups, and see me for help outside of class. All of these are free! Students that get help outside of class are typically much more successful than those that do not.

SLC hours are: (Math Tutoring)

Monday-Friday 8:00 AM - 9:00 PM

<http://www.gsc.edu/academics/labs/oconee/Pages/Math.aspx>



**University of North Georgia**  
**College of Science and Mathematics**  
**Mathematics Department**  
**Mathematics 1113, Pre-Calculus CRN 10545**

**Meeting Time:** 17:30 –18:45 (8:00 – 8:50 am) MWF **Room:** Oc. Class 320  
**Semester:** Fall 2015 (August 17 – December 11)  
**Instructor:** Berhanu Kidane  
**Office:** Room 311B (Ocone) **Office Phone:** (706) 310 – 6363  
**E-Mail:** [berhanu.Kidane@ung.edu](mailto:berhanu.Kidane@ung.edu)

**Office Hours:** MW **11:00 – 12:30 pm**  
TR **12:00 – 01:30 pm**  
Fri **12:00 – 02:00 pm:** Room 320 (Math Gym)

**Important Dates:**

1. Course changes and late registration: Drop/Add: August 17 – 21
2. Full Session withdrawal Monday October 12  
Dropping a course after this date means an automatic "WF" unless the Dean gives specific approval. Prior to this date, a "W" will be awarded.
3. Holiday, Monday September 7 (no Class Labor Day):
4. Fall Break Monday Nov 23 - 27(no classes)
5. Class end: Friday, Dec 04; Final Exams (Dec 07 - 11)
6. **Final Exam: (Friday Dec 11, From 8:00 – 10:00)**

**Text and Other Materials:**

1. **Required Text:** Free E-Books see shared class files Folder learning resources
  - Precal. Stitz & Zeager (**Book 1**)
  - **Trig. book by Michael Correl (Book 2)**
2. **Supplementary Materials**
  - Algebra and Trigonometry, Stewart, Redlin and Watson, 3<sup>rd</sup> Ed. (Chapter 5, Chapter 6, Chapter 7, Chapter 8, Chapter 9 : Sections 9.3, 9.4)
  - **Free online resource links**
    - <http://www.mathwarehouse.com/algebra/>
    - <http://archives.math.utk.edu/visual.calculus/>
    - <http://www.ltcconline.net/greenl/java/index.html>
    - <http://en.wikibooks.org/wiki/Trigonometry>
    - Animation Lessons: <http://flashytrig.com/intro/teacherintro.htm>
    - <http://www.sosmath.com/trig/trig.html>
3. **Technology Resources:**
  - Desmos Graphic Calculator at <https://www.desmos.com/calculator>
  - Graphing calculator, Calculator-Based Laboratory (CBL), Calculator-Based Ranger (CBR)
4. **Web-based Resources:**
  - Khan academy at: <http://www.khanacademy.org>
  - **Google** at: <http://www.google.com> Google any topic (**For example:** Google Square root of 2 or pi or any topic)
  - You tube at: <http://www.youtube.com> (**For example:** write “linear equations” in the YouTube.com browser bar)
5. **Course Description:** A course providing an intensive study on transcendental functions and their applications, which are fundamental to the study of Calculus, Physics, and related technical subjects. Emphasis is placed on exponential and logarithmic functions, trigonometric and inverse trigonometric functions, trigonometric identities and equations, right and oblique triangles, trigonometric form of complex numbers, parametric equations, and some algebraic calculus expressions. **Credit:** 3 hours. **Co-requisite:** Math 0099. **Prerequisite:** SAT Math score of 550 or higher, or ACT Math score of 23 or higher, or MATH 1111 with a grade of C or higher, or advanced placement.
6. **Course Objectives:** After completion of the course the student will be able to:

- Apply a variety of problem-solving strategies including algebraic, numerical, and graphical techniques to solve exponential, logarithmic, and trigonometric equations;
- Apply the properties of exponents and logarithms;
- Apply knowledge of vertical and horizontal asymptotes to curve sketching;
- Apply trigonometric ratios and Pythagorean, double, half-angle, sum, difference, and co-function identities;
- Apply properties of geometric transformations to analyze the graphs of functions;
- Apply the Law of Sine's and the Law of Cosine's to solve for the unknown sides or angles of a triangle;
- Find powers and roots of complex numbers;
- Evaluate inverse trigonometric functions graphically, numerically, and algebraically; and
- Apply parametric equations and sketch their graphs.

7. **General outline for course coverage** based on the 50 minute class duration

1. Exponential and logarithmic functions (8 days)
2. Trigonometric functions and applications to right triangles (10 days)
3. Trigonometric identities and equations (10 days)
4. Oblique triangles (3 days)
5. Complex numbers and De Moivre's Theorem (3 days)
6. Parametric Equations (2 days)

8. **COURSE CONTENTS AND COVERAGE**

|  | No of Weeks      | Comments |
|--|------------------|----------|
| <b>Chapter 0. Real Numbers; Graphs and Functions</b>                   | <b>1</b>         |          |
| • The Real Number System   |                  |          |
| • Review on Functions and Their Graph                                  |                  |          |
| • One-to-One Functions; Inverse Functions                              |                  |          |
| <b>Chapter 6. Exponential and Logarithmic Functions (P. 417 – 490)</b> | <b>2&amp;1/2</b> |          |
| 6.1. – 6.3. Exponential Function                                       |                  |          |
| 6.2. – 6.4. logarithmic Functions and Laws                             |                  |          |
| <b>Chapter 10. Trigonometric Functions: Right Triangle</b>             | <b>4&amp;1/2</b> |          |
| Angles and Their Measure   |                  |          |
| Trigonometry of Right Triangles  |                  |          |
| Trigonometric Functions of Angles                                      |                  |          |
| The Right Triangle and Its Applications (Book1)                        |                  |          |
| The Laws of Sines and Cosines  |                  |          |
| <b>10.2. Trigonometric Functions: Unit Circle</b>                      | <b>4&amp;1/2</b> |          |
| Trigonometric functions of Angles                                      |                  |          |
| The Unit circle  |                  |          |
| Trigonometric Identities (Book 2 Chap 3)                               |                  |          |
| Trigonometric and inverse trig function Graphs                         |                  |          |
| Inverse Trigonometric functions  |                  |          |
| Trigonometric Equations (Book 2 page 129)                              |                  |          |
| <b>Chapter 11... Polar Coordinates and Parametric Equations</b>        | <b>1&amp;1/2</b> |          |
| Polar Coordinates  |                  |          |
| Graphs of polar Equations  |                  |          |
| Polar Form of Complex Numbers; De Moivre's Theorem                     |                  |          |
| Plane curve and Parametric Equations                                   |                  |          |
|  |                  |          |

## 9. METHODS

- i. **Methods of Instruction:** The methods of instruction are determined by the instructor; however, the instructor is encouraged to use a variety of methods. These methods may include, but are not limited to lecture; problem-solving sessions with informal assessment by the student or instructor; discussion; group projects; timely feedback from test, quiz, or project results (formative assessment); question and answer; computer or calculator based explorations; and student presentations. Students will be encouraged to assess and monitor their own problem-solving process to determine when an error has been made or a new strategy should be used.
- ii. **Evaluation Methods:** Formative assessment will be in the form of written tests and/or short quizzes and summative assessment will be in the form of a final examination. Special projects and daily grades may be used at the discretion of the instructor. Final grades are determined by the percentage as follows:  
**90 – 100 = A, 80 - 89 = B, 70 – 79 = C, 60 – 69 = D and below 60 = F.** (Although a grade of "D" is passing, you must have a "C" or better in MATH 1111 to take any course for which MATH 1111 is a prerequisite.)

## 10. OTHERS:

- **Tests and other assignments:** In class or Take-Home Quizzes (Homework), Four Exams/Tests (of the Four one with the least grade will be dropped)
- **Final:** The final is comprehensive, covers everything discussed during the semester
- **Make-up Information:** Generally Make-ups are not allowed for missed Tests; however, if a student provides an acceptable authorized documentation for the absence, the student might be allowed to make up for the missed work. No make-up for homework and no make ups for missed classes.
- **Attendance Policy:** The attendance policy is concurrent with UNG's attendance policy. Attendance will be taken each class.
- **Student Grade Calculator:** An excel spread sheet **student grade calculate** will be posted in the **shared class files**. Students are responsible for calculating their up to date grades using the grade calculator.

**Final grades** will be determined as follows:

|                    |         |   |
|--------------------|---------|---|
| Homework and Quiz: | 25 pts. |   |
| Exam One:          | 15 pts. | (September 9)                             |
| Exam Two:          | 15 pts. | (September 30)                            |
| Exam Three:        | 15pts.  | (October 28)                              |
| Exam Four:         | 15 pts. | (November 18)                             |
| Final Exam:        | 30 pts. | <b>(Friday Dec 11, From 8:00 – 10:00)</b> |
| Total:             | 100     |   |

## Additional Supplementary Materials

### 11. Library Resources:

- Krantz, Steven (ed.) Dictionary of Algebra, Arithmetic, and Trigonometry, CRC Press; 2001.
- Maor, Eli. Trigonometric Delights, Princeton University Press; 1998.
- Huettenmueller, Rhonda. Precalculus demystified; electronic resource, 2005.
- Slavin, Stephen L. Precalculus a self-teaching guide; 2001.
- Safier, Fred. Precalculus; electronic resource, 2009.
- Demana, et. al. Graphing Calculator Resource Manual, Addison-Wesley; 1997.
- Dahlke, Richard. How to succeed in college mathematics : a guide for the college mathematics student; BergWay Pub., 2008.

## 12. Web-based Resources:

- **Purplemath.com** at: <http://www.purplemath.com>
- **Alpha** - <http://www.wolframalpha.com/>
- Association for Women in Mathematics - <http://www.awm-math.org>
- The Math Forum - <http://mathforum.org/>
- Math Nerds – [www.mathnerds.com](http://www.mathnerds.com)
- SOS Mathematics – [www.sosmath.com](http://www.sosmath.com)
- Math Moments - <http://www.ams.org/mathmoments/>
- Project Interactive - [www.shodor.org/interactivate](http://www.shodor.org/interactivate)
- Multi-cultural Pavillon - [www.edchange.org/multicultural](http://www.edchange.org/multicultural)
- Careers in mathematics - <http://www.ams.org/early-careers/>

## **SPECIFIC DETAILS OF THIS SYLLABUS MAY BE SUBJECT TO CHANGE**

**Students are expected to refer to the Supplemental Syllabus for the following information: (Include the link TBD) (Last Revised April 2013)**

**Supplemental Syllabus (will be posted online). Here is the link for the Supplemental Syllabus:**  
<http://ung.edu/academic-affairs/policies-and-guidelines/supplemental-syllabus.php>

1. **Academic Exchange**
2. **Academic Integrity Policy**
3. **Academic Success Plan Program**
4. **Class Evaluations**
5. **Course Grades and Withdrawal Process**
6. **Disruptive Behavior Policy**
7. **Inclement Weather**
8. **Smoking Policy**
9. **Students with Disabilities**

## **ACADEMIC SUCCESS PLAN PROGRAM**

UNG has implemented an Academic Success Plan Program to identify and provide assistance to at-risk students. Refer you to your campus Academic Advising Center for the development of strategies that will enhance your academic success. You will be expected to take advantage of advising and other campus resources to achieve your academic goals.

## **STUDENTS WITH DISABILITIES**

University of North Georgia is committed to equal access to its programs, services, and activities, and welcomes otherwise qualified students with disabilities. Students who require accommodations and services must register with Disability Services and submit supporting documentation. Disability Services provides accommodation memos for eligible students to give to their instructors. Students are responsible for making arrangements with instructors, and must give reasonable prior notice of the need for accommodation.

## **Contact Information for Disability Services:**

- **Gainesville Campus:** Carolyn Swindle, Assistant Director, [carolyn.swindle@ung.edu](mailto:carolyn.swindle@ung.edu), Dunlap-Mathis Building, Room 107, 678-717-3855
- **Dahlonega Campus:** Thomas McCoy, Assistant Director, [thomas.mccoy@ung.edu](mailto:thomas.mccoy@ung.edu), Stewart Student Success Center, Room 313, 706-867-2782.
- **Oconee Campus:** Erin Williams, Assistant Director, [erin.williams@ung.edu](mailto:erin.williams@ung.edu), Administration Building, Room 112, 706-310-6202.
- **Cumming Instructional Site:** Nicola Dovey, Director [nicola.dovey@ung.edu](mailto:nicola.dovey@ung.edu) or Beth Bellamy, Test Facilitator, [beth.bellamy@ung.edu](mailto:beth.bellamy@ung.edu) 678-717-3855. (For on-site assistance, contact Rebecca Rose, Head Librarian, [rebecca.rose@ung.edu](mailto:rebecca.rose@ung.edu), Library University Center 400, 470239-3119.

## **ACADEMIC INTEGRITY POLICY**

**Student Code of Conduct:** Please review the Student Code of Conduct found here: <http://ung.edu/student-affairs/student-code-of-conduct.php>

**Plagiarism and Turnitin.com:** Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

**Copyright:** Both Federal and State laws forbid the unlawful duplication of copyrighted computer software or other reproductions of copyrighted material. In accordance with these policies, University of North Georgia expressly forbids the copying of such materials supplied by or used in the College. Unlawful duplication of copyrighted materials by a user may result in disciplinary action by the College under the Student Code of Conduct (Non-Academic Infractions--Prohibitions, Theft), and/or possible criminal action by the owner of the copyright.

## **DISRUPTIVE BEHAVIOR POLICY**

Students who exhibit behaviors that are considered to obstruct or disrupt the class or its learning activities are subject to sanctions under the Board of Regents Policy on Disruptive Behavior. Behaviors which may be considered to be inappropriate in this classroom includes, but is not limited to, sleeping, coming in late, talking out of turn, inappropriate use of laptops or mobile devices, verbal behavior that is disrespectful of other students or the faculty member, or other behaviors that may be disruptive. Students who exhibit such behavior may be temporarily dismissed from the class by the instructor and will be subject to disciplinary procedures outlined in the Student Handbook.

## **CLASS EVALUATIONS**

Class evaluations at UNG are conducted online. Evaluation of the class is considered a component of the course and students will not be permitted to access their course grade until the evaluation has been completed. The evaluations will be accessible beginning one week prior to Final Exam week.

## **ACADEMIC EXCHANGE**

Universities welcome diversity, free speech and the free exchange of ideas. Discussion should be held in an environment characterized by openness, tolerance of differences and civility. The values of an intellectual community are trust, honesty, free inquiry, open debate, respect for diversity, and respect for others' convictions. Further, the intellectual community always seeks to foster the virtues and characteristics of intelligence, curiosity, discipline, creativity, integrity, clear expression, and the desire to learn from others. It is these that must guide our work and exchanges in this class. These principles are delineated further in the [ACE Statement on Academic Rights and Responsibilities](#).

If these values and principles are breached, students have the right and responsibility to discuss their concerns with the course instructor and, as needed, the department head. Usually, the concerns are addressed at this level, but sometimes the department head may refer students to another resource. In the event that either the student or the instructor is not satisfied after discussion with each other, he/she may take his/her concerns in writing to the Associate Provost for Academic Administration.

## **INCLEMENT WEATHER**

TV and radio stations will announce if the college is closed. Information on closing will also be available on our Web site <http://www.ung.edu>. Students, faculty and staff who have registered under Blackboard Connect Emergency Notification System will receive information not only about college and individual campus closures but also about the status of college and campus hours, including late openings.

### **Blackboard Connect Emergency Notification System**

Emergency situations - from natural disasters to health scares to the threats of violence - require that our campus community be fully prepared and informed. Accordingly, University of North Georgia has implemented the Blackboard Connect service to enhance university communication and emergency preparedness. The Blackboard Connect system is a communication service that enables key administrators and Public Safety personnel to quickly provide all students, faculty, and staff with personalized voice and text messages.

All UNG emails are added into the system automatically. In addition, you may enter a phone number so that emergency announcements can be sent to you via voice and text message. To do this, go to our Banner self-service environment; click on the tab labeled "Personal Information"; then, click on the tab named "Enter Emergency Contacts for Blackboard Connect." Here you can update your information for the Blackboard system.

If you have questions, please contact Public Safety at 706-864-1500 or send an e-mail to [emeralert@ung.edu](mailto:emeralert@ung.edu).

## **COURSE GRADES AND WITHDRAWAL PROCESS**

Grades: A, B, C, D, F, W, WF, MW – Should this date be listed at the end of this section?

**I** (Incomplete) - This grade indicates that a student was doing satisfactory work but, for non-academic reasons beyond her/his control, was unable to meet the full requirements of the course. For undergraduate programs, if an **I** is not satisfactorily removed after one semester (excluding summer), the symbol of **I** will be changed to the grade of **F** by the appropriate official. For graduate programs, if an **I** is not satisfactorily removed after two semesters (excluding summer), the symbol of **I** will be changed to the grade of **F** by the appropriate official. Under special circumstances, this period of time can be increased with the approval of the department head and the dean.

**IP** (In Progress) - This grade is appropriate for thesis hours, project courses, Learning Support and English as a Second Language (**ESL**) courses. It is not appropriate for traditional credit courses. If an **IP** grade isn't satisfactorily removed after 3 semesters, the symbol of **IP** will be changed to the grade of **F** by the appropriate official. Under special circumstances, this period of time can be increased with the approval of the dean. However, students who receive a grade of **IP** in a learning support course or an **ESL** will retain this grade due to the nature of the course.

**K** – This symbol indicates that a student was given credit for the course via a credit by examination program.

**MW** – Withdrawal for military exigencies.

**CR** – Credit (for Military experience).

**NR** – This symbol indicates that the grade was not reported by the instructor.

**S** – This symbol indicates that a student completed the course with satisfactory work.

**U** – This symbol indicates that a student did not complete the course with satisfactory work.

**V** – This symbol indicates that a student was given permission to audit the course. Students may not transfer from audit to credit status or vice versa. If an audit student withdraws from a course prior to the end of the term, a "**W**" will be assigned as the grade rather than a grade of "**V**". An audit student who is dropped by the instructor for excessive absences will be assigned a grade of "**W**".

**W** or **WF** – A **W** grade indicates that a student was permitted to withdraw from without academic penalty. Students may withdraw from courses prior to the midterm and receive a grade of **W**. Withdrawals without penalty will not be permitted after the midpoint of the total grading period except in cases of hardship as determined by the appropriate official. If a student withdraws before the deadline, the grade of **W** will be given. The grade of **WF** is for students who withdraw after the deadline for the term or commit academic integrity violations.



# SUPPORT FOR COLLEGE ALGEBRA

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MATH 0999, FALL 2015

*University of North Georgia*

CRN # 10484; 11:00 a.m. - 11:50 a.m. MWF, Room 320

## INSTRUCTOR

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Name Michael Goodroe

Office 311 B

Phone (706) 310 - 6334

Email [michael.goodroe@ung.edu](mailto:michael.goodroe@ung.edu)

Hours T 01:00 PM - 03:00 PM

Important Dates 1.) Add/Drop August 17 - 21

2.) Withdrawal October 12

3.) **Final Exam December 7**

@ 10:20 a.m. - 12:20 p.m.

4.) **Math Jam Fridays 12:00pm - 2:00pm**

**Room 320**

## UNG Supplemental Syllabus Links:

<http://ung.edu/academic-affairs/policies-and-guidelines/supplemental-syllabus.php>

<http://ung.edu/academic-affairs/faculty-handbook/3-faculty-responsibilities/3.7-class-attendance-policies/3.7.1-student-attendance-policy.php>

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## COURSE

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### DESCRIPTION

A course designed to allow students to simultaneously satisfy their LS requirements and take Math 1111, an Area A math course. The course will cover the Beginning or Intermediate Algebra topics needed for the student to be successful in College Algebra. The course allows the instructor to assist the students with any deficiencies they may have while attempting the College Algebra topics. The material covered in MATH 0999 is meant to provide background information or just-in-time remediation of the topics covered in MATH 1111. Topics to be covered include: polynomial, rational, and radical expressions and equations, quadratic functions and their graphs, and systems of equations.

**Credit:** 3 hours.

**Course Pre-requisites:** Admission requirements will be determined on a semester to semester basis. Admission is dependent upon the student's MPI score. Completion of MATH 0989, Foundations of College Algebra, with a grade of "C" or higher is required if the student initially places in Foundations of College Algebra.

**Course Co-requisite:** MATH 1111 College Algebra, CRN 9073

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### COURSE OBJECTIVES

**After completion of the course the student will be able to:**

- a. Apply Introductory Algebra concepts
- b. Solve Linear Inequalities
- c. Find and Graph Equations of Lines, Understand and Apply Knowledge of Functions
- d. Algebraically Solve Systems of Linear Equations

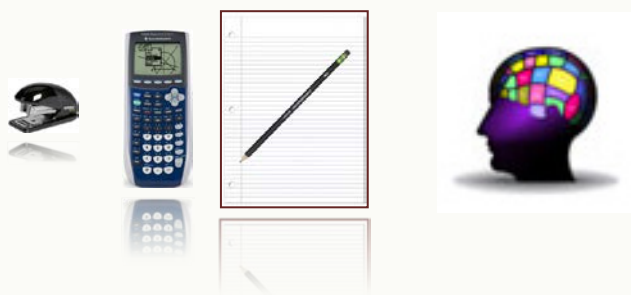
- e. Simplify and Solve Rational Expressions and Equations
- f. Solve Radical Equation and Apply Properties of Complex Numbers
- g. Algebraically Solve Quadratic Equations and Graph/Translate Quadratic Functions

**Additionally, Students will be able to:**

- Apply the order of operations
- Perform operations on fractions
- Use exponential notation, apply rules of exponents and negative exponents
- Solve linear equations
- Solve linear inequalities
- Perform operations on polynomials
- Factor polynomials
- Perform basic operations on radical expressions
- Solve quadratic equations using variety of methods including the quadratic formula
- Perform basic operations on rational expressions
- Simplify complex fractions
- Solve radical equations
- Solve rational equations
- Solve and classify systems of linear equations
- Apply function concepts and notation
- Graph a linear function
- Write an equation of a line given variety of conditions
- Solve and classify systems of linear equations

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## MATERIALS



**Course Website:** <http://faculty.ung.edu/mgoodroe/index.html>

**Text:** 1.) eTextbook - College of the Sequoias - Intermediate Algebra (**Main**)  
<https://www.cos.edu/Faculty/ionb/Pages/Math-230-Intermediate-Algebra.aspx>

2.) eTextbook – College of the Redwoods – Intermediate Algebra (Supplemental)  
<http://msenux2.redwoods.edu/IntAlgText/>

3.) eTextbook – College Algebra – (Main Text for Math 1111 by Dr. Kidane)  
<http://www.stitz-zeager.com/szca07042013.pdf>

4.) Desmos Graphing Site (Log on and Create an Account for FREE)  
<https://www.desmos.com>

## GRADING

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Your final grade will be determined as follows:

|                     |     |
|---------------------|-----|
| Assignments/Quizzes | 70% |
| Final (Cumulative)  | 30% |



### EXAMS

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Students need to be in the classroom and prepared to take the exam **five minutes prior** to the scheduled class start time. If you will be late, please notify me via email as soon as possible prior to the start of the exam. **If you miss the exam or come late without prior notification and re-scheduling, a grade of zero will be recorded** (see make-up policy below).

**Calculator use:** you may use a hand-held calculator for exams. However, you will not be permitted to use the calculator function on your cell phone.

If you need to leave the classroom during the exam, please do so quietly and respectful of other students.

### MAKEUP WORK

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**No make-up of exams/quizzes/homework assignments will be given.** If you miss one of the exams, then your Final Exam score will replace the missed exam. If you take all exams, then the Final Exam score will replace your single lowest score, assuming your final exam score is greater than your lowest exam score.

If you know in advance that you will not be present during an exam, please notify me via email as soon as possible to schedule taking the exam prior to the actual exam date. No exams will be scheduled **after** the actual exam date, only prior.

# POLICIES

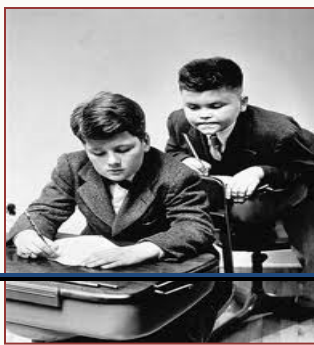
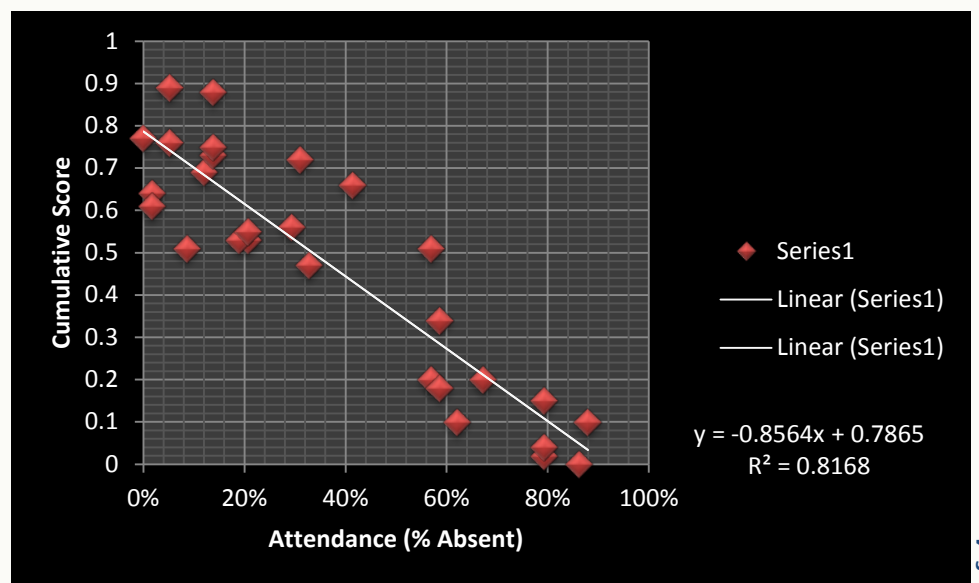
## ATTENDANCE

UNG Student Attendance Policy: <http://ung.edu/academic-affairs/faculty-handbook/3-faculty-responsibilities/3.7-class-attendance-policies/3.7.1-student-attendance-policy.php>

Data support the fact that when students regularly attend their mathematics courses, they are much more likely to succeed. Learning mathematics requires students to engage and actively participate in mathematics. Being absent from class greatly reduces your chances to be involved in your own learning. Though attendance in this course is not an element of your cumulative score, students who regularly miss class tend to have very low scores. Therefore, I will record your attendance daily.

Below is a linear graph from a recent class, which relates the percent of student absences with student's cumulative scores. All my classes have a similar graph! As you can see, as the percent of absences increases to the right on the horizontal axis, cumulative scores decrease on the vertical axis. Conversely, the less a student is absent, say between 0% and 20%, student scores increase. I encourage you to make a personal commitment to attend class regularly and to be proactive in your own education.

Please be aware that UNG policy states that a student who has missed 10% or more in a class can/wil be "WITHDRAWN" from class either receiving a grade of "W" or "WF" depending if absences occur before or after the withdraw date! I will be recording attendance everyday starting on the first day through the last day of classes. Therefore, you can miss 6 days during the semester.



## SCHOLASTIC DISHONESTY

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See attached link of UNG's Student Conduct Code:

<http://ung.edu/academic-affairs/policies-and-guidelines/supplemental-syllabus.phpb>

## DISTRUPTIVE BEHAVIOR

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Students who exhibit behaviors which are considered to obstruct or disrupt a class or its learning activities will be considered under the Board of Regents Policy on Disruptive Behavior. Behaviors which will be considered to be inappropriate in our classroom include sleeping, eating, coming in late/leaving early, interrupting others, talking out of turn, cell phone use of any kind, inappropriate behavior during group work, verbal or nonverbal behavior that is disrespectful of other students or the teacher. Students who exhibit disruptive behavior will be given a verbal warning for the first infraction. If the behavior continues, the student will be asked to leave the classroom. Prior to returning to our classroom, the student will need to make an appointment to see me during office hours. Any further infractions would be referred to the Disciplinary Committee of the College.

### Cell phones:

1. Should be turned off or in silent mode during all classes.
2. Should be put away and not visible during class.
3. Any use of a cell phone, including but not limited to, sending/receiving calls, texting, checking the Internet is not permitted during class, with the exception of Instructor permitted use.

### Computers or Tablets:

1. Are not permitted unless prior arrangements are made with your Instructor.

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## MISCELLANY

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### USEFUL LINKS

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<http://ung.edu/learning-support/academic-resources.php>

**KHAN Academy**

<http://www.khanacademy.org/>

Pearson's Intermath

<http://interactmath.com/ChapterContents.aspx>

MathTV YouTube Channel

<http://www.youtube.com/user/MathTV>

Purplemath

<http://www.purplemath.com/>

UNG-Oconee Math

<https://web.ung.edu/media/MathHelp>

**Class Files** - All in-class notes using the Smartboard will be posted daily after each class. Additionally, exam keys will be posted after each exam has been taken.

### ACADEMIC SUPPORT

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You are strongly encouraged to go to the SLC or LS Math Lab, study in groups, and see me for help outside of class. All of these are free! Students that get help outside of class are typically much more successful than those that do not.

SLC hours are: (Math Tutoring)

Monday-Friday

8:00 AM - 9:00 PM

<http://www.gsc.edu/academics/labs/oconee/Pages/Math.aspx>

