



# MTH 101: Intermediate Algebra

al·ge·bra

/aljɛbrə/ ⓘ

*noun*

the part of mathematics in which letters and other general symbols are used to represent numbers and quantities in formulae and equations.

- a system of algebra based on given axioms.
- plural noun: algebras

## SYLLABUS

### Purpose

This course is intended for students to become proficient in algebra, in order to build a firm foundation in preparation for MTH 111 Precalculus. Problem solving and applications will be emphasized throughout. MTH 111 requires a C- or better in MTH 101.

### Course Description

LEC: (3 crs.) Introduction to algebraic manipulation, solving equations and Inequalities in one variable. Plotting points and graphing elementary functions. Interpreting and expressing mathematics. Intended for STEM majors who are not prepared to take MTH 111. (Lec. 3) Pre: S in MTH099. Not for credit for mathematics majors, not for general education credit, and not open to students with a C- or better in MTH131 or MTH141.

**Prerequisite(s):** S in MTH 099.

**General Education Area(s) and Outcome(s):** None.

**Credit Hours:** 3

## Learning Outcomes

At the end of the course the student should be able to:

- \* perform arithmetic operations on polynomials;
- \* factor using GCF, difference of two squares, sum/difference of two cubes, trinomials and grouping;
- \* solve quadratic equations by factoring;
- \* perform arithmetic operations on rational and radical expressions and functions;
- \* solve rational and radical equations and solve quadratic equations by the quadratic formula;
- \* use the relationship between the equation of a line and its graph;
- \* solve relevant applications (exponents, quadratic equations, rational expressions).

## Required Materials

**Required Textbook(s):** *Introductory and Intermediate Algebra* Fifth Edition by Lial, Hornsby and McGinnis

**Other Required Material(s):** MyMathLab Online Homework Access Code (see below for details)

## Grade Distribution

Final grades will be based on class assignments, online MyMathLab homework, four exams, and a comprehensive final exam at a date/time TBA. The grade distribution is as follows:

**10% Class Assignments.** Students are expected to be active participants in this course. This includes attending class regularly and completing all assignments. Some of these assignments may include class/group activities, projects, or quizzes.

**10% Online Homework.** This will be completed online through MyMathLab.

**50% Exams.** There will be four exams given on the following dates:

Exam 1 covering chapter 5 on February 13

Exam 2 covering chapter 6 on March 20

Exam 3 covering chapter 7 on April 3

Exam 4 covering chapter 9 on April 17.

**30% Cumulative Final Exam** covering chapters 5, 6, 7, 9, 10 on TBA.

**Assignments will not be graded on a curve nor will any extra credit be made available. Calculator use is forbidden on all exams.**

## Letter Grade Distribution

Final grades will be determined according to the following scale.

93.00 - 100.00 A	73.00 - 76.99 C
90.00 - 92.99 A-	70.00 - 72.99 C-
87.00 - 89.99 B+	67.00 - 69.99 D+
83.00 - 86.99 B	60.00 - 66.99 D
80.00 - 82.99 B-	0.00 - 59.99 F
77.00 - 79.99 C+	

## MyMathLab Online Homework

MyMathLab is an online homework system that will be used for the homework assignments in this course.

A MyMathLab registration code is required. A registration code comes bundled with each new version of the textbook sold at the bookstore, or can be purchased separately if you want to use a used textbook. MyMathLab also comes with an electronic version of the textbook.

You are responsible for getting MyMathLab set up and enrolling in the online section of your course in a timely fashion.

### **Using Your Registration Code to Sign Up**

See MyMathLab Sign Up Instructions.

Direct all questions about MyMathLab to Joseph Erickson:

[joseph\\_erickson@my.uri.edu](mailto:joseph_erickson@my.uri.edu)

### **Availability and Due Dates**

Assignments are given weekly and are due every Sunday at 11:00 pm.

### **Attempts**

For homework you have three attempts for each question. If you are

unsuccessful after all three attempts, you may click similar problem to try again. This process can be repeated until you are successful.

## Policies for the Course

### **Attendance**

Attendance is a vital and necessary part of this course. While there is no formal attendance policy, we cover a lot of information at a rapid pace; missing a class will result in a large amount of material missed. Students are responsible for all missed work, regardless of the reason for absence. It is also the absentee's responsibility to get all missing notes or materials.

### **Expectations**

— You are expected to attend every lecture and lab, and to submit your work on time. Late homework will not be accepted.

— It is your responsibility to communicate clearly in writing up solutions for homework, quizzes, and exams. Your results must display your understanding well and be written in a correct, complete, coherent, and well organized fashion. The rules of language still apply in mathematics, and they apply even when symbols are used in formulas, equations, etc.

— The rapid pace of the class requires that you spend time every day doing homework, reviewing notes, reading the textbook, and working out extra problems, all in addition to the time spent in class.

### **Makeup Policy**

Makeup exams may be scheduled in the event you are unable to attend exams under the following conditions. In particular, if you must miss the exam because of a scheduling conflict, you must notify your instructor before, not after, the exam, and emergencies require you to contact your instructor within 24 hours. See University Manual sections 8.51.10 and 8.51.14 for guidelines.

If your reason for missing the exam as scheduled is (i) a University sanctioned event for which verifiable documentation can be provided (including another scheduled class), (ii) a responsibility to an employer that cannot be rescheduled (with documentation from your employer), or (iii) Religious holidays, then you **MUST INFORM YOUR INSTRUCTOR 48 HOURS IN ADVANCE OF THE EXAM AND PROVIDE DOCUMENTATION IF REQUESTED**. Makeup exams will be scheduled after the actual exam, and preferably before the class period when exams are to be handed back, but no later than one week after the original date.

If the reason for missing the exam as scheduled is due to (i) illness (with verifiable documentation from a medical provider), or (ii) an emergency (with appropriate documentation), then you **MUST INFORM YOUR INSTRUCTOR WITHIN 24 HOURS OF THE EXAM** and provide documentation upon your return. Failure to notify your instructor within 24 hours will result in a 0 for the exam. No exceptions. Makeup exams may be scheduled no later than a week after the original date, unless the illness or emergency precludes this, in which case the makeup exam will be given on a common date during the last two weeks of the semester.

Students that miss course work (not exams) under the same the conditions mentioned above will be given the opportunity to make up the course work.

### **Electronic Devices**

Cell phones, ipads, ipods, etc. should be turned off during class. Excepted from this are electronic pads used for note-taking. Your instructor may tell you about other exceptions. "Texting" is not allowed. *Absolutely no calculators are permitted on exams.*

### **Other Policies:**

All class materials (e.g. notes, projects, exams, lectures, etc.) are property of URI and the instructor. Copying, video taping, taking pictures, or posting this material is not allowed without consent of the instructor and URI.

Please come to class prepared by reading over the text to be covered and by bringing your book, notebook and pencil.

You are here to learn, so give class your full attention, ask questions if you do not understand, and be respectful and courteous to your fellow students and professor.

There is no alternative credit in this course. Don't ask.

## **Academic Honesty Policy**

Cheating is defined in the University Manual section 8.27.10 as the claiming of credit for work not done independently without giving credit for aid received, or any unauthorized communication during examinations. Students are expected to be honest in all academic work. The resolution of any charge of cheating or plagiarism will follow the guideline set forth in the University Manual 8.27.10-8.27.21, <http://web.uri.edu/manual/chapter-8/chapter-8-2/>.

## Special Needs

Any student with a documented disability should contact your instructor early in the semester so that he or she may work out reasonable accommodations with you to support your success in this course. Students should also contact Disability Services for Students: Office of Student Life, 330 Memorial Union, 874-2098. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

## Academic Enhancement Center

There is help available from the Academic Enhancement Center (AEC). The AEC offers tutoring (both walk-in and appointment-based types) and academic coaching. For more information on AEC services and study tips, visit the AEC website at <http://web.uri.edu/aec/>.

## Incomplete Grade

University of Rhode Island regulations concerning incomplete grades will be followed. See University Manual sections 8.53.20 and 8.53.21 for details.

## Religious Holidays

It is the policy of the University of Rhode Island to accord students, on an individual basis, the opportunity to observe their traditional religious holidays. Students desiring to observe a holiday of special importance must provide written notification to each instructor.

## Standards of Behavior

Students are responsible for being familiar with and adhering to the published "Community Standards of Behavior: University Policies and Regulations" which can be accessed in the University Student Handbook ([www.web.uri.edu/studentconduct/university-student-handbook/](http://www.web.uri.edu/studentconduct/university-student-handbook/)). If you must come in late, please do not disrupt the class. Please turn off all cell phones or any electronic devices.

## Course Calendar for MTH101-0201 Spring 2017

<b>Class/Date</b>	<b>Text Sections</b>	<b>Topic</b>
Class 1 01/23/17	5.1	Adding and subtracting Polynomials
	5.2	Product and power rule of exponents
	5.3	Multiplying polynomials
Class 2 01/30/17	5.4	Special product
	5.5	Integer exponents
	5.6	Dividing polynomials
Class 3 02/06/17	5.7	Dividing polynomials (cont)
	6.1	Factoring, GCF
	6.2	Factoring Trinomials
Class 4 02/13/17	Exam ch5	
	6.3	Factoring by grouping
	6.4	Factoring by FOIL
Class 5 02/27/17	6.5	Special factoring techniques
	6.6	General approach to factoring
	6.7	Solving quadratics with factoring
Class 6 03/06/17	6.8	Applications
	7.1	Mult. and div. of rational expressions
	7.2	Add. subtr. of rational expressions
Class 7 03/20/17	Exam ch6	
	7.3	Complex fractions
	7.4	Solving equations with rational expressions
Class 8 03/27/17	7.5	Applications
	9.1	Radical expressions
	9.2	Rational exponents
Class 9 04/03/17	Exam ch7	
	9.3	Simplifying radical expressions
	9.4	Add. subtr. of radical expressions
Class 10 04/10/17	9.5	Mult. and div. of radical expressions
	9.6	Solving radical equations
	10.1	Solve quadratics by square root
Class 11 04/17/17	Exam ch9	
	10.2	Solve quadratics by completing the square
	10.3	Solve quadratics by quadratic formula
Class 12 04/24/17	10.4	Quadratic form equations
	10.5	Applications
	10.6	Graphing quadratics
Class 13 05/01/17	TBA	