

Instructor	Section	MWF	Room	Office	Phone	Email
Holstein	01	9 am	MCG 237	C 354	243-4483	Douglas.Holstein@umontana.edu
Souza	02	10 am	MA 108	MA 104	243-3166	Regina.Souza@umontana.edu
Wright	03	11 am	STON 217	C 364	243-4486	Holly.Wright@umontana.edu
Sulock	04	12 pm	MATH 103	C 267	243-2918	Michael.Sulock@mso.umt.edu

Math Learning Center (MLC): Room Math 011 (basement); Mon–Thurs: 10–4pm, Friday: 10–12pm
Mansfield Library Main Floor; Mon–Thurs, 6:30–9pm
More information at <http://www.umt.edu/math/MLC/> .

Office Hours (for all instructors): TBA (see <http://www.math.umt.edu/souza/oh.pdf>)

Office Hours for Dr. Souza (Coordinator): Mo: 3-3:30pm, Tu: 10:10-10:40am, We: 2:10-3pm and
Fri: 11:10-12pm, or by appointment.

Contact information for Dr. Souza: Room MA 104, 243-2166, Regina.Souza@umontana.edu

Text: *College Algebra, Trigonometry and Precalculus*, UM Custom 2nd ed., Connally, Hughes-Hallett, et al. (available at the bookstore). **Online text (plus online homework, student study guide, student solutions manual, graphing calculator manual, etc.)** at WileyPLUS URL: www.wileyplus.com. You will need an access code (which will be bundled with your text book). If you are a returning student, please use your previous login information (and you won't need to purchase a new book nor a new code).

Graphing Calculator: A graphing calculator is required. Class demos will be given with a TI-83 or TI-84.

Course Description: (adapted from <http://www.umt.edu/catalog/cat/cas/math.html>)

M 121 (MATH 111) College Algebra 3 cr. Offered autumn and spring. Prereq. M 095 (MAT 100) or appropriate placement score. Intended to strengthen algebra skills. The study of functions and their inverses; polynomial, rational, exponential, and logarithmic functions. Credit not allowed for both M 121 (MATH 111, MAT 118), M 151 (MATH 121, MAT 120).

The central theme of College Algebra is functions as models of change. This course fulfills the prerequisites for M 122 (College Algebra) and for M 162 (Applied Calculus).

Learning Goals:

1. Manipulate polynomial, rational, radical, exponential, and logarithmic functions of a real variable.
2. Graph polynomial, rational, radical, exponential, and logarithmic functions of a real variable.
3. Find inverse functions for selected polynomial, rational, radical, exponential, and logarithmic functions of a real variable.
4. Manipulate real and complex numbers.
5. Use polynomial, rational, radical, exponential, and logarithmic functions of a real variable to model real-world phenomena and solve applied problems.

Course Content:

1. Graphs, Functions and Applications (Functions and Graphs, Linear equations and Functions, Applications, Increasing, Decreasing, and Piecewise Functions, Algebra of Functions, Composition of Functions, Concavity, Quadratic Functions)
2. Exponential and Logarithmic Functions (Inverse Functions, Exponential and Logarithmic Functions and their Graphs, Exponential and Logarithmic Equations, Applications)
3. Transformation of Functions and Their Graphs (Shifts, Vertical Stretches and Compressions, Family of Quadratic Functions)
4. Power, Polynomial and Rational Functions (Short-run Behavior, Graphs, Comparing Power, Exponential and Logarithmic Functions, Fitting Exponentials and Polynomials to Data, Applications.)

Grading and Policies

Grading: Your course grade will be based on 3 exams, a common final exam and other activities:

Three midterm tests (100 points each)	300 points
Other activities (homework, quizzes, projects, etc...)	150 points
Final Exam (all sections Tue, May 8, 6-8pm)	150 points

≥ 93%	≥ 90%	≥ 87%	≥ 83%	≥ 80%	≥ 75%	≥ 70%	≥ 65%	≥ 62%	≥ 58%	≥ 55%	< 55%
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

M121 must be completed **with a C- or better** to fulfill the math literacy requirement. Taking it with the Cr/No Cr option will not fulfill the requirement.

Information you might find useful:

Prerequisite: M 095 with a grade of C or better taken less than a year ago or Aleks placement level 4.

In-class activities: In my experience, regular attendance is essential to successfully complete this course.

“Doing math”: One of the best ways to learn mathematics is to **do** mathematics. All instructors will be assigning online homework (which will give you immediate feedback). Some instructors will provide opportunity for doing math in class. There is also a selection of homework problems available at the course webpage. Check with your instructor about his/her policies regarding homework and quizzes. Most students spend about 6 hours a week outside of class for study and homework. In my experience, it is best to do this in 1–2 hour sessions each day and not in a marathon all one day. Study groups or a study partner work well for many students.

Reading the text: Here are some strategies: reading the authors’ introductory remarks to get a feel for the material, redoing examples on your own and comparing your solution with the authors’ approach, using the *Student Study Guide* (found under “Read, Study and Practice” on WileyPLUS), reading the “Summary” or the “Check Your Understanding” problems at the end of each chapter, or create your own summary and review.

One-on-one interaction: Besides seeing your instructor, you may also interact with other instructors and classmates at the Math Learning Center (MLC) in the basement of the Math building (MATH 011). For some of us this is the most effective (and most fun) way to learn math.

Web Pages: <http://www.math.umt.edu/souza/M121> (a link can be found in the Math Department’s web page).

Miscellaneous policies and information:

Disabilities: Students with disabilities are welcome to discuss accommodations with me. More information can be found at the website of the Disabilities Services for Students (DSS): <http://life.umt.edu/dss> . Disability Services now requires one week's notice for scheduling exams.

Make-ups: Exam make-ups will be given under special circumstances (illness, UM-sponsored travel, family emergency, etc.) Please make arrangements as soon as you know you will miss an exam. Early finals (Monday, May 7 or earlier on Tuesday, May 8) will be given only under exceptional circumstances; and need the approval of the course coordinator.

Petitions: Between March 27 and May 4 you can petition to drop a course or to change the grading option (though not to Audit). Acceptable reasons for late drops are listed in the 2011/2012 student catalog.

Incompletes: Incompletes may be given only if a student has been in attendance and doing passing work up to 3 weeks before the end of the semester. See the 2011/2012 Catalog for the complete policy.

Misconduct: All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University.

Student Conduct Code: All students need to be familiar with the Student Conduct Code. You can find it in the “S” section of the “A to Z Index” on the UM home page (<http://umt.edu>).