

Instructor	Section	MWF	Room	Office	Phone	Email
Swicegood	01	10 am	MA 312	Corbin 358	243-4489	Grant.Swicegood@umontana.edu
Fern	02	11am	MA103	MA 205B	243-5398	FernL@mso.umt.edu

Math Learning Center (MLC): Room Math 011 (basement); Mon–Thurs: 10–4pm; Fri: 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 ed., Connally, Hughes-Hallett, et al.

If you were enrolled in M 121 last semester you will not need to purchase the new text book.

See details on the attached schedules. **Note:** Section 01 and Section 02 will base their schedule in different editions of the text book but will cover the same material.

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/cas/mathematical_sciences.htm)

M 122 (MATH 112) College Trigonometry 3 cr. Offered autumn and spring. Prereq., M 121 (MATH 111) or appropriate placement score. Preparation for calculus based on college algebra. Review of functions and their inverses, exponential and logarithmic functions. Trigonometric functions and identities, polar coordinates and an optional topic such as conic sections or parametric functions. Credit not allowed for both M 122 (MATH 112, MAT 119) and M 151 (MATH 121, MAT 120).

Learning Goals:

1. Define trigonometric ratios using right triangles and coordinate systems: the unit circle and polar coordinates.
2. Graph trigonometric, exponential, and logarithmic functions of a real variable.
3. Investigate the algebra of trigonometric functions, including composition of functions, inverse functions, and transformations.
4. Solve trigonometric identities and equations.
5. Use trigonometric functions of a real variable to model real-world phenomena and solve applied problems.

Course Content:

1. Functions: Definitions, Transformations, Applications, Composition, Inverses
2. Triangle Trigonometry
3. Trigonometric Functions
4. Trigonometric Identities and Equations, Inverse Trigonometric Functions
5. Law of Sines and Law of Cosines
6. Polar Coordinates
7. Optional Topics: Complex Numbers, Parametric Equations or Conic Sections.

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
Common Final Exam (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

M 122 must be completed **with a C- or better** to fulfill the math literacy requirement. Taking M 122 with the Credit/No Credit option will not fulfill the requirement.

Information you might find useful:

Prerequisite: M 121 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. Some instructors will provide opportunity in class for that. Your instructor will provide a selection of homework problems. Check with your instructor about his/her policies regarding that. 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, reading the “Summary” or working out the “Check Your Understanding” problems at the end of each chapter, or creating your own summary and review. If your instructor is using the online material you will have access to the *Student Study Guide* (found under “Read, Study and Practice” on WileyPLUS), recorded Mini-Lectures, etc.

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/M122> (a link can be found in the Math Dept’s web page).

Miscellaneous policies and information:

Disabilities: Students with disabilities are welcome to discuss accommodations with me. More information at the site 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 drops are listed in the 2011/2012 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>).

Section 01 of M 122 will use the new edition: if you had a WileyPLUS account last semester (for the UM Custom Edition of *College Algebra, College Trig and Precalculus* by Connally), please use your previous login information (and you won't need to purchase a new textbook nor a new code). If you did not use WileyPLUS last semester, the new edition (bundled with the access code for the Wiley site) is available at the bookstore.

The following syllabus is subject to modifications:

Syllabus

<u>Week</u>	<u>Sections</u>	<u>Quiz & Exam Dates</u>
1/23 – 1/27	10.1, 10.2, 10.3	
1/30 – 2/3	10.3,6.1-6.3	Quiz 1
2/6 – 2/10	6.4,6.5	Quiz 2
2/13 – 2/17	Triangle Trig.	Quiz 3
2/20 – 2/24	Triangle Trig, Review	Exam 1: Friday, 24 February
2/27 – 3/2	7.1, 7.2, 7.3	Quiz 4
3/5 – 3/9	7.4- 7.6	Quiz 5
3/12 – 3/16	7.6, 8.1	Quiz 6
3/19 – 3/23	Review, Test 2,8.2	Exam 2: Wednesday 21 March
3/26 – 3/30	8.2, 8.3	Quiz 7
4/2 – 4/6	SPRING BREAK	
4/9 – 4/13	8.4,Trig Eqns	Quiz 8
4/16 – 4/20	8.5, 9.1	Quiz 9
4/23 – 4/27	9.2, Review,Exam 3	Exam 3: Friday 27 April
4/30 – 5/4	Review	Quiz 10, 11

Final Exam: Tuesday, 8 May 6-8 pm

Section 02 of M 122 will use the same edition used for M 121 last year: the Wiley UM Custom edition *College Algebra, College Trig and Precalculus*, based on the 3rd edition of *Functions Modeling Change*, by Connally. If you did not already own the book, please purchase a copy of the book online (or a used copy from a student who took M 121, M 122 or M 151 last semester). You will not need the access code for Wiley PLUS.

The following syllabus is subject to modifications:

<u>Week</u>	<u>Syllabus Sections</u>	<u>Quiz & Exam Dates</u>
1/23 – 1/27	8.1,8.2,8.3	
1/30 – 2/3	8.3,5.1-5.3	Quiz 1
2/6 – 2/10	5.4, Triangle Trig.	Quiz 2
2/13 – 2/17	Triangle Trig.	Quiz 3
2/20 – 2/24	Triangle Trig, Review	Exam 1: Friday, 24 February
2/27 – 3/2	6.1,6.2,6.3	Quiz 4
3/5 – 3/9	6.4,6.5	Quiz 5
3/12 – 3/16	6.6, 6.7	Quiz 6
3/19 – 3/23	6.7,Review, Test 2	Exam 2: Friday 23 March
3/26 – 3/30	7.1, 7.2	Quiz 7
4/2 – 4/6	SPRING BREAK	
4/9 – 4/13	7.3 ,Trig Eqns	Quiz 8
4/16 – 4/20	Trig. Eqn's, 7.5	Quiz 9
4/23 – 4/27	7.5, Review,Exam 3	Exam 3: Friday 27 April
4/30 – 5/4	Review	Quiz 10, 11

Final Exam: Tuesday, 8 May 6-8 pm