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M 121.50: College Algebra

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Mathematics 121 – College Algebra Online Grading and Policies Spring 2021

Contact Professor:

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Catalog Description:

The central theme of College Algebra is functions as models of change. This course fulfills the prerequisites for M122 (College Trigonometry) and for M162 (Applied Calculus). Intended to strengthen algebra skills. The study of functions and their inverses; polynomial, rational, exponential and logarithmic functions. Credit not allowed for both M121 and M151.

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

1. Demonstrate conceptual understanding of functions and solve problems using four different points of view: geometric (graphs), numeric (tables), symbolic (formulas), and written (verbal descriptions and interpretations).
2. Be flexible and have the ability to choose between these points of view when solving problems such as evaluating functions; solving equations; identifying where a function is increasing, decreasing, positive or negative; finding domain and range, intercepts, slope, vertex, concavity, symmetries, end-behavior, and asymptotes.
3. Create graphs when given a formula; write a formula when given a graph.
4. Build new functions from existing ones: using transformations, composition, and the algebra of functions. Identify when a function has an inverse, identify domain and range, and compute a formula for the inverse, when possible.
5. Describe real-world situations using linear, quadratic, piecewise, polynomial, power, rational, exponential and logarithmic functions; and interpret functions and their parameters in real world contexts.

General Education Learning Outcomes:

Upon completion of the mathematical literacy requirement, a student will be able to effectively apply mathematical or statistical reasoning to a variety of applied or theoretical problems.

Course Content:

1. *Graphs, Functions, Applications* (Function Notation, Linear Functions, Equations of Lines, Applications, Solving Linear Inequalities, Increasing, Decreasing, and Piecewise Functions, Algebra of Functions, Composition of Functions, Symmetry and Transformations; Quadratics Functions)
2. *Exponential and Logarithmic Functions* (Inverse Functions, Exponential and Logarithmic Functions and their Graphs, Exponential and Logarithmic Equations, Applications)
3. *Polynomial and Rational Functions* (Short-run Behavior, Graphs, Comparing Power, Exponential and Logarithmic Functions, Fitting Exponential and Polynomials to Data, Applications)

Text:

We will use a compilation of Open Educational Resource texts: *PreCalculus: An Investigation of Functions.*, Lippman. This is a free textbook and is available to download through a link on the MyOpenMath site. You can order a printed copy as well through Lulu.com for a small fee. You will also have access to an Intermediate Algebra Student Workbook, which is also free of charge and is linked to MyOpenMath. Access to MyOpenMath and a graphing calculator are required. Please note that there are downloadable calculators and apps that are fairly inexpensive. I have found a couple free ones that I like. Android: wabbitemu.org; iPhone: calculate84 app

For an orientation on enrolling and getting started with the MyOpenMath, please view:
<https://www.youtube.com/watch?v=IdFpaVYsgU&feature=youtu.be>

To enroll in our course on MyOpenMath: go to www.myopenmath.com and note that our course ID is **136541** and the enrollment key is: **mathrocks!**

Please note that within each course topic on MyOpenMath, there are several short videos available that provide brief explanations and examples of various relevant topics. I encourage you to view these for additional explanations, as needed. You will also see such videos linked to random homework problems throughout the course.

How the Course is Run:

Online courses require a lot of self-teaching. In order to make this process easier on you, I have recordings of past lectures from another instructor for each of the topics covered in this class. That way you will get somewhat of an “in-class” experience, watching her explain each topic, as well as working many examples.

I would recommend that you start learning each section in the following manner.....first skim through the section in the textbook. Next, watch the videos(s) for that section as well as the videos provided on MyOpenMath. Then go and work the homework problems. If you wish to work additional textbook problems for extra practice, please let me know and I will be happy to provide additional exercises!

All homework assignments will be completed on MyOpenMath. You are allowed 5 attempts per question, before getting a similar question and then 99 similar question attempts, so this should allow you ample opportunity to complete the assignments successfully. At times the program is rather picky (they may want fractions as opposed to decimals, for example). If you believe that the program has made an error or you are unsure why your answer is incorrect PLEASE email me and I will get right back to you on what you did wrong (if anything) or how to enter your solutions correctly. I try to be very quick at responding so please do not hesitate to email me.

The tests are also on MyOpenMath and you will need to contact me when you are ready for each test and we will agree upon a day and time that I will have it open for you. While you will be taking the tests on MyOpenMath, I will require everyone to submit their work to moodle so that partial credit can be given as the tests are written so as to enable you to get partial credit.

When you are ready for each test, please send me an email letting me know the date and time you plan to take it. Once this has been confirmed, I will open the test on MyOpenMath and the relevant homework will be closed. Please note that the time limit for the tests are 3 hours, and calculators and a sheet of paper with notes are allowed on all tests. Please also take pictures or scan your scratch work and upload it to Moodle. I do not want technology to be any sort of barrier for anyone, so please feel free to contact me should you need any special accommodations regarding such. I am more than happy to work with each of you so that you are able to complete the class successfully.

Suggestions/Advice:

1. It is strongly recommended that you check your campus email daily.
2. You should begin each chapter by reading the assigned sections in your textbook and watching the corresponding section videos. Some students find it useful to watch the videos first, and then read the text (and maybe watch the videos again).
3. Coursework should be done daily. There is no time limit on homework assignments or tests. Use your notes from the videos as well as your textbook when needed.
4. If any questions arise, PLEASE contact me. Your success in this course will depend upon the amount of time and effort you are willing to spend with the material. You should plan to spend at

least 10 hours per week reading your text, reviewing notes, working on homework and studying for exams.

5. It is assumed that you are able to use the basic features of your calculator and that you have a working knowledge of all material covered in the prerequisite course. While I understand that some of the material was not mastered by all students in the prerequisite course or that the prerequisite course was taken years ago, it is your responsibility to seek assistance if it is needed. You should start by reading the textbook and its examples. You will find that the material comes back quickly. You are strongly encouraged to ask questions.

Grading:

Your course grade will be based on the following:

60% of your grade: Unit tests and quizzes, schedule TBA

40% of your grade: Other activities (online homework, activities, etc)

<i>Grade</i>	<i>Grading Scale by Percentages</i>
A	90%+
B	89-80%
C	79-65%
D	64-55%
F	Less than 55%
CR	≥ 55%

*** If you are taking this course to fulfill a general education requirement or a requirement for your major or minor, you must take it for a traditional letter grade (not CR/NCR). If you decide anyhow to take this course with CR/NCR grading, a grade of "D-" is considered passing and will earn you credit for the course, BUT it will NOT fulfill your general education requirement NOR any requirement for your major or minor.***

Add/Drop Policy:

The last day to add/drop or change grading option to Audit by Cyberbear is **2/7**. The last day to change sections and to change grading options is **3/29**. This is also the last day to drop. Changes after this deadline and until **5/6** must be done by Petition to Drop/Add after deadline and approved by me, your advisor and the appropriate Dean. Approval requires genuine extenuating circumstances as listed in the university catalog.

Extenuating circumstances are:

1. Missing a substantial number of classes due to illness, accident or family emergency.
2. A change in work schedule that makes it impossible to attend class or devote adequate time to the course.
3. Registration in the course by error and never attending class.

Reasons that are not satisfactory include:

1. Forgetting to turn in a drop slip.
2. Protecting your grade point average.

Incomplete (I) Grades:

To be eligible for an "I", the following conditions must be met:

1. The student must have been in attendance and passing the course up to 3 weeks before the semester ends; and

2. The student is unable to complete the course due to extenuating circumstances, which usually means serious illness or death in the family.

Incompletes are not given under any other circumstances and are always given at the discretion of the instructor. See the 2021-2022 catalog for further information.

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. All students need to be familiar with the Student Conduct Code.

Disability modifications:

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Office for Disability Equity. If you think you may have a disability adversely affecting your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommasson Center 154 or call 406.243.2243. I will work with you and Disability Equity to provide an appropriate modification.

Important University-Wide Info and Dates:

- Monday, February 21: Presidents Day. No school.
- Monday-Friday, 21-25 March: Spring Break. No school.

On coronavirus: All students are expected to follow UM's face covering policy (see www.umt.edu/policies/browse/facilities-security/covid-19-face-covering-policy).

Resources:

Student Hours: My student/office hours are for you to seek direct help from me. I am available during all announced hours as well as other times by appointment. Please come see me with any concerns you have during the semester, especially if there is something going on that is having an impact on your ability to succeed in the class. You can also come see me during these hours for help on math, just as you would get help in the math lab. Don't wait until you are way behind to get help! It is strongly recommended that you communicate with me as much as possible so that we can work together to get you through the course successfully.

Free tutoring is available on both the Mountain and River Campuses; links and hours will be announced as soon as they are provided.

Student: As a student, you may experience a range of challenges that can interfere with learning, such as health: strained relationships, increased anxiety, substance abuse, feeling down, difficulty concentrating, and/or lack of motivation. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. Counseling is available and treatment does help. The professional staff at Curry Health Center offers free confidential counseling to full-time students. I am always happy to help you find the resources you need.

A Statement on Digital Access and Equality:

Digital devices (like laptops and cell phones) are becoming increasingly important to success in college. In this course, you may need digital devices to access readings, complete and submit written assignments, complete online quizzes, verify your attendance, take in-class polls, coordinate with other students regarding group projects, complete and submit group projects.

I recognize that some students are unable to afford the cost of purchasing digital devices and that other students rely on older, more problem-prone devices that frequently break down or become unusable. I also recognize that those technology problems can be a significant source of stress for students. Given those challenges, I encourage students to contact me if they experience a technology-related problem that interferes with their work in this course. This will enable me to assist students in accessing support.

Here is some information in case you or another student you know faces challenges securing food or housing. There are some campus resources that might be helpful:

Food Pantry Program

UM offers a food pantry that students can access for emergency food. The pantry is open on Tuesdays from 9 to 2, on Fridays from 10-5. The pantry is located in UC 119 (in the former ASUM Childcare offices). Pantry staff operate several satellite food cupboards on campus (including one at Missoula College). For more information about this program, email umpantry@mso.umt.edu, visit the pantry's website (<https://www.umt.edu/uc/food-pantry/default.php>) or contact the pantry on social media (@pantryUm on twitter, @UMPantry on Facebook, um_pantry on Instagram).

ASUM Renter Center

The Renter Center has compiled a list of resources for UM students at risk of homelessness or food insecurity here: <http://www.umt.edu/asum/agencies/renter-center/default.php> and here: <https://medium.com/griz-renter-blog>.

Students can schedule an appointment with Renter Center staff to discuss their situation and receive information, support, and referrals.

Accessing Online Homework in MyOpenMath

If you do not already have a MyOpenMath account:

- 1) Open up your web browser (like Internet Explorer, FireFox, Safari, or Chrome)
- 2) Enter the address: **www.myopenmath.com**
- 3) Click "Register as new student"
- 4) Enter the requested information.
- 5) Where it says "Select the course you'd like to enroll in", leave "My teacher gave me a course ID (enter below)" selected, and enter this class's course id and key:
Course ID: **136541**
Enrollment key: **mathrocks!**
- 6) Click "Sign-up"
- 7) You will taken back to the login page. Enter your username and password you selected
- 8) You may see a "Browser Check" page. If so, click the "Continue with Image-based display" button.
- 9) The course name will now show up in the "Courses You're Taking" box on your home page. Click on the course name to enter the course.

The next time you want to access the course, you will just need to enter your username and password at the login page, then click on the course name to re-enter the course.

If you already have a MyOpenMath account:

- 1) Log into myopenmath.com
- 2) Click the "Enroll in a New Course" button.
- 3) Enter the course ID and enrollment key from #5 above, and click Sign Up.
- 4) The course name will now show up in the "Courses You're Taking" box on your home page. Click on the course name to enter the course.

Monday	Tuesday	Wednesday	Thursday	Friday
Jan 17 MLK DAY	Jan 18 Review Part 1	Jan 19 Review Part 1	Jan 20 Review Part 1	Jan 21 Review Part 2
Jan 24 Review Part 2	Jan 25 Review Part 2	Jan 26 1.1	Jan 27 1.1	Jan 28 1.1
Jan 31 1.2	Feb 1 1.2	Feb 2 1.2	Feb 3 1.3	Feb 4 1.3
Feb 7 1.3	Feb 8 1.3	Feb 9 1.4	Feb 10 1.4	Feb 11 1.4
Feb 14 1.5	Feb 15 1.5	Feb 16 1.5	Feb 17 Review	Feb 18 Test 1
Feb 21 PRESIDENTS DAY	Feb 22 2.1	Feb 23 2.1	Feb 24 2.1	Feb 25 2.2
Feb 28 2.2	Mar 1 2.3	Mar 2 2.3	Mar 3 2.3	Mar 4 2.3-2.4
Mar 7 4.1	Mar 8 4.1	Mar 9 4.1	Mar 10 4.1	Mar 11 4.1
Mar 14 4.2	Mar 15 4.2	Mar 16 4.2	Mar 17 4.3	Mar 18 4.3
Mar 21 SPRING BREAK	Mar 22 SPRING BREAK	Mar 23 SPRING BREAK	Mar 24 SPRING BREAK	Mar 25 SPRING BREAK
Mar 28 4.3	Mar 29 4.3	Mar 30 4.3	Mar 31 4.4	Apr 1 4.4
Apr 4 4.4	Apr 5 4.5	Apr 6 4.5	Apr 7 4.6	Apr 8 4.6
Apr 11 4.6	Apr 12 Test 2 Review	Apr 13 Test 2	Apr 14 3.1	Apr 15 3.1
Apr 18 3.2	Apr 19 3.2	Apr 20 3.2	Apr 21 3.2	Apr 22 3.2
Apr 25 3.3	Apr 26 3.3	Apr 27 3.3	Apr 28 3.3	Apr 29 3.7
May 2 3.7	May 3 3.7	May 4 3.8	May 5 3.8	May 6 Review
Review and Test 3				