



Course Syllabus: Math 1314 – College Algebra Spring 2015

Instructor: Joshua Patterson
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COURSE INFORMATION

Material Required: Students must purchase a copy of **MyMathLab/MyLab & Mastering student access code** from either of the campus bookstores or directly from Pearson at <http://www.coursecompass.com>. Please get a **Binder** to keep and organize all notes and course materials. A Texas Instruments (TI-83 or TI-83 Plus) **graphing calculator** for this course is highly recommended. All exams must be completed in **pencil**.

Textbook (Optional): *College Algebra* (6th Edition) by Robert F. Blitzer, ISBN # ISBN # 978-0321-78228-1, is the textbook for the course. *** **The MyMathLab access code includes access to an e-book, so the book is optional but the MyMathLab access code is required.** (You will have to purchase a new MyMathLab access code if you have an account with MyMathLab for your intermediate algebra class the recent previous semesters. You do NOT need to purchase a new MyMathLab access code if you are retaking this course using MyMathLab for the same book with the same edition. Please come see me for directions to do so). *** Portions of Chapters 1-8 in the textbook will be discussed.

Please use the MyMathLab 14 day free trial to start working on homework if students cannot purchase it right away. The MyMathLab student access code must be purchased by the end of 2nd week of class to prevent a loss in points.

Course Description: This course covers an in-depth study and applications of quadratics, polynomial, rational, exponential and logarithmic functions, and systems of equations. Additional topics such as arithmetic and geometric progressions; sequences and series; and matrices and determinants are included.

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

- 1) Demonstrate knowledge of properties of functions, which include domain and range, operations, compositions, and inverses.
- 2) Identify, interpret, and solve problems of various types of functions and their graphs, including but not limited to linear, quadratic, polynomial, rational, exponential, and logarithmic functions.
- 3) Apply graphing techniques for various functions.
- 4) Identify and develop basic sequences and series.
- 5) Solve systems of equations with various methods including elimination, substitution, Cramer's rule and matrices

Core Objectives:

- 1) ***Students will be able to analyze, evaluate, or solve problems when given a set of circumstances or data.***
This common core objective will be assessed in the departmental final exam for all sections of Math 1314.
- 2) ***In written, oral, and/or visual communication, A&M-Commerce students will communicate in a manner appropriate to audience and occasion, with an evident message and organizational structure.***
This common core objective will be assessed using common class activities/projects with class discussion over functions, sequences, logarithmic or exponential functions for all sections of Math 1314.
- 3) ***Students will be able understand and utilize mathematical functions and empirical principles and processes.*** This common core objective will be assessed using common class activities/projects with discussion over functions, homework, exam and departmental final exam for all sections of Math 1314.

COURSE REQUIREMENTS

Instruction: Instruction will include lecture, demonstration and models, and some group work, based on time available. All turned in work should be completed in pencil, please.

Attendance & Continual Enrollment: Attendance will be taken each class. Students need to actively participate in class to receive credits. **Attendance is a must to be able to do well in this class.** It is expected that students follow the guidelines set forth by the Class Attendance Policy in the current Undergraduate Catalogue.

If students represent an athletic team for this university, departmental team, scholastic team, choir, or other group and must miss class, notify me in writing with the appropriate documentation within one week of the absence in order not to be counted absent. Arrangements for make-up work will be made at that time.

***** All students should be aware that they are NOT allowed to drop this math course, and that they must be continually enrolled in a math course until they have successfully completed their college-level math course (University Policy).*****

Homework: Homework will be assigned every class period. The homework is a must for success in this class. *****Students are required to complete homework using MyMathLab/MyLab software.*** Homework is due in a week after the day that is assigned (or before the exam day, whichever comes first).**

If a student experiences any technical difficulties with MyMathLab, be sure to use the online help and technical support from the software company. If a student continues to have trouble accessing or navigating the software, please contact instructor through email or come by his/her office during office hours for some individual help.

Tutoring: *****Students are required to spend an hour a week outside class tutoring.***** Students can choose to attend tutoring in the Math Skills Center, TRIO, Supplemental Instruction tutoring sessions, and other on campus tutoring sessions that are approval by the Mathematics Department.

The **Math Skills Center**, located in Binnion 328, is open ***Monday and Wednesday from 8am – 8pm, Tuesday and Thursday from 8am – 6pm, and Friday from 8am – 12pm.*** Free tutoring is available for students who need help with their math courses. In addition, the **Academic Success Center also offers supplemental instruction/tutoring for students and their hours can be found at the university web site.**

The **Mach III/TRIO Program** is available for students who qualify for additional resources, such as private tutoring. In order to qualify, students must meet certain conditions, such as being a first-generation college student. For more information, contact TRIO at 903-886-5833 or in the Halladay Student Services building, Room 300.

Quizzes: Quizzes will be given in class periodically. **No** make-up quizzes will be given, but the lowest quiz grade will be dropped. Be sure to attend all classes so you do not miss any quizzes.

Class Activities/Projects: Application problems with class discussion over functions, sequences, logarithmic or exponential functions related to course materials will be assigned during the semester. Be sure to attend all classes in order to participate in the class activities with class discussion.

Competency Exam: Math1314 students are required to take the competency exam which covers the prerequisite materials for college algebra. **Calculators are allowed for competency exams.** Students need to seek tutoring help if they do not pass the competency exam on the first try (in class). Students have to score 80% or higher on the test in order to pass this exam. Competency exams will be graded with no partial credits. Students can retake the competency exam outside of class in the academic testing center SS 308 (up to two times a week) before the deadline which is **Wednesday March 4, 2015**. Students will receive 10% on the final grade if they pass the competency exam. Students will receive a zero for that 10% of the final grade if they do not pass the competency exam before the deadline.

Exams: There are three scheduled exams. A practice exam and answer key will be provided prior the exam. Partial credit may be given on exams IF all work is neatly shown for determination of the student's mistakes. **CELL PHONES AND OTHER ELECTRONIC DEVICES MUST BE TURNED OFF AND STORED OUT OF THE STUDENT'S REACH. The only electronic device allowed during tests and quizzes is a stand-alone calculator (such as a TI-34, TI-83, TI-84, etc.), and only with the instructor's permission. All exams must be completed in pencil; failure to complete your exam in pencil will result in a reduction of the earned grade by 5 points.**

No make-up exams will be given without prior notice of a university excused absence*. We realize that at times throughout the semester, emergency situations may arise that affect a student's performance on an exam or even prevent a student from attending on an exam day. **We can replace the lowest exam grade with the student's grade on the final exam, provided the final exam score is higher.** This provision will only be applied to **ONE** exam, so students should make every effort to be present and well-prepared for all exams.

A Practice exam and answer key will be available prior to each exam.

Be sure to take advantage of this valuable resource!!

These test dates are tentative and are subject to change:

Test 1	2/19
Test 2	3/26
Test 3	4/30

* University Authorized Excuses: 1) Participation in a required/authorized university activity; 2) Verified illness; 3) Death in a student's immediate family; 4) Obligation of a student at legal proceedings in fulfilling responsibility as a citizen; and others determined by individual faculty to be excusable (e.g., elective University activities, etc.)

Final Exam: The final exam will be a departmental, comprehensive exam. All students will take the exam at the same time on **Monday, May 11, 3:30pm to 5:30pm**

Please note that this is an unusual time and make your arrangements to be present. Make-up final exams will not be allowed. The location of the final exam will be announced toward the end of the semester (Departmental policy).

*** NO MAKE-UP FINAL EXAM WILL BE ALLOWED!!! ***

GRADING

Grading Policy:

Daily Grade (Attendance, Homework, Tutoring, Quizzes and Projects)	15%
Competence Exam	10 %
Exams	50 %
Final Exam	25 %
Total	100%

Grade: A = 90-100, B = 80-89, C = 70-79, D = 60-69, F = 59 or below

TECHNOLOGY REQUIREMENTS

Technology Requirements: The graphing calculator of TI 83/TI 84 or equivalent will be highly recommended. Calculators other than Texas Instruments calculators may be used but classroom instruction on calculators will be given for TI equipment only. **Note: Calculators that solve problems for students, including but not limited to TI-Nspire, TI 89 or higher, Casio Prizm, Casio Touch or higher are **NOT** allowed to be used for this class. ****Students are also required to clear the memory of graphing calculators before and after each exam.**

Students need to check their e-mail regularly with the address that they have provided to the instructor for class announcements. Access to MyMathLab, a computer, and the internet will be needed for online homework assignments.

Calculator Loan Program: The Mathematics Department has set up a calculator loan program to support students. Students can borrow a calculator for a semester with a fee (\$10 to \$15 for TI-83/84). It is first come, first served basis.

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement: It is important that students are actively engaged in class activities. Questions are welcome in the classroom. Students are welcome to schedule with instructors for extra help outside classroom during office hours.

Getting Help Outside of Office Hours: Utilizing the **multimedia library and online help from the MyMathLab** computer software program is suggested as a valuable resource for many students to improve their grades in Math classes. Also, the free tutoring on campus and from online is also highly recommended.

Student Health Services are located at Henderson Hall (Corner of Lee St. and Monroe St.). It offers health care to the student body of Texas A&M University – Commerce. It provides primary health care services including treatment of illness, injury, and women's health. **Tel:** (903) 886-5853.

University Police Department is located at Henderson Hall. For Emergency, please call: 911
For Non-Emergency, please call: 903.886.5868

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures

Academic Integrity: While majority of students are honest in doing their school work. However, due to recent cheating events, action must be taken to protect the academic integrity of classrooms. **There is a NO TOLERANCE policy for cheating and if a student is caught cheating, he/she will either get a zero for the test or fail this course.** Cheating in this course is defined as the following:

- Giving or receiving answers during an exam or quiz.

- Viewing the exam or quiz answers of nearby classmates.
- Having notes/practice work available during quizzes or tests.
- Possession or access to test items before the test is given.
- Deception in getting an excused absence to obtain the undeserved opportunity to make-up work.
- Use of cell phones or text messaging technology during exams or quizzes. **Students may NOT use the calculator on their cell phones or any other similar electronic devices (such as I-Pods, I-Touch, etc.). IF ONE OF THESE DEVICES IS AVAILABLE, IN ANY WAY, DURING AN EXAM OR QUIZ, THE STUDENT WILL BE GIVEN AN AUTOMATIC “0” ON THE ASSIGNMENT.**
- Improper citations in written works, or using another person’s ideas and words as your own without giving proper credit.
- Any method, no matter how well rationalized or accepted, which improves a person’s grade by any means other than study and skillful performances on exams and/or other assignments.

Students found guilty of an act of academic dishonesty in this course will be subject to receiving an “F” in this course.

Classroom Behavior: Appropriate classroom behavior is required to attend this class. All cell phones and electronic devices must be put on silent or turned off during class. NOTE: THIS INCLUDES BLUETOOTH AND OTHER DEVICES THAT ARE PLACED IN THE EAR. Phones and electronics are distractions for instructor and the other students in the class. All people will be treated with respect and talking that disrupt the class is not allowed. If disruptions occur during class time, a student will be asked to leave class and will earn a zero on any applicable grades for that class period. Serial disrupters will be asked to withdraw from this class.

Early Intervention for First Year Students: Early intervention for freshmen is designed to communicate the University’s interest in their success and a willingness to participate fully to help students accomplish their academic objectives. Grades for students in freshmen level classes will be reported to the Registrar's Office at the end of the fifth week of class during the fall and spring semesters. The Registrar's Office will report grades to students, Advising Services, Academic Departments (faculty advisors) and mentors. This procedure will allow students to be knowledgeable about their academic progress early in the semester. The university, through Advising Services, faculty advisors and mentors, will take steps to assist students who may be experiencing difficulty to focus on improvement and course completion. Grade reports will be mailed by the end of the sixth week of the semester. University Specific Procedures ADA Statement, Students with Disabilities: **The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact: Office of Student Disability Resources and Services, Texas A&M University-Commerce, Gee Library- Room 132, Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148, StudentDisabilityServices@tamuc.edu**

Student Conduct: * “All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.” (Student’s Guide Handbook, Policies and Procedures, Conduct). Rude and/or disruptive behavior will not be tolerated. No electronic devices (except calculators) are allowed during class time. Cell phones, smart watches, and other electronic devices are to be put away during class time and exams. *** The use of vapor/e-cigarettes, smokeless tobacco, snuff and chewing tobacco are prohibited inside classrooms and university buildings.**

This statement presents the University's commitment to a safe, accepting environment for all students regardless of sexual orientation, gender identification, or gender expression: A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

COURSE OUTLINE

1314 Tentative Schedule (Spring 2015)

Week 1 Syllabus, Review for Comp. Exam, & Intro of MyMathLab

Week 2 2.1, 2.2, & Competency Exam

Week 3 2.2, 2.3, & 2.4

Week 4 2.5, 2.6, 2.7, Ch. 8 Sequences

Week 5 Review Exam 1, Exam 1

Week 6 Review solving quadratic equations, 3.1, & 3.2

Week 7 3.2, 3.3, 3.4

March 4, Wednesday **Deadline for Comp. Exam **

Week 8 3.5, 3.6, Quiz and Activities for Chapter 3

*****(March 16 - 20) *** Spring Break Holiday (University Closed) *****

Week 9 Review for Exam 2, Exam 2

Week 10 4.1, 4.2, & 4.3

Week 11 4.3 & 4.4

Week 12 4.5, 5.1, & 5.2

Week 13 5.2, 6.5, 6.1, & 6.2

Week 14 Review for exam 3, Exam 3

Week 15 Review for Final Exam

Week 16 (May 11 Monday) FINAL EXAM, 3:30pm – 5:30pm

NOTE SPECIAL TIME!!

***** By Remaining Enrolled In This Course, All Students Agree To Abide By The Policies Of This Class, As Stated In The Syllabus *****

Math 1314 – College Algebra: Competency Exam (Practice Questions)

Formulas to remember:

1) Quadratic formula

2) Slope formula

- 1) Factor $3x^2 + 2x - 16$
- 2) Factor $4 - 36x^2$
- 3) Factor $24x^3 + 3y^3$
- 4) Solve $15x^2 + 4x - 4 = 0$
- 5) Solve by Quadratic Formula $3x^2 + x = -3$
- 6) Simplify $(4xyz)^0 * (6xy)^{-2} * (3x)^1$
- 7) Simplify $\left(\frac{2x^2}{y^4}\right)^3 * \left(\frac{2x^5}{y}\right)^{-2}$
- 8) Multiply the following polynomials: $(3x - 4y)(6x + 2y)$
- 9) Reduce $\frac{x^2 - 2x}{3x - 6}$
- 10) Simplify $\sqrt[3]{135x^6y^{10}z^4}$
- 11) Simplify $\sqrt{480a^4b^5c^{10}}$
- 12) Solve the inequality: $5 - 2x \leq 7$. Draw the answer on a number line. Then write the answer in interval notation.
- 13) Solve the inequality: $-2 < 3x - 5 \leq 7$. Draw the answer on a number line. Then write the answer in interval notation.
- 14) Find the slope of the line containing the points $(5, -4)$ & $(-3, 3)$.
- 15) Find x-intercept and y-intercept for the equation $2x - 3y = 6$. Then graph the line.

Answers for Practice Competency Exam Questions:

Formulas to remember:

Quadratic formula $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

Slope formula $m = \frac{y_2 - y_1}{x_2 - x_1}$

1) $(3x + 8)(x - 2)$

2) $4(1 + 3x)(1 - 3x)$

3) $3(2x + y)(4x^2 - 2xy + y^2)$

4) $x = \frac{2}{5}, -\frac{2}{3}$

5) $x = \frac{-1 + i\sqrt{35}}{6}, x = \frac{-1 - i\sqrt{35}}{6}$

6) $\frac{1}{12xy^2}$

7) $\frac{2}{x^4y^{10}}$

8) $18x^2 - 18xy - 8y^2$

9) $\frac{x}{3}$ (Factor top and bottom, then reduce)

10) $3x^2y^3z \sqrt[3]{5yz}$

11) $4a^2b^2c^3\sqrt{30b}$

12) Answer: $x \geq -1$, Graph :



Interval Notation: $[-1, \infty)$

13) Answer: $1 < x \leq 4$ Graph :

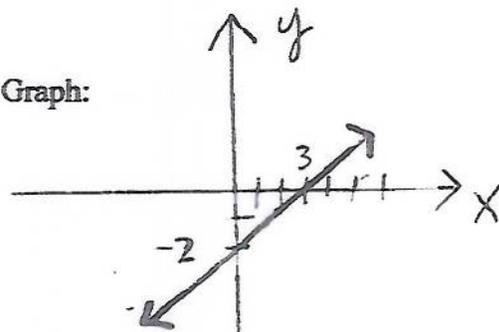


Interval Notation: $(1, 4]$

14) $m = -\frac{7}{8}$

15) x-intercept $(3, 0)$ y-intercept $(0, -2)$

Graph:



To register for **College Algebra MATH 1314 Spring 2015**:

1. Go to pearsonmylabandmastering.com.
2. Under Register, click **Student**.
3. Enter your instructor's course ID: **patterson50823**, and click **Continue**.
4. Sign in with an existing Pearson account or create an account:
 - If you have used a Pearson website (for example, MyITLab, Mastering, MyMathLab, or MyPsychLab), enter your Pearson username and password. Click **Sign in**.
 - If you do not have a Pearson account, click **Create**. Write down your new Pearson username and password to help you remember them.
5. Select an option to access your instructor's online course:
 - Use the access code that came with your textbook or that you purchased separately from the bookstore.
 - Buy access using a credit card or PayPal.
 - If available, get 14 days of temporary access. (Look for a link near the bottom of the page.)
6. Click **Go To Your Course** on the Confirmation page. Under MyLab & Mastering New Design on the left, click **College Algebra MATH 1314 Spring 2015** to start your work.

Retaking or continuing a course?

If you are retaking this course or enrolling in another course with the same book, be sure to use your existing Pearson username and password. You will not need to pay again.

To sign in later:

1. Go to pearsonmylabandmastering.com.
2. Click **Sign in**.
3. Enter your Pearson account username and password. Click **Sign in**.
4. Under MyLab & Mastering New Design on the left, click **College Algebra MATH 1314 Spring 2015** to start your work.

Additional Information

See **Students > Get Started** on the website for detailed instructions on registering with an access code, credit card, PayPal, or temporary access.

