MATH 115 - COLLEGE ALGEBRA

Fall 2024 Syllabus, Section 107, Class Number 4729

Times and Location

TTh 6:30pm-7:45pm in YR0129 (8/26 to 12/16)

Instructor Information

Ben Cohen
Email: bscohen@towson.edu
Office: YR 374 (aka the "Corner Office")
Office Hours:
7:45–8:15 p.m., YR 129

Math 115 Final Exam

The final exam will be held Tuesday, Dec. 10, at 7:30 p.m. (room TBA). Information about final exams can be found at https://www.towson.edu/registrar/calendars/exams.html.

Course Description

Equations and the concept of function; linear, quadratic, higher-degree polynomial, exponential, logarithmic, and rational functions; complex numbers. Not open to those who have successfully completed MATH 119. Prerequisite: qualifying score on Math Placement exam or MATH 102. Core: Mathematics.

Math 115 Required Materials

- **College Algebra: Concepts Through Functions, 5th edition**, by Sullivan and Sullivan (Pearson 2024). These materials are integrated into our course in Blackboard. Through Direct Access you will immediately have access to your online course materials—digital textbook, online homework, and other resources—for a free period through the add/drop deadline. After the free access period, your student account will be charged by the University billing office unless you have opted out by that date. The direct access pricing is the lowest possible price available for access to MyLabMath for this course.
- **Calculator:** A graphing calculator is required for this course. A TI-83 or TI-84 is recommended and will be demonstrated in lectures. The TI-89, TI-Nspire, and other computer-based calculators are not permitted on exams or quizzes. This policy is in place moving forward in courses for which Math 115 is a prerequisite (Math 211, Math 273, etc.), so plan accordingly.

Course Objectives

As a result of taking this course, students should learn about various types of mathematical functions. Students should also learn how to apply such functions to solving real-world problems in the life and physical sciences as well as in personal finance.

This University Core course is designed to meet the following four learning goals:

1. Construct and evaluate logical arguments.
2. Apply and adapt a variety of appropriate strategies to solve mathematical problems.
3. Recognize and apply mathematics in contexts outside of mathematics.
4. Organize and consolidate mathematical thinking through written and oral communication.

Course Learning Outcomes

CLOs can be viewed on Blackboard in the "Unit-Specific Learning Objectives" folder.

Math 115 Course Content

Chapter F: A Prelude to Functions

Chapter 1: Functions and Their Graphs

Chapter 2: Linear and Quadratic Functions

Chapter 3: Polynomial and Rational Functions

Chapter 4: Exponential and Logarithmic Functions

Chapter 6: Systems of Linear Equations (only)

Student Workload Expectations

Federal and state regulations require that students should expect to spend at least two hours per week per credit hour for working on course-related activity outside of the classroom. Thus, students are expected to spend at least six hours per week outside of the three hours of classroom lecture to succeed in MATH 115.

Here are examples of outside-classroom activities: reading the textbook before lecture, rewriting lecture notes, redoing problems presented in class, watching videos on MyLabMath, completing assigned homework, completing additional problems to ensure mastery of concepts, and preparing for tests.

Math 115 Evaluation

Your final grade will be based on your success in meeting the goals and objectives of this course as demonstrated throughout the semester and in the course assignments and examinations. The breakdown is shown here, but the individual components are elaborated upon in the following section.

18% Exam 1—Functions, lines, modeling, systems

18% Exam 2—Quadratics, inequalities, absolute values

18% Exam 3—Graphing techniques

20% CUMULATIVE final exam—All previous sections plus §4.2–4.8

14% Quizzes (administered in class)

12% Pearson MyLabMath online homework

100% TOTAL

*Note that Chapter 4 is included in the final exam but is not assessed in a midterm exam.

Exams: The three regular exams will be taken during class. The final exam will be taken according to TU's published final exam schedule (as noted above). The course schedule is posted on Blackboard but is subject to some flexibility depending on the number of questions presented during class and if we get behind or ahead of schedule.

Quizzes: There will be several quizzes taken during class throughout the semester. All students in every section of the course will take Quiz 1 and Quiz 2 (both are review material) in class on the first two days of the semester, and these grades will count toward the "quizzes" portion of your grade. In addition, there will be monthly factoring quizzes (beginning in September).

Pearson MyLabMath online homework: Online homework is assigned for each textbook section we cover. The three lowest online homework assignment scores will be dropped. Online homework assignments can be submitted until the exam covering the material included in that homework, but all problems submitted after the due date (but before the exam-based deadline) will incur a 20 percent grading penalty.

If you do not complete the homework by the due date and believe you have a compelling reason for an extension, please email me; in most cases I will grant an additional week to complete the assignment. (Extensions due to technical problems will be granted liberally for the first group of assignments; if you are having technical difficulties, please be sure to email me **before** the due date.)

IMPORTANT: A high Pearson grade can be deceptive because it is treated as a learning tool for you: you have multiple attempts at each question (5 attempts for most problems) and can sometimes guess your way to correct answers. Guessing on homework, rather than working to learn the material, will not serve you well when it comes to exams. Please consider the Pearson homework to be a learning opportunity, rather than an assessment tool. There are limited attempts at each problem, so use your attempts wisely.

Grading Scheme/Policy

Grade	Grade Points Per Unit
A	>=93%
A-	>=90% and <93%
B+	>=87% and <90%
B	>=83% and <87%
B-	>=80% and <83%
C+	>=77% and <80%
C	>=70% and <77%
D+	>=67% and <70%
D	>=60% and <67%
F	<60%

Math Tutoring

The Tutoring and Learning Center (TLC) makes tutoring services for this course available on a drop-in basis and by appointment. You can receive tutoring at the Mathematics Lab at 7800 York Road, Room 109. For detailed information, look at the TLC's website,located at this URL: https://www.towson.edu/tutoring-learning/

Math 115 Policies

Due dates for homework assignments are listed in Pearson and on the schedule of topics. (The due dates of some assignments may be pushed back as circumstances warrant; no due dates will be moved up.)

Homework Policies

- Online homework is generally due at 5:00 p.m. the Monday after the material is covered in class. (Some adjustments will be made throughout the semester as holidays dictate.)
- You will typically receive five attempts for each homework problem (some problems, such as true/false, will allow fewer attempts). No additional attempts will be offered, so use your five attempts wisely.
- Homework assignments are not timed, but you may get logged out for long periods of inactivity.
- For assignments that are not completed in their entirety by the deadline, the incomplete problems will receive scores of 0 after the deadline (the scores of completed problems will remain unchanged). (Note that the entry of a score of 0 counts as an attempt.) **Problems submitted after the deadline are subject to a 20 percent penalty** (the scores on previously completed problems will remain as they are).
- Homework will not be reopened at a later point in the semester. Please be mindful of all due dates.

Quiz Policies

- All quizzes are administered during the class period throughout the semester. Dates are listed on the schedule of topics.
- Make-up quizzes will be administered in accordance with the information outlined in the "Attendance/Absence Policy" section of the syllabus.

Exam Policies

- There are four exams in this course:
  - Exam 1 covers functions, lines, modeling, and systems.
  - Exam 2 covers quadratics, inequalities, and absolute values.
  - Exam 3 covers graphing techniques.
  - The final exam covers all sections previously covered and sections 4.2–4.8.

- You may not consult/collaborate with other students during exams. These exams must be completed without the assistance of any other person/website/application.
- Exams will be administered on paper and (with the exception of the final) during the regular class session.
- Exams consist of a combination of multiple-choice and short-answer questions.
- Supporting work must be shown for credit on exams—keep this in mind when you are completing homework and studying for exams.
- Any necessary formulas will be supplied on the first page of each exam. You are not permitted any notes or formulas outside of the ones given on the first page of each exam.
- A violation of these exam policies will result in a report of a violation of the University's academic integrity policy.
- Exam papers will be returned once all sections have taken the exam.

Communication

- I will communicate with the entire class via announcements on Blackboard; these will (should) also be emailed directly to your student account. If you need to contact me outside of class and office hours, please do so using your TU email account. (For a variety of reasons, please do **not** message me through Blackboard!)
- You are expected to check both Blackboard and your student email account regularly and respond appropriately.
- Please note that I cannot share information regarding grades via email. (You can thank ESPN for that. Yes, really...)

Professionalism

- You are expected to be respectful of your classmates and any guests in our classroom. This includes communicating in a kind and constructive manner.
- You are expected to attend every class session on time and remain throughout the entire class session.
- If you prefer taking notes on a tablet rather than on paper, please feel free to do so.
- To quote my undergrad statistics professor: "If you have a question, please ask it, because everyone around you has the same question." Heed his words.
- I encourage you to provide feedback on how the class is going for you and what I can/should do differently to improve your experience. Useful feedback will be beneficial to all!

Math 115 Important Dates

- **Monday, August 26: First day of classes**
- **Monday, September 2: Labor Day (TU closed)**
- **Wednesday, September 4: Last day to drop without a "W"**
- **Friday, October 25: Fall break (TU closed)**
- **Monday, November 4: Last day to drop a course with a "W"**
- **Wednesday, November 27—Sunday, December 1: Thanksgiving break (TU closed)**
- **Monday, December 9: Last day of classes**
- **Tuesday, December 10—Monday, December 16: Final exams**

Attendance/Absence Policy

It is the policy of the university to excuse student absences for the following reasons: illness or injury when the student is unable to attend class, religious observance where the nature of the observance prevents the student from attending class, participation in university activities at the request of university authorities, and compelling, verifiable circumstances beyond the control of the student.

In the event of an excused absence due to illness or other unforeseen circumstances **that results in you missing a quiz or exam**, please contact me within 24 hours of the missed class; documentation may subsequently be requested. Missed quizzes and exams must be made up by the end of the following week.

The full Towson University Policy on Student Class Attendance/Absence can be found here: https://catalog.towson.edu/undergraduate/academic-policies/class-attendance-absence-policy/.

Academic Integrity Policy

The academic integrity policy for this course is consistent with the TU Academic Integrity Policy. The policy can be reviewed here: https://www.towson.edu/about/administration/policies/03-01-00-student-academic-integrity-policy.html

Mathematics Department Diversity Statement

Department of Mathematics Commitment to Diversity: Towson University values diversity and fosters a climate that is grounded in respect and inclusion. Everyone participating in this course is expected to treat all others in accordance with this vision and policy. TU's diversity tenets include sex, sexual orientation, race and ethnicity, color, nationality, gender identity or expression, mental/physical ability, religious affiliation, age, and veteran status. If you feel these expectations have not been met, please contact the Math Department's Diversity representative, Dr. Felice Shore at fshore@towson.edu.

Students with Disabilities Policy

This course is in compliance with Towson University policies for students with disabilities. Students with disabilities are encouraged to register with Accessibility & Disability Services (ADS), University Union, Suite 146, 410-704-2638 (Voice) or 410-704-4423 (TDD). Students who suspect that they have a disability but do not have documentation are encouraged to contact ADS for advice on how to obtain appropriate evaluation. A memo from ADS authorizing your accommodation is needed before any accommodation can be made.

https://www.towson.edu/accessibility-disability-services/