

Mathematics 2120G—Finite Mathematics

Fall 2016

Instructor

Peter Andrews
Old Main 3341
217-581-6017 (Office)
pgandrews@eiu.edu

Office Hours

M,W 3:00–4:00 PM
T, R 11:00 AM –1:00 PM
F 12:00 – 1:00 PM
or by appointment

Class Meetings: TR 9:00–10:15 AM, Old Main 2220

Text:

- Stewart, *Finite Mathematics and Its Applications* Eleventh Edition, Pearson, 2014.

Catalogue Description: Limits, continuity, and derivatives for functions of one variable, applications of the derivative, the definite integral, applications of the integral .

Prerequisite: Placement by department guidelines, or C or better in MAT 1271 or transfer equivalent.

Learning Objectives: By the end of this course you should be able to:

- express yourself in the language of mathematics using correct mathematical exposition and symbolism;
- read, interpret and solve linear programming problems graphically and by computational methods such as Simplex, Crown's Method, and the Dual Method;
- read, interpret and solve counting problems using Venn diagrams, the Fundamental Principle of Counting, combinations, permutations, and complements;
- read, interpret and solve probability problems using counting techniques and the rules of probability;
- be prepared for more advanced courses requiring knowledge of linear programming and probability;
- appreciate the importance of mathematics and its applications in both business and the social sciences.

Topics Covered:

Topic	Textbook	Approximate Time
Counting Techniques	§5.1–5.6	2 weeks
Elementary Probability	§6.1–6.5	3 weeks
Systems of Linear Equations	§1.1–1.4; 2.1–2.2	2 weeks
Matrices and Matrix Operations	§2.3–2.5; §4.7–4.9	2 weeks
Linear Programming Problems	§3.1–3.3	2 weeks
Algorithms for L.P. Problems	§4.1–4.3	3 weeks
Exams and Leeway		1 week

Desire2Learn:

I will use the Desire2Learn account for the course to post this course outline and as much of the class handout materials as possible. Some of the homework will be writing assignments. These will be submitted through D2L. I will also post grades on D2L so you can keep track of your progress in the course.

MyMathLab: Many of the homework assignments will be completed through MyMathLab. This system is similar to WebAssign, which you may have used in previous mathematics classes. Further instructions for MyMathLab will be posted on D2L. You will need to set up an account with MyMathLab if you have not done that in a previous course. An access code for this course will be handed out in class.

Participation: As with all university level mathematics courses it will be crucial that you do the homework and practice the techniques. It will be equally important for you to come to class, to participate in the discussions, and to come and see me if you have problems. Because the class meets five days a week does not mean you can skip classes and still easily keep up with the material. On the other hand, I understand that one of your responsibilities as a university student is learning to prioritize your commitments. If you know you will miss a class you should let me know about it in advance.

Study Groups: Few things have been proven more effective at advancing student achievement in mathematics classes than participating in “study groups.” I encourage you to get together regularly in small groups to go over the class material, discuss textbook examples, and work on problems. There is no doubt that student who spend some time with others in the class talking about the material and working through problems almost invariable do better than those who work alone!

Quizzes and Tests: There will be three in-class tests. The dates will depend on the pace at which we cover the material. You will be given at least one week notice for each test. There will be a 10-15 minute quiz at the end of each class period other than test dates.

Evaluation: The grade for this course will be computed using homework and quizzes, the in-class tests, and a final exam. The final examination will be comprehensive and it will be Wednesday, December 14 from 8:00 to 10:00 AM. The relative weights of the components of the course are as follows:

Test 1	20%
Test 2	20%
Test 3	20%
Quizzes	10%
Homework	5%
Final	8-10 AM Dec. 14 25%

Course Grade: The following scale will be used as a first approximation to your grade:

90–100: A 80–89: B 70–79: C 55–69: D 0–54: F

In borderline cases, factors such as overall trends and the final exam score will be taken into consideration. It is possible that the “cut-off” scores given above will be lowered. As a result, an overall score of 80 is *guaranteed* to receive at least a B, whereas a score of 78 *might* result in a B.

Miscellaneous:

- Please ask questions when you experience problems. Ask in class or see me outside of the regularly scheduled meeting times. If you can't make my posted office hours we can almost always arrange a separate appointment.
- I will be happy to provide make-up privileges (when make-up is possible) to students for properly verified absences due to illness, emergency, or participation in an official University activity. It is the student's responsibility to initiate plans for make-up work and to complete it promptly. Whenever possible, you should contact me *before* such absences rather than after.
- As I hope you have already discovered, success in a university mathematics course requires a lot of work outside the classroom. You need to read the textbook before class to be prepared. You need to go over your notes and the textbook after class to consolidate what has been covered. Above all, you need to do problems and write out solutions.
- You must, of course, recognize the principles of academic honesty. Anything you hand in for credit *must* be your own work and not the direct result of collaboration. I will operate under the assumption that everyone in the class understands this concept. Should you violate this, I will be greatly disappointed and I will report such behavior to the Office of Student Standards. The typical consequence of such a violation is a grade of F in the class.

Academic integrity: Students are expected to maintain principles of academic integrity and conduct as defined in EIU's Code of Conduct (<http://www.eiu.edu/judicial/studentconductcode.php>). Violations will be reported to the Office of Student Standards.

Students with disabilities: If you are a student with a documented disability in need of accommodations to fully participate in this class, please contact the Office of Student Disability Services (OSDS). All accommodations must be approved through OSDS. Please stop by Ninth Street Hall, Room 2006, or call 217-581-6583 to make an appointment.

The Student Success Center: Students who are having difficulty achieving their academic goals are encouraged to contact the Student Success Center (www.eiu.edu/~success) for assistance with time management, test taking, note taking, avoiding procrastination, setting goals, and other skills to support academic achievement. The Student Success Center provides individualized consultations. To make an appointment, call 217-581-6696, or go to 9th Street Hall, Room 1302.