# Linear Algebra: MATH 220 

PPHAC 113, MWF 10:20 AM - 11:30 PM Spring 2015

Instructor: Dr. Shannon Talbott<br>Office: 217 PPHAC<br>Phone Number: 610.861.1573<br>Email: talbotts@moravian.edu

## Office Hours:

Tuesday 1:00-3:00 PM; Wednesday 1:30-2:30 PM; Friday 9:00-10:00 AM; and by appointment

Text: A Course in Linear Algebra, by David B. Damiano and John B. Little, 2011, Dover Books on Mathematics.
Linear Algebra, by Sterling K. Berberian, 2014, Dover Books on Mathematics.
We will use the software package Maple in this course. The computer labs on campus have Maple available, however, if you will not regularly have access to the computer labs, you may consider purchasing a student license to work on activities on your personal computer. To do so, go to the website Maplesoft and use Adoption Code: AC5124MEDDF594.

## Course Goals:

The main purpose of this course is to provide you with the necessary skills and background to successfully study and communicate the concepts and techniques of modern linear algebra. Specific course goals are to:

- learn fundamental concepts about vector spaces
- learn how to classify and compute using matrices
- employ the use of mathematical software to solve complex problems
- learn techniques that are useful for further study of mathematics and related sciences

Course Topics: Linear algebra is useful in mathematics, computer science, engineering, chemistry, physics, and economics among other related fields. Many problems in these fields require studying and finding simultaneous solutions of systems of equations involving several different but interrelated factors. In order to address these problems, the course focuses on a study of vector spaces and matrix theory.
The class will be a mixture of short lectures, questions and discussion, and classroom activities. Active participation during class meetings is expected from each student. Some activities will involve working as a group or working individually.

## Grading System:

## Homework/Quizzes

There will be homework assigned at the end of each section. It is vital that you do all of the homework problems assigned; you should keep all of your work in a notebook or binder for reference. For every hour in class, you should expect to spend 2-3 hours doing work outside of class. You cannot learn math without lots of practice! You first attempt at homework should be done on your own. If you still need assistance, you may ask for a hint from a classmate or work on the problem together. However, acquiring an entire solution from a classmate is not acceptable. You are always welcome to come to office hours to see me.

Approximately once a week, we will have an in class quiz that will be based on the homework. Therefore, the best way to do well on the quizzes is to do all of the assigned homework. There will be no make up quizzes given. Due to this, the lowest quiz score will be dropped at the end of the semester. Extenuating circumstances will be taken into consideration (with appropriate documentation).

## Exams

We will have three in class exams and a final exam. If you will miss an exam (with an approved excuse), you must notify me PRIOR TO the exam. You will then be given a suitable (corresponding to the time beyond the exam date) but more difficult exam. Extenuating circumstances will be taken into account (with appropriate documentation).
Your final exam will be on Tuesday, May 5 at 1:30 PM.

## Attendance

Regular class attendance is expected of all students. You are responsible for all material assigned or covered in class. If you do miss a class for any reason, it is your responsibility to keep up with the class. You should see a classmate for notes, homework assignments, and any announcements from class.

Your final grade is based on the following distribution:

| Quizzes: | $20 \%$ |
| :--- | :--- |
| Exam I: | $20 \%$ |
| Exam II: | $20 \%$ |
| Exam III: | $20 \%$ |
| Final Exam: | $20 \%$ |

Course grades will be determined by the following scale:

| $93-100: \mathrm{A}$ | $80-82: \mathrm{B}-$ | $67-69: \mathrm{D}+$ |
| :---: | :---: | :---: |
| $90-92: \mathrm{A}-$ | $77-79: \mathrm{C}+$ | $63-66: \mathrm{D}$ |
| $87-89: \mathrm{B}+$ | $73-76: \mathrm{C}$ | $60-62: \mathrm{D}-$ |
| $83-86: \mathrm{B}$ | $70-72: \mathrm{C}-$ | $<60: \mathrm{F}$ |

The exam schedule will be as follows, although slight changes may be made:
Exam I: Friday, February 13
Exam II: Friday, March 20
Exam III: Friday, April 17
Final Exam: Tuesday, May 5 at 1:30 PM

## Course Policies:

Final Exam: Your final exam is on Tuesday, May 5 at 1:30 PM. A make-up final exam will not be administered to accommodate any travel plans.

Participation in class discussions: Class participation enhances your learning experience. Students who attend class regularly, participate in discussions, and are in between grades at the end of the semester may receive the higher of the two grades.

## Other Expectations of Student Performance/Behavior:

Please turn off your cell phone at the beginning of class. Be considerate of your classmates and keep private discussions during class to a minimum. Please check your email for any announcements regarding this class. If you wish to email me, please use your Moravian email accounts only as I frequently delete spam.

This syllabus is subject to change. Any changes will be announced in class.

Mathematics Department Academic Honesty Policy: The Mathematics Department supports and is governed by the Academic Honesty Policy of Moravian College as stated in the Moravian College Student Handbook. The following statements will help clarify the policies of the Mathematics Department faculty.

Learning Disability Accommodations: Students who wish to request accommodations in this class for a disability should contact Ms. Elaine Mara, assistant director of academic support services for academic and disability support, at the lower level of Monocacy Hall, or by calling 610-861-1401. Accommodations cannot be provided until authorization is received from the Academic Support Center.
The Writing Center is located in a building that is not accessible to persons with mobility impairments. If you need the services of the Writing Center please call 610-861-1392.

