



## MATH 203 Section 005 Syllabus

**Instructor:** Tim Sauer

**Office:** 4209 Exploratory Hall

**Hours:** TR 1:30 - 3 pm

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NOTICE 1: This section is restricted to BioEngineering majors. Please contact Laurence Bray ([lbray2@gmu.edu](mailto:lbray2@gmu.edu)) in order to register.

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NOTICE 2: Students in this section will meet Fridays 8:30-9:20 in Exploratory 4107 for computational projects in Matlab. It is required that students keep this time available in their schedule for the Friday meeting. Adissa Silue ([tsilue@gmu.edu](mailto:tsilue@gmu.edu)) will be the Teaching Assistant for the Friday meetings.

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**Prerequisite:** MATH 114 - Analytic Geometry and Calculus II

**Text:** *Linear Algebra and Its Applications*, by Lay, Lay, and McDonald, Fifth Edition (DO NOT BUY THE FOURTH EDITION!), Pearson Education

**Optional Study Guide:** A [Student Study Guide](#) is available for this text.

**Grading:** A grade for the course will be calculated based on four midterm exams (100 pts each), weekly Matlab projects (total of 120 points), and a final exam (200 pts).

**Homework:** Homework problems will be assigned at the end of each class and reviewed at the next class meeting. Reading the sections of the text related to the problems will always be part of the homework assignment.

**Course Content:** The course will cover the following sections:

- Linear Equations 1.1 - 1.9
- Matrix Algebra 2.1 - 2.4
- Determinants 3.1, 3.2
- Vector Spaces 4.1 - 4.7
- Eigenvalues and Eigenvectors 5.1 - 5.3
- Orthogonality 6.1 - 6.5

**Test Dates (tentative):**

- Test 1 : Tues., Sept. 14
- Test 2 : Thurs., Oct. 5
- Test 3 : Thurs., Oct. 26
- Test 4 : Tues., Nov. 21

- Final Exam : Thursday, Dec. 14 at 10:30 - 1:15

No make-up tests are given. If an emergency arises contact me ASAP.

**Computers:** We will be using Matlab to help with matrix calculations. Most of the work will be done during Friday meetings in the Exploratory 4107 computer lab. In addition, there are computer Labs in Innovation Hall and the Johnson Center. For hours of operation of these labs and other locations see [Computing Labs Page](#). You may also access Matlab through the GMU [Virtual Computing Lab](#).

There are many good Matlab tutorials on the web. For example, Mathworks has one at [http://www.mathworks.com/help/matlab/learn\\_matlab/desktop.html](http://www.mathworks.com/help/matlab/learn_matlab/desktop.html) Another good one for vectors and matrices is at <http://www.cyclismo.org/tutorial/matlab/>

**Honor Code:** The University Honor Code is to be followed. Sharing information of any kind about exams or Matlab assignments will result in a grade of zero. Any violations will be submitted to the University Honor Committee.

**Office of Disability Services:** If you are a student with a disability and you need academic accommodations, please see me and contact the [Office of Disability Services\(ODS\)](#) at 993-2474. All academic accommodations must be arranged through the ODS.