MATH 238 – SYLLABUS – SPRING 2020

PROFESSOR: James Sochacki
OFFICE: Roop Hall 115
HOURS: SMLC: MTu 3:30 – 5:00 Roop Hall 115: F 11:00-12:00 **and by appointment**
EMAIL: sochacjs@jmu.edu **HOMEPAGE:** http://educ.jmu.edu/~sochacjs/
CLASSTIME: Section 3: MWF 12:20 – 1:10 Burruss 33, Tu 12:30 – 1:45 Burruss 32
LAST CLASS: Thursday April 30, 2020.
TEXT: *Linear Algebra and Differential Equations* by **Peterson and Sochacki**

COURSE DESCRIPTION:
MATH 238. Linear Algebra with Differential Equations. *4 credits. Offered fall and spring.*
Matrices; determinants; vector spaces; linear transformations; eigenvalues and eigenvectors; separable, exact and linear differential equations; and systems of linear differential equations. *Prerequisite: MATH 236. Not open to students with credit in MATH 300 or MATH 336 without departmental permission.*

Mathematics is considered a difficult subject by many. Therefore, it is important that you keep up with the class and do the homework assignments. This will help you to earn the grade you desire. To help promote a good atmosphere for learning, you are expected to respect the instructor and other students in the class. If you do not, you will be asked to leave the class. You do not need to make an appointment for my set office hours above.

Grading:
Your grade for this course will be determined on your scores on 3 exams, 3 homework assignment, 3 in class projects and a comprehensive final exam. The 3 exams will be worth 75 points, and will be a closed notes and closed book in class exam, the homework assignments will be worth 50 points and will be take home and the in class team projects will be worth 25 points. The final exam will be comprehensive and will be worth 150 points. It will be an in class, closed notes and closed book final exam. This gives 600 total points.

Grading in this course will be on a straight percentage. The grading scale is as follows.
A 90 - 100%
B 80 - 89%
C 65 - 79%
D 50 – 64%
F below 50%
At any time you can figure out your grade by calculating your average.

It is your responsibility to attend class. I do not go over missed lectures. If you miss a lecture then you should get the notes from someone in class. If you do not understand the notes then you should come see me.

All exams are held under the JMU honor code. Calculators can only be used on the exams to help with calculations. The dates of the exams will be announced in class two weeks before the date they will be given. There will be no make-up dates for the in class exams. If you miss an in class exam you receive a 0 on that exam unless you let me know before the date of the exam that you will be missing the exam. If you send an email you MUST receive a response from me before you have an excused absence for the in class exam.

You are encouraged to engage with other students in the class. Form study groups with others in the class and ask questions. Make it a good semester for you and for me.

FINAL EXAM TIME: Monday May 4, 2020 10:30 – 12:30.

Course Mission and Goals: We will cover most of the material in Chapters 1-6 of the text. Reading and homework assignments will be given at the end of each lecture. It is your responsibility to do these assignments. You will learn what a linear system is and the fundamentals of linearity. You will discover that many things in mathematics and in your daily lives involve linear systems, including systems that change (dynamical systems). You will gain a basic understanding of the difference between linear and nonlinear systems. You will be introduced to the beauty and applicability of linear systems.

CLASS ATTENDANCE IS IMPORTANT – DEPENDING ON THE CLASS AND THE COURSE, THE MATERIAL COVERED AND EXAMS IN THIS SYLLABUS COULD BE CHANGED.

Syllabus information from the university is available at http://www.jmu.edu/syllabus .