MTH 244: Differential Equations
Section 0001 − Spring 2016

Instructor:	Dr. Vasilije Perovic
Email:	perovic@uri.edu (*preferred way of communication*)
Email Policy:	The only address that should be used for communication is the one associated with your URI account.
Office:	Lippitt Hall, 200B (401) 874–4463
Office Hours:	**Tue: 3:30 − 4:30 pm**; **Wed: 11:00 − 12:00 pm & 3:00 − 4:00pm**; **Thur: 3:30 − 4:30pm**.
	You may also see me at other times by arrangement.
Classroom:	Bliss Hall 206; Tue/Thur: 11:00 − 12:15pm.
Class Website:	This course will use **SAKAI**. The SAKAI should be checked regularly for announcements,
	grades, updates, lecture notes, etc! You might also find the following website helpful
	http://math.uri.edu/~perovic/Teaching/Spring2016/MTH_244_Spring2016.html
Prerequisite:	MTH 142 – Intermediate Calculus (or Calculus II). Multivariable Calculus (MTH243) is recommended.
Textbook:	Stanley Farlow, *An Introduction to Differential Equations and Their Applications*,
	DOVER Publications, 1994. Any supplemental material will be posted on SAKAI.

Bring the textbook to each class, since we will refer to it frequently. It is essential to read the text regularly, and read material before we cover it in class!

Course Description: MTH 244 is the first course in Ordinary Differential Equations. We will study mathematical techniques involving differential equations used in the analysis of physical and biological phenomena. Emphasis is placed on the use of established methods, rather than rigorous foundations. We shall emphasize those methods that are capable of broad applications and that can be extended to various problems. The methods to be discussed include not only elementary analytical techniques that lead to exact solutions of certain classes of problems, but also include approximations based on numerical algorithms or series expansions, as well as qualitative or geometric methods.

Syllabus: We will cover *most* of the sections from chapters 1 − 5 of our textbook. Time permitting, we will include some topics from Chapter 6.

Course Goals and Learning Outcomes: By the end of the semester, students will be able to use numerical, graphical, and analytic techniques to analyze and/or solve scalar and systems* of differential equations, and to apply these concepts in the study of basic mathematical models.

Calculators: A graphing calculator is recommended and you may use it for homework and *some* quizzes and exams. Note that a majority of problems will not require using calculators and you should not rely on it too much.

General Advice: In higher level math classes, the *concepts* are as important as the *computations*. To master the concepts, you will have to read and reread the text carefully. Effort is expected outside of class to keep up with the material. A general rule of thumb is to work at least two to three hours on the course outside the classroom for each hour of class. You are encouraged to form study groups. Talking about mathematics, and critiquing each other's solutions is a very effective way to learn the subject.

Attendance: Regular, on-time attendance is expected! Attendance will be taken regularly. Should you miss class, your first step should be to get notes from a reliable fellow student.

Grading, Exams, and Quizzes: The course grade will be based on quizzes, micro-quizzes, project(s), two in-class exams, and a final exam, weighted as follows:

Quizzes	20%	
Micro-quizzes	4%	
Projects	6%	
Exams (2)	40%	(20% each)
Final Exam	30%	**(Thursday, May 5, 8am - 11am)**

Quizzes will be either in-class, typically every other Thursday, or will be take-home. The lowest quiz score will be dropped, and so **no make-up quizzes** will be given for any reason. You will be notified at least two class periods in advance to having an in-class quiz. On the other hand, micro quizzes will be unannounced and only take a couple of minutes to complete. Prior to coming to class, I strongly recommend you to review the material from previous lecture in order to prepare for a surprise micro-quiz. Detailed description of project(s) will be announced later in the semester, but note that one of them might be a group project.

A *tentative* schedule for the in-class exams is:

Exam 1: March 3 (Thursday) **Exam 2:** *Mid April – the exact time will be announced in class*

Makeup exams will be permitted *only* in those cases when a student documents a genuine medical or personal emergency.

Letter grades for the course will be determined by considering your overall weighted percentage according to the following scale:

A: 93.00% and above		**A-**: 90.00% – 92.99%
B+: 87.00% - 89.99%	**B**: 83.00% – 86.99%	**B-**: 80.00% – 82.99%
C+: 77.00% – 79.99%	**C**: 73.00% – 76.99%	**C-**: 70.00% – 72.99%
D+: 67.00% – 69.99%	**D:** 60.00% – 66.99%	
F: 59.99% and below		

Suggested Problems: Regularly assigned, but not collected. Do problems promptly so that you establish a baseline for your understanding of the material. By default, *all solutions must include reasoning expressed in complete sentences.* Note that there will be some overlap between these problems and the ones assigned though WileyPLUS. Suggested problems, together with the material presented during lectures, will be the main sources for problems on quizzes and exams.

Video Lectures/Notes: In case our class is canceled due to inclement weather or other various reasons, I will post a link on SAKAI to a video lecture that you will be responsible for watching. Occasionally, I might post videos of solutions to some homework problems, together with explanations, that would be useful to everyone in class.

Accommodations: Any student with a documented disability (e.g., physical, learning, vision, hearing, etc.) who needs to arrange reasonable accommodations should contact me as soon as possible. At the beginning of the semester students should contact Disability Services for Students Office at 330 Memorial Union, (401) 874-2098, http://www.uri.edu/disability/dss/.

Academic Integrity: You are responsible for making yourself aware of and understanding the policies and procedures in the University Manual that pertain to Academic Honesty. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. Further information can be found in the UNIVERSITY MANUAL sections on Plagiarism and Cheating at

<div align="center">http://web.uri.edu/manual/chapter-8/chapter-8-2/</div>

If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct. You should consult with me if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test. Violations of the academic honesty policies can result in failing grades for the assignment and the course. Additional penalties can be imposed by the University.