

VANIER

CÉGEP / COLLEGE

Faculty of Science and General Studies
Department of Mathematics

Course Title:	Differential Equations	Teacher:	I.T. Ivanov
Course Number:	201-HTL-05	Office:	D 264
Section:	00001	Phone:	514-744-7500 ext. 7737
Semester:	Winter 2015	Email:	ivanovi@vaniercollege.qc.ca
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Course Description: This course is an introduction to the study of Differential Equations. Particular emphasis will be placed throughout the course on using differential equations to model a wide variety of real-world problems involving dynamic systems, that is, systems which change and evolve with time. Dynamical systems modeling is used in engineering design studies, in ecological management, in urban planning, and in business management, to name just a few fields of application. (For complete details see the course [Web Page](#)).

Ponderation: Theory 3 hours per week, Lab 2 hours per week, Homework 3 hours per week

Prerequisites: For a list of prerequisites, please consult your course on the master course schedule, <http://www.vaniercollege.qc.ca/online-schedule>.

Teaching Methods: A combination of lectures, class and lab exercises, along with homework and classwork will prepare the students for three tests. The CAS Matlab will be introduced and used in the course. Student projects will illustrate the use of differential equations modeling in areas of science and engineering of interest to the students.

Textbook: *Elementary Differential Equations*, 9th Edition by W.E. Boyce and R.C. DiPrima, Publisher John Wiley and Sons, ISBN: 9781118567029.

Additional Expenses: None anticipated.

Office Hours: Monday 1.30pm – 2.30pm; Thursday 1pm – 2.30pm.

Competencies to be achieved: For the course objectives and the expected learning outcomes please consult the [course content document](#).

Important Dates: Test 1, Test 2 and the Final Exam will be given during the 5th and 10th week of classes and the exam period respectively. Class exercises and homework will be due every week.

Evaluation Procedures and Breakdown of Marks:

- Homework and Class exercises - 15%
- ESP Project - 20%
- Test 1 - 15%
- Test 2 - 20%
- Final Exam - 30%

Academic Resources: The Mathematics and Science Centre provides free peer tutoring every workday during regular office hours in F540. Mathematics Instructors also regularly volunteer at MSC. You could request extra homework and/or materials by contacting the teacher. Extended and emergency office hours are available upon request.

Course Policies: You are responsible for all work, even if you are absent. If you miss a test, you must provide a doctor's note. All electronic devices such as cell phones, tablets etc. must be turned off and out of sight upon entering class.

General Academic Policies: It is the student's responsibility to be familiar with and adhere to the Vanier College Academic Policies. These policies can be found online on the Vanier College Official Policies page at <http://www.vaniercollege.qc.ca/policies>. Your attention is drawn in particular to the following policies. A brief summary of each is included. For the complete version of each policy, please consult the aforementioned webpage.

Student Academic Complaints (Policy number 7210 - 8) The Vanier College Student Academic Complaints Policy and procedures puts an emphasis on mediation as the primary means to resolve complaints in the academic area. If you have a problem with a teacher and have been unable to resolve it by talking with him or her, you may wish to enlist the help of the Faculty Mediation Committee. The committee member names and contact information are available in Student Services or through the office of the Faculty Dean.

Cheating and Plagiarism (Policy number 7220 - 31) Any form of cheating or plagiarism will result in a grade of zero on the test or assignment and a letter from the teacher will be placed in your file. A repeated offence may lead to even more serious consequences. Please consult the Vanier Student Writing Guide, the Vanier College Catalogue, the Student Handbook, the policy online and your teacher for more information.

Student Misconduct in the Classroom (Policy number 7210 - 19) This policy provides guidelines for handling cases of student misbehaviour in the classroom and other instructional settings. Such cases may include conduct that is abusive to the teacher and/or other students, or disruptive to the teaching/learning process. This policy does not limit the teacher's or the College's right to take immediate action in cases of imminent danger to persons or property.

Zero Tolerance (Policy number 7110 - 2) The following disruptive behaviours will not be tolerated in any degree on campus: Unauthorized Use of Alcohol/Illegal Drugs; Violence against Persons or Property; Possession of Weapons; Verbal or Written Abuse or Intimidation; Theft or Gambling.

Student Absences for Religious Holy Days (Policy number 7210 - 20) Students whose religious obligations require them to be absent from the College on a holy day not formally recognized in the College calendar must inform their teachers, in writing, during the first week of classes, of the particular date(s) and times of the religious holy days on which they must be absent. Absences approved in this manner are considered to be excused absences. Students are responsible for material covered in the classes and labs they miss.