

	Time	Location
Lecture	MWF 10:00-11:15am	Eng. 1 Bld. 122
Lab/Rec.	T 10:00-11:15am	SB 112J/SB 111

Instructor: Robert Ellis, Assistant Professor of Applied Mathematics

Office Info: Eng. 1 Bldg. Rm. 105C, 567-5336, rellis@math.iit.edu (with appropriate modification)

Office hours (tentative): M 2:00-3:00pm (Math 152 Priority) W 1:15-2:15pm (Math 475 Priority)
T 11:20am-12:20pm (General) F 8:30-9:30am (General)

Appointments and emailed questions are also welcome. I encourage you to request joint appointments so that more people can benefit from the discussion. Any changes to office hours will be posted on the course homepage.

Graduate Teaching Assistant: Mr. Andrea Vidozzi

Course Home Page: <http://math.iit.edu/~rellis/152F07/> **Assignments posted here, check often!**

Prerequisites: A 'C' in Math 151 or Math 149 (Calculus I), or Advanced Placement

Text: Calculus, 5th Ed., James Stewart, Brooks/Cole Publishing Co.

Topics: Chapter 7: Transcendental Functions
Chapter 8: Techniques of Integration
Chapter 10: Differential Equations
Chapter 11: Parametric Equations & Polar Coordinate
Chapter 12: Infinite Series
Appendix G: Complex Numbers

Course Objectives. Credit: 5 (4-1-5).

1. The student should acquire a sound understanding of the common transcendental functions.
2. The student should become proficient in the basic techniques of integration for the evaluation of definite, indefinite, and improper integrals.
3. The student should learn to solve first-order separable and linear differential equations with initial values.
4. The student should learn parametric curves and polar curves and their calculus.
5. The student should learn infinite series, power series and Taylor polynomial and series, and their convergence properties.
6. The student should be able to utilize the computer algebra system Maple to explore mathematical concepts, illustrate them graphically, and solve problems numerically or symbolically.
7. The student should become a more effective communicator by developing his/her technical writing skills in the preparation of several Maple lab reports.

Grade break-down and Exams. Your grade will be determined according to the following break-down between homework, Maple Labs, Recitation problems, four exams, and a final exam:

Homework	Maple Labs	Recitation Problems	Exam 1	Exam 2	Exam 3	Exam 4	Final
10%	10%	5%	12.5%	12.5%	12.5%	12.5%	25%

Exams are Sep. 19 (W), Oct. 17 (W), Nov. 14 (W), and Dec. 5 (W) in lecture. The final exam is Wednesday, December 12th from 10:30am-12:30pm, in E1 122. The course grading scale is as follows: 85-100 A, 75-84 B, 65-74 C, 55-64 D, 0-54 E.

Attendance and Punctuality. Regular class attendance is expected of all students for all lecture and lab sessions. Regular class participation and strong attendance will be *positively* considered for borderline grades at the discretion of the instructor. Unexcused absences will *reduce* your letter grade according to the following scale: 10 absences = -1 letter grade; each additional 5 absences = -1 letter grade. Being late 15 minutes counts as half an absence for this accounting, and being late 30 minutes counts as absent. *Excused absences* include official IIT activities for which the instructor is given advance notice, and documented emergencies.

Homework and Recitation Problems. Homework assignments will typically be posted once per week and will consist of **(i)** problems to hand in, and **(ii)** practice problems not to hand in. Every other lab session will be a *recitation* session. You must explain and solve at least one recitation problem at the board during the semester, which will count as the “recitation problem” grade component. A poor grade is replaceable by explaining an additional problem after everyone has had an opportunity. Recitation problem assignments and Maple lab assignments are separate from the regular homework and will also be posted on the course website.

Assignment Turn-in. Homework and Maple lab assignments are due at the **beginning** of the lecture or lab in which they are due. Students concerned about making this deadline may submit the assignment to my mailbox in E1 Rm 208 by 9am of the morning of the due date. Late assignments will **not be accepted** except for documented emergencies.

Homework Collaboration. You are encouraged to discuss homework problems but only with another student in Math 152 **this semester**, the TA, an IIT ARC tutor, or the instructor. When you **write up** the solution, however, **you must not consult any notes or other aids from these discussions**. Then you may only use the textbook, lecture notes, calculator, or Maple, but not pre-written calculator programs or Maple worksheets. For example, if you start to write the solution, get stuck, and consult someone half-way, you must start the solution over without referring to the first attempt. Use your common sense to extrapolate from these guidelines or contact the instructor regarding uncertainties. It is recommended to practice a problem until you can solve it quickly without calculator or Maple in order to prepare for exams. **For even problems and labs, solution manuals and solution sets from previous courses are strictly prohibited.**

Maple Labs and Collaboration. Maple labs will be due roughly once every other week at the beginning of lab. Lab assignments and due dates will be maintained on the course web page. Maple labs may be and are encouraged to be done in groups of (at most) 2. The collaboration policy for Maple labs is as above for homework except that your partner can always be consulted. The group work is intended to improve communication skills.

Grading Policy. Solutions for homeworks, labs and exams must be written **clearly, legibly, and concisely** and will be graded on mathematical **correctness** and **presentation**. Points will be deducted for sloppiness, incoherent or insufficient explanation, or for lack of supporting rationale. The solutions should be presented so that your fellow students could read them and follow both the calculations and logic. Most Maple labs will require at least a couple of lines of text explanations between calculations, plus whatever explanatory text is needed if you assume your audience is a Calculus II student.

Academic Integrity. By writing your name on your work you certify that you have adhered to the homework and lab policy, and that all exam work is your own without any unauthorized assistance or aids. The Code of Conduct in the IIT Student Handbook applies, and violations will be prosecuted accordingly.

Missed Work. Assignments/exams/labs cannot be made up except as approved by the instructor (e.g., due to official IIT activity or documented emergency). An exam missed for an excused reason must be made up promptly upon the student’s return, the time frame being at the discretion of the instructor.

Office hours and IIT ARC tutoring. As a rule of thumb, staying ahead and asking questions early will tend to improve your grade (the converse is near-axiomatic). Come to office hours, organize study sessions or get help from **free tutors** at the IIT Academic Resource Center in Galvin Library (<http://arc.iit.edu/>).

Disability Assistance. IIT and this instructor are committed to accommodating students with disabilities. Students desiring such consideration must immediately contact the Center for Disability Resources and Educational Development at 567-5744. (Their approval must be had for any exceptions regarding exam guidelines.)

Subjective Meaning of Grades. Letter grades subjectively have the following meanings.

	A	B	C
Knowledge	can explain most problems	can understand most problems	can work problems similar to examples
Errors	rare and minor	occasional	frequent minor and some major