

MATH 2200L
Differential Calculus Lab (Spring 2004)

Course: Math 2200L (10-075)

Room: GRSC 1023-0220

Time: 09:05 a.m – 09:55 a.m. Friday

Instructor: Peter Petrov

E-mail: petrov@math.uga.edu

Office: 321D Boyd Grad. Stud. Bldg.

Phone: (706) 542 5259

Office hours: 9:30 a.m. – 11:00 a.m. Tuesday, 11:00 – 12:30 Friday

Course Description

The Calculus Lab has been designed to encourage the students to investigate mathematical problems in a greater depth than is possible in a lecture course. They work on projects and write reports on MAPLE, a program useful for computations in mathematics, natural and engineering sciences.

Materials available by www.math.uga.edu, Undergraduate information, Course Web Sites.

Projects

Proj.1. Welcome to MAPLE I and II

Proj.2. Limits with Spreadsheets

Proj.3. Definition of the Derivative

Proj.4. Tangent Lines

Proj.5. Newton's Method

Proj.6. Implicit Plots and Derivatives

Proj.7. Analysis of a Graph

Grading

The grades will be based on the student's performance in the 7 projects. Each project is 10 points. There will be 10 % bonus for regularly done extra credits. Also an optional project would be given at the end of the semester.

A: 90% - 100%; B; 75% - 89%; C: 60% - 74%; D: 40% - 59%; F: 0% - 39%

Attendance Policy

For missing three or more classes the final grade will be lowered by 10%; for late project, the project's grade will be lowered by 10%.

Withdrawal Policy

A student who withdraws from a lab must withdraw the regular course (on OASIS).

How each project should be organized

Students should follow the instructions in the "Differential Calculus Lab" for each project. **Each project should start with the name of the student, a letter mark of the classes (T for Tuesday, F 09:05 or F 10:10 for Friday), and the name of the project.** A brief explanation presenting what the project will be about should be given. Each part of the project should be marked and should include everything needed in that part, both calculations and comments. Explanations should be included whenever necessary rather than

only performing calculations by MAPLE. They will demonstrate the student's level of understanding of the matter and their missing will make the work unsatisfactory. At the end, collaboration and academic honest statement should be copied and signed by the student . **The project should not be written on the tutorial file, otherwise it will not be graded, and should include only the problems from the project.** It could be copied on a floppy disk and could be done on any computer with MAPLE installed, e.g. on any computer in Boyd Graduate Center or Scientific Library.

Collaboration and academic honesty

The students are encouraged to work together on the projects, but the final write-up of the report should be your own. Any plagiarism is prohibited. All students are responsible for maintaining the highest standards of honesty and integrity in every phase of their academic career. The penalties for academic dishonesty are severe and ignorance is not an acceptable defense. For more information, look at http://www.uga.edu/ovpi/academic_honesty/culture_honesty.htm, esp. sections 5 and 7.

Additional information

Students could work on the projects at The Open Lab (room 308), where they will be consulted by TA.