Course Description

- Study of logarithmic and exponential functions.
- Differentiation of functions represented by implicit equations.
- Multivariable functions: Contour lines, partial derivative (and its meaning as marginal function), the chain rule, total differential, critical points and graphs of double variable functions.
- Solving optimization problems using single variable and Multivariable functions.
- Using the Lagrange multipliers method to solve constrained problems.
- Matrices and Gauss–Jordan elimination.
Course Goals
Functions and linear algebra.

Grading

- **Final exam:** There will be one all-inclusive, comprehensive final exam. The final exam will cover material from the assigned textbook readings, online presentations, homework assignments, as well as class meetings.

  You must pass the exam in a grade of 60 in order to pass the course.

- **Weekly problem sets:** There will be 12 problem sets, one problem set per weekly lesson that is on our syllabus, which must be completed in full. Each week the previous week's problem set solution will be posted on the course website in the form of detailed videos.

  Academic regulations – in any event that a problem occurs for a matter not resolved by the conditions set in this syllabus, please consult the IDC Academic Regulations.

  Final grade: Your final grade will be based on the final exam. **You must earn a final grade in the exam of 60 to pass the course.**

Lecturer Office Hours

**Availability:** The lecturer will make every effort to be available for consultation. You may schedule a meeting with your lecturer at a mutually agreed time. You can contact your lecturer via email. He will attempt to respond to all emails within 72 hours, and usually much sooner.

Tutor Office Hours

By appointment.

Additional Notes

**General Instruction for making progress in this course**

This course requires your full attention throughout the semester. This means that you are expected to:
1. Read the relevant chapters of the textbook and slide shows (which will be posted on the course website) ahead of each class meeting.
2. Attend class and recitation regularly.
3. Engage in class discussion: listen carefully to the lecturer and raise your hand to ask him questions about parts of the material that you do not understand.
4. Take careful notes during class meetings.
5. Solve the weekly problem sets by the due date (see below).
6. Review solution videos and study your mistakes.
7. Consult your lecturer on issues that are not resolved by any of the above means.
8. The best rule of thumb is to devote three hours outside of class to the study of this material for each hour you spend in class.

**Classroom decorum:** This course is conducted on a college level, adult and mature basis. You are expected to behave in class in a way that does not distract yourself and other students from learning. In particular, this means that you are expected to:

a) Not engage in any discussions with other students (whether regarding the course material or not).

b) Keep your computer, mobile phone and any other device silent.

c) Arrive to class meetings on time, stay until the end of the meeting, and refrain from traffic in and out of the classroom during the meeting.

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**Reading List**