ENTS 699M: Python Programming

Course Description
This course will teach the fundamentals of Python programming. The emphasis will be on using python to solve engineering problems. Use of the Numpy and Matplotlib libraries will be included.

Instructor Contact Information
Dr. Michael Dellomo
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Office hours:
1363 AV Williams Building
Days and times will be announced in class and posted on my website at
www.ece.umd.edu/~mdellomo/advising.html

Required Books
Online resources will be announced in class, along with suggested texts.

Restrictions
This is a one credit course .It cannot be used as one of the required 10 classes for the ENTS degree. It is designed for students who do not take ENTS 656. Students who have taken or will take 656 should not take this class.

Course Policies

Attendance & participation
Attendance and participation are not required and students will not be graded on it. However, it is highly recommended that students attend lectures and labs to ask questions about the course and to perform better on the assignments. Students are responsible for all material presented in class

Assignments
1) Python Exercises: Python exercises will be given each week and will be due the following week. Assignments will start around the second week of class and go for 4 or 5 weeks. Collaboration of any kind on the Python exercises or project is NOT PERMITTED and will be considered cheating/plagiarism. Questions about Python can be brought to either the instructor or the lab teaching assistant.
2) Python Project: The class project will be assigned after the last lab. Students will work on the project independently. The project should be considered similar to a take-home exam. Collaboration of any kind on the project is NOT PERMITTED and will be considered a serious infraction of the honor code. Questions about the project can be brought to the instructor or the lab teaching assistant. The project will be due on the assigned date. Late work will lose credit.

Academic Integrity
The University of Maryland has a nationally recognized Honor Code, administered by the Student Honor Council. This code sets standards for academic integrity for all undergraduate and graduate students, and you are responsible for upholding these standards in this course. It is very important for you to be aware of the consequences for cheating, fabrication, facilitation and plagiarism. For more information please visit: https://studentconduct.umd.edu . Students who engage in academic dishonesty in this course will receive no points for the assignments and will be reported to the Honor Council and the Office of Judicial Programs for further action. There will be no warnings! Remember, it is not worth it!

Persons with Disabilities
Students with a documented disability should inform the instructor as soon as possible if academic accommodations are needed. Accommodations for individuals with disabilities can be arranged through the Disability Support Service (DSS), a division of the University Counseling Center. Please call 301.314.7682, web: https://www.counseling.umd.edu/ads/ , or visit Shoemaker Building for more information.

Video Taping, Recording and Photographing
It is against University and Program policy to video tape, record, or photograph lectures unless done in accordance with the procedures for Persons with Disabilities. Lecture material is considered to be copyrighted by the University and unauthorized reproduction is considered to be copyright infringement. The instructor will make available and distribute any necessary material which is too detailed for conventional note taking.

Cell phones
Any use of cell phones is not permitted during class time. Please turn off all cell phones prior to the start of class.

Grading
The course will consist of 4 cellular assignments, 4 python assignments, one python project, one midterm and one final exam. The point breakdown is given below.

Python Hwk	60 points	4 Assignments, 15 points each
Python Proj	40 points	Date Announced in Class
Total	100 points	

Python homework assignments
Each assignment is worth 15 points and will be given in more detail as the course progresses. The assignments consist of simple programming exercises meant to prepare students for the project. STUDENTS MUST WORK ON THESE EXERCISES INDEPENDENTLY!

Python Project
This is a significant project using Python programming. Students will be given ample time to complete the project but should plan accordingly for the work required.

Tentative Course Schedule (will be adjusted as the course progresses)

1. Overview and Python basics
   - Course Overview and Python Overview
   - Variables and Assignments
   - Libraries and Data Types
   - Sample Python Program

2. More Python
   - Basic I/O and Coding Style
   - Sequence Types, Indexing, and Dictionaries
   - Flow Control, Functions, Modules, and Scoping
   - Python Interfacing, File I/O and Exceptions
   - NumPy and Math Libraries
   - MatPlotLib and Graphing