Syllabus

Computational Mathematics (MAD 2502) 3 credits

Prerequisite: Suitable placement score (See http://www.fau.edu/mathplacement for details)

Instructor:	CRN:
Office: E-mail Address:	Office Hours: Phone number:
Lecture Time:	Lecture Room:
Scheduled Lab SE350 Time:	
Teaching Asst:	Office Hours:
Office:	Email Address:

Description: MAD 2502 is an introductory course geared toward undergraduate students interested in using computers to solve mathematical problems. The course uses the Python programming language. Starting from the basic properties of a programming language, concepts of modern computer programming will be introduced. No prior programming experience is required.

Objectives: Upon successful completion of this course, you will have the knowledge and skills pertaining to:

1. Built-in data types and functions;
2. Controlling the program flow;
3. Data structures;
4. Debugging and commenting;
5. Sorting and searching;
6. Different programming styles;
7. Solving a variety of problems using a programming language;
8. Designing and debugging smaller programs;
9. Understanding how mathematical problems can be solved by writing your own computer programs;
10. Understanding the strengths and difficulties of computer aided problem solving;
11. Extending your programming skills in Python and other programming languages of your choice.

Software: Python Programming Language

Materials: The course will not follow a particular text book. The Practical Programming book is recommended as a reference. Further material will be provided through blackboard.

[1] (recommended) by J. Campell, P. Gries, J. Montojo, G. Wilson: Practical Programming. An Introduction to Computer Science Using Python. The Pragmatic Programmers, 2009

[2] (optional) Python Documentation: http://docs.python.org/py3k/ A good starting point is the Python Tutorial.

Website: Blackboard (BB) http://blackboard.fau.edu (sign in as to MyFau).

Attendance Policy: You should attend all lectures and actively participate in classroom discussions and group activities. **Once the lecture or discussion has begun, all electronic devices must be turned off. "**Attendance" means arriving on time and staying until dismissed by the instructor.

Tutoring: Tutoring is available in PS 112. Please see the schedule at http://www.math.fau.edu/MLC for tutors and hours of operation.

Course Grade: Grading is based on homework projects, the quizzes, as well as the mid-term and the final exam. Exams will be in-class, take-home, or a mix of both. Homework projects are individual take-home assignments. No late assignments will be accepted.

Homework:	45%
Quizzes:	10%
Mid-Term Exam	20%
Final Exam	25%

Grading Scale: The grading scale will be no worse than the following:

Percentage:	Above 94	(90,94]	(87,90]	(83,87]	(80,83]	(75,80]	(65,75]	[55,65]	Below 55
Grade:	A	A-	B+	B	B-	C+	C	D	F

Exams: The midterm exam will be taken on the day and time stated in the course calendar, in rooms to be assigned. Students are only allowed a number 2 pencil, eraser, scientific calculator, and valid picture ID during a testing session. DO NOT BRING CELL PHONES, BOOKS, BOOK BAGS, NOTES, OR ANY OTHER ITEMS TO THE EXAM ROOM! *Entrance to the exam requires a valid picture identification card:* Only FAU Owl Cards, U.S. Passports, or Florida Driver's Licenses will be accepted!

Comprehensive Final Exam: Date, location and time will be announced in the class. *You must take the final exam to receive a passing grade!*

Makeup Exams: Makeup exams will be given only under exceptional circumstances. *If you miss an exam, you must provide a written, verifiable excuse, if possible in advance of the scheduled exam.* Approval for a makeup exam must be obtained from your instructor.

Classroom Etiquette : Please refer to the FAU Code of Conduct available at http://www.fau.edu/regulations/chapter4/4.007_Student_Code_of_Conduct.pdf.

Academic Honesty: Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001 at
http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf

Students With Disabilities: In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) and follow all OSD procedures. In Boca Raton, SU 133 (561-297-3880); in Davie, MOD 1 (954-236-1222); in Jupiter, SR 117 (561-799-8585); or at the Treasure Coast, CO 128 (772-873-3305). OSD website at http://www.osd.fau.edu.

Included course topics are subject to reasonable changes at the discretion of the instructor.