

CSC 161 Fall 2022 - Prof. A. Wittenstein

Computer Applications in Mathematics (3 credits)

Contact Information

Office: Science 415

Email: Wittenstein@adelphi.edu

Course Web Page: <http://home.adelphi.edu/~wi16133/csc161/f22>

Office Hours: TR 5:45-6:15pm on ZOOM, or by appointment

Class Meetings T/Th 4:30-5:45pm, SWL 101, Traditional In-Person Class (T 8/31 → T 12/13)

T 10/4: Class will be synchronous on ZOOM

Th 12/8: Last regular class meeting

T 11/8: No Adelphi classes – Election Day

T 12/13: Make Up Class (if needed)

Th 11/24: No Adelphi classes – Thanksgiving Break

T 12/20: Final Exam 3:30-5:30pm

Prerequisite MTH 142: Calculus II

*This course is mainly for future math teachers in the Scholar Teacher Education Program (STEP). If you are not in this program, please check in with the instructor to ensure this course is appropriate for you.

Course Description

Students will utilize computer technology to solve problems in algebra, probability and statistics, geometry, and calculus. Additionally, students will gain knowledge of fundamental concepts in computer programming.

Course Materials

Textbooks

- Since there is no single text that contains all the topics being taught in this course, the course will utilize online resources, accessible through the course web page and the course Moodle page.

Graphing Calculator

- Each student must have a Texas Instruments (TI) 84 for their own use during this course.
- Students will not be allowed to share or borrow calculators during labs, quizzes, or exams for any reason!

Moodle Learning System

- To access Moodle, log on to your eCampus account, then click on the Moodle tab.
- All grades (for assignments, quizzes, and exams) will be posted to Moodle.
- All lecture PowerPoint slides, assignments, and assignment solutions, will be posted to Moodle.
- Help for students in the use of Moodle can be found at <https://www.adelphi.edu/it-services/moodle/>
- Students are to monitor Moodle announcements or their Adelphi Gmail for any schedule changes (assignment or quiz/exam date changes, instructor running late, etc.) If a class meeting is cancelled for any reason, log on to the class Moodle page for instructions and assignments (if any).

Course Learning Goals & Objectives

- Students will solve multi-step equations in Maple. This will be assessed by Quiz 1 and the Midterm Exam.
- Students will solve problems in probability theory, stochastic processing, and statistics using Excel. This will be assessed by Quiz 2 and the Midterm Exam.
- Students will utilize the TI-84 graphing calculator to solve problems in algebra, geometry, and calculus. This will be assessed by the Midterm Exam.
- Students will show understanding of the basic concepts behind computer programming using the Python Programming Language. This will be assessed by Quiz 3 and the Final Exam.
- Students will solve geometry problems using GeoGebra software. This will be assessed by the Final Exam.

Class Meetings

- This is a Traditional In-Person class, and most class meetings will be in-person. On occasion, the class will meet synchronously on Zoom (when announced in advance on Moodle/AU e-mail by the professor).
- The class meetings will generally be a mix of lecture & time for informal in-class practice exercises.
- Students are not to use phones or computers during class, except for tasks directly related to the lesson, like note taking and accessing the PowerPoint being discussed. *Students not following this policy may be asked to leave class for the day, in which case they will be marked absent for the day.*
- Assignments are not to be worked on and not to be submitted during class time. *All assignments with a time stamp during class time (T/Th 4:30-5:45pm) will be given a grade of ZERO.*

Student Participation & Recording/Sharing of Video Course Content

Students enrolled in this course are expected to actively participate in those courses, which includes consenting to be part of any class sessions that may be recorded. Classes may be recorded, at the instructor's discretion, to provide students with access to recordings outside of class (asynchronously). Students enrolled in this course may also be recorded while taking remote exams.

While learning in a synchronous remote or online format, students are encouraged to remain on camera to facilitate interactions with instructors and classmates. All students are encouraged to speak with their instructors at the beginning of the semester about any challenges or potential limitations to their on-camera participation in a remote, live-streamed, or online class.

Additionally, in order to protect the privacy of other students enrolled in the course, students will refrain from allowing family members or others participate, listen in, or otherwise impinge upon the shared virtual space of the remote or online learning classroom. Students are prohibited from recording or sharing in any way video content from in-person or online classes with others, pursuant to The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99), that protects student privacy. Sharing of content is defined as discussing or disclosing any and all information about a student in the presence of others, electronically, in person, or otherwise. *See also*, the Adelphi University Code of Conduct.

Honor Code & Academic Honesty

The Honor Code states that "The University is an academic community devoted to the pursuit of knowledge. Fundamental to this pursuit is academic integrity. In joining the Adelphi community, I accept the University's Statement of Academic Integrity and pledge to uphold the principles of honesty and civility embodied in it. I will conduct myself in accordance with ideals of truth and honesty and I will forthrightly oppose actions which would violate these ideals."

Students enrolled in this course are expected to abide by Adelphi University's policies on Academic Honesty, which can be viewed on the web at <http://academics.adelphi.edu/policies/honesty.php>. The purpose of the Honor Code and policies on is to protect the academic integrity of the University by encouraging consistent ethical behavior in assigned coursework by students. The following is excerpted from the Student Honor Code:

The code of academic honesty prohibits behavior, which can broadly be described as lying, cheating, or stealing.

Violations of the code of academic honesty will include, but are not limited to, the following:

- 1. Fabricating data or citations**
- 2. Collaborating in areas prohibited by the professor**
- 3. Unauthorized multiple submission of work**
- 4. Sabotage of others' work, including library vandalism or manipulation**
- 5. Plagiarism: presenting any work as one's own that is not one's own**
- 6. The creation of unfair advantage**
- 7. The facilitation of dishonesty**
- 8. Tampering with or falsifying records**
- 9. Cheating on examinations through the use of written materials or giving or receiving help in any form during the exam, including talking, signals, electronic devices, etc.**

Violations of these standards, including (but not limited to) plagiarism of any portion of an assignment or misconduct during quizzes & exams, will be dealt with in accordance with University regulations & procedures and reported to the Provost's office.

In this course, no credit will be given to student assignments, or portions thereof, that are substantially similar. I

will not try to figure out who copied from whom; it is your responsibility to not let anyone copy your work.

Also, students may not share files or portions of files pertaining to course assignments for any reason. Again, I will not try to figure out who shared a file whom; it is your responsibility to not share your files or allow any other students access to them, even unintentionally.

Student Course Evaluations

About 2 weeks before the start of Final Exams, the course evaluation will become available to you on eCampus. Availability will end just before the first day of the Final Exam Period. Your feedback is valuable to me in making improvements to the course for future students. Please be assured that your responses are anonymous and that the results will not be available to me until after the end of the semester and after your final course grades are submitted by me to the University.

Grading

Assignments 25% Midterm Exam 25%: Thursday 10/27: in class-date tentative

Quizzes 25% Final Exam 25%: Tuesday 12/20: 3:30pm-5:30pm

The final course grade corresponding to each final numerical course grade will be no lower than:

A+ = 97 & up	A = 93-96.9	A- = 90-92.9	B+ = 87-89.9	B = 83-86.9	B- = 80-82.9
C+ = 77-79.9	C = 73-76.9	C- = 70-72.9	D+ = 67-69.9	D = 63-66.9	D- = 60-62.9
					F = 0-59.9

Attendance

Attendance is required. Adelphi students make a commitment to be active participants in their educational program; class attendance is an integral part of this commitment. Students are responsible for completing course work missed through absences. After 4 absences, your grade will be lowered by one-third of a grade (e.g., A to A-, A- to B+, etc.). You are also responsible for whatever work is covered in class ***whether or not you are there***. Absence from quizzes and exams will be excused only for a good and **well-documented** reason. The decision to allow a make-up quiz or exam will be made in accordance with the policies of Adelphi University.

Please arrive to class *on time* whenever possible. Also, lateness or leaving early will count as partial absences. But, I would much rather you arrive late or leave early, then miss an entire class session. If you know in advance that you will be absent or late for a class, please e-mail me to let me know. If you need to be absent for any class meetings due to religious observance, please notify me within the first two weeks of the semester.

If I know in advance that I will be absent or late for a class, then I will post this information to Moodle, and Moodle will automatically send an e-mail to your Adelphi e-mail account. ***In the rare case that I am not present at the start of class and there is no announcement on Moodle, then you should wait until at least 4:50pm, as I am probably just running late.***

Provided that health conditions allow, most (70%-100%) of our class meetings will be in-person, and in-person attendance is required! Occasionally, we may meet synchronously on Zoom instead (when announced by the professor on Moodle/AU E-mail).

Religious Observance

Adelphi University welcomes diversity in its community, and respects various religious observances. Students who anticipate being absent, due to their religious observance, are required by Adelphi to notify their professors at the start of the semester. This will allow the faculty to take these observances into consideration in light of their course exam and assignment schedules. Students absent from class on those days, after prior notice to the professor, will not be penalized for any exam or assignment deadline missed because of those absences. Students must contact the instructor to work out suitable arrangements for make-ups or other satisfaction of academic requirements.

COVID-19: Course Mask Policy

For Fall 2022, Adelphi University has a mask-optional policy in most public spaces. Please continue carrying an acceptable face covering with you in case you are asked to wear one. Free masks are available **in various locations** at Adelphi. We appreciate your support of every individual's choice & comfort level about masking.

The policy for this class at the present time is **mask optional**. If necessary during the semester, I will announce any change to this by Moodle/AU e-mail.

COVID-19: In the Event of Illness or Quarantine

Should you become ill with COVID-19 or be required to undertake a quarantine or isolation period, please take the following steps as soon as possible:

- Contact the Health Services Center (at **516.877.6003** or **healthandwellness@adelphi.edu** for further guidance.
- Contact me by e-mail (Wittenstein@adelphi.edu) to discuss arrangements for completing coursework and possible attendance by ZOOM while absent from class due to COVID-19.

Course Topics & Approximate Timeline

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|--|--|
| 1. Weeks 1-3: Using Maple in Mathematics | 5. Weeks 10-13: Introduction to Computer Programming |
| 2. Weeks 4-5: Using Microsoft Excel in Math | 6. Weeks 13-14: GeoGebra for Geometry and Algebra |
| 3. Weeks 6-8: Using the TI-84 in Mathematics | 7. Weeks 14-15: Review & FINAL EXAM |
| 4. Week 9: Review & MIDTERM EXAM | |

*A day-by-day calendar can be found on Moodle. This calendar will be updated throughout the semester as dates may shift, such as when a topic which is planned for 1 day actually takes 2 days, or vice-versa.

Course Assignments

Since this course meets for three credit hours per week, it is expected that on average you do about 3-6 hours of work for this course per week outside of class time.

Reading Assignments

While the class meetings will highlight the important parts of the material, you are expected to complete the reading assignments on the course calendar before each class meeting, as they provide additional examples and explanations of the material. The assignments, quizzes, and exams will assess understanding of classroom and textbook material. Therefore, make sure (during class, during office hours, and/or by e-mail) to ask the instructor about anything you do not fully understand prior to each assignment due date, quiz, or exam.

Graded Assignments

Graded assignments count for 25% of the semester grade. They will be assigned every week or two and typically due about a week later. They are to be submitted through the Moodle Learning System, unless announced otherwise. Assignments will be graded based on the accuracy and completeness of your work, not on effort or completion. Graded assignments are meant as a form of assessment in this course. Students should make sure they understand the material (lecture and reading assignments) prior to working on these exercises.

Assignments will be graded for accuracy and completeness, not just on whether they were attempted. The weight of each assignment in the Assignment grade will be based on the importance and/or approximate length of the assignment. Assignments fully meeting all requirements will receive a grade of 96% (A). Only assignments exceeding requirements will receive a grade of 97% or above (A+).

Assignments are to be submitted electronically through Moodle by 11:55pm on the due date. Late assignments will be penalized 10% per day. However, if the instructor is notified in advance that an assignment will be late for a valid reason (starting the assignment too late, not knowing how to do an assignment, and/or computer trouble on or near the due date are NOT valid reasons), the late penalty may be reduced or eliminated at the instructor's discretion. *Also, late submissions may not be accepted for any credit once grading and/or post-mortem feedback have been provided to the class and/or any of its students for a particular assignment.*

Since class time cannot generally be allotted to the review of assignments, please attend my office hours, or look at posted solutions on Moodle when available, if you need to review any graded assignments.

Student Access Office:

<https://access-office.adelphi.edu/> sao@adelphi.edu

(516) 877-3806

Post Hall 107

If you have a disability that may significantly impact your ability to carry out assigned coursework, please contact the Student Access Office (SAO) at 516-877-3806 or send an email to sao@adelphi.edu. The staff will review your concerns and determine, with you, appropriate and necessary accommodations. Please allow for a reasonable time frame for requesting ASL Interpreters or Transcription Services. All information and documentation of disability is confidential.

The Student Counseling Center (SCC):

<https://students.adelphi.edu/catalog/counseling-services/> scc@adelphi.edu (516) 877-3646 Nexus 132
Provides confidential and professional psychological counseling services, resources, and referrals to support the academic and personal success, health, and well-being of Adelphi students without additional charge. Counselors are available to help students cope with a variety of stressors and personal issues that may interfere with their academic and personal experiences. The Center also supports students who may be feeling suicidal or in crisis.

Need support when the SCC is not available? Get Help: <https://scc.adelphi.edu/contact/>

For 24/7 emergency counseling, referral, or assistance, please contact:

Long Island Crisis Center (516) 679-1111 **911** (for immediate health-related emergency)

National Suicide Prevention Lifeline (800) 273-TALK (8255)

Public Safety: Off campus: (516) 877-3500, On campus: Extension 5

Learning and Writing Centers:

<https://adelphi.edu/learning-writing-centers/> learningcenter@adelphi.edu (516) 877-3200 Nexus 132
The Learning and Writing Centers comprise a single department and student support service, with missions rooted in helping students achieve academic success. Services, delivered via fellow peers working as student tutors, are centered around providing academic support and engagement outside of class and are free to all Adelphi students.

Learning Center tutors mainly focus on specific academic areas — like Biology, Nursing, Accounting, or Computer Science — while Writing Center tutors focus on writing, across all academic disciplines and across the entire writing process—from thesis construction, research, and organization to grammar, language, and citation.

STUDENT ACKNOWLEDGEMENT:

I HAVE READ AND UNDERSTOOD THE SYLLABUS FOR FALL 2022 CSC 161-001

Signature: _____ Printed Name: _____ Date: _____

Allergies: _____

Accommodations: _____

Any days you will need to miss class: _____