

0145-161-001 CSC 161 Fall 2024 - 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/f24>

Office Hours: M 4:00-4:25p, W 12:00-12:25p(ZOOM), M/W 7:15-7:50p, or by appt

Class Meetings M/W 6:00-7:15pm, SWL 100, Traditional In-Person Class (M 8/26 → M 12/9)

M 9/2, M 10/14, & W 11/27 No Adelphi classes

W 12/11 & Th 12/12: Make Up/Study Days

M 12/9 Last Scheduled Class Meeting Before Final Exam

M 12/16 or W 12/18: Final Exam (time TBD)

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.

Catalog 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 cannot 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.
- 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).
- Whenever announced, assignments are to be submitted through Moodle.

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.

Major Course Topics & Approximate Timeline

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

Grading

Assignments 25% Midterm Exam 25%: Wednesday 10/30: in class-date tentative

Quizzes 25% Final Exam 25%: Monday 12/16 or Wednesday 12/18

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 commit to being 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/exams will be excused only for a good and **well-documented** reason. The decision to allow a make-up 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 than miss an entire class session. If you know in advance that you will be absent or late for class, please e-mail me in advance (if possible).
- This is a Traditional In-Person class, and most (70%-100%) class meetings will be in-person. On occasion, the class may meet synchronously on Zoom (when announced in advance on Moodle/AU e-mail by the professor).
- 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 there at the start of class and there is no announcement on Moodle or the classroom door, then you should wait in the classroom until at least 6:20pm, as I am probably just running late.***

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.

Classroom Policies and Expectations

- 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 the class, in which case they will be marked absent for the day.*
- Homework assignments are not to be worked on and not to be submitted online during class time (M/W 6:00-7:15pm) for any reason (unless specifically announced by the professor). *The penalty for this will be a grade of ZERO on that assignment – no warnings or exceptions!*

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 Homework Assignments

Graded homework 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 Moodle unless announced otherwise. Assignments will be graded based mostly on the accuracy and completeness of your work, rather than effort or completion. Graded homework 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 & follow The Code of Academic Integrity.

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 11:59pm 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 assignments.

The Adelphi Honor Code

"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."

Code of Academic Integrity

- Adelphi University's Code of Academic Integrity prohibits behavior, which can broadly be described as lying, cheating, or stealing. Academic dishonesty/violations of the Code of Academic Integrity 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.

10. Other forms of academic dishonesty

- Use of any electronic device (other than scientific/graphing calculators) including cellular phones and smart watches, at any time during an exam or quiz regardless of reason is considered a violation of #6 and #9 above.
- In this course, no credit will be given to assignments, or portions thereof, that are substantially similar. I will not determine who copied from whom; it is your responsibility to not let anyone copy your work.
- 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 with whom; it is your responsibility to not share your files or allow any other students access to them, even unintentionally.
- Generative Artificial Intelligence (AI) tools are strictly prohibited in this course. Students are not allowed to use any generative AI models during assignments, projects, quiz, or exam that counts in any way toward the course grade.
- If you are unsure about what plagiarism or another form of academic dishonesty are, please reach out to me to discuss it as soon as possible. An allegation of an academic integrity violation in this course may be referred for further review and could result in disciplinary action.

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.

Student Access Office and Disability Accommodation

<https://www.adelphi.edu/access-office/> sao@adelphi.edu (516) 877-3806 University Center 314
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 by email at 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://www.adelphi.edu/scc/> scc@adelphi.edu (516) 877-3646 Nexus 132
The Student Counseling Center (SCC) provides confidential and professional virtual mental health 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 SCC also supports students who may be feeling suicidal or in crisis. To schedule an appointment, call or email them. If you need immediate assistance, walk-in services are available during the fall and spring semesters Monday-Friday, 9:00 a.m.–5:00 p.m.

Need support when SCC is closed? 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)

Crisis Text Line: Text PAWS to 741741

Adelphi Office of Public Safety Off campus: (516) 877-3511

On campus: Extension 5 on any campus phone

CASE: The Center for Academic Support and Enrichment

<https://www.adelphi.edu/case/>

case@adelphi.edu

(516) 877-3200

Nexus 132

The Center for Academic Support and Enrichment (CASE) offers programs and services—like individual tutoring in writing and subjects across the curriculum, small group study sessions, academic coaching and targeted workshops—that help students explore, deepen and extend their classroom learning. Support programming focuses on establishing foundational skills and techniques of studentship, like time management and note-taking. Enrichment services develop higher-order critical thinking skills and problem solving skills inherent in both abstractions and applications of curricular study. Contact them via email, phone or via eCampus to review their full slate of real-time (in person and remote) and asynchronous services. These are included in your tuition, so you’ve already bought them!

Student Participation & Recording/Sharing of Video Course Content

Students enrolled in this course are expected to actively participate in the course, which includes consenting to be part of recorded class sessions. 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 (if remote exams are necessary due to public health or other emergency conditions).

On any days that the class meets synchronously on Zoom, students are encouraged to remain on camera while learning to facilitate interactions with instructors & classmates. All students are encouraged to speak with instructors 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.

STUDENT ACKNOWLEDGEMENT:

I HAVE READ AND UNDERSTOOD THE SYLLABUS FOR FALL 2024 CSC 161-001

Signature: _____ Printed Name: _____ Date: _____

Chosen Pronouns: _____ Name you wish to be called: _____

Learning and Testing Accommodations: _____

Allergies: _____ Any dates you will need to miss class: _____