

Syllabus

University of Wisconsin - La Crosse

January 24

— SUBJECT TO CHANGE —

Professor: Dr. David Mathias

email: dmathias@uwlax.edu

website: <https://www.cs.uwlax.edu/~dmathias>

Time: Monday, Wednesday and Friday 1:10 PM – 2:05 PM (see below for details)

Classroom: Centennial 3313 and Wing Technology 16

Office Hours – Virtual Only: Monday 11:00 – 12:00, Wednesday 2:15 – 3:15 and Friday 11:00 – 12:00, or by appointment. This is the link you will need:

<https://wisconsin-edu.zoom.us/j/84106988375?pwd=d1FteTRHdDNkM3BBWT1keXZYQ3R4Zz09>

What you can expect from this class: As a student in this course, you will learn how to program in Python, the coolest language ever invented. In addition to fundamental syntax, we will explore features that set Python apart from other languages with which you may already be familiar. These include interactive programming, list comprehension, very intuitive iterators, and a huge array of built-in functions. You will participate in a semester-long group project that will require imagination and pushing the limits of your programming skills.

Text Book: Allen B. Downey, Think Python, O'Reilly, 2016. ISBN13: 978-1-491-93936-9.

Note that the text book is available at Amazon as well as used book websites. However, it is also available for free (legitimately) from:

<https://greenteapress.com/wp/think-python-2e/>

There are two editions of the book. The first covers Python 2 while the second covers Python 3. We will use the Python 3 edition.

On most Fridays, we will meet in Wing 016 for lab, during which you will complete short programming assignments. You are encouraged to work in pairs.

Course Materials: The materials you need in this class are available via my website (URL above).

These include in-class assignments, out-of-class assignments, lecture slides, code examples, the current syllabus, helpful links, etc.

Etiquette: When joining a live session via video conference, it is important to observe proper etiquette. Most importantly, make sure that your microphone is muted. Unmute only to ask questions, and then, only if called on. This rule is intended to prevent chaos. You

are encouraged to turn on your camera to make virtual meetings feel more like in-person meetings. If you turn on your camera, please ensure that what is visible in the background is appropriate. While I am not easily offended, others may be more sensitive.

Learning Management System: We will use Canvas in this course. IMPORTANT NOTE: I use canvas to record grades for individual assignments. I do NOT use Canvas to calculate your grade for the course. While the total grade displayed on Canvas may approximate your grade, it is not guaranteed to be accurate. The only reliable source for your final course grade is Wings.

Catalog Description: Three hours. This course presents the syntax and semantics of a particular programming language. Different offerings of the course will present different languages. Students are expected to be fluent in another programming language prior to enrollment.

Student Learning Outcomes: By the end of the course, students should be able to:

- Understand the syntax and semantics of the following elements of Python:
 - Simple data types including bool, int, float, complex
 - Collection data types including string, tuple, list, set, dictionary
 - Other built-in types including File, Function, Class, Method
 - Operators and expressions involving:
 - * relational operators: <, >, <=, >=, ==, !=, <>, is, is not
 - * arithmetic operators: +, -, /, *, % **
 - * logical operators: not, and, or
 - * list comprehension
 - Control flow including loops and conditionals
- Understand the difference between classes and objects
- Write classes and create and use objects
- Understand file I/O
- Understand and implement programs that utilize the above topics

Programming Assignments: One of the largest components of your grade in this course is outside-of-class programming assignments. The only way to learn how to program is by programming. You will not be successful in this class unless you write your own code. I encourage you to study with others and to discuss concepts and ideas with classmates. However, you must write and submit your own work.

Rules for program submission:

- Programs are due at 11:59 PM on the due date. There is a long and proud tradition of programs being due at that time. You are, of course, welcome to submit well before the deadline.

- Late submissions are accepted up to 48 hours after they are due. Up to 24 hours late, there is a 20% penalty. Up to 48 hours late, there is a 50% penalty. Programs will not be accepted more than 48 hours late.
- You **must** include the following at the top of your program file: a block comment with the following information (in this order): your name, the assignment number, the due date, and a brief description of the assignment.
- Comment your code. Good commenting is critical.
- Adhere to the coding conventions we discuss in class. I don't care that your uncle's wife's cousin told you to do things differently. There are many ways to format code and I don't claim that my way is the right way but it will be much easier for us to talk about code if we all use a common format.

Evaluation and Assessment:

- 25% – Programming assignments
- 10% – In-class programming
- 25% – Group project
- 5% – Group project presentation
- 35% – Quizzes (approximately 6, equally weighted)
- In general, there will be no makeup quizzes except with advance notice of an approved UWL activity or with a doctor's note confirming serious illness. In all cases, it is the student's responsibility to provide written documentation. However, in the current environment, unusual situations will arise. Contact me so that we can discuss what is going on. Late assignments will not be accepted except as outlined in this syllabus. There will be no extra-credit work.

Grading Scale: Letter grades will be assigned according to the table below. Let x be your numeric score for the course:

- A: $x \geq 93$
- AB: $89 \leq x < 93$
- B: $83 \leq x < 89$
- BC: $79 \leq x < 83$
- C: $70 \leq x < 79$
- D: $60 \leq x < 70$
- F: $x < 60$

Attendance: I do not take attendance. However, attending class is almost always a very good idea. Knowledge is not poured into your head as water into a glass. Learning requires engaging with the course. This includes asking questions, answering questions, completing in-class exercises, etc.

In-class programming: During most weeks, we will meet once in lab. In these sessions, you will be given a manageable programming assignment to complete. You are encouraged to work in pairs. While completion of the assignment is the goal, credit will be given based on making a good faith effort to solve the problem.

Course Policy on Collaboration: For programs, you may discuss **general concepts** with classmates. However, you cannot collaborate in the preparation of solutions or programs. Using any solution that you did not create yourself, including but not limited to solutions found on the internet, is considered academic misconduct.

Academic Integrity: Academic misconduct is a violation of the UWL Student Honor Code (<http://catalog.uwlax.edu/undergraduate/academicpolicies/studentconduct>) and is unacceptable. I expect you to submit your own original work and participate in the course with integrity and high standards of academic honesty. When appropriate, cite original sources, following the style rules of our discipline.

PLEASE NOTE that whenever a grade penalty is imposed due to academic misconduct, the instructor is required to write a letter documenting the misconduct. Copies are sent to the student, to the Office of Student Life (where the letter remains on file in the student's record), and to the Dean of the student's College. Refer to:

<https://www.uwlax.edu/student-life/student-resources/student-handbook> for a detailed definition of academic misconduct, and for possible sanctions and consequences. The Office of Student Life can also assist.

Plagiarism or cheating in any form may result in failure of the assignment or the entire course, and may include harsher sanctions. Refer to the Student Handbook #14.02 for a detailed definition of academic misconduct.

For helpful information on how to avoid plagiarism, go to "Avoiding Plagiarism" on the Murphy Library website (<http://libguides.uwlax.edu/plagiarism2>). You may also visit the Office of Student Life (<https://www.uwlax.edu/student-life/>) if you have questions about plagiarism or cheating incidents. Failure to understand what constitutes plagiarism or cheating is not a valid excuse for engaging in academic misconduct.

UWL COVID-19 Statement: All UWL students are encouraged to be vaccinated against COVID-19. All students are required to be masked in classrooms and other indoor campus communal spaces. Campus-wide mask guidance may change during the semester. Students with COVID-19 symptoms or reason to believe they were in contact with COVID-19 should call and consult with a health professional, such as the UWL Student Health Center (608-785-8558), regardless of their vaccination status. Students who are ill or engaging in self-quarantine at the direction of a health professional should not attend class. Students in this situation will not be required to provide formal documentation and will not be penalized for absences. However, students should:

- notify instructors in advance of the absence and provide the instructor with an idea of

how long the absence may last, if possible

- keep up with classwork if able
- submit assignments electronically
- work with instructors to either reschedule or electronically/remotely complete exams, labs, and other academic activities
- consistently communicate their status to the instructor during the absence

Instructors have an obligation to provide reasonable accommodation for completing course requirements to students adversely affected by COVID-19. This policy relies on honor, honesty, and mutual respect between instructors and students. Students are expected to report the reason for absence truthfully and instructors are expected to trust the word of their students. UWL codes of conduct and rules for academic integrity apply to COVID-19 situations. Students may be advised by their instructor or academic advisor to consider a medical withdrawal depending on the course as well as timing and severity of illness and students should work with the Office of Student Life if pursuing a medical withdrawal.

PRO-UWL: This class is participating in the Navigate Progress Report Online early alert system designed to promote student success. If I notice that you are experiencing difficulties early in the semester (e.g., low assignment scores or limited participation), I may note this information and you will receive notification indicating that I have entered feedback. I encourage you to meet with me and/or utilize helpful campus resources listed on UWL's Student Success page <https://www.uwlax.edu/info/student-success/>.

Inclusive Excellence: UWL's core values include "Diversity, equity, and the inclusion and engagement of all people in a safe campus climate that embraces and respects the innumerable different perspectives found within an increasingly integrated and culturally diverse global community" (<https://www.uwlax.edu/chancellor/mission>). If you are not experiencing my class in this manner, please come talk to me about your experiences so I can try to adjust the course if possible.

Student Course- and Faculty-Related Concerns, Complaints, and Grievances:

Informal Complaints:

If a student has a concern or a complaint about a faculty member or course, the general process for making informal complaints is outlined in steps 1-3 below. Students are welcome to bring a friend or a UWL staff member with them during the following steps. Students who report concerns/complaints/grievances, whether informally or formally, will be protected from retaliation and have the right to expect an investigation and the option to have regular updates on the investigation:

1. The student should speak directly to the instructor.
2. If the student is uncomfortable speaking with the instructor, or they are unsatisfied with the solution, they should go to the chair of the faculty member's home department.

3. If the student is uncomfortable speaking with the department chair, or the chair is the faculty member in question, or they are unsatisfied with the solution, the student should speak with their college dean.

Depending on the specifics of the student's concern, it may be helpful for them to reach out to additional offices:

- Complaints/concerns/grievances about grades, teaching performance, course requirements, course content, incivility, or professional ethics should follow the process outlined above. Students may also wish to seek support from the Student Life office.
- Complaints/concerns/grievances related to hate/bias and discrimination may follow the process outlined above, and in addition or instead students may contact the Campus Climate office and/or submit a hate/bias incident report.
- Complaints/concerns/grievances related to sexual misconduct may begin with the process outlined above, but will need to also involve the Equity & Affirmative Action and Violence Prevention offices, and/or the Title IX Team. Students should know that faculty members are mandatory reporters of sexual misconduct, but that confidential resources are available to them.

Formal Complaints:

If the student is unsatisfied with the solution of their informal complaint, they have the right to file a formal institutional complaint with the Student Life office, as described in the Student Handbook.

Student Evaluation of Instruction: UWL conducts student evaluations electronically. Approximately 2 weeks prior to the conclusion of a course, you will receive an email at your UWL email address directing you to complete an evaluation for each of your courses. In-class time will be provided for students to complete the evaluation in class. Electronic reminders will be sent if you do not complete the evaluation. The evaluation will include numerical ratings and, depending on the department, may provide options for comments. The university takes student feedback very seriously and the information gathered from student evaluations is more valuable when a larger percentage of students complete the evaluation. Please be especially mindful to complete the surveys.

Useful Resources: The following links are provided for your convenience. This is not an exhaustive list of services available on campus.

ACCESS Center: <http://www.uwlax.edu/access-center>

Student Support Services: <http://www.uwlax.edu/student-support-services>

For statements regarding Sexual Misconduct, Religious Accommodations, Students with Disabilities, and Veterans and Active Military Personnel, please see:

<https://www.uwlax.edu/info/syllabus>

Approximate schedule (subject to change):

Week:		Topics:	Text:
1	January 24	Course intro; What makes Python so cool? Getting started, variables, errors	Ch. 1, 2
2	January 31	Lists and iteration	Ch. 5, 10
3	February 7	List comprehension	Ch. 7
4	February 14	Dictionaries	
5	February 21	Strings and plots	Ch. 3, 6
6	February 28	Functions	Ch. 8, 11, 12
7	March 7	Map, zip, and git	Ch. 14
	March 14	Spring Break	
8	March. 21	Classes	Ch. 15, 17
9	March 28	Special methods	Ch. 15, 17
10	April 4	Inheritance	Ch. 18
11	April 11	Modules	
12	April 18	Packages	
13	April 25	Threads	
14	May 2	Project presentations	