

## Syllabus

— SUBJECT TO CHANGE —

**Professor:** Dr. David Mathias

**email:** [dmathias@uwlax.edu](mailto:dmathias@uwlax.edu)

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

**Time:** Monday, Tuesday, Wednesday and Friday 9:55 AM – 10:50 AM

**Classroom:** Centennial 2314 (**See the last two pages for when you need to be there.**)

**Virtual Link:** This is the link you will need for virtual class meetings:

<https://uwlax-edu.zoom.us/j/84017015258?pwd=SjBLVHo4d1A4ekFPSXhrZlNtS1ozdz09>

**Office Hours – Virtual Only:** Monday 11:00 – 12:00, Tuesday 3:15 – 4:15, Wednesday 11:00 – 12:00 and Friday 11:00 – 12:00, or by appointment. This is the link you will need:

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

**What you can expect from this class:** As a student in this course, you will learn the principles of computer programming and the fundamentals of good programming practice. Though the course is taught using Java, the principles and fundamentals translate to most other programming languages. In addition, you will learn basic data structures and object-oriented concepts that will prepare you for further study in programming.

**How to succeed:** This section is a new addition to my syllabus because of the pandemic. Why? Because the changes necessary to course format make it vitally important that you work to engage with the class: with the material, with me, and with your fellow students. Doing so will be different since we will be together less than during a “normal” semester. So please, **force yourself to engage**. Force yourself to stay current with assignments. Force yourself to meet your fellow students. Force yourself to visit my virtual office hours. Doing these things will help you in this class.

I encourage you to ask questions. Ask any question. Ask often. Ask again. Then think of more questions. Don't be surprised if I don't provide a direct answer but rather lead you to figure things out on your own.

Programming is not something that you learn by just showing up for class and going through the motions. You have to work at it. Some of you will have to work at it a lot. The pandemic doesn't change that. So think about what you want to get out of this class. Determine what defines success for you and work to make it happen. If you are a Computer Science major, I hope that you want to build a strong foundation for the rest of your CS courses and for the 40-year career that will follow graduation. If you are taking CS120 to satisfy a GenEd, think about how the logic and critical thinking skills you will develop will help you in your chosen field. Then work to achieve your goals. Don't let the pandemic stand in your way or serve as an excuse. You might have to work differently. You might have to work harder. But you can succeed if you work.

One last note. The three most important words on this syllabus are just below the box on the first page: **SUBJECT TO CHANGE**. We all have to be flexible. The only thing I can promise in that regard is that I will be as flexible as possible without compromising the course and that I will keep you informed about changes as they occur. This will require that you **check Canvas announcements regularly, at least once per day**. Anything less than that and you may miss important updates from me.

I'm looking forward to getting to know you and to a good semester. Now to the mundane stuff.

**Text Book:** Allen B. Downey and Chris Mayfield, Think Java, 2nd Edition, Green Tea Press, 2020.

The text book is freely available as a downloadable pdf or via html at the author's website. You may, if you wish, purchase a print copy of the book.

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

**Mode of Instruction:** This is a hybrid class. On Mondays or Tuesdays, you will attend an in-person class meeting. These meetings will be streamed for those who prefer remote delivery or are not able to attend in-person. **The day you attend in-person is determined by the first letter of your last name:**

- A through K: Monday
- L through Z: Tuesday

On Wednesdays, we will have synchronous, virtual lab meetings during which you will complete short programming assignments. You will learn a lot of programming via these assignments so please take them seriously.

In addition, I will post recorded lectures, typically two per week. It is important that you watch the recorded lectures in a timely manner so that you are prepared for the

in-person meetings. NOTE that the recorded lectures are distinct from the Monday class meetings.

**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, recorded lectures, 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.

**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. If you must miss class due to illness, quarantining, or other obligations, please notify me so that I can advise you of what to do to stay current with the material and any assignments. I will make all reasonable accommodations but ultimately you are responsible for whatever you miss.

**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 formula I will use to calculate your final grade, not including any curve I apply at the end of the semester, appears below. Feel free to use it to determine where you stand in the class.

**Catalog Description:** Four hours. Prerequisites: MTH 151 or MTH 175, or placement test scores at, or above, MTH 151. An introduction to the fundamentals of software development; including software classes, objects, inheritance, polymorphism, logic, selection control, repetition control, subprograms, parameter passage, and rudimentary software engineering techniques. Students complete numerous programming projects using a modern programming language.

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

- Write Java programs using primitive data types and their operations.
- Use complex control structures such as conditional execution and iteration.
- Define variables and use them effectively.

- Use existing classes and create new ones with attention to information hiding, inheritance and overloading.
- Use basic linear data structures for the storage and manipulation of potentially large amounts of complex information.
- Create programs that are interactive with attention to design and usability.

**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 and each on a separate line): your name, CS 120 followed by your section number, the assignment number, and the due date. Next is a blank line followed by a brief description of the assignment.
- Comment your code (we'll discuss in class what this means). You will be tempted to skip this. Resist that temptation. 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 one and only right way, but it will be much easier for us to talk about code if we all use a common format.

**Evaluation and Assessment:**

- 30% – Programming assignments
- 10% – Virtual labs
- 10% – Quizzes
- 25% – Midterms (2)
- 25% – Final exam

**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:  $x < 60$

**Course Policy on Collaboration:** For programs, you may discuss **general concepts** with classmates. However, you can not 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:** 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). 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 effected 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 for last names A through K:**

Week:		Topics:	Text:
1	February 1	In-person meeting	Ch. 1
	February 2	Recorded Lecture - Java Introduction	
	February 3	Synchronous, virtual lab meeting	
	February 5	Install BlueJ (if you haven't already done so)	
2	February 8	In-person meeting	Ch. 2
	February 9	Recorded Lecture - Java primitives	
	February 10	Synchronous, virtual lab meeting	
	February 12	Recorded Lecture - Primitives and assignment	
3	February 15	In-person meeting	Ch. 5
	February 16	Recorded Lecture - Selection and boolean conditions	
	February 17	Synchronous, virtual lab meeting	
	February 19	Recorded Lecture - Randomness, selection & control	
4	February 22	In-person meeting	
	February 23	Recorded Lecture - Selection, logic & control I	
	February 24	Synchronous, virtual lab meeting	
	February 26	Recorded Lecture - Selection, logic & control II	
5	March 1	In-person meeting	Ch. 6
	March 2	Recorded Lecture - Repetition with loops	
	March 3	Synchronous, virtual lab meeting	
	March 5	Recorded Lecture - More loops	
6	March 8	Midterm review	
	March 9	Midterm 1	
	March 10	Synchronous, virtual lab meeting	
	March 12	Recorded Lecture - Debugging	
7	March 15	In-person meeting	Ch. 7
	March 16	Recorded Lecture - Arrays	
	March 17	Synchronous, virtual lab meeting	
	March 19	Recorded Lecture - Loops & arrays	

Approximate schedule continued for last names A through K:

Week:		Topics:	Text:
8	March 22	In-person meeting	Ch. 4
	March 23	Recorded Lecture - Using methods	
	March 24	Synchronous, virtual lab meeting	
	March 26	Recorded Lecture - Writing methods	
9	March 29	In-person meeting	Ch. 15
	March 30	Recorded Lecture - Nested loops & variables	
	March 31	Synchronous, virtual lab meeting	
	April 2	Recorded Lecture - Multi-dimensional arrays	
10	April 5	In-person meeting	
	April 6	Recorded Lecture - Static methods & variables	
	April 7	Synchronous, virtual lab meeting	
	April 9	Recorded Lecture - Writing non-void methods	
11	April 12	Midterm review	
	April 13	Midterm 2	
	April 14	Synchronous, virtual lab meeting	Ch. 8
	April 16	Recorded Lecture - Supplier classes	
12	April 19	In-person meeting	
	April 20	Recorded Lecture - Interfaces and events	
	April 21	Synchronous, virtual lab meeting	
	April 23	Recorded Lecture - More interfaces and events	
13	April 26	In-person meeting	Ch. 14
	April 27	Recorded Lecture - Inheritance	
	April 28	Synchronous, virtual lab meeting	
	April 30	Recorded Lecture - More inheritance	
14	May 3	In-person meeting	
	May 4	Recorded Lecture - Using inheritance	
	May 5	Review	
	May 7	Review	
	<b>Final</b>	Monday May 10 at 2:30 PM	

**Approximate schedule for last names L through Z:**

Week:		Topics:	Text:
1	February 1	Recorded Lecture - Java Introduction	Ch. 1
	February 2	In-person meeting	
	February 3	Synchronous, virtual lab meeting	
	February 5	Install BlueJ (if you haven't already done so)	
2	February 8	Recorded Lecture - Java primitives	Ch. 2
	February 9	In-person meeting	
	February 10	Synchronous, virtual lab meeting	
	February 12	Recorded Lecture - Primitives and assignment	
3	February 15	Recorded Lecture - Selection and boolean conditions	Ch. 5
	February 16	In-person meeting	
	February 17	Synchronous, virtual lab meeting	
	February 19	Recorded Lecture - Randomness, selection & control	
4	February 22	Recorded Lecture - Selection, logic & control I	
	February 23	In-person meeting	
	February 24	Synchronous, virtual lab meeting	
	February 26	Recorded Lecture - Selection, logic & control II	
5	March 1	Recorded Lecture - Repetition with loops	Ch. 6
	March 2	In-person meeting	
	March 3	Synchronous, virtual lab meeting	
	March 5	Recorded Lecture - More loops	
6	March 8	Midterm review	
	March 9	Midterm 1	
	March 10	Synchronous, virtual lab meeting	
	March 12	Recorded Lecture - Debugging	
7	March 15	Recorded Lecture - Arrays	Ch. 7
	March 16	In-person meeting	
	March 17	Synchronous, virtual lab meeting	
	March 19	Recorded Lecture - Loops & arrays	

Approximate schedule continued for last names L through Z:

Week:		Topics:	Text:
8	March 22	Recorded Lecture - Using methods	Ch. 4
	March 23	In-person meeting	
	March 24	Synchronous, virtual lab meeting	
	March 26	Recorded Lecture - Writing methods	
9	March 29	Recorded Lecture - Nested loops & variables	Ch. 15
	March 30	In-person meeting	
	March 31	Synchronous, virtual lab meeting	
	April 2	Recorded Lecture - Multi-dimensional arrays	
10	April 5	Recorded Lecture - Static methods & variables	
	April 6	In-person meeting	
	April 7	Synchronous, virtual lab meeting	
	April 9	Recorded Lecture - Writing non-void methods	
11	April 12	Midterm review	
	April 13	Midterm 2	
	April 14	Synchronous, virtual lab meeting	Ch. 8
	April 16	Recorded Lecture - Supplier classes	
12	April 19	Recorded Lecture - Interfaces and events	
	April 20	In-person meeting	
	April 21	Synchronous, virtual lab meeting	
	April 23	Recorded Lecture - More interfaces and events	
13	April 26	Recorded Lecture - Inheritance	Ch. 14
	April 27	In-person meeting	
	April 28	Synchronous, virtual lab meeting	
	April 30	Recorded Lecture - More inheritance	
14	May 3	Recorded Lecture - Using inheritance	
	May 4	In-person meeting	
	May 5	Review	
	May 7	Review	
	<b>Final</b>	Monday May 10 at 2:30 PM	