Fairfield University — CS 131

Course Syllabus for CS 131: *Fundamentals of Programming*

Fall 2019

Time

6:30pm — 9:00pm on Wednesdays

Room

Bannow 131

Instructor

Name: Murray Patterson
Email: `mpatterson@fairfield.edu`
Office: Bannow 105

Office Hours

4:00pm — 5:30pm on Mondays and Thursdays, or by appointment

Java Help Centre Hours

Room: Bannow 123

2:00pm — 4:00pm on Mondays and Thursdays: General Help (Vyde)

3:00pm — 5:00pm on Tuesdays
3:00pm — 6:00pm on Wednesdays
6:30pm — 8:30pm on Thursdays
} Java TA (Hari)

Recommended Textbooks

Think Java, *1st Edition*. Allen Downey and Chris Mayfield.

Modern C, *1st Edition*. Jens Gustedt.

Course Content

Fairfield University Blackboard — `https://fairfield.blackboard.com/`

Course Overview

Welcome to Fairfield University's CS 131! This course introduces the fundamentals of programming in modern programming languages such as Java and C. Basic constructs of software development including variables, expressions, program flow, arrays, decisions and loops will be covered in depth. The course will employ a practical approach with an emphasis on coding.

Course Outcomes[1]

Students successfully obtaining credit in this course will have an ability to:

1. Analyze a complex computational problem and to apply principles from various disciplines to identify computational solutions. (Bloom's Taxonomy levels 1 & 4 — Knowledge & Analysis)
2. Design, implement in Java and C, and evaluate a computational solution to meet a given set of requirements / specifications. (Bloom's Taxonomy levels 2 & 3 — Comprehension & Application)
3. Communicate effectively in a variety of professional contexts. (Bloom's Taxonomy level 2 — Comprehension)
4. Recognize professional responsibilities and make informed judgments in the practice of applying Java and C to real-world problems. (Bloom's Taxonomy levels 2 & 6 — Comprehension & Evaluation)
5. Function effectively as a member or leader of a team engaged in the design and implementation of a system for solving a computational problem. (Bloom's Taxonomy levels 3 & 6 — Application & Evaluation)
6. Apply theoretical background (algorithms, etc.) and software development fundamentals in Java and C to produce computing-based solutions. (Bloom's Taxonomy level 3 & 5 — Application & Synthesis)

Course Structure

- **Lecture** — Classes will be conducted in traditional lecture format.
- **In-class programming assignments (labs)** — Hands on small scale programming tasks in class to initiate a working knowledge of current material. Professor will test if your code is producing the correct results and grade the assignments.
- **Homework** — Weekly programming assignments building on the week's lecture content. Professor will test if your code is producing the correct results and grade the assignments.
- **Readings** — Course textbook pages, relevant articles and additional supporting content will be assigned for students to read.
- **Discussions** — Opportunities to share questions about key concepts, homework assignments, and more.

Exams

There will be a Java midterm exercise and a final exam for both Java and C in this course. The exams will be programming assignments which cover lectures, homework assignments, and readings.

[1] `https://tinyurl.com/y6myuceg`

Grade Scale

Grade	Numerical Value	Point Equivalent
A	4	93—100
A-	3.67	90—92
B+	3.33	87—89
B	3	83—86
B-	2.67	80—82
C+	2.33	77—79
C	2	73—76
C-	1.67	70—72
D	1	60—69
F	0	0—59

Grading

- Attendance and Participation (10%)
- In-class Assignments / Labs (10%)
- Homework Assignments (20%)
- Java Midterm Exercise (15%)
- Class Project (15%)
- Java Exam (10%)
- C Exam (20%)

Course Schedule (*subject to change*)

	Topic	Reading
Week 1	Intro & Syllabus / System set-up	Chapter 1
Week 2	Variables and Operators	Chapter 2
Week 3	Input & Output	Chapter 3
Week 4	Methods	Chapter 4
Week 5	Conditionals and Logic / **Java Midterm Exercise**	Chapter 5
Week 6	Value Methods	Chapter 6
Week 7	Loops	Chapter 7
Week 8	Arrays	Chapter 8
Week 9	Strings	Chapter 9
Week 10	Objects / **Java Exam**	Chapter 10
Week 11	C part 1	TBD
Week 12	C part 2	TBD
Week 13	C part 3	TBD
Week 14	C part 4 / Wrap-up & Exam Review	TBD

Attendance Policy

As a student at Fairfield University, you are expected to attend every scheduled class session. Class attendance is important and will be taken by your instructor at the beginning of each lecture. Please

inform the instructor in advance, preferably by e-mail, if you must be absent from a class. Excessive absences (as judged by the instructor) may lower your grade up to failing the class.

Classroom Participation

Students are expected to help promote the learning environment and respecting their classmates by being on-time and prepared for each class. During lectures, refrain from any unnecessary talk unrelated to the course material. In your own interest, while in class **DO NOT** use cell phones, Internet browsers, chats, or any computer software and tools for personal matters (*i.e.*, texting, checking emails, social media, paying bills, etc.). Any such activity will result in at least expelling the student from the class and being marked as absent for the lecture.

Missed Classes

Student are responsible for obtaining material distributed in class in days when she/he was absent. This can be done through contacting a classmate who was present, by contacting the instructor, or through the course website. There are no make-up exams unless the student missed the exam due to a pre-arranged, documented excused absence. Only official excuses will be accepted. **Any uncoordinated, unexcused missed exam will result in a score of zero for that exam**.

Late Assignments

Assignments are due at the beginning of class on the due date. Late submission will be assessed a penalty of 20% with no more than two days allowed.

Academic Integrity

Unless stated otherwise by your instructor, **individual work** is expected. Anything you turn in with your name on it must be your own work — that is, written or coded by you and not copied from anyone or anywhere else. If you use materials that you have obtained on the Internet, *e.g.*, `https://stackoverflow.com`, from a book, etc., you must include an appropriate reference. To use such materials without proper attribution is a form of plagiarism. Team projects must be original! By registering in this course, each one of you is explicitly agreeing to abide by and adhere to the Fairfield University agreement on academic integrity.

Academic Dishonesty

Cheating and other types of academic dishonesty in this course will result in a grade of zero for the project, paper, or examination in question, and may result in an F for the course itself. When appropriate, expulsion may be recommended. A notation of the event will be made in the student's file in the School of Engineering dean's office.

Students with Disabilities

Fairfield University School of Engineering complies with the American with Disabilities Act and Section 504 of the Rehabilitation Act. Any student who may require accommodation under such provisions should contact the Office of Accessibility Disability & Support Services.

Health and Well-being

Fairfield University provides mental health services to support the academic and personal success and well-being of students. Counseling & Psychological Services offers free, confidential psychological services to help students manage personal challenges that may interfere with your well-being. Fairfield University is committed to advancing the mental health and wellbeing of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services — by experienced, professional psychologists and counselors, who are attuned to the needs of college students — are available.

For more information contact `counseling@fairfield.edu` or by calling (203) 254-4000 ext 2146.

Course Withdrawal

There are deadlines for withdrawal during the semester. If you are thinking of withdrawing, timely action is necessary. Please check Fairfield University's policy on course withdrawals. Students who simply "drop out" of class, *i.e.*, stop showing up without formally withdrawing from the course will receive a grade of F for the course.

Any requests for special consideration relating to attendance, projects, examinations, etc., must be discussed with and approved by the instructor in advance. It is the student's responsibility to check any change in the due dates of the projects/home works, date of tests, etc. **You are required to observe the University and Departmental policies on academic honesty**.