

SyllabusCourse

Time: M/W/F 9:30-10:50
 Place: Jones Center: South Lab
 Website: Blackboard

Instructor Hamid R. Ekbia
 Office: Hentschke 210
 e-mail: hamid_ekbia@redlands.edu
 Phone: x 3127
 Office Hours: M/W 3:00 – 4:00 (or by appointment)

Textbook: *Using C++: An Introduction to Programming* (2nd edition)
 Hennefeld, J., Baker, L., and Burchard, C.
 Brooks/Cole: Thomson Learning Inc.

Auxiliary Material: Lab exercises, practice quizzes, and programming assignments will be made available online (on the Blackboard system)

Course Description

This course is designed to introduce students to the *craft* of computer programming. The goal is for you to get a sense of how to make computers (as stupid mechanisms) do things that we would like them to do, and at the same time to see how computers (as intelligent machines) can do things that even surprises the very people who program them. Except for basic computer skills such as keyboarding, the course does not presuppose any prior knowledge of computers or of programming on your part. By the end of the semester, you should have a basic understanding of programming concepts and constructs such as numbers, strings, assignments, sequential-versus-selective execution, nesting, loops, functions, arrays, reference parameters, file streams, etc.

The course includes a lab session that takes place once a week. Lab projects involve programming exercises that could be typically completed during the lab session.

Grading

The final grade will be based on

- Programming assignments (400)
- Quizzes (100)
- Two midterms (300)
- Final exam (200)

4H Principles: Hard work, honesty, helpfulness, and humility throughout the semester and in relation to others are the major principles of this class, and will be rewarded in the course.

Participation: Students are expected to take active part in class and lab discussions by paying close attention, raising questions, making suggestions, posing challenges, casting doubt, sharing experience, and so on — basically, any means that demonstrates their interest and enthusiasm but does not violate the University of Redlands' **Standards of Academic Honesty** (pages 13–20 of the catalogue). Taking advantage of instructor office hours is strongly recommended.

Programming assignments (50 points each) will be given on (most) Mondays, and are due one week later. As a bonus, the lowest-grade assignment will not be counted in the final grade. All programming assignments are done individually.

Late hand-in is *not* accepted, except under documented emergency situations.

The two **midterms** will be taken on Feb. 11, March 10. The final is scheduled for April xx.

Schedule

Period	Topic	Reading	Milestones
--------	-------	---------	------------

Week 1: Jan. 13–16	Introduction to Programming	Chapters 1 and 2	Visual Studio
Week 2: Jan. 19–23	Numeric Data Types	Chapter 3	Quiz 1/Program 1
Week 3: Jan.26–30	Selective Execution	Chapter 4 &12	Quiz 2/Program 2
Week 4: Feb. 2– Feb. 6	Functions	Chapter 5	Quiz 3/ Program 3
Week 5: Feb. 9–13	Strings	Chapter 6	Test 1 (W: 02/11)
Week 6: Feb. 16-20	Loops	Chapter 7	Quiz 4/ Program 4
Week 7: Feb. 23–27	Nested Loops	Chapter 8	Quiz 5/Program 5
March 01–05			Spring Break
Week 8: March 08–12	Reference Parameters, etc.	Chapter 9 & 10	Test 2 (W: 03/10)
Week 9: March 15–19	File Streams	Chapter 11	Quiz 6/Program 6
Week 10: March 22-26	Arrays & Vectors	Chapter 13	Quiz 7/Program 7
Week 11: March 29– April 2	Structs	Chapter 17	Quiz 8/Program 8
Week 12: April 05–09	Classes	Chapter 18	Test 3 (M: 04/05)
Week 13: April 12–16	Class Implementation	Chapter 19 – 21	Quiz 9/Program 9
Week 14: April 19	Pointers	Chapter 22	Quiz 10
Final's Week			Final Exam