



**Department of Computer Science**

**CPTG 117**  
**Problem Solving Using Computer Programming (4 units)**  
**Winter Quarter, 2024**

**Time and Location**

Lecture: 1/8/2024 – 3/21/2024, MTRR 8:00 A.M. – 8:50 A.M., PSC 145.

**Instructional Materials:** Online material will be given in class.

**Instructor**

Dr. Hwang. Office PSC 255. E-mail: [ehwang@lasierra.edu](mailto:ehwang@lasierra.edu). Office hours: Email me anytime to make an appointment or if you have any questions. Appointments can be either in person in my office or on Zoom.

**Course Description**

*Bulletin Course Description:* An introduction to problem solving using computer programming. Topics will be chosen from the history of computing, basic computer operation, algorithms, and programming constructs such as variables, expressions, input/output, data types, control structures, and functions. Does not apply toward a major in computer science. This course fulfills the general studies foundational mathematics requirement. *Prerequisite:* MATH 007 or MATH 013 or appropriate score on placement examination

This course will introduce to the students how to think logically by solving problems using computer programming.

**Prerequisite:** MATH 007 or MATH 013 or appropriate score on placement examination.

**Student Learning Outcomes**

The computer science curriculum at La Sierra University provides opportunities to reach various goals under the broad mission statement: “To Seek, To Know, To Serve.” This course in the computer science program introduces students to programming aspects on how computers communicate with each other.

Achievement at this level will be specifically demonstrated through the following:

- Students will develop logical thinking skills by learning how to solve problems by writing computer programs. (SLO 1 & 2)

- Students will be able to correctly analyze problems, develop computer algorithms for solving the problems, and implement the solutions by writing computer programs. (SLO 1)
- Students will communicate effectively by completing weekly programming assignments and through class discussions. (SLO 2)

**Topics** (Numbers in parenthesis are chapter/section numbers in the textbook.)

1. Introduction to computer programming.
2. User interface (UI).
3. Events.
4. Variables.
5. Control structures.
6. Math operators.
7. Data storage.
8. Graphics.

### **Requirements and Evaluation**

**Tests:** 2 Midterms: Tuesday January 30 and Friday February 23. Final: Tuesday March 19, 2024, 8:00 A.M. – 10:00 A.M.

**Programming Projects:** There will be approximately one or more programming project each week. These projects must be completed by the given due date. Late completions are not accepted unless you have a medical or emergency excuse.

### **Attendance and Class Participation**

This course will include much problem solving using computer programming. Students are expected to be on-time for class and ready to actively engage the material. Proper class preparation, active participation in class, and thoughtful conversation on the topic being discussed are expected. Since so much of what we learn takes place in dialogue with each other, the presence of each student is valued and necessary at every class period. To be excused from a class, you must provide an official note documenting the reason(s) for your absence. It is still your responsibility to catch up on any material that you have missed.

### **Grading**

Programming Projects 50%  
Midterms 2 @ 15% each  
Final 20%

### **Grading Scale**

After the grades for the above requirements and their percentages have been calculated for each student, the final grades will be based on the following scale:

95 – 100%	A
90 – 94.9%	A-

87 – 89.9%	B+
83 – 86.9%	B
80 – 82.9%	B-
77 – 79.9%	C+
73 – 76.9%	C
70 – 72.9%	C-
67 – 69.9%	D+
60 – 66.9%	D
0 – 59.9%	F

“Incomplete” grades are given only in extremely unusual circumstances. See *La Sierra University Undergraduate Bulletin* for the University’s policy concerning required procedures and course completion.

## **Additional Information**

### ***A. Discrimination and Harassment Policy***

Faculty members are committed to supporting students and upholding the University’s Title IX policy. Under Title IX discrimination based upon sex and/or gender is prohibited. This includes any act of sexual misconduct or sexual assault. In addition, our Title IX policy prohibits dating violence, domestic violence, stalking and sexual exploitation.

If you experience an incident of sex or gender based discrimination, sexual assault or sexual misconduct, we encourage you to report it to our Title IX Office.

You may talk to a faculty member, but understand that faculty members **MUST** report to the Title IX Coordinator what you share.

If you would like to speak with someone who may be able to afford you confidentiality, you may contact our Counseling Services located in the Student Wellness Services facility.

You may also want to visit our Wellness Center. Please know that all services at our Wellness Center are subject to confidentiality.

### ***B. Academic Honesty***

Because scholars communicate, consider ideas, and contrast understandings in writing, it is important to be able to rely on each other in an atmosphere of openness, trust, and clarity. The proper use of citations allows colleagues to double-check one’s interpretation of someone else’s work, or to follow-up in greater depth if interested in a particular idea. For this reason, academic honesty is of critical importance. It is important to use quotation marks where needed and to cite the source of all significant ideas, concepts, paraphrases, and quotations.

Because we need to be able to rely on each other’s work with confidence, please make sure that you provide proper attribution of all ideas, paraphrases, and quotations inserted into your papers **and programs**. A purposeful or careless breach of academic integrity will result in penalties.

To be sure that you have no misunderstandings about the definitions of academic honesty or academic dishonesty, refer to your La Sierra University Student Handbook. The University has significant penalties for academic dishonesty, so please take this suggestion seriously. La Sierra University's policy and other important information regarding academic honesty can be found at <https://lasierra.edu/academic-integrity/> .

### ***C. Special Assistance:***

It is the policy of La Sierra University to accommodate students with disabilities. Any student with a documented disability who requires reasonable accommodations should contact Office of Accessibility Services in Sierra Vista Hall at (951) 785-2452 or <https://lasierra.edu/accessibility-services/> For those who need proctoring for testing accommodations, hours are Thursdays 8:30am-12pm and 1-4:30pm and Friday 8:30-12PM.

### **Important Dates**

1/19 (Last day to withdraw with no record on transcript), 3/1 (Last day to withdraw with a "W"), 1/15 (MLK holiday), 2/19 (President's Day).

### **Links**

[Code.org](#)