

Course Outline

COURSE: CSIS 18L DIVISION: 50 ALSO LISTED AS:
 TERM EFFECTIVE: Spring 2019 CURRICULUM APPROVAL DATE: 05/14/2018

SHORT TITLE: UNIX/C++ PROG LAB

LONG TITLE: UNIX/C++ Programming Lab

Units	Number of Weeks		Contact Hours/Week		Total Contact Hours
1	18	Lecture:	0	Lecture:	0
		Lab:	3	Lab:	54
		Other:	0	Other:	0
		Total:	3	Total:	54

COURSE DESCRIPTION:

Supplemental practice in coursework associated with this course is provided. Concurrent enrollment in CSIS 18 is required. This course has the option of a letter grade or pass/no pass. COREQUISITE: CSIS 18 UNIX/C++ Programming

PREREQUISITES:

COREQUISITES:
 CSIS 18

CREDIT STATUS: D - Credit - Degree Applicable

GRADING MODES

- L - Standard Letter Grade
- P - Pass/No Pass

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

- 04 - Laboratory/Studio/Activity
- 047 - Laboratory - LEH 0.7
- 05 - Hybrid
- 72 - Dist. Ed Internet Delayed
- 73 - Dist. Ed Internet Delayed LAB
- 737 - Dist. Ed Internet LAB-LEH 0.7

STUDENT LEARNING OUTCOMES:

1. Create C++ programs using calculations, decision statements,
Measure of assessment: Homework, exam, quizzes.
2. Create C++ programs using procedures and functions.
Measure of assessment: Homework, exam, quizzes.
Institution Outcome Map
3. Create C++ programs using loops, arrays, and using OOP techniques.
Measure of assessment: Homework, exam, quizzes.

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Curriculum Approval Date: 05/14/2018

WEEK HOURS CONTENT:

1-2 Lab Lab: Write programs that cover material covered
6 in class and assigned chapters.

Running C/C++ programs on UNIX.

Create, save and print programs.

Learn how to use standard input and output.

Homework: The student learn basic UNIX commands
necessary for programming.

The students prepare, compile, and execute the
sample program. The students modify the sample
program and hand in the

modifications. The students

write programs using several types of variables and
arithmetic operators.

3-4 Lab

Lab: Write programs that cover material in class

6 and assigned chapters. Write programs using
different types of conditional statements.

Use the C/C++ UNIX debugging tools.

Homework: Use several types of decision statements.

Use relational and logical

operations. Use simple,
compound, and nested if statement.

Use debugging tools available for C/C++ under UNIX.

5-6 Lab

Lab: Write programs that cover material covered in
6 class and assigned chapters. Write programs that
use standard supplied functions. Write programs
with

user-defined functions. Use UNIX file management
tools such as make, tar, and archive.

Homework: Prepare

programs with functions and use

math library functions. Prepare programs that have

local and global variables that demonstrate scope

rules. Prepare programs that solve mathematical

problems using recursion. Prepare programs that pass

values into functions and that return values.

Prepare

overloaded functions and function templates.

7-8 Lab Lab: Write programs that cover material covered in 6 class and assigned

chapters. Write programs with arrays and loops. Write UNIX shell programs with variables, decisions, and loops.

Homework: Prepare programs that use numeric and string arrays. Use several different types of subscripts. Prepare programs that use loops to process the arrays. Write UNIX shell programs with variables, decisions, and loops.

9-10 Lab Lab: Write programs that cover material covered in

6 class and assigned chapters. Write programs that use pointers and pointer expressions.

Homework: Prepare programs that declare and use pointers. Prepare programs that use pointers as function arguments. Prepare programs that use pointer

expressions and pointer arithmetic.

11-12 Lab Lab: Write programs that cover material covered in 6 class and assigned

chapters. Write programs that use structures. Prepare programs that use classes.

Homework: Prepare programs with structures. Prepare programs with arrays of structures. Prepare programs that use simple classes.

13-14 Lab Lab: Write programs that cover material covered in

6 class and assigned chapters. Write more programs that use classes. Write programs that use friends, static classes, and operator overloading.

Homework: Prepare programs use different types of class scope and member access. Prepare programs that use overloaded constructors. Prepare programs that use friend functions and static class members.

15-16 Lab Lab: Write programs that cover material covered in

6 class and assigned chapters. Write programs that use inheritance and polymorphism. Write programs that use C++ stream input/output.

Homework: Write programs that use inheritance and polymorphism. Write programs that use base classes to create derived classes. Write programs that use stream

input/output and use manipulators and formatting.
17-18 Lab Lab: Write programs that cover material covered
in

6 class and assigned chapters. Write programs that use
exceptions. Write programs that use file processing.

Finish final

programming projects and prepare for
final exam.

Homework: Write programs that have errors that can be
thrown and caught. Write programs that create and use
sequential files. Use the preprocessor to include
libraries and files.

ASSIGNMENTS:

Included in Content Section of the Course Outline.

METHODS OF INSTRUCTION:

Lecture, computer demonstration.

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours:

Assignment Description: Read textbook and posted lecture material.

Required Outside Hours:

Assignment Description: Work on sample program, homework programs, and projects

METHODS OF EVALUATION:

Writing assignments

Percent of total grade: 5.00 %

Writing assignments: 5% - 20% Written homework

Problem-solving assignments

Percent of total grade: 40.00 %

Problem-solving demonstrations: 40% - 60% Homework problems Quizzes Exams

Skill demonstrations

Percent of total grade: 15.00 %

Skill demonstrations: 15% - 50% Class performance Performance exams

Objective examinations

Percent of total grade: 10.00 %

Objective examinations: 10% - 40% Multiple choice True/false Matching items Completion

Other methods of evaluation

Percent of total grade: 0.00 %

Other methods of evaluation: 0% - 0%

REPRESENTATIVE TEXTBOOKS:

Recommended Representative Textbooks

Walter Savitch. Problem Solving with C++ (10th Edition). Pearson,2017.

ISBN: 978-0134448282

Reading Level of Text, Grade: 12+ Verified by: MS Word

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

CSU GE:
IGETC:
CSU TRANSFER:
 Transferable CSU, effective 200630
UC TRANSFER:
 Transferable UC, effective 200630

SUPPLEMENTAL DATA:

Basic Skills: N
Classification: Y
Noncredit Category: Y
Cooperative Education:
Program Status: 1 Program Applicable
Special Class Status: N
CAN:
CAN Sequence:
CSU Crosswalk Course Department: CSIS
CSU Crosswalk Course Number: 18L
Prior to College Level: Y
Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: D
Maximum Hours:
Minimum Hours:
Course Control Number: CCC000029939
Sports/Physical Education Course: N
Taxonomy of Program: 070710