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

<table>
<thead>
<tr>
<th>Units</th>
<th>Number of Weeks</th>
<th>Contact Hours/Week</th>
<th>Total Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18</td>
<td>Lecture: 0</td>
<td>Lecture: 0</td>
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<td></td>
<td></td>
<td>Lab: 3</td>
<td>Lab: 54</td>
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<td></td>
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<td>Other: 0</td>
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<td>Total: 3</td>
<td>Total: 54</td>
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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

5/22/2018 1
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.
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 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 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 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.

Lab: Write programs that cover material covered in 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
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