CREDIT COURSE OUTLINE

## I. COVER PAGE

(1) CSCI 15

## (2) INTRODUCTION TO UNIX

(3) 3

## Number



## II. COURSE OUTCOMES:

(Specify the learning skills the student demonstrates through completing the course and link critical thinking skills to specific course content and objectives.)

Upon completion of this course, students will be able to:
I. Manipulate files on a UNIX system.
II. Setup directory and file security.
III. Specify shell commands to the operating system.
IV. Read and write shell scripting.
V. Write, compile, and execute programs under UNIX operating system environment.
III. COURSE OBJECTIVES:
(Specify major objectives in terms of the observable knowledge and/or skills to be attained.)
In the process of completing this course, students will:
I. Log in and $\log$ out of an Unix operting system.
II. Create and remove directories.
III. Use the visual(vi) editor to create and modify text files.
IV. Change permissions of files and directories.
V. Use shell features to streamline command execution.
VI. Write simple shell scripts.
VII. Perform tasks under a command-line driven operating system environment.
IV. COURSE OUTLINE:

## Lecture Content:

A. Introduction to the UNIX operating environment
B. Accessing the system
C. Accessing files and directories
D. Directory and file commands
E. Searching for files and text
F. File security
G. Visual (vi) Editor
H. Archiving User Data
I. Remote Connections
J. The Korn shell
K. Shell scripts

## V. APPROPRIATE READINGS

## Reading assignments may include but are not limited to the following:

I. Sample Text Title

1. Recommended - Schwartz, D. Introduction to UNIX, ed. 2 Prentice Hall, 2006,
2. Recommended - Sarwar, S. M.,Koretsky, R., Sarwar, S.A. UNIX: The Textbook, ed. 2 Addison-Wesley, 2005,
3. Recommended - Tobler, M. Inside Linux, Sams, 2001,
4. Recommended - Keith Haviland , Marcus Gray , Ben Salama UNIX System Programming, ed. 2nd -, 1998,
II. Other Readings
5. Recommended - Lab handouts by instructor.
__ Global or international materials or concepts are appropriately included in this course Multicultural materials and concepts are appropriately included in this course

If either line is checked, write a paragraph indicating specifically how global/international and/or multicultural materials and concepts relate to content outline and/or readings.

## VI. METHODS TO MEASURE STUDENT ACHIEVEMENT AND DETERMINE GRADES:

Students in this course will be graded in at least one of the following four categories. Please check those appropriate. A degree applicable course must have a minimum of one response in category $\mathrm{A}, \mathrm{B}$, or C .

| A. Writing <br> Check either 1 or 2 below |  |  |
| :--- | :--- | :--- |
| X | 1. Substantial writing assignments are required. Check the appropriate boxes below and provide a written description in the <br> space provided. |  |
|  | 2. Substantial writing assignments are NOT required. If this box is checked leave this section blank. For degree applicable <br> courses you must complete category B and/or C. |  |
|  | a) essay exam(s) | X |
|  | d) written homework |  |
| b) term or other paper(s) | c) laboratory report(s) | e) reading reports |

Required assignments may include but are not limited to the following:
Homework assignments
Computer lab assignments
Computer lab projects

## B. Problem Solving

Computational or non-computational problem-solving demonstrations, including:

| X | a) exam(s) | X | d) laboratory reports |
| :--- | :--- | :--- | :--- |
|  | b) quizzes |  | e) field work |
| X | c) homework problems | X | f) other (specify): <br> computer program projects |

Required assignments may include but are not limited to the following:
Homework assignments
Computer lab assignments
Computer lab projects

| C. Skill demonstrations, including: |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| a) class performance(s) | X | c) performance exams(s) |  |  |  |  |
|  | b) field work |  | d) other (specify) |  |  |  |

Required assignments may include but are not limited to the following:
Log in and log out of Unix operating system.
Create and remove directories
Use the visual (vi) editor to create and modify text lines
Change permissions of files and directories
Write simple shell scripts.

| D. Objective examinations including: |  |  |  |
| :--- | :--- | :--- | :--- |
| $X$ | a) multiple choice |  | d) completion |
| $X$ | b) true/false |  | e) other (specify): |
|  | c) matching items |  |  |

## COURSE GRADE DETERMINATION:

Description/Explanation: Based on the categories checked in A-D, it is the recommendation of the department that the instructor's grading methods fall within the following departmental guidelines; however, the final method of grading is still at the discretion of the individual instructor. The instructor's syllabus must reflect the criteria by which the student's grade has been determined. (A minimum of five (5) grades must be recorded on the final roster.)

If several methods to measure student achievement are used, indicate here the approximate weight or percentage each has in determining student final grades.
$50 \%$ Tests
30\% Program Assignments
10\% Homework
$10 \%$ Projects

## VII. EDUCATIONAL MATERIALS

For degree applicable courses, the adopted texts, as listed in the college bookstore, or instructor-prepared materials have been certified to contain college-level materials.

```
Validation Language Level (check where applicable):
Textbook
Reference materials
Instructor-prepared materials
Audio-visual materials
```



| College-Level Criteria Met |  |
| :---: | :---: |
| YES | NO |
| X |  |
| X |  |
|  | X |
|  | X |

Indicate Method of evaluation:
Used readability formulae (grade level 10 or higher)
Text is used in a college-level course $\qquad$
Computation Level (Eligible for MATH 101 level or higher where applicable)


## Content

Breadth of ideas covered clearly meets college-level learning objectives of this course
Requires a variety of problem-solving strategies including inductive and deductive reasoning.
Requires independent thought and study
Applies transferring knowledge and skills appropriately and efficiently to new situations or problems.

## List of Reading/Educational Materials

Recommended - Schwartz, D. Introduction to UNIX, ed. 2 Prentice Hall, 2006,
Recommended - Sarwar, S. M.,Koretsky, R., Sarwar, S.A. UNIX: The Textbook, ed. 2 Addison-Wesley, 2005,
Recommended - Tobler, M. Inside Linux, Sams, 2001,
Recommended - Keith Haviland , Marcus Gray , Ben Salama UNIX System Programming, ed. 2nd -, 1998,

## Comments:

| This course requires special or additional library materials (list attached). |
| :--- |
| Computers <br> Attached Files: <br> This course requires special facilities: <br> Advisory - CSCI 1 |
| Advisory - CSCI 5 |
| BASIC SKILLS ADVISORIES PAGE The skills listed are those needed for eligibility for English 125, 126, and Math 101. These <br> skills are listed as the outcomes from English 252, 262, and Math 250. In the right hand column, list at least three major basic skills <br> needed at the beginning of the target course and check off the corresponding basic skills listed at the left. |

```
Check the appropriate spaces.
    Eligibility for Math 101 is advisory for the target course.
    Eligibility for English }126\mathrm{ is advisory for the target course.
    Eligibility for English }125\mathrm{ is advisory for the target course.
    If the reviewers determine that an advisory or advisories in Basic Skills are all that are necessary for success in the target course.
stop here, provide the required signatures, and forward this form to the department chair, the appropriate associate dean, and the
curriculum committee.
```


## REQUISITES

Subject Advisory -- CSCI 1 INTRODUCTION TO COMPUTER SCIENCE

- Apply critical thinking skills in solving problems.
- Log in and log out of an Unix operting system.


## Subject Advisory -- CSCI 5 JAVA PROGRAMMING

- Log in and log out of an Unix operting system.


## ESTABLISHING PREREOUISITES OR COREOUISITES

Every prerequisite or corequisite requires content review plus justification of at least one of the seven kinds below. Prerequisite courses in communication and math outside of their disciplines require justification through statistical evidence. Kinds of justification that may establish a prerequisite are listed below.
Check one of the following that apply. Documentation may be attached.

1. __ The prerequisite/corequisite is required by law or government regulations. Explain or cite regulation numbers:
2. $\qquad$ The health or safety of the students in this course requires the prerequisite.
Justification: Indicate how this is so.
3. $\qquad$ The safety or equipment operation skills learned in the prerequisite course are required for the successful or safe completion of this course.
Justification: Indicate how this is so.
4. $\qquad$ The prerequisite is required in order for the course to be accepted for transfer to the UC or CSU systems.
Justification: Indicate how this is so.
5. $\qquad$ Significant statistical evidence indicates that the absence of the prerequisite course is related to unsatisfactory performance in the target course.
Justification: Cite the statistical evidence from the research.
6. The prerequisite course is part of a sequence of courses within or across a discipline.
7. $\qquad$ Three CSU/UC campuses require an equivalent prerequisite or corequisite for a course equivalent to the target course:
