

Washtenaw Community College Comprehensive Report

CIS 221 Linux/UNIX Programming and Scripting I Effective Term: Fall 2014

Course Cover

Division: Business and Computer Technologies

Department: Computer Instruction

Discipline: Computer Information Systems

Course Number: 221

Org Number: 13410

Full Course Title: Linux/UNIX Programming and Scripting I

Transcript Title: Linux/UNIX Prog Scripts I

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: Course Change

Change Information:

Consultation with all departments affected by this course is required.

Credit hours

Total Contact Hours

Distribution of contact hours

Objectives/Evaluation

Rationale: Increase credit and contact hours due to additional content.

Proposed Start Semester: Spring/Summer 2014

Course Description: In this course, students learn to use UNIX more efficiently with advanced forms of the commands and utilities building on the fundamentals of Linux/UNIX, as well as new commands and constructs. Advanced topics include sed, grep, awk, perl, and how to effectively use regular expressions, as well as constructs and special commands used in writing shell scripts. New topics covered include functions, traps, arithmetic on variables and input/output techniques.

Course Credit Hours

Variable hours: No

Credits: 4

Lecture Hours: Instructor: 60 Student: 60

Lab: Instructor: 0 Student: 0

Clinical: Instructor: 0 Student: 0

Total Contact Hours: Instructor: 60 Student: 60

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Requisites

Level II Prerequisite

CIS 121 minimum grade "C"

General Education

General Education Area 7 - Computer and Information Literacy

Assoc in Arts - Comp Lit
Assoc in Applied Sci - Comp Lit
Assoc in Science - Comp Lit

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Create moderately complex bash shell scripts.

Assessment 1

Assessment Tool: Exam

Assessment Date: Winter 2016

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 70% of students will score 70% or higher.

Who will score and analyze the data: Departmental Faculty

2. Create awk programs.

Assessment 1

Assessment Tool: Exam

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3. Construct and utilize limited regular expressions.

Assessment 1

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Course Objectives

1. Create complex sed, grep, egrep and fgrep commands.

Matched Outcomes

1. Create moderately complex bash shell scripts.

3. Construct and utilize limited regular expressions.

2. Create moderately complex awk programs.

Matched Outcomes

2. Create awk programs.

3. Use conditional commands in the bash shell.

Matched Outcomes

1. Create moderately complex bash shell scripts.
4. Use looping structures in the bash shell.

Matched Outcomes

1. Create moderately complex bash shell scripts.
5. Construct functions in the bash shell.

Matched Outcomes

1. Create moderately complex bash shell scripts.
6. Use exported and non-exported variables running in both current shell and new process.

Matched Outcomes

1. Create moderately complex bash shell scripts.
7. Utilize passed parameters between scripts.

Matched Outcomes

1. Create moderately complex bash shell scripts.
8. Read and process data from the command line and files.

Matched Outcomes

9. Create and update scripts to handle routine system administrative tasks such as creating users and monitoring disk space.

Matched Outcomes

10. Write scripts utilizing the function, seq and xargs commands.

Matched Outcomes

New Resources for Course

Course Textbooks/Resources

Textbooks

Kochan, S., P. Wood . *UNIX Shell Programming*, 3 ed. SAMS, 2003, ISBN: 0-672-32490-3.

Manuals

Periodicals

Software

Equipment/Facilities

Level III classroom

Computer workstations/lab

Reviewer

Action

Date

Faculty Preparer:

Philip Geyer

Faculty Preparer

Dec 13, 2013

Department Chair/Area Director:

John Trame

Recommend Approval

Dec 19, 2013

Dean:

Rosemary Wilson

Recommend Approval

Dec 19, 2013

Vice President for Instruction:

Bill Abernethy

Approve

Jan 29, 2014