

**INTRODUCTION TO SCRIPTING LANGUAGES
CST 2430**

Class Hours: 3.0

Instructor:

Laboratory Hours: 3.0

Office:

Credit Hours: 4.0

Phone:

Revised: November 2010

Email:

Catalog Course Description:

An introduction to script programming as a tool for system administration, automation, and customization and as a platform for Web-based applications. Compares shell command languages and scripting languages used on Unix and Linux systems.

Entry Level Standards:

The entering student should have a familiarity with the Unix/Linux operating system. The student is expected to have moderate programming abilities in a high-level language (HLL.)

Pre-requisites and/or Co-requisites: CST 2410

Textbooks and Other Related Material Basic to the Course:

Robbins, Arnold & Nelson H. F. Beebe, *Classic Shell Scripting*, O'Reilly, 2005, ISBN-13: 978-0-596-00595-5, ISBN-10: 0-596-00595-4

Budd, Timothy, *Exploring Python*, McGraw-Hill, 2010, ISBN-13: 978-0-07-352337-8, ISBN-10: 0-07-352337-2

I. WEEK/CHAPTER/TOPIC BASIS:

Week	Topic
1	Getting started
2	Overview of shells, General purpose utilities
3	Integrating tools using piping and redirection
4-7	Shell programming
8-9	Shell programming and OS utilities
10-14	HLL script programming
15	Final Exam

II. Course Goals:

The course will:

- A. Build the skills to use basic Unix/Linux commands and utilities. I, II, III, IV, V
- B. Build the skills to use redirection and piping. I, II, III, IV, V
- C. Build the skills to use various shells available in Unix/Linux. I, II, III, IV, V
- D. Enhance the student's knowledge of using high-level programming languages for scripting. II, III, IV, V
- E. Foster the ability to write shell programs using an OS shell language. II, III, IV, V
- F. Foster the ability to write scripts in a high-level programming language. II, III, IV, V

III. Expected Student Learning Outcomes:

Students will be able to:

1. Write shell scripts in variations of the Bourne shell and/or C shell. A, B, C
2. Use Unix/Linux commands to solve problems. A, B, C
3. Customize a Unix/Linux environment for a specific application. A, B, C
4. Produce formatted output using OS tools and scripts. A, B, E, F
5. Apply the 'tool box' concept to specific problems. A, B, C, E
6. Use OS utilities for text formatting. A, B, C
7. Use one or more high-level programming languages. A, D, F
8. Integrate OS tools and high-level programming code. A, B, C, D, E, F

IV. Evaluation:

A. Testing Procedures: 50% of grade

At least 2 tests will be given. Tests may only be made up for excused absences. An excused absence is one that can be verified by supporting documentation. Failure to make a passing quiz average will result in a grade of F for the course.

B. Laboratory Expectations: 40% of grade

At least 5 lab projects will be assigned during the course of the semester. Failure to make a passing lab project average will result in a grade of F for the course.

C. Field Work: N/A

D. Other Evaluation Methods: 10% of grade

Unannounced quizzes and homework will also comprise part of the final grade for the course.

E. Grading Scale:

93 – 100	A
88 – 92	B+
83 – 87	B
78 – 82	C+
73 – 77	C
65 – 72	D
0 – 64	F

V. Policies:

A. Attendance Policy:

Pellissippi State Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. (*Pellissippi State Online Catalog*)

B. Academic Dishonesty:

Plagiarism, cheating and other forms of academic dishonesty are prohibited. A student guilty of academic misconduct, either directly or indirectly through participation or assistance, is immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions that may be imposed through the

regular Pellissippi State procedures as a result of academic misconduct, the instructor has the authority to assign an F or a zero for the exercise or examination or to assign an F in the course. (*Pellissippi State Online Catalog*)

C. Computer Usage Guidelines:

College-owned or –operated computing resources are provided for use by students of Pellissippi State. All students are responsible for the usage of Pellissippi State's computing resources in an effective, efficient, ethical and lawful manner. (*Pellissippi State Online Catalog*)

D. Accommodation for Disabilities:

E. Students who need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins 127, 132, 134, 135, 131 or by phone: 539-7153 or TTY 694-6429. More information is available at www.pstcc.edu/departments/swd/.

F. Other:

In the event that you have an emergency beyond your control, you must notify the instructor as soon as possible.