



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF ENGINEERING

# The UNIX Programming Environment

## CSE 4251

**Credit Hours:**

1.00

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**Course Levels:**

Undergraduate (1000-5000 level)

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**Course Components:**

Lecture

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**Course Description:**

Introduction to the UNIX programming environment including: shell programming (csh); regular expressions; makefiles; grep, sed, and awk programming languages.

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**Prerequisites and Co-requisites:**

Prereq: 2122, 2123, or 2231; and 2321; and enrollment in CSE, CIS, ECE, Engr Physics, or Data Analytics major, or CIS minor.

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**Course Goals / Objectives:**

- Be familiar with csh programming.
  - Be familiar with UNIX regular expressions.
  - Be familiar with using basic sed commands.
  - Be familiar with using awk commands to filter through data files.
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**Course Topics:**

- C Shell: filename metacharacters, i/o redirection, command history, building complex command, job/process control, directory control
  - C Shell programming: script introduction, script examples, debugging scripts
  - Regular expressions in Unix (grep)
  - Make, sed, awk
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**Designation:**

Elective