CSC 234 C and UNIX

1. CSC 234 C and UNIX

2. credit units  3     contact hours  3

3. Course Coordinator: Kurt Voelker

4. Textbook (or other required material): Engineering Problem Solving with C. Delores M. Etter. Pearson.

5. a. Course Description: The C programming language and the UNIX programming environment. Operators, standard I/O functions, strings, pointers and arrays, data types and storage classes. Unix shell programming and basic I/O system calls. Credit not allowed for CSC, Software Engineering or CPE majors. 3 lectures.

   b. Prerequisite: MATH 142.

   c. Required/Elective/Selective Elective for CPE, CSC, EE, SE

   For non majors

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6. a. Course Learning Objectives
This course will give the student experience in writing an running scripts written in the Python programming language using the Spyder IDE environment. The student will rapidly progress from coding to writing their own scripts, to modifying and adding features implemented using branching and looping methods of their own design. Upon completing the course, the student will understand and be able to:

   • Edit and compile console applications in C under UNIX.
   • Properly format programs and related function prototypes and comments.
   • Use single-entry/single-exit structured programming constructs.
   • Properly test scripts and user defined functions
   • Write C programs to solve typical engineering problems
   • Implement user defined functions to solve typical engineering problems.

   b. Level at which Student Outcomes are addressed
   (“B” = Basic level, “I” = Intermediate level, “A” = Advanced level)
   
   For non majors

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7. **Major Topics Covered: (number of lecture hours per)**
   - Computers and the programming environment used (6)
   - Data types, variables, constants, strings, arrays (4)
   - Branching with IF and/or SWITCH-CASE (6)
   - Looping with WHILE and FOR (6)
   - Functional decomposition and writing user defined functions (6)
   - Reading/writing text files and formatted output (6)