

Course name	ECE 26100 Engineering Programming Lab
Credit and contact hours	(1 cr.) Lab 1
Course coordinator's name	Brian King
Textbook	<i>C Primer Plus</i> , 6 th Ed., by Stephen Prata, Addison-Wesley Publishing, 2013, ISBN: 9780321928429
Course information	<p>ECE 26100 Engineering Programming Lab (1 cr.) P: Completion of a pre-calculus course or equivalent; completion of 12 credit hours. C: ECE 26300. Lab 3. Introduction to problem solving using software tools, in particular the C programming language.</p> <p>Prerequisites/ Co-Requisite P: Completion of a pre-calculus course or equivalent; completion of 12 credit hours. C: ECE 26300.</p> <p>Required, Elective, or Selected Elective: EE Required, CE Required</p>
Goals for the course	<p>Upon successful completion of the course, students should be able to</p> <ol style="list-style-type: none"> 1. Develop algorithms to solve Engineering problems by using a step-by-step process. [1] 2. Use a standard C program development environment. [1] 3. Use loops, selection structures, arrays, functions and input/output commands in structured C programs. [1] 4. Read and write C programs that use pointers [1,2,6] 5. Read and write C programs that use structures [1,2,6] 6. Read and write C programs that use files [1,2,6] 7. Read and write C programs that use dynamic data structures [1,2,6]
List of topics to be covered	<ol style="list-style-type: none"> 1. Overview of problem solving using software tools 2. C programming language 3. Control Statements 4. Conditional Statements 5. Data types (simple and structured) 6. Arrays 7. Functions 8. The use of pointers 9. Dynamic memory management 10. Linked lists and trees 11. Recursion 12. Binary I/O 13. Random number generation 14. Standard C Library
Syllabi approved by	Brian King
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