EGN 198 Introductory Topics in Engineering: C++ Programming

When: Mondays 4:10–6:30pm, Wednesdays 4:10–5:25pm,
Where: John Mitchell Center, Rooms 217 and 270 (Gorham Campus)
Instructor: Scott Harding, 780-5313, scott.harding@maine.edu

This course introduces the student to the C++ programming language. C++ has been used extensively for performance intensive tasks required in engineering and has found increased usage in embedded systems. The C++ language has survived the test of time since it was invented thirty years ago, adding to the popularity of its predecessor, C, which was invented in 1971. This course will cover the fundamentals of programming and the C++ language. No prior knowledge of C or C++ is required. This is a 4-credit course and includes a laboratory component. Engineering students who have not yet taken COS 160/170 may count this course as a substitute in their degree requirements. Prerequisite: USM mathematics proficiency.

Syllabus:

1. To familiarize the student with the universal concepts of computer programming.
2. To present the syntax and semantics of the C++ language as well as basic data types offered by the C language.
3. To discuss the principles of the object-oriented model and its implementation in the C++ language.
4. Perform object oriented programming to develop solutions to problems demonstrating usage of control structures, modularity, I/O, and other standard language constructs.

Textbook:


About the Instructor:

Scott Harding joined USM as an Adjunct in Electrical Engineering in the fall of 2014 with 25 years of experience in the semiconductor and factory automation industries. His interests continue to focus on microelectronics and embedded programming. Scott is also a graduate of the USM Electrical Engineering program. A full bio is available on the Engineering website.