CSE 1001 Fundamentals of Software Development 1 (4 credits)

Primary instructor: Philip Bernhard  
Supporting faculty: Ryan Stansifer

Textbooks and references:


Course information:

2014-2015 Catalog description: CSE 1001 Fundamentals of Software Development 1 (4 credits). Introduces software development as it applies to small programs. Students learn to program in a higher-level language and to read, understand, write and evolve typical small higher-level programs. (Requirement: Passing score on calculus placement test or prerequisite course.) (CL) Prerequisites: MTH 1000.

Prerequisites by topic: Mathematics through precalculus, basic English writing skills

Place in program: Required, grade of C or better. Prerequisite for: CSE 1002

Course outcomes & related student outcomes: The student will be able to

1. Use fundamental types (constants and variables): integer, float, character, string, Boolean, array, etc., in computer programs. (4a: Skillful software construction)

2. Use basic control structures: if-then, for, while, switch, etc., in computer programs. (4a: Skillful software construction)

3. Identify syntactically correct code. (2: Scientific, computing, and engineering problem solving)

4. Interpret the semantics of code. (2: Scientific, computing, and engineering problem solving)

5. Use test and debug information to correct programs. (3: Skillful use of tools)

6. Effectively document software. (7: Communicate effectively)

7. Use computer programming skills to solve problems. (2: Scientific, computing, and engineering problem solving)

Topics covered:

1. Data types (10 hours)
2. Console I/O (2 hours)
3. Flow control (10 hours)
4. Classes, objects and methods (5 hours)
5. Arrays (8 hours)
6. Streams and File I/O (1 hour)
7. Recursion (3 hours)
8. Computer hardware and software components (1 hour)

Approved by: Phil Bernhard, Associate Professor & Ryan Stansifer, Associate Professor and
Director of Computer Science Programs

Signature: [Signature]
Date: 2/18/15

Signature: [Signature]
Date: 18 Feb 2015