Pellissippi State Community College
Master Syllabus

PROGRAMMING FOR ENGINEERING TRANSFER
CSIT 1050

Class Hours: .67 (40 mins)	Instructor:
Credit Hours: 1.0	Office:
Laboratory Hours: .33 (55 mins)	Phone:
Date Revised: January 4, 2012	Email:

Catalog Course Description:

Computer programming using C++ for engineering problem solving. Introduction to computer programming concepts, problem analysis, code formulation, engineering data utilization and applications.

Entry Level Standards:

The entry-level student is expected to have familiarity with computers. The student must have math (trigonometry and algebra), writing, verbal and English language skills at the college-entry level.

Prerequisites: none

Corequisites: none

Textbook(s) and Other Course Materials:

- C++ Lab Guide for Engineering Students , Spring 2012 Edition, Gregory M. Walters, Pellissippi State
- 2GB (minimum) Flash/Pen/Jump USB Storage Drive, 3 Ring Notebook.

I. Week/Unit/Topic Basis:

Week	Topic
1	Intro to computers, computer components, Math concepts, Engineering Use of Computers, Resources, Editor and Environment,Terms, Lab Assignments
2	C++ Language Fundamentals, Code organization, Lab Assignments
3-4	Data Input/Output, Structure, Constants, Variables, Statements, I/O, Math Functions, Lab Assignments
5-7	Control Structures, Algorithms, Conditional Expressions, Selection, Looping, Accurate data output representation, Lab Assignments, Review
8	Midterm Test (Written and Lab Requirements)
9-11	Modularity, defined Functions, Arrays, Arguments, Lab Assignments
12-13	File I/O, Functions, Lab Assignments
14	Engineering Final project, Review

Week	Topic
15	Final Exam Period

II. Course Goals*:

The course will

A. Provide lab use of the C++ Compiler so that students can apply engineering processes as input and produce calculated outputs. I, II,III, IV.

B. Provide instruction in the construction of C++ language based programming code. I, II, III, IV, V.

C. Provide the application of engineering and math problem solving techniques to the C++ language coding standards. I, II, III, IV, V.

D. Provide entry level understanding of data storage, program storage, programming syntax, usage, compiling and programming concepts. I, III, IV, V.

*Roman numerals after course objectives reference goals of the CSIT program.

III. Expected Student Learning Outcomes*:

Students will be able to:

1. Demonstrate proficient use of the C++ IDE Compiler and its editing features. (A,B,C,D,E)
2. Demonstrate the ability to formulate program code from specifications, real-world data representation, engineering problems and real-world problem examples. (A,B,C)
3. Demonstrate efficient use of the computer system and its operating environments. (A,B,C, D,E)
4. Use the C++ language to interact with client users to produce data output and accurate results. (A,B,D,E)
5. Demonstrate computer problem solving in the engineering environment. (A,B,C,D,E)
6. Demonstrate proficient use of a programming language in problem solving, data manipulation, data storage and retrieval, menu handling and error detection. (A,B,C,D,E)

IV. Evaluation:

A. Testing Procedures: 33% of grade
There will be assignments weekly to access knowledge and proficiency of the products used. There will be a comprehensive midterm and final test. Grades are determined based on a total points accumulated process using the scale provided below.

B. Laboratory Expectations: 67% of grade
There will be a number of labs from each section. Lecture and Lab attendance is required. Assignments will be given and must be completed and handed in at the expected date and time. All assignments turned in late will be reduced by 50%. Students must sign the roll-sheet daily to be counted as in attendance.

C. Field Work: N/A

D. Other Evaluation Methods: N/A

E. Grading Scale:

93 – 100%	A
88 – 92%	B+
83 – 87%	B
78 – 82%	C+
73 – 77%	C
65 – 72%	D
Below 65%	F

V. Policies:

A. Attendance Policy:

Pellissippi State Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. [NOTE: No differentiation is noted for excused/unexcused absences. These will be treated as an absence.]

B. Academic Dishonesty:

Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly through participation or assistance, are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions which may be imposed through the regular Pellissippi State procedures as a result of academic misconduct, the instructor has the authority to assign an F or a zero for the exercise or examination or to assign an F in the course.

C. Accommodations for Disabilities:

Students who need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins 127, 132, 134, 135, 131 or by phone: 539-7153 or TTY 694-6429. More information is available at www.pstcc.edu/departments/swd/.

D. Other Policies:

This information, if applicable, will be provided by the instructor via a syllabus supplement.