INSTRUCTOR: James Kelley  
Office: AAB 311  
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OFFICE HOURS:  
See www.worwic.edu

COURSE DESCRIPTION:  
This course offers an introduction to the theory of programming structures and problem analysis to solve common computer problems. Problem-solving applications are developed using a common structured programming language, Visual C++. Two lecture hours and three laboratory hours per week. Prerequisites MTH 091 or permission of the department head. Laboratory fee: $10. Usually offered in the fall and the spring.

COURSE MATERIALS:  
A “flash drive” is REQUIRED for storing your work.  
Instructions for obtaining a C++ Compiler for a home computer is available for use during this course from the instructor.

COURSE OBJECTIVES: Each student will be able to:

1. Use Basic Elements of C++. (GEO 1,2,3,4)  
   a. Given a word problem, develop an IPO chart.  
   Assessment Strategy: Exam questions, quizzes, and graded lab exercises.
   b. Given a word problem, develop an appropriate algorithm to solve the problem  
   Assessment Strategy: Exam questions, quizzes, and graded lab exercises.

2. Manipulate Program Input and Output statements in C++.(GEO 1,2,3,4)  
   a. Given a word problem, write a simple C++ program to solve.  
   Assessment Strategy: Exam questions, quizzes, and graded lab exercises.

3. Use Selection Structure(GEO 1,2,3,4)  
   a. Given a word problem, write a C++ program to make decisions based on the inputs and problem requirements.  
   Assessment Strategy: Exam questions, quizzes, and graded lab exercises.

4. Use Repetition Structure(GEO 1,2,3,4)  
   a. Given a word problem, write a C++ program that requires the student to demonstrate their ability to use the repetition structure  
   Assessment Strategy: Exam questions, quizzes, and graded lab exercises.
5. Demonstrate proficiency using Functions (GEO 1,2,3,4)
   a. Given a word problem, write a C++ program that demonstrates the student’s ability to correctly use several system built-in functions.
   b. Given a word problem, write a C++ program that requires the use and understanding of both Void and Value Returning functions using pass by value and pass by reference.
      Assessment Strategy: Exam questions, quizzes, and graded lab exercises.

6. Create and manipulate user defined data types. (GEO 1,2,3,4)
   a. Given a word problem, define required constants and variables using proper data type
   b. Given a word problem, use various data types correctly in combination in calculations.
      Assessment Strategy: Exam questions, quizzes, and graded lab exercises.

7. Program One-Dimensional Arrays. (GEO 1,2,3,4)
   a. Given a word problem, write a C++ program that demonstrates the use of a one-dimensional array.
   b. Given a word problem, write a C++ program whose solution requires the use of parallel, one-dimensional arrays.
      Assessment Strategy: Exam questions, quizzes, and graded lab exercises.

8. Write code to read and write sequential files. (GEO 1,2,3,4)
   a. Given a word problem, write a C++ program that will read information from a text file and write data back to another text file.
      Assessment Strategy: Exam questions, quizzes, and graded lab exercises.

This course satisfies GEOs 1,2,3,4

COURSE GUIDELINES
This course is two lecture hours and three lab hours each week. Some examples will be done at lecture time, however, it is expected that the lab that accompanies the lecture will be done in the lab following the lecture. Laboratory hours are observed to give the student a chance to practice each lesson presented. Lab Exercises are monitored and evaluated during the lab hours. Students are responsible for keeping all lab exercises on floppy disk or flash drive until the end of the semester. The student is also responsible to demonstrate the working problem to the instructor and provide (if requested) a printout of their work.

COURSE EVALUATION
1. Weekly Quizzes 100 points
2. Final Exam 250 points
3. Labs 350 points
4. Electronic Lab Assignment 100 points
5. Project 100 points
6. Discussions/Class Participation 100 points
   TOTAL 1,000 points

Letter grade will be assigned as follows:
A = 900-1000 points – Excellent – An ‘A’ denotes intellectual initiative as well as high academic achievement.
B = 800-899 points – Good – A ‘B’ denotes above average completion of course requirements.
C = 700-799 points – Average – A ‘C’ denotes a satisfactory understanding of course principles
and techniques.
D = 600-699 points – Poor – ‘D’ denotes marginal understanding of course principles and
techniques.
F - Less than 600 points – Unacceptable – An ‘F’ denotes that course requirements and
standards were not met.

ATTENDANCE POLICY
Absence/Lateness: NOT ALLOWED
NO MAKEUP TESTS
If absolutely necessary for a very good reason (death, illness) please:
NOTIFY ME AT (410) 334-2835 or email: jkelley@worwic.edu
ARRANGE TO GET NOTES FROM ANOTHER STUDENT
SET UP MEETING WITH ME DURING OFFICE HOURS OR APPOINTMENT
School is just like a job. It is a commitment and absence or lateness will not be tolerated as it
would not be tolerated in the workplace. If you miss or are late for classes you will miss important
material and you will fall behind. If you arrive in class after attendance is taken you will be
marked absent and reported as absent.

ASSIGNMENTS
All Homework and Reading Assignments MUST be submitted on time. NO CREDIT FOR
LATE WORK. If you do not do your homework and reading, you will not be able to keep up
with the class.

TESTS AND QUIZZES
All Quizzes and Tests will be based on the Text, Lab Manual and Lecture Material.
A final assessment will be a teacher made comprehensive final exam (summative). NO
MAKEUP TESTS OR QUIZZES.

ACADEMIC HONESTY POLICY:
Students are expected to maintain a high level of academic performance. Cheating and
plagiarism are defined in Wor-Wic’s Student Conduct Policy (appendix of College Catalog).
Infractions of this policy will result in the student's failure for the assignment or test.

ELECTRONIC LAB ASSIGNMENT
DUE: See Course Calendar
This paper must be 2 pages plus a cover page and a bibliography page. It should include a thesis
statement, the report and a summary. You must include a minimum of 4 references, at least two
of those references must be from the Internet, one reference must be from the electronic library in
the media center. You may not include your text as a reference.

Paper must be typed in 12 point type and double spaced. APA format is required. If necessary,
see the rules for the APA format on the college web site. Topic must be approved, in writing, by
the instructor.

CLASS PROJECT
During WEEK 4 the student will be asked to select a Term Project from a select group of
problems. The student will be asked to solve this problem with a Visual C++ program that will be
compiled, tested and the executable, the source code and a listing of the source code, submitted
to the instructor at the final exam. It is expected that the student demonstrate skills learned in the
completion of the course material to complete this exercise. The project is due at the end of
Week 12.
INTERNET WEB PAGE
The Syllabus, a Study Guide and other useful information is available for your use at the Wor-Wic Community College web site at:
   http://www.worwic.edu
You will be assigned a username and password on the first day of class to access Blackboard. Here you will find course notes, handouts and other useful information as well as part of your class will require you use this resource for online discussions and email services. All course work will be posted on this system and all quizzes will be taken here. This is a resource that has been designed to help you be successful in this course.

INSTRUCTOR ACCESS
The instructor may be contacted at any time via email at jkelley@worwic.edu or leave a message on voicemail at 410-334-2835. In case of emergency contact the Technology Department at: 410 – 334-2828 during school business hours. Use these numbers to report problems with Blackboard access and any other problems with the course.

H1N1 STATEMENT FOR SYLLABUS
In the event of a flu epidemic or other emergency that results in the suspension of classes, faculty will be communicating with students about their courses and course requirements, such as assignments, quiz and exam dates, and class and grading policies, via faculty websites or Blackboard. Students will be responsible for completing all these assignments in accordance with class policies. Information about the resumption of classes will be communicated via the College's website and email system.

NO CELL PHONES PERMITTED IN CLASS