INSTRUCTOR: Michael Kelley
Office: MTC 203
Phone: (410) 334-2835
mkelley@worwic.edu

OFFICE HOURS:
Tue & Thr: 8:30 AM – 10:30 AM
Monday: 3:00 PM – 4:00 PM

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 the object-oriented programming language, Visual C++. Hours: 26 lecture and 50 laboratory hours. Prerequisites MTH 099, an acceptable mathematics diagnostic assessment score, and CMP 104. Laboratory fee: $15. Usually offered in the fall.

COURSE MATERIALS:
TEXT: None Required

Materials:
- A Computer with Windows XP or greater with access to the Internet.
- Microsoft Office 2003 or greater (or OpenOffice or LibreOffice, latest version)
- Microsoft Visual Studio 2015 or Microsoft Express C++ or see instructor

Skills:
- Excellent knowledge of the Internet and computers.
- Excellent knowledge of the Microsoft Windows OS.
- Able to download and install software independently.
- Be able to work independently and motivated to complete assignments in a timely basis.
- Be able to access the Blackboard Course Management System.

Blackboard is being used as the CMS tool for this course. To access course content in Blackboard you need to have access to a computer with an Internet connection. Computers are available on campus in BH 217, FOH 305, HH 100, GH 204 and AHB 108.

Please follow these directions to access course syllabus and other materials posted for this course:

Login Information:
1. From Wor-Wic home page, point to “Quick Links” (top-right) and select “Blackboard Login”.
2. Enter your Wor-Wic user ID and password (same as your Wor-Wic email user ID and password).
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<th>Course Objectives</th>
<th>Assessment Goals</th>
<th>Assessment Strategies</th>
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<tbody>
<tr>
<td>Use Basic Elements of C++. (GEO 7)</td>
<td>Given a word problem, develop an IPO chart.</td>
<td>Exam questions, quizzes, and graded lab exercises.</td>
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<td>Given a word problem, develop an appropriate algorithm to solve the problem.</td>
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<tr>
<td>Manipulate Program Input and Output statements in C++. (GEO 7)</td>
<td>Given a word problem, write a simple C++ program to solve.</td>
<td>Exam questions, quizzes, and graded lab exercises.</td>
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<tr>
<td>Use Selection Structure (GEO 7)</td>
<td>Given a word problem, write a C++ program to make decisions based on the inputs and problem requirements.</td>
<td>Exam questions, quizzes, and graded lab exercises.</td>
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<tr>
<td>Use Repetition Structure (GEO 7)</td>
<td>Given a word problem, write a C++ program that requires the student to demonstrate their ability to use the repetition structure.</td>
<td>Exam questions, quizzes, and graded lab exercises.</td>
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<tr>
<td>Demonstrate proficiency using Functions (GEO 7)</td>
<td>Given a word problem, write a C++ program that demonstrates the student's ability to correctly use several system built-in functions.</td>
<td>Exam questions, quizzes, and graded lab exercises.</td>
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<td>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</td>
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<tr>
<td>Create and manipulate user defined data types. (GEO 7)</td>
<td>Given a word problem, define required constants and variables using proper data type</td>
<td>Exam questions, quizzes, and graded lab exercises.</td>
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<td>Given a word problem, use various data types correctly in combination in calculations</td>
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<tr>
<td>Program One-Dimensional Arrays. (GEO 7)</td>
<td>Given a word problem, write a C++ program that demonstrates the use of a one-dimensional array.</td>
<td>Exam questions, quizzes, and graded lab exercises.</td>
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</table>
Given a word problem, write a C++ program whose solution requires the use of parallel, one-dimensional arrays

Write code to read and write sequential files. (GE0 7)

Given a word problem, write a C++ program that will read information from a text file and write data back to another text file.

Exam questions, quizzes, and graded lab exercises

This course satisfies GEO 7

COURSE GUIDELINES

Normally this course is two lecture hours and three lab hours each week. You are expected to do the readings and examples each week. You should look to spend 6 to 8 hours each week outside of the typical 5 hours of class time, on this class. Students are responsible for keeping all lab exercises on medium of choice until the end of the semester. The student is also responsible to submit the working problem .cpp and .exe files to the instructor and provide (if requested) a printout of their work.

COURSE EVALUATION

1. Section Quizzes 10%
2. Final Exam 25%
3. Labs 40%
4. Electronic Lab Assignment 10%
5. Projects 15%
TOTAL 100%

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 – A ‘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: mkelley@worwic.edu
ARRANGE TO GET NOTES FROM ANOTHER STUDENT
SET UP MEETING WITH ME DURING OFFICE HOURS OR APPOINTMENT

There are only 13 weeks in this online course. School is like a job. It is a commitment and missing deadlines will not be tolerated as it would not be tolerated in the workplace. If you miss completion of a week’s work, you miss important material and you will fall behind. It is YOUR RESPONSIBILITY to make up any missed class work even if no credit is given.
ASSIGNMENTS
All Labs, Homework and Reading Assignments MUST be submitted on time. NO CREDIT FOR LATE WORK. If you do not do your labs, 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.
The Final exam will be given at a testing center for online classes or at the scheduled day and time in the classroom and will last two hours. There will be two components to each test. The first component is a Closed Book exam, usually multiple choice questions similar to the Tutorial Quizzes. The second component is an open book exam that will test the students programming skills. This use of a computer MAY NOT be required.

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).

What is Obvious and Malicious Plagiarism?
1. Cut & Paste from a source (not on Works Cited at all); whole sentences and / or paragraphs not cited/quoted.
2. Source information is not cited and no attempt has been made to cite it (in-text or on Works Cited/References page); some information from other sources is cited, but some is not (not on Works Cited/References page either)
3. Source information is obviously used (paraphrased or quoted) but there are NO in-text citations AT ALL; either quoted material or material that obviously is not common knowledge.
4. Submitting another student’s paper as one’s own; this is also a serious Violation of Academic Values for Cheating (A), Facilitating Academic Dishonesty (C), and Violations of Civil Conduct for Disorderly Conduct, all as defined in the College Catalog (see current version). Therefore, increased penalties may be applied.

ELECTRONIC LAB ASSIGNMENT
The Electronic Lab Assignment (ELA) will be assigned at the first class meeting. You will be assigned a topic and a due date at that time. You are responsible to complete this assignment on time and failure to do so may result in the failure of the course. The ELA is a requirement for all courses by Wor-Wic Community College.

If you need help in writing your ELA, please utilize the writing center at Wor-Wic. You can schedule an appointment online. Go to the Wor-Wic Web Site at www.worwic.edu and the Click on Current Students. Then select Learning Resources and the Writing Conferences. Limited time slots are available so an appointment is required.

CLASS PROJECTS
During WEEK 2 the student will be assigned the first of two Term Projects 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 6.
During WEEK 6 the student will be assigned a second 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.

EMERGENCY INFORMATION STATEMENT
In the event of severe inclement weather or other emergency, information about the closing of the college will be communicated via e2Campus and the College's website. Faculty will communicate with students about their courses and course requirements, such as assignments, quiz and exam dates, and class and grading policies, via Blackboard. Students will be responsible for completing all assignments in accordance with class policies.

Required statement concerning use of academic integrity and computer usage policy:
All students logging into Blackboard affirm that they understand and agree to follow Wor-Wic Community College policies regarding academic integrity and the use of College resources as described in the college catalog. Wor-Wic Community College considers the following as violations of the computer usage policy:

- Using the campus computing network and facilities to violate the privacy of other individuals.
- Sharing of account passwords with friends, family members or any unauthorized individuals

Violators are subject to college disciplinary procedures.

SERVICES FOR STUDENTS WITH DISABILITIES
Wor-Wic provides reasonable accommodations for students with disabilities, in compliance with the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973. If you are in need of accommodations, please contact the counseling office at (410) 334-2899. For more information, see Wor-Wic's Services for Students with Disabilities web page.

NO CELL PHONES PERMITTED IN CLASS
### Grading Rubric

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<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>F</th>
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<tbody>
<tr>
<td>Practical (Use of technology to obtain information GEO 7)</td>
<td>Each assignment demonstrates an understanding of the objective. The correct use of commands and syntax is evident. Assignments always meet and exceed stated requirements.</td>
<td>Most assignments demonstrate an understanding of the objective. The correct use of commands and syntax is evident. Assignments meet and usually exceed stated requirements.</td>
<td>Some assignments demonstrate an understanding of the objective. The correct use of commands and syntax is usually evident. Assignments meet the stated requirements.</td>
<td>Assignments incomplete or missing. Shows little or no effort in assigned work. Assignment does not meet stated requirements.</td>
</tr>
<tr>
<td>Theory (Use of Technology to communicate information GEO 7)</td>
<td>Each of the problems/answers is accurate and demonstrates understanding of the objective. Well formatted and saved in the appropriate file format. Work always exceeds stated requirements</td>
<td>Most of the problems/answers are accurate and demonstrates understanding of the objective. Well formatted and saved in the appropriate file format. Work usually exceeds stated requirements</td>
<td>Some of the problems/answers are accurate and demonstrates understanding of the objective. Formatted and saved in the appropriate file format. Work meets stated requirements.</td>
<td>Problems/answers usually show no understanding of the objective. Work does not meet the stated requirements.</td>
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## CMP 210 – Programming Structures and Analysis

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<td>Using C++</td>
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<tr>
<td>Week 2</td>
<td>Instructor Notes 3 &amp; 4</td>
<td>Using C++</td>
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<td>Week 3</td>
<td>Instructor Notes 5, 6, &amp; 7</td>
<td>Basics</td>
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<tr>
<td>Week 4</td>
<td>Instructor Notes 8, 9, &amp; 10</td>
<td>Basics</td>
</tr>
<tr>
<td>Week 5</td>
<td>Instructor Notes 11,12, &amp; 13</td>
<td>Decisions</td>
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<td>Week 6</td>
<td>Instructor Notes 14, 15, &amp; 16</td>
<td>Repetition</td>
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<tr>
<td>Week 7</td>
<td>Instructor Notes 17, 18, &amp; 19</td>
<td>Functions</td>
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<tr>
<td>Week 8</td>
<td>Instructor Notes 20, 21, &amp; 22</td>
<td>Functions</td>
</tr>
<tr>
<td>Week 9</td>
<td>Instructor Notes 23 &amp; 24</td>
<td>Random Numbers and Files</td>
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<td>Week 10</td>
<td>Instructor Notes 25, 26, &amp; 28</td>
<td>Arrays</td>
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<td>Week 11</td>
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<tr>
<td>Week 12</td>
<td>Instructor Notes 31</td>
<td>Advanced Concepts</td>
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<tr>
<td>Week 13</td>
<td>Instructor Notes 32</td>
<td>Advanced Concepts</td>
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