Midland College Syllabus

COSC 1337

Programming Fundamentals II

Course Description
This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. (This course is included in the Field of Study Curriculum for Computer Science.)

Prerequisite: COSC 1336/1436 – Programming Fundamentals I

Course Participation
For Online and Hybrid classes, students MUST actively participate by completing an academic assignment by the official census date. Students who do not do so, will be dropped from the course.

Text, References and Supplies
Starting Out with C++: From Control Structures through Objects 8/E, Tony Gaddis

Should you choose to purchase your textbooks somewhere other than the college bookstore you should always check with the instructor first to make sure that there has not been a change in books and that you are purchasing the complete package used for the course.
Students who successfully complete this course will be able to:

SLO1 Identify and explain a programming development lifecycle, including planning, analysis, design, development, and maintenance.

SLO2 Demonstrate a basic understanding of object-oriented programming by using structs and classes in software projects.

SLO3 Use object-oriented programming techniques to develop executable programs that include elements such as inheritance and polymorphism.

SLO4 Document and format code in a consistent manner.

SLO5 Apply basic searching and sorting algorithms in software design.

SLO6 Apply single- and multi-dimensional arrays in software.

SLO7 Use a symbolic debugger to find and fix runtime and logical errors in software.

SLO8 Demonstrate a basic understanding of programming methodologies, including object-oriented, structured, and procedural programming.

SLO9 Describe the phases of program translation from source code to executable code.

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Student Contributions Responsibilities and Class Policies

Students are encouraged to contact the instructor at any time. If you need to meet with the instructor, you will need to make an appoint to guarantee the instructor’s availability at a specific time.

Students will be expected to exhibit professional behavior in class. With regard to cell phone use, keep it on silent and do not take calls unless it is an emergency.

Students are expected to attend class, for online that means logging in to Canvas regularly and completing assignment.

This will be an in-depth, fast-paced course. It is important that you complete the assignments before the due dates. Late work will not be accepted. There will be no exceptions to this policy.

Lab Assignments/Homework: It is important that the student complete all homework assignments. Late assignments will not be accepted. There will be no exceptions to this policy.

Should you find that you are unable to complete the course, it is necessary for you to contact the Office of Student Services at Midland College and officially drop the class; otherwise a grade of “F” will be given for the semester grade. The policy for student withdrawals is stated in the college Catalog in the Student Rights & Responsibilities section.
Americans with Disabilities ACT (ADA) Any student who, because of a disabiling condition, may require some special arrangements in order to meet course requirements should contact Shep Grinnan as soon as possible. Mr. Grinnan’s office is located in the Scharbauer Student Center Building. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations/documentation.

Scholastic Dishonesty Midland College does not tolerate scholastic dishonesty or academic misconduct in any form. Please read the MC Student Handbook on this subject. Full information about Midland College policy can be found at Scholastic Dishonesty and Academic Misconduct.

Grading/Evaluation of student Your final grade will be calculated as follows:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>80% - 89%</td>
<td>B</td>
</tr>
<tr>
<td>70% - 79%</td>
<td>C</td>
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<tr>
<td>60% - 69%</td>
<td>D</td>
</tr>
<tr>
<td>Below 60%</td>
<td>F</td>
</tr>
</tbody>
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Grading Formula:

40% - Homework assignments
10% - Quizzes
25% - Exams
25% - Semester Project

Course Schedule Posted in Canvas

Instructor Information Contact Information Posted in Canvas
Office Hours Posted in Canvas

Division Information Applied Technology Division
Division Dean: Curt Pervier TC 143 432-685-4677
Program Chair Vickie Pickett TC 107 432-686-4204
Division Secretary: Lisa Tanner TC 143 432-685-4676
Division Clerk: Helen Arrieta TC 143 432-685-4664
Division Advisor: Dawn Finley ATC 130 432-681-6310
Division Fax: (432)685-4672

10/21/16