Course Information
EGT 101: Foundations of Engineering Technology
2 Credits
Fall 2018
January 7 through April 29, 2019
Tuesday and Thursday, from 12 P.M. to 12:50 P.M.

Instructor Information

Course Description
This course enables students to learn the techniques of decision making and engineering problem solving using an array of software such as Microsoft Excel and MATLAB.

Textbook and Course Materials
Engineering with Excel: (ISBN: 9780134589664)

Student Learning Outcomes
EGT-101 is a foundational course that sets the pathway for subsequent courses in the Mechanical Engineering Technology Program. It is expected that 80% of the students enrolled in this course will begin to use software programs analytically as well as methodically to solve technical problems.

Today's engineering technologist will be required to use software (as an added tool) in solving modern engineering problems. Consequently, it is anticipated that successful students will complete the MET program and be employed in a related field or continue their education.

The learning outcomes are as follows:

1. Students will KNOW how to effective work on a team.
2. Students will EFFECTIVELY utilize software programming skills and modern engineering software, such as Microsoft Excel, and MATLAB in modern engineering practice.
3. Students will understand HOW to apply mathematical models to identify and quantify experimental data used in mechanical systems.
4. Students will be ABLE to develop effective communication (in written and oral form) skills utilized in engineering practices.

Definition of Credit Hour: Classroom Courses
To earn one academic credit at HCC, students are required to complete a minimum of 37.5 clock hours (45 fifty-minute “academic” hours) of coursework per semester. Those hours of coursework may be completed through a combination of hours within the classroom and hours outside the classroom. Certain courses may require more than the 37.5 minimum hours of coursework per credit. For most classes, students should expect to do at least 2 hours of coursework outside of class for each hour of in-class coursework.
Minimum clock hours required for this course

<table>
<thead>
<tr>
<th>Classwork type</th>
<th>DIRECT Faculty Instruction</th>
<th>Student Work Out of Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In-class</td>
<td>37.5 hours required</td>
</tr>
<tr>
<td>In-class lecture and discussion</td>
<td>37.5 hours</td>
<td></td>
</tr>
<tr>
<td>Reading Chapters</td>
<td>15 hours</td>
<td></td>
</tr>
<tr>
<td>Quiz/activity for each chapter</td>
<td>10 hours</td>
<td></td>
</tr>
<tr>
<td>Programming</td>
<td>30 hours</td>
<td></td>
</tr>
<tr>
<td>Exam Preparation</td>
<td>15 hours</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>37.5 hours</td>
<td>70 hours</td>
</tr>
</tbody>
</table>

**Services for students with disabilities:** Students may receive reasonable accommodations if they have a diagnosed disability and present appropriate documentation. Students seeking accommodations are required to contact the Disability Support Services (DSS) office as early as possible. Students may contact a DSS staff member for an appointment at dss@hagerstowncc.edu or at 240-500-2530.