

**Hagerstown Community College**  
**OFFICIAL MASTER SYLLABUS DOCUMENT**

**Course:** AET 101 Applied Mathematics for Technology

**Credits:** 1

**INSTRUCTOR:**

**SEMESTER/YEAR:** Fall 2017

**Course Description:**

This course is for students in the Alternative Energy Technology certificate program. Applications from statics, dynamics, work, energy, and data analysis will be related to mathematics skills and concepts at or above the level of MAT 100. The course will be presented in an on-line format with instruction available in the Learning Support Center. Students may be required to attend the Learning Support Center for additional instruction and problem solving practice. Prerequisite: MAT 99. Concurrent enrollment in AET 102 is recommended.

**Required Texts:**

None. Problem sets and notes provided by the instructor and available through Moodle

**Class Methods:**

The class will be taught using lecture, discussion, group activities.

**STUDENT LEARNING OUTCOMES**

On successful completion of this course, students should be able, at entry level, to:

- Apply computational techniques and algebraic skills to solve problems encountered in the alternative energy workplace setting (Computational and Algebraic Skills).
- Apply visualization, spatial reasoning, as well as geometric properties and strategies to model and solve problems related to AET (Geometric Skills).
- Apply technology, where appropriate, to enhance and facilitate mathematical understanding, as well as an aid in solving problems and presenting solutions to AET situations. (Technological Skills).
- Communicate and understand mathematical statements, ideas and results, both verbally and in writing which apply to AET problems and situations. (Communication Skills).
- Work collaboratively with peers and instructors to apply mathematical concepts and solve problems related to AET situations. (Collaborative Skills)

**Credit Hours Explained****Total Hours of Coursework:**

To earn one academic credit at HCC, students are required to complete a minimum of 12.5 clock hours (15 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.

Activity	Online Course
<b>Outside of the Classroom</b>	
Online Instruction (Lessons)	15 hours
Online Assignments/Quizzes	15 hours
Test Preparation	5 hours
Testing in the Testing Center	3 hours
<b>Total</b>	<b>38 hours</b>

**Service 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](mailto:dss@hagerstowncc.edu) or at 240-500-2530.