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November 22, 2019

Dr. James D. Fielder
Secretary
Maryland Higher Education Commission
6 North Liberty Street
Baltimore, MD 21201

Dear Dr. Fielder:

Please accept this letter requesting the approval of the modification of the Associate of Science in STEM, Engineering Concentration. The department and college curriculum committee recommend this revision to improve student success, align the Area of Concentration more closely with the engineering programs throughout the state, and allow for better transfer to a university or four-year college.

Please contact me should you have any questions and/or need further information. A check has been mailed with a hard copy of the letter and coversheet, and this letter and supporting documentation has been sent electronically.

Thank you for your time and consideration.

Sincerely,



Kristin L. Mallory, Ed.D.
Vice President for Academic Affairs



Cover Sheet for In-State Institutions Non-substantial Modification to Existing Program

Institution Submitting Proposal	Wor-Wic Community College
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Each action below requires a separate proposal and cover sheet.

- | | |
|--|--|
| <input type="radio"/> Articulation Agreement
<input type="radio"/> New Certificate Program within Existing
<input checked="" type="radio"/> Non-substantial Modification to Existing Program
<input type="radio"/> Non-substantial Modification to Existing Certificate Program
<input type="radio"/> Change in Program Modality
<input type="radio"/> Title Change | <input type="radio"/> CIP Code Change
<input type="radio"/> Closed Site Approval
<input type="radio"/> Discontinue Program
<input type="radio"/> Suspend Program
<input type="radio"/> Reactivate Program
<input type="radio"/> Statewide and Health Manpower Designation |
|--|--|

Payment Submitted: <input checked="" type="radio"/> Yes <input type="radio"/> No	Payment Type: <input type="radio"/> R*STARS <input checked="" type="radio"/> Check	Payment Amount: \$50	Date Submitted:
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Department Proposing Program	Math and Science		
Degree Level and Degree Type	Associate of Science		
Current Title of Proposed Program	STEM, Engineering Concentration		
Total Number of Credits	60		
Current Codes	HEGIS: 4902.00	CIP: 41.9999	
Program Modality	Current: <input checked="" type="radio"/> On-campus <input type="radio"/> Distance Education (<i>fully online</i>) <input type="radio"/> Both Proposed: <input type="radio"/> On-campus <input type="radio"/> Distance Education (<i>fully online</i>) <input type="radio"/> Both		
Program Resources	<input checked="" type="radio"/> Using Existing Resources <input type="radio"/> Requiring New Resources		
Projected Implementation Date	<input checked="" type="radio"/> Fall <input type="radio"/> Spring <input type="radio"/> Summer Year: 2020		
Provide Link to Most Recent Academic Catalog	URL: https://catalog.worwic.edu/		

Preferred Contact for this Proposal	Name: Dr. Kristin L. Mallory
	Title: Vice President for Academic Affairs
	Phone: 410-334-2813
	Email: kmallory@worwic.edu

President/Chief Executive	Type Name: Dr. Murray K. Hoy
	Signature: Date: 11/25/19

Revised 12/2018

STEM [PROPOSED]

Associate of Science Degree

Engineering (Area of Concentration)

First Year

<u>Summer II</u>		<u>Credit Hours</u>
SDV 100	Fundamentals of College Study	1

Fall

*ENG 101	Fundamentals of English I	3
*MTH 201	Calculus	4
*PHY 141	Principles of Physics I	4
*EGR 101	Introduction to Engineering Design	<u>3</u>
		14

Spring

*ENG 151	Fundamentals of English II	3
*MTH 202	Calculus II	4
*PHY 142	Principles of Physics II	4
GEN ED	Social/Behavioral Science Requirement	3
Elective	General Elective	<u>3</u>
		17

Second Year

Fall

*CHM 105	General Chemistry I	4
*EGR 202	Statics	3
GEN ED	Arts and Humanities Elective	3
GEN ED	Social/Behavioral Science Requirement	<u>3</u>
		14

Spring

*MTH 205	Differential Equations	4
*MTH 203	Calculus III	4
*PHY 243	Principles of Physics III	4
Elective	General Elective	<u>3</u>
		15

*This course has a prerequisite.

Student ID: _____
 Student Name: _____
 Advisor Name: _____

Catalog: 2019-2020 Catalog
 Program: STEM Transfer, Engineering Concentration,
 A.S.

STEM Transfer, Engineering Concentration, A.S.

Program Code: STM.AS.EGR

This program includes courses usually required during the first two years of a bachelor's degree for students pursuing careers in aerospace, agricultural, biomedical, chemical, civil, electrical, environmental, industrial, mechanical or nuclear engineering. To ensure maximum transferability, students should familiarize themselves with the program requirements of the institution to which they plan to transfer.

First Year

Summer II

Course Name	Term Taken	Grade
SDV 100 - Fundamentals of College Study (1 Credit)		

Fall

Course Name	Term Taken	Grade
EGR 101 - Introduction to Engineering Design (3 Credits) *		
CHM 105 - General Chemistry I (4 Credits) *		
ENG 101 - Fundamentals of English I (3 Credits) *		
MTH 201 - Calculus I (4 Credits) *		

Spring

Course Name	Term Taken	Grade
CMP 104 - Introduction to Programming (4 Credits)		
ENG 151 - Fundamentals of English II (3 Credits) *		
GEN ED - Social/Behavioral Science Requirement (3 Credits) x		
MTH 202 - Calculus II (4 Credits) *		
Elective - General Elective (3 Credits)		

Second Year

Fall

Course Name	Term Taken	Grade
CMP 210 - Programming Structures and Applications (4 Credits) *		
GEN ED - Arts and Humanities Requirement (3 Credits)		
PHY 141 - Principles of Physics I (4 Credits) *		
Elective - General Elective (3 Credits)		

Spring

Course Name	Term Taken	Grade
MTH 203 - Calculus III (4 Credits) *		
MTH 205 - Differential Equations (4 Credits) *		
PHY 142 - Principles of Physics II (4 Credits) *		
GEN ED - Social/Behavioral Science Requirement (3 Credits) x		

Symbol(s)

* This course has a prerequisite.

x Each course must be from a different discipline.

Learning Outcomes

Graduates of this program should be able to:

1. Demonstrate logical thinking skills and professional ethics to design, conduct and report the results of a scientific investigation that safely employs laboratory equipment using the scientific method;
2. Retrieve, interpret, evaluate and critically reflect upon progress in STEM disciplines using information from professional sources;

3. Accurately apply mathematical skills to formulate, solve and interpret models that demonstrate mathematical and scientific concepts; and
4. Identify and apply fundamental core content theories and concepts in the biological and physical sciences.

Notes: