



AAS #4690 Nanofabrication Manufacturing Technology Effective Fall 2018

71 Credits

This is an overview of the program. Any suggested course sequencing is meant to serve as a guideline for your semester planning. Students are expected to see your assigned advisor to develop and review their individual educational plans. The scheduling of courses, program sequencing and curriculum are subject to change.

Developmental Courses (as determined through College Placement Testing)* and Prerequisites:							
<i>* Zero level courses must be completed with a C grade or higher.</i>							
<input type="checkbox"/>	ESL classes	<input type="checkbox"/>	Engl 050	<input type="checkbox"/>	Math 006	<input type="checkbox"/>	Math 033
<input type="checkbox"/>	Engl 002	<input type="checkbox"/>	Engl 051	<input type="checkbox"/>	Math 090	<input type="checkbox"/>	Math 044
<input type="checkbox"/>	Engl 003	<input type="checkbox"/>	Engl 057	<input type="checkbox"/>	Math 008	<input type="checkbox"/>	Math 045
<input type="checkbox"/>	Engl 007	<input type="checkbox"/>		<input type="checkbox"/>	Math 022	<input type="checkbox"/>	Math 055
						<input type="checkbox"/>	FS 100/103
						<input type="checkbox"/>	ELEC 100
						<input type="checkbox"/>	ELEC 108
						<input type="checkbox"/>	CIS 105 recom

*See counselor/advisor to discuss this course or options to self-remediate and successfully place into higher- or college-level course.

General Education Courses (16 credits)		
ENGL 101	3 crs	Pre-req: Placement thru testing, or Engl 051 & Engl 003 with grades of C or higher
ENGL 104	3 crs	Pre-req: ENGL 101 & ENGL 003 with grades of C or higher
COMM 101	3 crs	Pre-req: Placement thru testing, or Engl 051 & Engl 003 with grades of C or higher
Humanities & Arts Elective	3 crs	
Social & Behavioral Sciences	3 crs	
Any Wellness Course	1 cr	See HACC catalog for a list of approved Wellness courses
First Year Seminar		ENGR 102 (meets 1-cr FYS) or see HACC Catalog for a list of approved courses (unless exempted by examination-see http://www.hacc.edu/NewStudents/PlacementTesting/index.cfm).

Required Program Courses (55 credits)			
CAD 154	3 crs	Computer-Aided Drafting & Design	
CHEM 100 or 101	3 crs	Principles of Chem or Gen Inorganic (CHEM101, 4 crs)	Pre: MATH 051 (or MATH033-044-055), ENGL 051, ENGL 003, with C or higher Pre: Pre: MATH 103 with C or higher; eligibility for enrollment in ENGL 101; and CHEM 100 (or high school equivalent) with C or higher or Toledo Exam score of 26 or higher
ELEC 101	1 cr	Equipment Utilization	Co-req: ELEC 100 and ENGR 102
ELEC 106	4 crs	Fundamental of Electronics	Pre: ELEC 111
ELEC 111	4 crs	AC/DC Circuits I	Pre: ELEC 101; Co-req: MATH 103
ELEC 125	3 crs	Intro to PC Technology	Pre: Familiarity with word processing and MS Windows Operating Systems
ELEC 213	4 crs	Digital Electronics	Pre: ELEC 108; Co-req: MATH 103
ENGR 102	2 crs	Engr. & Engineering-Tech Orientation	Pre: Eligibility for enrolment into ENGL 101 (meets 1-cr FYS requirement)
MATH 103	3 crs	College Algebra	Pre: Placement or MATH 051 (or Math033-044-055) with grade of C or higher
MATH 104	3 crs	Trigonometry	Pre: Placement or MATH 051 (or Math033-044-055) with grade of C or higher
MATH 202	4 crs	Introduction to Statistics	Pre: Placement or MATH 051 (or Math033-044-055) with grade of C or higher
NFAB 211	3 crs	Material, Safety & Equipment Overview for Nanofabrication	Pre: Restricted, see Instructor
NFAB 212	3 crs	Basic Nanofabrication Processes	Pre: Restricted, see Instructor
NFAB 213	3 crs	Thin Films in Nanofabrication	Pre: Restricted, see Instructor
NFAB 214	3 crs	Lithography for Nanofabrication	Pre: Restricted, see Instructor
NFAB 215	3 crs	Materials Modif in Nanofabrication	Pre: Restricted, see Instructor
NFAB 216	3 crs	Characterization, Packaging, & Testing of Nanofabricated Structures	Pre: Restricted, see Instructor
PHSC 113	3 crs	Introduction to Physical Science I	Pre: MATH 020 or MATH 033 (or MATH 051) with grade of C or higher

Recommended Sequence for Full-Time Students									
Fall Semester I		Spring Semester I		Summer I		Fall Semester II		Spring Semester II	
CAD 154	3	COMM 101	3	Humanities & Arts	3	CHEM 100 (or 101)	3	NFAB 211	3
ELEC 101	1	ELEC 111	4	Soc & Beh Sciences	3	ELEC 106	4	NFAB 212	3
ELEC 125	3	ELEC 213	4	Wellness	1	MATH 202	4	NFAB 213	3
ENGL 101	3	ENGL 104	3		7	PHSC 113	3	NFAB 214	3
ENGR 102 (FYS)	2	MATH 104	3				14	NFAB 215	3
MATH 103	3		17					NFAB 216	3
Total	15							Capstone Semester @ EMPRL (State Coll)	18

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Counselor/Advisor Contact Information by Campus:				
<u>Gettysburg</u>	<u>Harrisburg</u>	<u>Lancaster</u>	<u>Lebanon</u>	<u>York</u>
Student Services	Counseling and Advising	Counseling and Advising	Receptionist Desk	Counseling and Advising
Lobby	Cooper 219	221 Main	Lobby	Leader Suite 104
717-337-3855	717-780-2498	(717) 358-2988	717-270-4222	717-801-3213
Program Faculty Coordinator: Bill Forney wcforney@hacc.edu (717-736-4202 Ext. 214202)				