

#### Washington State Community College – Ohio University Plan

#### Bachelor of Science in Engineering Technology and Management Program Pathway

The Bachelor of Engineering Technology and Management (B.S.E.T.M.) combines technical courses, with a business minor, quantitative sciences, natural sciences, and general education to prepare graduates for technical, management, and/or applied engineering positions in business and industry. Common starting job titles include: manufacturing engineer, quality engineer, process engineer, applications engineer, sales engineer, production manager, project manager, and operations manager. The Engineering Technology and Management program is accredited by the Association of Technology Management and Applied Engineering (for more information see www.atmae.org).

Over 90% of the Engineering Technology and Management courses include lab activities in which students apply the theory they learned in the classroom to "real life" problems and projects. These activities are not simply simulation; they have real outcomes as well as consequences. This activity based, "hands on", approach to learning provides students technical knowledge as well as continuously improving their problemsolving skills. The Engineering Technology and Management graduate is a technical generalist who is competent in assessing problems and proposing solutions to improve productivity related to product specifications, materials and processes, industrial control and information systems, and operations management.

#### Admission Requirements

- Students who wish to transfer must have earned a C or better in a math course and a science course.
- Transfer students who have earned fewer than 20 semester hours of credit at another accredited collegiate institution may be admitted directly, if they meet the general requirements for admission to Ohio University.
- Transfer students who have earned more than 20 semester hours of credit at another accredited collegiate institution may be admitted directly, if they meet the general requirements for transfer students, including a GPA greater than 2.5.

Students must have a GPA of 2.0 or higher for all courses taken, for all courses taken in the Russ College, and for all courses taken in the

- intended major.
- Students must also have successfully completed all required courses in three attempts and have no required course they have attempted twice without success. For some courses, success means a grade of at least a C or C-.
- Official transcripts sent directly to Ohio University from all colleges and universities you have attended.

#### **Application Information**

Apply online (\$25 non-refundable application fee due at application)

#### Submit all college-level transcripts to:

**Undergraduate Admissions** Ohio University Chubb Hall 120 1 Ohio University Drive Athens, OH 45701

#### Ohio University Contact Information

Undergraduate Admissions 740.593.4100 E-mail general questions to transfer@ohio.edu For more information on the partnership with Washington State Community College, visit www.ohio.edu/wscc







# Graduation Pathway: Washington State Community College Courses Advanced Manufacturing and Integration Technology (AMIT) to Engineering Technology and Management (B.S.E.T.M.)

Washington State Community College AAS in Advanced Manufacturing and Engineering Technologies Courses

An asterisk (\*) designates a course substitution, not a course equivalent.

A tilde sign (~) designates a requirement waiver, not a course equivalent.

OHIO courses that may satisfy Ohio University BRICKS General education requirements are inside brackets [].

Semester 1 Washington State Community College	Semester Hours	Ohio University Equivalent Course
ENGR 1010 Fundamentals of Engineering	3.0	ET 2800
AMIT 1500 Non-Collaborative Robot Operator	2.0	ENGT 2210
INDT 1220 OSHA Safety with CPT 4.0	2.0	ENGT 2870
INDT 1340 Quality Practices & Measurement CPT4.0	3.0	ENGT 2630
AMIT 1170 Computer Numerical Control	3.0	ENGT 1XXL
MATH 2130 College Algebra	4.0	[MATH 1200]
Total	17.0	

Semester 2 Washington State Community College	Semester Hours	Ohio University Equivalent Course
AMIT 2530 Solid Modeling with Additive Manufacturing	3.0	ETM 1020
AMIT 1800 Collaborative Robot Operator	2.0	ENGT 2230
INDT 2180 Manufacturing Processes & Production CPT4.0	3.0	ENGT 2XXL
ENGL 1510 Composition I	3.0	[ENG 1510]
INDT 1100 Industrial Maintenance Awareness CPT4.0	3.0	ENGT 1500
AMIT 2170 Computer Aided Manufacturing	3.0	ET 1100
Total	17.0	

Semester 3 Washington State Community College	Semester Hours	Ohio University Equivalent Course
CYBS 1010 Introduction to Cyber Security	3.0	SEC 1034
ELET 2410 Programmable Logic Controllers	3.0	
SPCH 1510 Speech	3.0	[COMS 1030]
AMIT 2500 Robotic Technician	2.0	ENGT 2330
PHIL 1300 Introduction to Ethics	3.0	[PHIL 1300]
WELD 1232 Industrial Welding	3.0	ENGT 1150
Total	17.0	





Semester 4 Second 8 Weeks Washington State Community College	Semester Hours	Ohio University Equivalent Course
AMIT 1000 Internship OR AMIT 2800 AMIT Capstone	1.0	ENGT 1XXL/ENGT 2XXL
CHEM 1210 Principles of Chemistry I and CHEM 121L Principles of Chemistry I Lab	4.0	[CHEM 1210]
ECON 2130 Principles of Microeconomics	3.0	[ECON 1030]
ELET 1340 Embedded Systems	3.0	
AMIT 2600 Integration & Cell Design	3.0	ENGT 2250
Total	14.0	

# **BSETM Required General Courses, Core, and Business Minor Courses**

## **Required General Courses**

#### **General Courses**

Courses completed through Washington State Community College or OHIO.

General education requirement courses that may also satisfy program requirements are inside brackets [].

OHIO Course Name	OHIO Course Number	WSCC Course Numbers
English Composition	[ENG 1510]	[ENGL 1510]
Fundamentals of Public Speaking	[COMS 1030]	[SPCH 1510]
Introduction to Global Health	[IHS 2210]	
Calculus	[MATH 1300], [MATH 1350], or [MATH 2301]	[MATH 2150], [MATH 2260], or [MATH 2263]
Statistics	[MATH 2500] or [ET 2400]	[MATH 2263]
Chemistry or Biological Science	[CHEM 1210], CHEM 1500, or [BIOS 2210]	[CHEM 1210 and CHEM 121L]
Physics or Biological Science	[PHYS 2001], [PHYS 2051], or [BIOS 1700]	[PHYS 2010 and PHYS 201L] or [BIOL 1100]

# College-Level Requirements for the Russ College of Engineering and Technology Core Curriculum

Courses completed through Washington State Community College or OHIO.

Complete the following courses with a grade of C or better:

OHIO Course Name	OHIO Course Number	WSCC Course Numbers
Engineering and Technology: Career Orientation	ET 1500	





# **Engineering Technology and Management Core Requirements**

Courses completed through Washington State Community College or OHIO.

General education requirement courses that may also satisfy program requirements are inside brackets.

Complete the following courses with a grade of C or better:

OHIO Course Name	OHIO Course Number	WSCC Course Numbers
The History of Engineering and Technology in Society or Technology in World History	[ET 1000] or [ET 2905] or [HIST 2905]	
Engineering Graphics Fundamentals	ET 1100	AMIT 2170 or DRFT 2530
Enterprise Computer Methods	ETM 1030	
Introduction to Engineering and Technological Sciences	ETM 1130	
Industrial Plastics	ETM 2080	
Metal Fabrication and Casting	ETM 2180 or ETM 2180C	
Applied Mechatronics	ETM 2210	
Production Metal Machining	ETM 2510	
Applications of Object-Oriented Programming	ETM 3030	
Product Design	ETM 3100	
Hydraulics and Pneumatics	ETM 3200	
Database Applications & Analytics	ETM 3310	
Electronics and Micro-Controllers	ETM 3320	
Production Tooling	ETM 3510	
Supervision and Leadership	ETM 3620	
Quality Management Systems	ETM 3630	
Enterprise Project Management	ETM 3830	
Senior Seminar	ETM 4000	
Lean Enterprise Methods	ETM 4320	
Automation, Robotics & Control Systems	ETM 4350	
Operations Management Capstone I	ETM 4621	
Operations Management Capstone II	[ETM 4622]	
Complete at least 3 hours from the following courses:	ETM 3420, ETM 3480, ETM 3540, ETM 3900, ETM 4010, ETM 4300, ETM 4330, ETM 4830	





#### **Business Minor Courses**

Required combined 2.0 GPA for business minor.

Courses completed through Washington State Community College or OHIO.

OHIO Course Name	OHIO Course Number	WSCC Course Numbers
Foundations for Accounting	ACCT 1005 or ACCT 1010	ACCT 1550
Foundations for Financial Management	FIN 3000	
Introduction to Management	MGT 2000	
Business Information Systems	MIS 2021	
Marketing Principles	MKT 2020	MKTG 2510

#### Additional Ohio University Requirements

OHIO Course Name	Semester Hours	Option to meet requirement with courses taken at WSCC
Pillars: Humanities Arts requirement	30	Consult General Education
		Guide for course options
Arches: Constructed World 3.0	1 3 0-7 0	Consult General Education
	3.0-4.0	Guide for course options
Arches: Natural World requirement	3.0	Consult General Education
		Guide for course options
Total	9.0-10.0	

### Bachelor of Engineering Technology and Management (B.S.E.T.M.) Degree Requirements

To qualify for the Bachelor of Science in Engineering Technology and Management degree, a student must have completed all Ohio University graduation requirements: general education, College, major, minor, and residency. Students must earn a minimum of 30 semester hours of Ohio University credit, complete a minimum of 50% of the major course requirements at Ohio University, and complete a minimum of 120 total semester hours for graduation. Russ College of Engineering and Technology requires students to earn a minimum of 24 semester hours applicable toward their degree after entering one of the degree programs. In addition, students must have a GPA of 2.0 (C average) or higher for all courses taken, for all courses taken in Russ College, and for all courses taken in the intended major, by the end of the third enrollment in that course. "Enrollment" includes classes in which FS, or WF grades are earned.

# OHIO BRICKS General Education Requirements

BRICKS is Ohio University's general education program, and requirements must be fulfilled by all baccalaureate degree students. BRICKS includes a minimum of 38 credit hours across five categories: Foundations, Pillars, Arches, Bridges, and Capstone. Courses used to satisfy BRICKS requirements may be completed through Washington State Community College or Ohio University. The <a href="Maintenancements-guide">General Education equivalency guide</a> lists Washington State Community College courses that have direct course equivalencies at Ohio University which meet OHIO's BRICKS general education requirements.

#### **BRICKS and the Ohio Transfer 36**

Students who complete the minimum requirements of the Ohio Transfer 36 (OT36, formerly the Ohio Transfer Module) at another college or university prior to enrollment in a degree-seeking program at Ohio University will receive transfer credit equivalent to fulfilling Ohio University's BRICKS general education requirements in Foundations (excluding the Advanced Writing component, which requires completion of TME 002 Second Writing), Pillars, and Arches. If you have not completed the OT36, your courses will be evaluated on a course-by-course basis and will apply toward general education requirements as appropriate.







#### Disclaimer:

The information on this guide is based on the catalog requirements posted in the 2023-2024 Ohio University catalog and related Washington State Community College equivalents as of the Last Updated date. All information is subject to change without notice. Courses are subject to availability at each institution. It is suggested that students meet with an advisor to discuss course selection based on offered options.

**Last Updated:** 11/28/2023

