College of Science, Technology, Engineering, and Mathematics

Manufacturing Technology BS

(106-127 credits)

Why study Manufacturing Technology/DFM option?

The DFM option focuses on select areas of the manufacturing field, CNC machining, CAD, quality assurance, and methods of metallic and non-metallic materials processing in the design and fabrication of consumable items. This option prepares the student to enter and progress in industry in a variety of areas including, quality assurance, inventory control, production line supervision or process management.

Other Degree Options

Minors in Applied Technology, Construction Management, Manufacturing, and Mechanical Engineering

Career Opportunities

Students graduating from this program can successfully enter careers in a broad range of fields as manufacturing technicians, applications technicians, quality technicians, as well as research technicians and technical sales and service. Companies that have hired students completing the program options include Boeing, Kimball, Hollister-Stier Laboratories, McKay Manufacturing, Pearson Packaging, Triumph, Wagstaff, and others. Some students have continued their education and have secured Master's degrees in Education and MBA's.

Department Chair

Dr. Martin Weiser
319 G CEB
Cheney, WA 99004
509.359.2815
mweiser@ewu.edu

Program Advisor

Terry Geyer
319B CEB
Cheney, WA 99004
509.359.4774
tgeyer@ewu.edu

Student Success Coordinator

Christy Oliveri
Communications 143
Cheney, WA 99004
509.359.4126
coliveri@ewu.edu

This is an example of a four year class schedule. Academic Advisors are there to help create individualized plans.

First Year

Q1	Q2	Q3
General Elective (5 cr.)	General Elective (3 cr.)	BACR (5 cr.)
ENGL 101 (5 cr.)	ENGL 201 (5 cr.)	BACR (5 cr.)
MATH 142 (5 cr.)	TECH 110 (5 cr.)	MENG 217 or TECH 217 (4 cr

Second Year

Q5	Q6	Q7
General Elective (2 cr.)	CHEM 121 (GECR) or 151 (GE	BACR (5 cr.)
General Elective (2 cr.)	General Elective (5 cr.)	Diversity (5 cr.)
General Elective (5 cr.)	PHYS 132 (4 cr.)	General Elective (2 cr.)
PHYS 131 (4 cr.)	PHYS 162 (1 cr.)	General Elective (5 cr.)
PHYS 161 (1 cr.)		

Third Year

Q9	Q10	Q11
MNTC 208 (4 cr.)	MNTC 402 (5 cr.)	MENG 353 (5 cr.)
MNTC 301 (5 cr.)	TECH 331 (4 cr.)	TECH 456 (4 cr.)
TECH 330 (4 cr.)	TECH 393 (4 cr.)	TECH 458 (4 cr.)
TECH 403 (4 cr.)	TECH 462 (4 cr.)	

Fourth Year

Q13	Q14	Q15
METC 340 (5 cr.)	General Elective (5 cr.)	General Elective (5 cr.)
MNTC 320 (5 cr.)	DNTC 490 (4 cr.)	DNTC 491 (4 cr.)
TECH 452 (4 cr.)	METC 341 (4 cr.)	DNTC 495 (4 cr.)
	TECH 454 (4 cr.)	

Listed is a Sample Four Year Plan. Individual plans will vary based on placement test scores and class availability.

EASTERN WASHINGTON UNIVERSITY
start something big

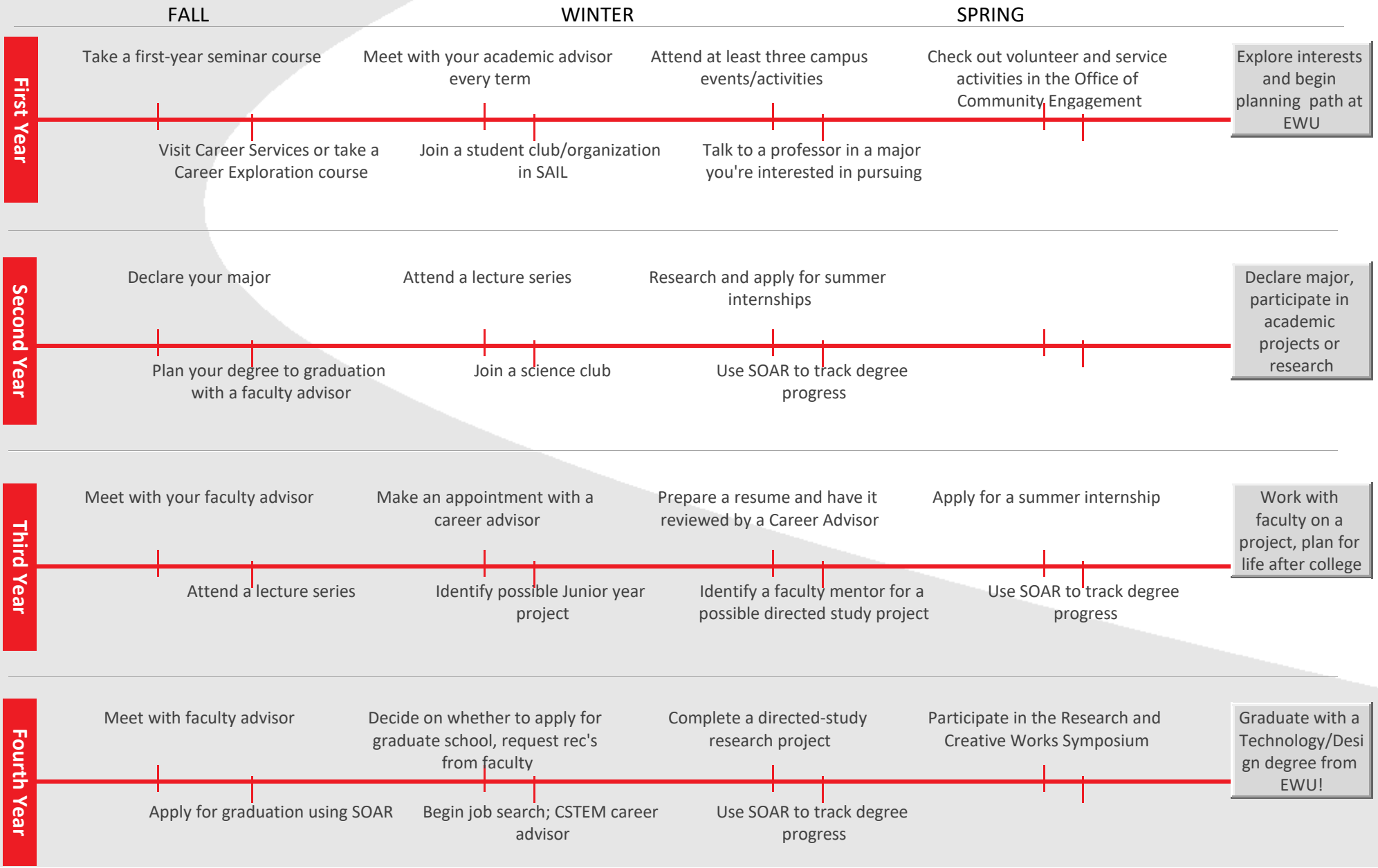
Flight Plan to Success

The following milestones will help you succeed and improve your experience at EWU.

Manufacturing Technology, BS

College of Science, Technology, Engineering, and Mathematics

Engineering & Design



All recomended activities can occur at any time during a student's time at EWU

EASTERN WASHINGTON UNIVERSITY
start something big

Student's name: _____ EWU ID: _____

College of Science, Technology, Engineering, and Mathematics
SOAR Department: Engr & Des | SOAR Major: TECH DESN
Major Declaration Form: Technology - Design, BS-TECH, DESN
Math proficiency needed: MATH 142

Bachelor of Science in Manufacturing Technology
DFM option
2018-2019 Catalog Year

	First year courses and prerequisites	Notes	Previously offered **
Q1	General Elective (5 cr.)		
Q1	ENGL 101 COLL COMP: EXPOSITN & ARGUMNT (5 cr.) Prerequisite: Writing Placement Test or General Advising.	Satisfies: university competencies, writing.	F17, W18, Sp18, Su18
Q1	MATH 142 PRECALCULUS MATH II (5 cr.) Prerequisite: MATH 141 or equivalent.	Satisfies: completion of this course with a grade >= C satisfies the university proficiencies in mathematics.	F17, W18, Sp18, Su18
Q2	General Elective (3 cr.)		
Q2	ENGL 201 COLL COMP: ANALYSIS/RES/DOCMNT (5 cr.) Prerequisite: ENGL 101, Writing Placement Test or general advising.	Satisfies: university proficiencies, writing.	F17, W18, Sp18, Su18
Q2	TECH 110 ENGINEERING GRAPHICS (5 cr.) Prerequisites: METC 102 or TECH 102, two years of high school drafting, or equivalent.		F17, W18, Sp18
Q3	BACR (5 cr.)		
Q3	BACR (5 cr.)		
Q3	MENG 217 or TECH 217 (4 cr.) (5 cr.)		

I have discussed this academic plan with the student listed above. Advisor name: _____ Advisor signature: _____

* See the catalog for prerequisites and other details.
** Future course offerings may differ from the past. Check the course schedule for future courses.
To follow this MAP, you should place into MATH 142. If you place lower, your custom MAP may change.
This list of courses is for information purposes only. All students are required to follow the catalog requirements for the year they declared a major.

Second year courses and prerequisites		Notes	Previously offered **
Q5	General Elective (2 cr.)		
Q5	General Elective (2 cr.)		
Q5	General Elective (5 cr.)		
Q5	PHYS 131 INTRODUCTORY PHYSICS I (4 cr.) Prerequisites: MATH 142, concurrent enrollment in PHYS 161 is recommended.	Satisfies: The completion of PHYS 131, PHYS 161 satisfies the BACR for natural sciences, counts as one course. The completion of PHYS 131, PHYS 132, PHYS 161, plus any one of the following: PHYS 162, PHYS 163, PHYS 263 satisfies the BACR for natural scien Note: PHYS 161, the associated laboratory course, is usually required by any program also requiring PHYS 131, but requires separate enrollment.	F17
Q5	PHYS 161 MECHANICS LABORATORY (1 cr.) Prerequisite: MATH 142.		F17, W18
Q6	CHEM 121 (GECR) or 151 (GECR) (5 cr.)		
Q6	General Elective (5 cr.)		
Q6	PHYS 132 INTRODUCTORY PHYSICS II (4 cr.) Prerequisites: PHYS 131.	Satisfies: The completion of PHYS 131, PHYS 161 satisfies the BACR for natural sciences, counts as one course. The completion of PHYS 131, PHYS 132, PHYS 161, plus any one of the following: PHYS 162, PHYS 163, PHYS 263 satisfies the BACR for natural scien Note: most programs which require PHYS 132 also require PHYS 162, the associated lab, which requires separate enrollment.	W18
Q6	PHYS 162 HEAT & OPTICS LABORATORY (1 cr.) Prerequisite: MATH 142.		W18, Sp18
Q7	BACR (5 cr.)		

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Q7	Diversity (5 cr.)
Q7	General Elective (2 cr.)
Q7	General Elective (5 cr.)

I have discussed this academic plan with the student listed above. Advisor name: _____ Advisor signature: _____

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Third year courses and prerequisites		Notes	Previously offered **
Q9	MNTC 208 SURVEY OF ELECTRICITY (4 cr.) Prerequisite: pre-university basic skills in mathematics.		F17
Q9	MNTC 301 METALLIC PROCESSES (5 cr.) Prerequisite: junior standing or permission of instructor.		F17, W18, Sp18, Su18
Q9	TECH 330 TECH PROB ANALYSIS & DESIGN I (4 cr.) Prerequisites: junior standing or permission of the instructor.		F17, W18
Q9	TECH 403 COMP-AIDED DESIGN & PROJ MGMT (4 cr.) Prerequisites: MATH 107 or permission of the instructor.		F17, Sp18
Q10	MNTC 402 MACHINE TOOL I (5 cr.) Prerequisites: METC 110 and MNTC 301.		W18
Q10	TECH 331 TECH PROB ANALYSIS & DESIGN II (4 cr.) Prerequisite: TECH 330.		W18, Sp18
Q10	TECH 393 TECHNOLOGY WORLD CIVILIZATION (4 cr.) Prerequisite: ENGL 101.	Satisfies: a university graduation requiremen global studies.	F17, W18, Sp18, Su18
Q10	TECH 462 INDUSTRIAL SAFETY ENGINEERING (4 cr.)		F17, W18
Q11	MENG 353 INDUSTRIAL MATERIALS (5 cr.) Prerequisite: CHEM 121 or CHEM 151; ENGL 201 (grade ≥C); MATH 107 or MATH 142 (grade ≥C).		F17, W18, Sp18, Su18
Q11	TECH 456 ENGR, ETHIC CONTRACT, PATENT (4 cr.) Prerequisite: junior standing or permission of instructor.		F17, Sp18, Su18
Q11	TECH 458 QUALITY ASSURANCE (4 cr.) Prerequisite: junior standing.		W18, Sp18

I have discussed this academic plan with the student listed above. Advisor name: _____ Advisor signature: _____

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Fourth year courses and prerequisites		Notes	Previously offered **
Q13	METC 340 STATICS (5 cr.) Prerequisites: MATH 142 and PHYS 131, both with grade ≥C .		F17
Q13	MNTC 320 NON-METALLIC PROCESSES (5 cr.) Prerequisites: METC 110; junior/senior status or permission of instructor.		F17, W18, Su18
Q13	TECH 452 ENGINEERING ECONOMICS (4 cr.) Prerequisite: junior standing or permission of instructor.		F17, Sp18
Q14	General Elective (5 cr.)		
Q14	DNTC 490 SR. CAPSTONE: PRODUCTION LAB (4 cr.) Prerequisite: senior standing.	Satisfies: a university graduation requirement'senior capstone. Note: the course will simulate a real world design team concept by utilizing a design group that contains members of different program majors.	W18, Sp18
Q14	METC 341 STRENGTH OF MATERIALS (4 cr.) Prerequisite: METC 340.		W18
Q14	TECH 454 ENVIRONMENTAL ENGINEERING (4 cr.) Prerequisite: junior standing or permission of the instructor.		F17, W18
Q15	General Elective (5 cr.)		
Q15	DNTC 491 SENIOR PROJECT (4 cr.) Prerequisite: permission of the instructor.		W18, Sp18, Su18
Q15	DNTC 495 INTERNSHIP (4 cr.) Prerequisites: junior or senior status and permission of the instructor, department chair and dean.	Note: Graded Pass/Fail. This course may be repeated.	F17, W18, Su18

I have discussed this academic plan with the student listed above. Advisor name: _____ Advisor signature: _____

* See the catalog for prerequisites and other details.
** Future course offerings may differ from the past. Check the course schedule for future courses.
To follow this MAP, you should place into MATH 142. If you place lower, your custom MAP may change.
This list of courses is for information purposes only. All students are required to follow the catalog requirements for the year they declared a major.