

Student's name: _____ EWU ID: _____

College of Science, Technology, Engineering, and Mathematics

SOAR Department: Engr & Des | SOAR Major: MECH ENGR

Major Declaration Form: Mechanical Engineering, BS-MEGR

Math proficiency needed: MATH 161

Bachelor of Science in Mechanical Engineering
2017-2018 Catalog Year

First year courses and prerequisites	Notes	Previously offered **
<input type="checkbox"/> METC 110 ENGINEERING GRAPHICS (4 cr.) Prerequisites: METC 102, two years of high school drafting or equivalent.		F16, W17, Sp17, Su17
<input type="checkbox"/> MATH 161 CALCULUS I (5 cr.) Prerequisites: MATH 142 and ENGL 100.	Satisfies Math Reasoning Proficiency	F16, W17, Sp17, Su17
<input type="checkbox"/> ENGL 101 COLL COMP: EXPOSITN & ARGUMNT (5 cr.) Prerequisite: ENGL 100, Writing Placement Test or General Advising.	Satisfies Writing Competency	F16, W17, Sp17, Su17
<input type="checkbox"/> METC 102 INTRO TO ENGINEERING GRAPHICS (4 cr.)		F16, W17, Sp17
<input type="checkbox"/> MATH 162 CALCULUS II (5 cr.) Prerequisite: MATH 161.		F16, W17, Sp17, Su17
<input type="checkbox"/> CHEM 100 (5 cr.) or 161 (GECR) (5 cr.)*		
<input type="checkbox"/> TECH 393 TECHNOLOGY WORLD CIVILIZATION (4 cr.) Prerequisite: ENGL 101.	Satisfies International Studies	F16, W17, Sp17, Su17
<input type="checkbox"/> PHYS 151 GENERAL PHYSICS I (4 cr.) Prerequisites: Concurrent enrollment in MATH 161. Concurrent enrollment in PHYS 161 is recommended.	Satisfies Natural Science-Physics	F16, W17
<input type="checkbox"/> MATH 163 CALCULUS III (5 cr.) Prerequisite: MATH 162.		F16, W17, Sp17, Su17
<input type="checkbox"/> ENGL 201 COLL COMP: ANALYSIS/RES/DOCMNT (5 cr.) Prerequisite: ENGL 101, Writing Placement Test or general advising.	Satisfies Writing Proficiency	F16, W17, Sp17, Su17

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Advisor signature: _____

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Consult your academic advisor when choosing your electives. Your choices may affect your time to graduation.

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Second year courses and prerequisites	Notes	Previously offered **
<input type="checkbox"/> PHYS 161 MECHANICS LABORATORY (1 cr.) Prerequisite: MATH 142.		F16, W17
<input type="checkbox"/> MENG 240 STATICS (4 cr.) Prerequisites: PHYS 151, MATH 161 or Technical Calculus I or equivalent.		F16, W17, Sp17
<input type="checkbox"/> MENG 217 3D PARAMETRIC COMPUTER DESIGN (5 cr.) Prerequisite: METC 110 or High School AUTOCAD or permission of instructor.		F16, W17, Sp17, Su17
<input type="checkbox"/> MATH 241 CALCULUS IV (5 cr.) Prerequisite: MATH 163.		F16, W17, Sp17, Su17
<input type="checkbox"/> PHYS 162 HEAT & OPTICS LABORATORY (1 cr.) Prerequisite: MATH 142.		W17, Sp17
<input type="checkbox"/> PHYS 152 GENERAL PHYSICS II (4 cr.) Prerequisites: PHYS 151 and concurrent enrollment in MATH 162.	Satisfies Natural Science-Physics	W17, Sp17
<input type="checkbox"/> MATH 347 INTRO DIFFERENTIAL EQUATIONS (4 cr.) Prerequisite: MATH 163.		F16, W17, Sp17, Su17
<input type="checkbox"/> CHEM 151 GENERAL CHEMISTRY (5 cr.) Prerequisites: ≥ 2.0 in MATH 141 or concurrent enrollment; ≥ 2.0 in CHEM 100 or ≥ 2.0 in CHEM 161 or one year of high school chemistry.	Satisfies Natural Science-Chemistry	F16, W17, Sp17
<input type="checkbox"/> PHYS 163 INSTRUMENTATION LAB I (1 cr.) Prerequisite: MATH 142.		Sp17
<input type="checkbox"/> PHYS 153 GENERAL PHYSICS III (4 cr.) Prerequisites: PHYS 152 and concurrent enrollment in MATH 163.		F16, Sp17
<input type="checkbox"/> MENG 353 INDUSTRIAL MATERIALS (5 cr.) Prerequisite: CHEM 121 or CHEM 151.		F16, W17, Sp17, Su17
<input type="checkbox"/> MENG 241 STRENGTH OF MATERIALS (4 cr.) Prerequisites: MENG 240, MATH 162, PHYS 152 or Technical Calculus II or equivalent.		W17, Sp17

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Third year courses and prerequisites	Notes	Previously offered **
<input type="checkbox"/> MENG 300 LABORATORY ANALYSIS & REPORTS (5 cr.) Prerequisite: PHYS 133 or PHYS 153, MATH 162; and declared into one of the following: Mechanical Engineering, Mechanical Engineering Technology, Electrical Engineering; or permission of instructor.		
<input type="checkbox"/> MENG 207 ELECTRICITY (4 cr.) Prerequisites: MATH 162, PHYS 153 or PHYS 133 .		F16, W17, Sp17
<input type="checkbox"/> GENERAL EDUCATION CORE REQUIREMENT (5 cr.)	Satisfies General Education Core Requirement	Every F, W, Sp, Su
<input type="checkbox"/> METC 456 ENGINEERING ETHICS (2 cr.) Prerequisite: junior standing and a declared Mechanical Engineering or Mechanical Engineering Technology major or permission of instructor.		F16, W17, Sp17
<input type="checkbox"/> MENG 380 THERMODYNAMICS (5 cr.) Prerequisites: PHYS 152; MATH 162; MENG 300, may be taken concurrently; and a declared Mechanical Engineering major.		F16, W17
<input type="checkbox"/> GENERAL EDUCATION CORE REQUIREMENT (5 cr.)	Satisfies General Education Core Requirement	Every F, W, Sp, Su
<input type="checkbox"/> CPLA 120 COMPUTER APPLICATIONS LITERACY (5 cr.)	Satisfies Computer Literacy Proficiency	F16, W17, Sp17, Su17
<input type="checkbox"/> MNTC 301 METALLIC PROCESSES (5 cr.) Prerequisite: junior standing or permission of instructor.		
<input type="checkbox"/> MENG 382 FLUID MECHANICS (5 cr.) Prerequisite: grades ≥ 2.0 in all of the following, PHYS 152; MATH 162; MENG 300 (may be taken concurrently); and a declared Mechanical Engineering major.		F16, W17, Sp17
<input type="checkbox"/> MENG 242 DYNAMICS (4 cr.) Prerequisite: MENG 240.		F16, Sp17

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Fourth year courses and prerequisites	Notes	Previously offered **
<input type="checkbox"/> MENG 493 SENIOR SEMINAR (1 cr.) Prerequisite: senior standing or permission of instructor; and a declared Mechanical Engineering or Mechanical Engineering Technology major.		F16, W17
<input type="checkbox"/> MENG 452 ENGINEERING ECONOMICS (2 cr.) Prerequisite: junior standing; and a declared Mechanical Engineering or Mechanical Engineering Technology major or permission of instructor.		F16, W17, Sp17, Su17
<input type="checkbox"/> MENG 385 ROBOTICS & AUTOMATION (5 cr.) Prerequisite: grades ≥ 2.0 in all of the following, MENG 207 or MNTC 208; MENG 201 or CSCD 255; and a declared in Mechanical Engineering or Mechanical Engineering Technology major or permission of instructor.		F16, W17, Sp17, Su17
<input type="checkbox"/> GENERAL EDUCATION CORE REQUIREMENT (5 cr.)	Satisfies General Education Core Requirement	Every F, W, Sp, Su
<input type="checkbox"/> Required track elective (5 cr.) (see catalog)		
<input type="checkbox"/> MENG 490A SENIOR CAPSTONE (2 cr.) Prerequisites: MENG 217, MENG 241 with a grade ≥ 2.0 , MNTC 301; and a declared Mechanical Engineering major; and senior standing.	Satisfies Senior Capstone	W17, Sp17
<input type="checkbox"/> MENG 412 FUNDAMENTALS OF ENGINEERING (2 cr.) Prerequisite: senior standing; and declared into one of the following: Mechanical Engineering, Mechanical Engineering Technology, Electrical Engineering; or permission of instructor.		W17, Sp17
<input type="checkbox"/> MENG 386 ENGINEERING NUMERICAL ANALYSIS (5 cr.) Prerequisite: PHYS 153; MATH 163; and either MENG 201 or CSCD 255; and a declared Mechanical Engineering major.		F16, W17, Su17
<input type="checkbox"/> Required track elective (5 cr.) (see catalog)		
<input type="checkbox"/> MENG 490B SENIOR CAPSTONE DESIGN LAB II (3 cr.) Prerequisites: MENG 490A.	Satisfies Senior Capstone	Sp17

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MENG 405 DESIGN OF MACHINE ELEMENTS (5 cr.)
Prerequisite: MATH 162, MENG 241, MENG 353, and a declared Mechanical Engineering major.

F16, W17, Sp17, Su17

Required track elective (5 cr.) (see catalog)

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Fifth year courses and prerequisites	Notes	Previously offered **
<input type="checkbox"/> GENERAL EDUCATION CORE REQUIREMENT (5 cr.)	Satisfies General Education Core Requirement	Every F, W, Sp, Su
<input type="checkbox"/> CULTURAL & GENDER DIVERSITY (UPPER-LEVEL) (5 cr.)	Satisfies Cultural & Gender Diversity	Every F, W, Sp, Su
<input type="checkbox"/> Required elective (5 cr.) (see catalog)		

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