

Mechanical Engineering (BSME)

Freshman Year Fall Semester 2017

Course	Credit Hours	Semester & Year taken	Grade	Advanced standing or Substitute course
PHYS1250 - Engineering Physics I <i>Coreq: MATH1750 Engineering Calculus I</i>	3/2/4			
ENGL1100 - English I <i>Prereq: English Placement Test</i>	4/0/4			
ENGR1000 - Introduction to Engineering <i>Prereq: Enrollment in Engineering.</i>	1/4/3			
ENGR1600 - Fundamentals of CAD & CAM or ENGR1800 - Introduction to Matlab <i>Prereq: Enrollment in Engineering.</i>	0/2/1			
MATH1750 - Engineering Calculus I <i>Prereq:</i>	4/0/4			
First Year Seminar	0			

Freshman Year Spring Semester 2018

Course	Credit Hours	Semester & Year taken	Grade	Advanced standing or Substitute course
ENGL2200 - English II <i>Prereq: ENGL1100 English I</i>	4/0/4			
MATH1850 - Engineering Calculus II <i>Prereq: MATH1750 Engineering Calculus I</i>	4/0/4			
ENGR1500 - Introduction to Engineering Design <i>Prereq: Enrollment in Engineering.</i>	1/4/3			
ENGR1600 - Fundamentals of CAD & CAM or ENGR1800 - Introduction to Matlab <i>Prereq: Enrollment in Engineering.</i>	0/2/1			
PHYS1750 - Engineering Physics II <i>Prereq: PHYS1250 Engineering Physics I & MATH1750 Engineering Calculus I</i>	3/2/4			

Sophomore Year Fall Semester 2018

Course	Credit Hours	Semester & Year taken	Grade	Advanced standing or Substitute course
MATH2025 - Multivariable Calculus <i>Prereq: MATH1850 Engineering Calculus II</i>	4/0/4			
MECH2300 - Engineering Graphics <i>Prereq: ENGR1600 Fundamentals of CAD & CAM</i>	1/4/3			
MECH2000 - Engineering Statics¹ <i>Prereq: MATH1750 Engineering Calculus I & PHYS310 Engineering Physics I</i>	4/0/4			
HSSXXXX - Humanities or Social Science* <i>Prereq: Successful completion of English Sequence</i>	4/0/4			
ELEC2799 - Circuit Theory and Applications¹ <i>Prereq: MATH1750 Engineering Calculus I & PHYS1750 Engineering Physics II</i>	2/2/3			

Sophomore Year Spring Semester 2019

Course	Credit Hours	Semester & Year taken	Grade	Advanced standing or Substitute course
MECH2250 - Engineering Thermodynamics I¹ <i>Prereq: MATH1850 Calculus II & PHYS1250 Engineering Physics I</i>	3/2/4			
MECH2500 - Mechanics of Materials¹ <i>Prereq: MECH2000 Engineering Statics</i>	3/2/4			
MATH2500 - Differential Equations <i>Prereq: MATH1850 Engineering Calculus II</i>	4/0/4			
HSSXXXX - Humanities or Social Science* <i>Prereq: Successful completion of English Sequence</i>	4/0/4			
CHEM1100 - Engineering Chemistry <i>Prereq: None</i>	3/2/4			

Summer Semester 2019

COOP3000 Pre-Cooperative Work Term (Optional)

Prereq: Successful completion of freshman and sophomore program requirements; 2.0 or higher Cumulative GPA.

Junior Year Fall Semester 2019

Course	Credit Hours	Semester & Year taken	Grade	Advanced standing or Substitute course
<i>MECH3100 - Engineering Fluid Mechanics¹</i> <i>Prereq: MECH2250 Engineering Thermodynamics I</i>	3/2/4			
<i>MECH3000 - Design of Machine Elements¹</i> <i>Prereq: MECH2500 Mechanics of Materials & MECH2300 Engineering Graphics</i>	4/0/4			
<i>HSSXXXX - Humanities or Social Science*</i> <i>Prereq: Successful completion of English Sequence</i>	4/0/4			
ELECTIVE - Technical Elective²	3			
<i>MECH2750 - Engineering Thermodynamics II¹</i> <i>Prereq: MECH2250 Engineering Thermodynamics I & CHEM1100 Engineering Chemistry</i>	3/2/4			

Spring Semester 2020**COOP3500** Cooperative Work Semester I*Prereq: Junior status; 2.0 or higher Cumulative GPA.***Junior Year Summer Semester 2020**

Course	Credit Hours	Semester & Year taken	Grade	Advanced standing or Substitute course
<i>MECH3900 - Engineering Heat Transfer¹</i> <i>Prereq: MECH3100 Engineering Fluid Mechanics & MATH2500 Differential Equations</i>	4/0/4			
<i>MECH3850 - Engineering Dynamics¹</i> <i>Prereq: MECH2000 Engineering Statics & MATH1850 Engineering Calculus II</i>	4/0/4			
MATH2100 - Probability and Statistics for Engineers <i>Prereq: MATH1850 Engineering Calculus II</i>	4/0/4			
<i>MECH3600 - Materials Science¹</i> <i>Prereq: MECH2500 Mechanics of Materials & CHEM1100 Engineering Chemistry</i>	3/2/4			

Fall Semester 2020**COOP4500** Cooperative Work Semester II*Prereq: Senior status; 2.0 or higher Cumulative GPA.*

Senior Year Spring Semester 2021

Course	Credit Hours	Semester & Year taken	Grade	Advanced standing or Substitute course
<i>MECH4000 - Mechanical Vibrations¹</i> <i>Prereq: MATH2500 Differential Equations & MECH2500 Mechanics of Materials & MECH3850 Engineering Dynamics</i>	3/0/3			
HSSXXXX - Humanities or Social Science* <i>Prereq: Successful completion of English Sequence</i>	4/0/4			
ELECTIVE - Technical Elective ²	3			
<i>MECH4200 - Simulation Based Design¹ or MECHXXXX - Thermal & Fluid Simulation</i> <i>Prereq: MECH3100 Engineering Fluid Mechanics & MECH3000 Design of Machine Elements & MECH3900 Engineering Heat Transfer</i>	2/4/4			
<i>MECH5000 - Mechanical Capstone Analysis¹</i> <i>Prereq: MECH3000 Design of Machine Elements & MECH3850 Engineering Dynamics & MECH3900 Engineering Heat Transfer</i>	1/4/3			

Senior Year Summer Semester 2021

Course	Credit Hours	Semester & Year taken	Grade	Advanced standing or Substitute course
ELECTIVE - General Elective	3			
HSSXXXX - Humanities or Social Science* <i>Prereq: Successful completion of English Sequence</i>	4/0/4			
ELECTIVE - Technical Elective ²	3			
<i>MECH5500 - Mechanical Capstone Project¹</i> <i>Prereq: Senior Status MECH4200 Simulation Based Design & MECH5000 Mechanical Capstone Analysis</i>	1/6/4			

•Please note that one of the five required Humanities and Social Science graduation requirements for BSME students must in the area of Economics and one must be in the area of Ethics. The remaining three can be any Humanities/Social Science of your choosing

¹In addition to the general graduation requirements of the Institute, specific graduation requirements from the Mechanical Engineering (BSME) program with a Bachelor of Science degree include maintaining a minimum cumulative grade point average of 2.0 for all technical courses. The courses used to determine the cumulative grade point average for all BSME technical courses are shown *in italics*. If another Wentworth course is substituted for one of these listed courses, the substitute course will be calculated into this cumulative grade point average for all technical courses. are selected after consultation with Faculty Advisor.