



Draft Articulation Agreement Bachelor of Science in Mechanical Engineering - NAU Degree Pathway Guide – 2024-2025

Associate degree core: [MAJOR – A.S.-T](#)

CSU GE-B Requirements: 39 units minimum.

IGETC Requirements: 37 units minimum.

Complete one of the general education transfer patterns listed above (CSU GE-B or IGETC).

Students with a completed CSU GE-B or IGETC with a 2.5 GPA or better will be guaranteed admission to NAU as well as satisfy all NAU Liberal Studies Requirements

Contact your [NAU Transfer Representative](#) for an evaluation.

Course #	Course Title	Credits	Completed
Community College Coursework			
(Math 192 (MAT 136)	Calculus I	4	
MATH 194 (MAT 137)	Calculus II	4	
MATH 210 (MAT 238)	Calculus III	4	
MATH 220 (MAT 239)	Differential Equations	3	
CHEM 200 (CHM 151/L)	General Inorganic Chemistry I	5	
PHYS 200 (PHY 161/L)	General Physics I	4	
PHYS 202 (PHY 262/L)	General Physics II	4	
ENGR 100 (EGR 186)	Intro to Engineering Design	3	
No IVC Course (CS 122 and CS 122L)	Mat Lab Programing (AWC EGR 123)	3	
ENGR 210 (CENE 251)	Statics	3	
ENGR 212 (ME 252)	Dynamics	3	
No IVC Course (ME 180)	SolidWorks (AWC DFD 180)	3	
ENGR 240 (EE 188/L)	Electrical Circuits	3	
No IVC Course (CENE 225)	Engineering Analysis (NAU)	3	
No IVC Course (CENE 253/L)	Mechanics of Materials with Lab (AWC Lecture EGR 253 and NAU Lab)	4	
No IVC Course (ME 240)	Material Science (NAU)	3	
		TOTAL IVC	40
Electives to reach 64 credits			
		TOTAL	56

Bachelor of Science Curriculum: [Mechanical Engineering](#)

Course #	Course Title	Credits	Completed
Northern Arizona University – Yuma			
Mechanical Engineering Core Courses (61 units)			
CENE 225	Engineering Analysis	3	
CENE 251	Applied Mechanics Statics (Met with ENGR 210)	MET	
CENE253/L	Mechanics of Materials and Lab	4	
CS 122/L	Programming for Engineering and Science and Lab	3	
EE 188	Electrical Engineering I (Met with ENGR 240)	MET	
EE 188L	Electrical Engineering I Lab	1	
EGR 186	Introduction to Engineering Design (Met with ENGR 100)	MET	
ME 180	Computer Aided Design	3	
ME 286	Engineering Design and Manufacturing Processes	3	
ME 240	Materials Science	3	
ME 252	Applied Mechanics: Dynamics (Met with ENGR 212)	MET	
ME 291	Thermodynamics I	3	
ME 386W	Engineering Design: The Methods	3	
ME 395	Fluid Mechanics I	3	
ME 365	Machine Design I	3	
ME 358	System Dynamics	3	
ME 476C	Mechanical Engineering Design I	2	
ME 450	Heat Transfer	3	
ME 495	Experimental Methods in Thermal Sciences	3	

ME 440 or ME 465	Fluid Mechanics II or Machine Design II	3	
ME 486C	Mechanical Engineering Design II	3	
Total Unit for Core Courses		61	

Select Additional Coursework From the Following Technical Electives: (12 units)			
ME358	System Dynamics	3	
ME392	Thermodynamics II	3	
ME425	Applied Computational Fluid Dynamics	3	
ME435	Wind Energy Engineering	3	
ME441	Compressible Flow	3	
ME442	Aerodynamics	3	
ME451	Renewable Energy	3	
ME454	Applied Finite Element Analysis	3	
ME455	Vibrations	3	
ME456	Engineering Modeling of Nonlinear Systems	3	
ME475	Adaptive Materials and Systems	3	
	Select from other 300, 400 or 500-level courses – up to 6 units - in engineering, natural sciences, business, or mathematics, with approval from the ME department leadership.		
Total Units for Additional Coursework		12 units	
Foundation Core Courses (30 units)			
Chemistry Requirement:			
CHM151/L	General Chemistry I with Lab (Met with CHEM 200)	MET	
Physics Requirement:			
PHY161	University Physics I (Met with PHYS 200)	MET	
PHY262	University Physics II (Met with PHYS 202)	MET	
Math Requirement:			
MAT 136	Calculus I (Met with MATH 192)	MET	
MAT 137	Calculus II (Met with MAT 194)	MET	
MAT 238	Calculus III (Met with MAT 210)	MET	
MAT 239	Differential Equations (Met with MAT 220)	MET	
MAT 362	Introduction to Numerical Analysis	3	
Total Credits: 125		30	