

A.S. Mechanical Engineering 2021 - 2022

EXPECTED DEGREE

AS in Engineering - Mechanical (60 sch)

+ These courses are only offered in the semester indicated.

** Please see faculty advisor or division chair to discuss requirements for your transfer university.

PROGRAM DESCRIPTION

Division Chair: Dr. Paula Wilhite (pwilhite@ntcc.edu) 903-434-8281

Faculty Advisor: Mark Ellermann (mellermann@ntcc.edu) 903-434-8297

Students should consult the division chair or a faculty advisor early in their program of study.

These are suggested courses for students who plan to transfer to a four-year college or university and major in mechanical engineering. Transferability and specific requirements can be determined only by the receiving institution. Only college-level courses apply toward completion of this curriculum and the graduation requirements for the A.S. **CIP: 24.0102**

Tuition Costs and Scholarship Information for this degree can be found at: <https://catalog.ntcc.edu/>

Information for Financial Aid assistance can be found at: <https://catalog.ntcc.edu/>

RECOMMENDED COURSE SELECTION

Fall 1st Year	SCH	Semester Completed	Grade	Notes for Students:
MATH 2413 - Calculus I ^	4			^ Prerequisite for Calculus I (MATH 2413): Precalculus (MATH 2412) or equivalent or approval by division chair
CHEM 1409 - Gen Chem for Eng Majors +	4			
ENGR 1201 - Intro to Eng +	2			
ENGL 1301 - English Comp I	3			
Semester Credit Hours	13			
Spring 1st Year	SCH	Semester Completed	Grade	Notes for Students:
MATH 2414 - Calculus II	4			
PHYS 2425 - Advanced Physics I	4			
ENGL 2311 - Tech & Business Writing	3			
ENGR 1304 - Engineering Graphics I +	3			
Semester Credit Hours	14			
Summer 1st Year	SCH	Semester Completed	Grade	Notes for Students:
Core Course: History	3			
Core Course: History	3			
Semester Credit Hours	6			
Fall 2nd Year	SCH	Semester Completed	Grade	Notes for Students:
MATH 2415 - Calculus III	4			
PHYS 2426 - Advanced Physics II +	4			
ENGR 2301 - Statics +	3			
Core Course: Government	3			
Semester Credit Hours	14			
Spring 2nd Year	SCH	Semester Completed	Grade	Notes for Students:
MATH 2320 - Differential Equations +	3			DO THIS: Apply for graduation for AS Engineering
ENGR 2302 - Dynamics +	3			
ECON 2301 - Prin of Macroecon I	3			
Core Course: Government	4			
Semester Credit Hours	13			

Total Required Associate of Science in Engineering (Mechanical) = 60 Semester Credit Hours

CAREER OPPORTUNITIES - All data listed below incorporate Northeast Texas jobs and entry wages found on <http://www.texaswages.com/WDAWages>

<i>Career option #1</i>	<i>Mechanical Tech</i>	<i>Career option #2</i>	<i>Mechanical Eng</i>	<i>Career option #3</i>	<i>Mechanical Engineer</i>
<i>\$Starting Salary</i>	<i>\$44,274</i>	<i>\$Starting Salary</i>	<i>\$61,538</i>	<i>\$Starting Salary</i>	<i>\$84,614</i>
<i>w/Associate's Degree</i>		<i>w/Bachelor's Degree</i>		<i>w/Doctoral Degree</i>	

A.S. Mechanical Engineering Transfer Guide 2021 - 2022

	TAMU		✓	UT Tyler		✓	TAMU-T		✓
	NTCC	TAMU		NTCC	UT Tyler		NTCC	TAMU-T	
Fall 1st Year	MATH 2413	MATH 151		MATH 2413	MATH 2413		MATH 2413	MATH 2413	
	CHEM 1409	CHEM 107/117		CHEM 1409	CHEM 1311/1111		CHEM 1409	CHEM 1307 / 1117	
	ENGR 1201*	ENGR 111		ENGR 1201	ENGR 1201		ENGR 1201	ENGR 1201	
	ENGL 1301	ENGL 103		ENGL 1301	ENGL 1301		ENGL 1301	ENGL 1301	
Spring 1st Year	MATH 2414	MATH 152		MATH 2414	MATH 2414		MATH 2414	MATH 2414	
	PHYS 2425	PHYS 206 / 226		PHYS 2425	PHYS 2325/2125		PHYS 2425	PHYS 2325 / 2125	
	ENGL 2311	ENGL 210		ENGL 1302 or 2311	ENGL 1302		ENGL 1302 or 2311	ENGL 1302	
	ENGR 1304*	MMET 105		ENGR 1304	ENGR 1304		ENGR 1304	ENGR 1304	
Summer 1st Year	HIST Core	HIST 105		HIST Core	HIST 1301		HIST Core	HIST 1301	
	HIST Core	HIST 106 or 226		HIST Core	HIST 1302 or Transfer*		HIST Core	HIST 1302 or Transfer*	
Fall 2nd Year	MATH 2415 ENGR 2301	MATH 253 MEEN 225		GOVT 2305 ENGR 2301	POLS 2305 ENGR 2301		MATH 2415 ENGR 2301	MATH 2415 ENGR 2301	
	PHYS 2426	PHYS 207 / 227		PHYS 2426	PHYS 2326/2126		PHYS 2426	PHYS 2326 / 2126	
	GOVT 2305	POLS 206		MATH 2415	MATH 2415 (3404)		GOVT 2305	PSCI 2301	
Spring 2nd Year	MATH 2320*	MATH 308		MATH 2320	MATH 2320 (3305)		MATH 2320	MATH 2320	
	ENGR 2302*	Transfer by Title		ENGR 2302	ENGR 2302		ENGR 2302	ENGR 2302	
	ECON 2301	ECO 2302		ECON 2301	ECON 2301		ECON 2301	ECON 2301	
	GOVT 2306 Elective 1-hr	POLS 207		GOVT 2306 Elective 1-hr	POLS 2306		GOVT 2306 Elective 1-hr	PSCI 2302	
	*Transfer as elective			*Transfer as elective			*Transfer as elective		

Course Equivalency Guides for all institutions can be found at <https://www.tccns.org/>

Core Credit Choices
Gray - Complete all three courses below: <input type="checkbox"/> ENGL 1301 English Composition I (3) <input type="checkbox"/> GOVT 2305 Federal Government (3) <input type="checkbox"/> GOVT 2306 Texas Government (3)
ORANGE - Choose 1 from the following: <input type="checkbox"/> SPCH 1315 Public Speaking (3) <input type="checkbox"/> SPCH 1321 Business and Professional Comm (3)
GREEN - Choose 1 from the following: <input type="checkbox"/> ECON 2301 Principles of Macroeconomics (3)
RED - Choose 2 from the following: <input type="checkbox"/> HIST 1301 United States History I (3) <input type="checkbox"/> HIST 1302 United States History II (3) <input type="checkbox"/> HIST 2301 Texas History (3) <input type="checkbox"/> HIST 2381 African American History I (3) <input type="checkbox"/> HIST 2382 African American History II (3)
BLUE - Choose 1 from the following <input type="checkbox"/> ENGL 1302 English Composition II (3) <input type="checkbox"/> ENGL 2311 Technical & Business Writing (3)
PURPLE - Choose 1 from the following: <input type="checkbox"/> PHIL 1301 Introduction to Philosophy (3) <input type="checkbox"/> PHIL 2306 Introduction to Ethics (3)
PINK - Choose 1 from the following: <input type="checkbox"/> ARTS 1301 Art Appreciation (3) <input type="checkbox"/> DRAM 1310 Theatre Appreciation (3) <input type="checkbox"/> DRAM 2361 Theatre History I (3) <input type="checkbox"/> MUSI 1306 Music Appreciation (3)