

Mechanical and Energy Engineering – College Algebra

2023-2024 Catalog: Sample Five-Year Schedule

Year One	Fall Semester	Course Title	Credit Hours	Term(s) Offered	Spring Semester	Course Title	Credit Hours	Term(s) Offered
	MATH 1100	College Algebra <i>Pre-req: TSI Completion</i>	3	F., Sp., Su.	MATH 1650	Pre-Calculus <i>Pre-req: MATH 1100, 1600 or Test Placement</i>	5	F., Sp., Su.
	Comm. Core	University Core – Communications	3	F., Sp., Su.	TECM 2700	Technical Writing <i>Pre-req: Communication Core</i>	3	F., Sp., Su.
	University Core	University Core – American History I	3	F., Sp., Su.	University Core	University Core – American History II	3	F., Sp., Su.
	University Core	University Core – Federal Government	3	F., Sp., Su.	University Core	University Core – State Government	3	F., Sp., Su.
	Total Hours		12		Total Hours		14	

Year Two	Fall Semester	Course Title	Credit Hours	Term(s) Offered	Spring Semester	Course Title	Credit Hours	Term(s) Offered
	MATH 1710	Calculus I <i>Pre-req: MATH 1650 or Test Placement</i>	4	F., Sp., Su.	MATH 1720	Calculus II <i>Pre-req: MATH 1710</i>	3	F., Sp., Su.
	CHEM 1410	General Chemistry I <i>Pre-req: MATH 1100 or higher</i>	3	F., Sp., Su.	PHYS 1710	Mechanics <i>Pre-req: MATH 1710</i>	3	F., Sp., Su.
	CHEM 1430	General Chemistry I Lab <i>Co/Pre-req: CHEM 1410</i>	1	F., Sp., Su.	PHYS 1730	Mechanics Lab <i>Co/Pre-req: PHYS 1710</i>	1	F., Sp., Su.
	MEEN 1000	Discover Mechanical & Energy <i>Pre-req: MATH 1650</i>	2	F., Sp.	ENGR 1304	Engineering Graphics	3	F., Sp.
	University Core	University Core – Creative Arts	3	F., Sp., Su.	University Core	University Core – Language, Philosophy and Culture	3	F., Sp., Su.
Total Hours		13		Total Hours		13		

Year Three	Fall Semester	Course Title	Credit Hours	Term(s) Offered	Spring Semester	Course Title	Credit Hours	Term(s) Offered
	MEEN 2240	Programming for Mechanical Engineers <i>Pre-req: MEEN 1000, Co-req MATH 2700</i>	3	F., Sp.	MATH 3410	Differential Equations <i>Pre-req: MATH 1720</i>	3	F., Sp., Su.
	ENGR 2301	Mechanics I <i>Pre-req: PHYS 1710/1730, MEEN 1000</i>	3	F., Sp., Su.	MEEN 2110	Engineering Data Analysis <i>Pre-reqs: MATH 2700 & MEEN 1000</i>	3	F., Sp.
	MATH 2700	Linear Algebra <i>Pre-req: MATH 1720</i>	3	F., Sp., Su.	MEEN 2210	Thermodynamics I <i>Pre-reqs: MEEN 1000, MATH 1720, & PHYS 1710</i>	3	F., Sp., Su.
	MATH 2730	Multivariable Calculus <i>Pre-req: MATH 1720</i>	3	F., Sp., Su.	ENGR 2302	Mechanics II <i>Pre-reqs: ENGR 2301 & MATH 1720</i>	3	F., Sp., Su.
	PHYS 2220	Electricity & Magnetism <i>Pre-reqs: MATH 1720 & PHYS 1710/1730</i>	3	F., Sp., Su.	ENGR 2332	Mechanics III <i>Pre-req: ENGR 2301</i>	3	F., Sp., Su.
	PHYS 2240	Electricity & Magnetism Lab <i>Co/Pre-req: PHYS 2220</i>	1	F., Sp., Su.	Total Hours		15	
Total Hours		16						

Year Four	MEEN 3110	Thermodynamics II <i>Pre-req: MEEN 2210</i>	3	F., Sp., Su.	MEEN 3130	Machine Elements <i>Pre-reqs: ENGR 2332 & ENGR 1304</i>	3	F., Sp., Su.
	MEEN 3120	Fluid Mechanics <i>Pre-reqs: MATH 2730, 3410, MEEN 2210, 2332</i>	3	F., Sp., Su.	MEEN 3210	Heat Transfer <i>Pre-reqs: MEEN 3110, 3120, 3250</i>	3	F., Sp., Su.
	MEEN 3240	Laboratory I <i>Pre-reqs: MEEN 2110, 2210, & MATH 3410</i>	2	F., Sp.	MEEN 3230	Dynamics and Controls <i>Pre-reqs: ENGR 2302, MATH 2700, 3410</i>	3	F., Sp., Su.
	ENGR 3450	Engineering Materials <i>Pre-req: PHYS 1710, CHEM 1410/1430</i>	4	F., Sp.	MEEN 3242	Laboratory II <i>Pre-reqs: MEEN 3240 & 3120, Co/Pre-req: MEEN 3210</i>	1	F., Sp.
	EENG 2610	Circuit Analysis <i>Pre-req: MATH 1720 Co/Pre-req: PHYS 2220/2240</i>	3	F., Sp., Su.	MEEN 3250	Analytical Methods <i>Pre-reqs: MEEN 2240 & MATH 3410</i>	3	F., Sp., Su.
	Total Hours		15		Total Hours		13	

Year Five	MEEN 3100	Manufacturing Processes <i>Pre-reqs: ENGR 2332 and 3450</i>	3	F., Sp.	MEEN 4250	Capstone Design <i>Pre-req: MEEN 3100 & 4150</i>	3	F., Sp.
	MEEN 4150	Design I <i>Pre-reqs: EENG 2610, MEEN 3130, 3210, 3230, & 3242 Co/Pre-req: MEEN 3100</i>	3	F., Sp.	Energy Elective	Options at mydegreeaudit.unt.edu Must complete pre-reqs	3	F., Sp.
	Energy Elective	Options at mydegreeaudit.unt.edu Must complete pre-reqs	3	F., Sp.	Technical Elective	Options at mydegreeaudit.unt.edu Must complete pre-reqs	3	F., Sp.
	Technical Elective	Options at mydegreeaudit.unt.edu Must complete pre-reqs	3	F., Sp.	University Core	University Core – Social and Behavioral Sciences	3	F., Sp., Su.
	Total Hours		12		Total Hours		12	

Courses in **GREEN** are taken at UNT and require a particular prerequisite order.

Courses in **BLACK** can be fulfilled by AP, IB, CLEP, and/or Texas Community College Dual Credit or Transfer Credit and require a particular prerequisite order.

Courses in **BLUE** can be fulfilled by AP, IB, CLEP, and/or Texas Community College Dual Credit or Transfer Credit and can be completed in any term prior to graduation.

ENGL, TECM, MATH, CHEM, PHYS, ENGR, and MEEN courses require minimum grade of "C" for completion and/or prerequisite. This is an unofficial sample schedule.

This is an unofficial sample schedule. Requirements, prerequisites, corequisites, and term offerings may change. UNT students should check their degree audit at mydegreeaudit.unt.edu each term. UNT students should meet with their advisor each term to discuss individual scheduling, program decisions, etc.

Advanced Placement (AP), International Baccalaureate (IB), Credit by Exam (CLEP), Texas Community College Dual Credit, Texas Community College Transfer Credit

COMMUNICATION

AP English Lang. And Comp. Score of 3
IB English A: Lang. and Lit. Score of 5
Community College: ENGL 1301

TECHNICAL WRITING

Community College ENGL 2311: TECM 2700

AMERICAN HISTORY I

AP U.S. History score of 3
CLEP History of United States I
Community College: HIST 1301

AMERICAN HISTORY II

AP U.S. History score of 3
CLEP History of United States II
Community College: HIST 1302

FEDERAL GOVT/POLI SCIENCE

AP U.S. Government score of 3
CLEP American Government
Community College: GOVT 2305

STATE GOVT/POLI SCIENCE

Community College: GOVT 2306

CREATIVE ARTS

AP Art History score of 3
IB Dance score of 4*
Community College: ARTS 1301
Community College: ARTS 1304
Community College: MUSI 1306
Community College: DRAM 1310

LANGUAGE, PHILOSOPHY, AND CULTURE

AP English Literature and Comp. score of 3
AP World History score of 3
IB History score of 4*
IB Philosophy score of 5
IB English Language A: Lit. Score of 5
Community College: ENGL 2332
Community College: ENGL 2333
Community College: ENGL 2341
Community College: HIST 2321
Community College: HIST 2322
Community College: PHIL 1301
Community College: PHIL 1304
Community College: PHIL 2303
Community College: PHIL 2306

SOCIAL AND BEHAVIORAL SCIENCES

AP Macroeconomics score of 3
AP Microeconomics score of 3
AP Psychology score of 3
IB Economics score of 4*
IB Geography score of 4*
IB Psychology score of 4*
CLEP Macroeconomics
CLEP Microeconomics
CLEP Human Growth and Development
CLEP Introductory Psychology
CLEP Introductory Sociology
Community College: ANTH 2346
Community College: ANTH 2351

SOCIAL AND BEHAVIORAL SCIENCES (Continued)

Community College: SPCH 1318
Community College: ECON 2301
Community College: ECON 2302
Community College: GEOG 1303
Community College: TECA 1354
Community College: COMM 1307
Community College: PSYC 2301
Community College: PSYC 2302
Community College: SOCI 1301

CHEMISTRY

AP Chemistry score of 4: CHEM 1410, 1430
AP Chemistry score of 5: CHEM 1410, 1430, and 1420, 1440
IB Chemistry: CHEM 1410, 1430, and 1420, 1440
CLEP General Chemistry: CHEM 1410, 1420
Community College CHEM 1111: CHEM 1430
Community College CHEM 1311: CHEM 1410
Community College CHEM 1411: CHEM 1410, 1430

PHYSICS

AP Physics C (Mechanics) score of 4: PHYS 1710, 1730
PHYS Physics C (Electricity and Magnetism) score of 4: PHYS 2220, 2240
Community College PHYS 2125: PHYS 1730
Community College PHYS 2126: PHYS 2240
Community College PHYS 2325: PHYS 1710
Community College PHYS 2326: PHYS 2220
Community College PHYS 2425: PHYS 1710, 1730
Community College PHYS 2426: PHYS 2220, 2240

MATHEMATICS

AP Calculus AB score of 3: MATH 1710
AP Calculus BC score of 3: MATH 1710, 1720
AP Calculus AB sub score of BC Exam score 3: MATH 1710
IB Mathematics – Calculus: MATH 1710
CLEP College Algebra: MATH 1100
CLEP Pre-calculus: MATH 1650
CLEP Calculus: MATH 1710
Community College MATH 1314: MATH 1100
Community College MATH 1414: MATH 1100
Community College MATH 1442: MATH 1680
Community College MATH 2312: MATH 1650
Community College MATH 2412: MATH 1650
Community College MATH 2313: MATH 1710
Community College MATH 2314: MATH 1720
Community College MATH 2315: MATH 2730
Community College MATH 2318: MATH 2700
Community College MATH 2320: Substitutes for MATH 3410
Community College MATH 2413: MATH 1710
Community College MATH 2414: MATH 1720
Community College MATH 2415: MATH 2730
Community College MATH 2418: MATH 2700
Community College MATH 2420: Substitutes for MATH 3410
Community College ENGR 2300: Substitutes for MATH 2700

ENGINEERING

Community College ENGR 1204: ENGR 1304
Community College ENGR 1304: ENGR 1304
Community College ENGR 2105: EENG 2611
Community College ENGR 2301: ENGR 2301
Community College ENGR 2302: ENGR 2302
Community College ENGR 2332: ENGR 2332
Community College ENGR 2305: EENG 2610
Community College ENGR 2405: EENG 2610, 2611