

Mechanical Engineering Technology – Pre-Calculus

2023-2024 Catalog: Sample Five-Year Schedule

	Fall Semester	Course Title	Credit Hours	Term(s) Offered	Spring Semester	Course Title	Credit Hours	Term(s) Offered
Year One	MATH 1650	Pre-Calculus <i>Pre-req: MATH 1100 or Test Placement</i>	5	F., Sp., Su.	MATH 1710	Calculus I <i>Pre-req: MATH 1650 or Test Placement</i>	4	F., Sp., Su.
	CHEM 1410	General Chemistry I <i>Pre-req: MATH 1100 or higher</i>	3	F., Sp., Su.	ENGR 1030	Technological Systems	3	F., Sp.
	CHEM 1430	General Chemistry I Lab <i>Co/Pre-req: CHEM 1410</i>	1	F., Sp., Su.	TECM 2700	Technical Writing <i>Pre-req: Communication Core</i>	3	F., Sp., Su.
	Comm. Core	University Core – Communication	3	F., Sp., Su.	University Core	University Core – American History I	3	F., Sp., Su.
	Total Hours		12		Total Hours		13	

Year Two	MATH 1720	Calculus II <i>Pre-req: MATH 1710</i>	3	F., Sp., Su.	PHYS 2220	Electricity and Magnetism <i>Pre-reqs: MATH 1720, PHYS 1710, 1730</i>	3	F., Sp., Su.
	PHYS 1710	Mechanics <i>Pre-req: MATH 1710</i>	3	F., Sp., Su.	PHYS 2240	Electricity and Magnetism Lab <i>Co-req/pre-req: PHYS 2220</i>	1	F., Sp., Su.
	PHYS 1730	Mechanics Lab <i>Co/Pre-req: PHYS 1710</i>	1	F., Sp., Su.	ENGR 2301	Statics <i>Pre-reqs: PHYS 1710, 1730</i>	3	F., Sp., Su.
	ENGR 1304	Engineering Graphics	3	F., Sp.	CSCE 1030	Computer Science I <i>Pre-req: MATH 1650 or Co-req: MATH 1710</i>	4	F., Sp.
	University Core	University Core – American History II	3	F., Sp., Su.	University Core	University Core – Federal Government	3	F., Sp., Su.
	Total Hours		13		Total Hours		14	

Year Three	ENGR 2302	Dynamics <i>Pre-reqs: ENGR 2301, MATH 1720</i>	3	F., Sp., Su.	ENGR 3450	Engineering Materials <i>Pre-reqs: ENGR 2332, CHEM 1410/1430, PHYS 1710/1730</i>	4	F., Sp.
	ENGR 2332	Mechanics of Materials <i>Pre-reqs: ENGR 2301</i>	3	F., Sp., Su.	University Core	University Core – Creative Arts	3	F., Sp., Su.
	EENG 2610	Circuit Analysis <i>Pre-req: MATH 1720 Co/Pre-req: PHYS 2220/2240</i>	3	F., Sp., Su.	University Core	University Core – Language, Philosophy and Culture	3	F., Sp., Su.
	EENG 2611	Circuit Analysis Lab <i>Co/Pre-req: EENG 2610</i>	1	F., Sp., Su.	University Core	University Core – Social and Behavioral Sciences	3	F., Sp., Su.
	University Core	University Core – State Government	3	F., Sp., Su.	Total Hours		13	
	Total Hours		13					

Year Four	MEET 3940	Fluid Mechanics <i>Pre-req: ENGR 2302, MATH 1720</i>	3	F., Sp., Su.	MEET 3980	Digital Controls of Industrial Processes <i>Pre-reqs: EENG 2610/2611, CSCE 1030</i>	3	Sp.
	MEET 3990	Applied Thermodynamics <i>Pre-req: ENGR 2332, CHEM 1410/1430</i>	3	F., Sp., Su.	MEET 3650	Design of Mechanical Components <i>Pre-req: ENGR 2332</i>	3	Sp.
	MFET 3110	Machining Principles and Processes <i>Pre-req: MATH 1650</i>	3	F., Sp.	MFET 4210	CAD/CAM System Operation <i>Pre-req: MFET 3110, ENGR 1304, and MATH/PHYS/CHEM requirements</i>	3	F., Sp.
	Advanced Elective	Options at mydegreeaudit.unt.edu Must complete pre-reqs	3	Varies	MEET 3550	Geometric Dimens. and Tolerancing <i>Pre-reqs: MFET 3110, ENGR 1304</i>	3	Sp.
	Total Hours		12		Total Hours		12	

Year Five	MEET 4050	Mechanical Design <i>Pre-req: MEET 3650</i>	3	F.	MEET 4790	Senior Design II <i>Pre-req: MEET 4780</i>	3	Sp.
	MEET 4350	Heat Transfer Applications <i>Pre-req: MEET 3940, 3990</i>	3	F.	MEET 4360	Experimental Thermal Sciences <i>Pre-req: MEET 3940, 3990, 4350</i>	3	Sp.
	MEET 4780	Senior Design I <i>Pre-reqs: ENGR 3450 and MEET 3980 Co/Pre-req: MFET 4210, MEET 4050, 4350</i>	1	F.	MFET 4190	Quality Assurance <i>Pre-req: MATH 1720</i>	3	Sp.
	MFET 4200	Engineering Cost Analysis <i>Pre-req: MATH 1720</i>	3	F.	Total Hours		9	
	Advanced Elective	Options at mydegreeaudit.unt.edu Must complete pre-reqs	3	Varies				
	Total Hours		13					

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, CSCE, MEET, and MEET 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 231 I: 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

SOCIAL AND BEHAVIORAL SCIENCES (Continued)

Community College: ANTH 2346
Community College: ANTH 2351
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
AP 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 2312: MATH 1650
Community College MATH 2412: MATH 1650
Community College MATH 2313: MATH 1710
Community College MATH 2314: MATH 1720
Community College MATH 2413: MATH 1710
Community College MATH 2414: MATH 1720

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

COMPUTING/PROGRAMMING

AP Computer Science A score of 4: CSCE 1030
IB Computer Science: CSCE 1030
Community College COSC 1336: CSCE 1030
Community College COSC 1436: CSCE 1030