

PROGRAM SUMMARY

- **Credit Hours:** 125
- **Concentrations:** Applied Energy
- **Declaring the Major:** Students may declare a major in Mechanical Engineering Technology at the time of admission. Students in good academic standing may submit a Change of Major form at any/ time to declare a major in Mechanical Engineering Technology. Orientation and/or advising sessions are required for new students.
- **Advising (For the Major):** Required upon admission to the major and before each semester. Assigned advisors hold group advising sessions, followed by individual advising by appointment.
- **Advising (For General Education):** By Student Services Specialists in the department.
- **Minimum Grades/GPA:** GPA of 2.0 in the major required for graduation. Grades of C or better required in all freshman-level courses, as shown on Suggested Plan of Study.
- **Teacher Licensure:** No
- **Evening Classes Available:** Some upper division (junior/senior) classes are available late afternoon or evening on a rotating basis. It is highly unlikely that students would be able to complete degree requirements through evening courses alone.
- **Weekend Classes Available:** No
- **Other Information:** Students who complete an Associate in Applied Science Degree (AAS) in a related field before enrolling at UNC Charlotte are eligible for the Mechanical Engineering Technology 2+2 Program, which allows students to complete their BSET degrees with a minimum of two additional years of coursework.
- **Contact(s):** Mr. Daniel Hoch, Program Director (dhoch2@uncc.edu)
 Ms. Cecilia Dontoh, Student Services Specialist (cdontoh@uncc.edu)

PROGRAM REQUIREMENTS

The first two years in the Mechanical Engineering Technology program emphasize engineering technology fundamentals. Students concentrate on mathematics, science, written and oral communication skills, and mechanical specialization classes including computer aided drafting, statics, mechanisms, manufacturing processes and engineering materials. The third and fourth years emphasize design and analysis with advanced classes in thermodynamics, heating / ventilation / air conditioning, strength of materials, machine design, fluid mechanics and senior design project. Mechanical Engineering Technology Graduates design, build, test and maintain a wide variety of machines, cars, jet fighters, and other high-tech devices and systems. A concentration in applied energy is available in which students may focus their major elective courses by choosing to take four energy-related courses.

Areas	Credit Hours	Description
Pre-Major/ Prerequisites	-	Any student declaring a major in the Mechanical Engineering Technology program at UNC Charlotte must submit a Change of Major application for review. AAS transfer students must fulfill a series of specified prerequisite courses before proceeding with upper-division coursework. All new MET majors are required to meet with their Student Support Specialist for pre-registration advising.
Major	78	Major courses are specified by the department.
General Education (not satisfied by other major requirements)	35	First-Year Writing courses / Basic Skills of Information Technology (UWRT 1103 or 1104); Mathematical & Logical Reasoning (MATH 1103 & STAT 1220); Social Science (ANTH 1101/GEOG 1105/ECON 1101 or 2101/POLS 1110/SOCY 1101); Natural Science (PHYS 1101 & 1101L, PHYS 1102 & 1102L, and CHEM 1251); Themes of Liberal Education (LBST 110X and 2301; and two from: LBST 2101, 2102, and 221X).
Related Work	-	
Foreign Language	-	
Electives	12	Students must complete four major elective courses of 3 credit hours each. Major electives are selected from the list of approved core electives and approved by the advisor.
Total Credit Hours	125	

SUGGESTED PLAN OF STUDY

Freshman Year					
Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
PHYS 1101	Introductory Physics I	3	X		Must complete with a grade of C or better
PHYS 1101L	Introductory Physics I Laboratory	1	X		Must complete with a grade of C or better
MATH 1103	Pre-Calculus Math for Science & Engineering	3	X		Must complete with a grade of C or better
ETGR 1100L	Engineering Technology Computer Applications Lab	1			Must complete with a grade of C or better
ETME 1111	CAD Modeling I	3			Must complete with a grade of C or better
ETGR 1201	Intro to Engineering Technology	2			Must complete with a grade of C or better
UWRT 1103	Writing and Inquiry in Academic Contexts I & II	3	X		Must complete with a grade of C or better
<i>Spring Semester</i>					
PHYS 1102	Introductory Physics II	3	X		Must complete with a grade of C or better
PHYS 1102L	Introductory Physics II Laboratory	1	X		Must complete with a grade of C or better
MATH 1121	ET Calculus or ETGR 2171 Engineering Analysis I	3			Must complete with a grade of C or better
ETME 1112	CAD Modeling II	3			Must complete with a grade of C or better
LBST 110X	LBST 1100 Series: Arts & Society	3	X		Must complete with a grade of C or better
XXXX XXXX	Social Science Elective	3	X		Must complete with a grade of C or better

32 Credit Hours for Year

Sophomore Year					
Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
CHEM 1251	Principles of Chemistry	3	X		
ETME 2130	Applied Materials and Manufacturing I	3			Must complete with a grade of C or better
ETME 2100	Sophomore Design Practicum	2			Must complete with a grade of C or better
ETME 2100L	Sophomore Design Practicum Lab	1			Must complete with a grade of C or better
ETGR 2101	Applied Mechanics I	3			Must complete with a grade of C or better
STAT 1220	Elements of Statistics	3	X		
<i>Spring Semester</i>					
ETGR 2272	Engineering Analysis II	3			Must complete with a grade of C or better
ETGR 2106	Electronic Circuits & Devices	3			
ETGR 2122	Technical Programming	3			
ETME 2102	Mechanisms	3			
ETME 2131	Applied Materials and Manufacturing II	2			
LBST 2XXX	LBST Series	3	X		

32 Credit Hours for Year

Junior Year					
Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
ETGR 3071	ET Professional Seminar	1			
ETGR XXXX	Engineering Analysis: ETGR 3171 or ETGR 4272	3			Recommend both if interested in Graduate School
ETME 3113	Dynamics	3			
ETME 3123	Strength of Materials	3			
ETME 3123L	Stress Analysis Lab (W)	1		W	
ETME 3133	Fluid Mechanics	3			
<i>Spring Semester</i>					
ETGR 3222	Engineering Economics	3			
ETME 3100	Junior Design Practicum	2			
ETME 3100L	Junior Design Practicum Lab	1			
ETME 3143	Thermodynamics	3			
ETME 3133L	Fluid Mechanics Lab (W)	1		W	
ETME 3213	Machine Design I	3			
ETME 3150	Applied CAD Modeling and Simulation	3			

30 Credit Hours for Year

Senior Year					
Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
ETGR 4100	Capstone Design Project I (W,O)	2		W,O	Departmental Approval Required
ETME 4244	Applied Heat Transfer	3			
ETME 4143L	Thermodynamics and Heat Transfer Lab (W)	1		W	
XXXX XXXX	Major Elective	3			Chosen from approved major elective list
XXXX XXXX	Major Elective	3			Chosen from approved major elective list
LBST 2XXX	LBST Series	3	X		
<i>Spring Semester</i>					
ETGR 3295	Multidisciplinary Professional Development	1			
ETGR 4200	Capstone Design Project II (W,O)	2		W,O	Departmental Approval Required
ETME 4163L	Instrumentation Lab (W)	1			
ETME 4163	Instrumentation and Controls	3			
XXXX XXXX	Major Elective	3			Chosen from approved major elective list
XXXX XXXX	Major Elective	3			Chosen from approved major elective list
LBST 2301	Critical Thinking and Communication	3	X		

31 Credit Hours for Year

ADVISING RESOURCES

- General Education Requirements for ALL Students: ucol.uncc.edu/general-education
- Undergraduate Catalog: catalog.uncc.edu
- Central Advising website: advising.uncc.edu
- William States Lee College of Engineering advising website: engr.uncc.edu/current-students/advising
- Department of Engineering Technology advising website: et.uncc.edu/current-students/advising
- University Advising Center website: advisingcenter.uncc.edu