BSET in Electrical Engineering Technology
Academic Plan of Study

William States Lee College of Engineering
Department of Engineering Technology and Construction Management
et.uncc.edu

PROGRAM SUMMARY

- ***Credit Hours:*** 121
- ***Concentrations:*** Applied Energy
- ***Declaring the Major:*** Students may declare a major in Electrical 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 Electrical 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 provide group advising sessions, followed by individual advising by appointment.
- ***Advising (For General Education):*** By Academic Advisors 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 Electrical Engineering Technology 2+2 Program, which allows students to complete their BSET degrees with a minimum of two additional years of coursework. The ETCM Department also offers a Distance Education option for students interested in earning the BSET in Electrical Engineering Technology. This program, which is set up on a part-time basis, is designed to meet the academic needs of individuals who currently hold an AAS in an appropriate field of study but cannot attend classes on campus during regular semesters.
- ***Contact(s):*** Dr. Deborah Sharer, Program Director (dlsharer@uncc.edu)
  Ms. Alexis Jennings, Academic Advisor (ajenni25@uncc.edu)

PROGRAM REQUIREMENTS

The Electrical Engineering Technology (ELET) program prepares graduates of the BSET program for careers across a broad spectrum of technologies. In general, coursework in the program includes experience in the following areas: Linear Circuits; Digital Logic and Systems; Microprocessors, Microcontrollers and Embedded Systems; Electronic Circuits and Systems; Control Systems; and Power Systems. The first two years of Electrical Engineering Technology concentrate on fundamentals of mathematics and science along with the development of written and oral communications skills. The third and fourth years of the BSET program provide students with classes intended to expand upon the fundamentals covered in the first two years. Greater emphasis is placed on principles rather than on introductory topics. Computer simulation, as well as more advanced mathematical tools, allows treatment of technologies in greater depth and over a wider range. The program culminates in a Capstone Project in which a student is expected to demonstrate not only an understanding of electrical technologies, but also the ability to plan, execute, and provide written and oral reports about a project.

Areas	Credit Hours	Description
Pre-Major/ Prerequisites	-	Any student declaring a major in the Electrical 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 ELET majors are required to meet with the ELET Academic Advisor for pre-registration advising.
Major	77	Major courses are specified by the department according to a highly structured curriculum that students are advised to follow by semester throughout the Electrical Engineering Technology program.
General Education ***(not satisfied by other major requirements)***	32	Writing & Inquiry (UWRT 1103); Mathematics & Logical Reasoning (MATH 1103 & STAT 1220); Social Science (ANTH 1101/GEOG 1105/ECON 1101, 2101 or 2102/POLS 1110/SOCY 1101); 2 Natural Science Courses (PHYS 1101/1102 with Labs); Themes of Liberal Education (LBST 110X, and LBST 2101, 2102, 211X or 2301, with one designated as CTC).
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, or approved by the advisor.
Total Credit Hours	121	

SUGGESTED PLAN OF STUDY

Freshman Year					
Course Number	**Course Title**	**Credit Hours**	**General Education**	**W/O Course**	**Notes**
Fall Semester					
ELET 1102	C Programming	3			Must complete with a grade of C or better
ETGR 1100L	Engineering Technology Computer Apps Lab	1			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
MATH 1103	Pre-calculus Math for Science and Engineering	3	X		Must complete with a grade of C or better
XXXX XXXX	Social Science Elective	3	X		
UWRT 1103	Writing and Inquiry in Academic Contexts I & II	3	X		Must complete with a grade of C or better
Spring Semester					
ELET 1211	DC Circuits	3			Must complete with a grade of C or better
ELET 1211L	DC Circuits Laboratory	1			Must complete with a grade of C or better
ELET 1231	Digital Circuits	3			Must complete with a grade of C or better
ELET 1231L	Digital Circuits Laboratory	1			Must complete with a grade of C or better
PHYS 1101	Introductory Physics I	3	X		Must complete with grades of C or better
PHYS 1101L	Introductory Physics I Laboratory	1	X		Must complete with a grade of C or better
STAT 1220	Elements of Statistics I	3	X		Must complete with a grade of C or better

30 Credit Hours for Year

Sophomore Year					
Course Number	**Course Title**	**Credit Hours**	**General Education**	**W/O Course**	**Notes**
Fall Semester					
ELET 2112	AC Circuits	3			
ELET 2112L	AC Circuits Laboratory	1			
ELET 2231	Microprocessor Fundamentals	3			
MATH 1121 OR ETGR 2171	ET Calculus **OR** Engineering Analysis I	3			Must complete with a grade of C or better
PHYS 1102	Introductory Physics II	3	X		
PHYS 1102L	Introductory Physics II Lab	1	X		
Spring Semester					
ELET 2221	Electronics I	3			
ELET 2221L	Electronics I Laboratory	1			
ELET 2241	Instrumentation	3			
ELET 2241L	Instrumentation Laboratory	1			
ELET 2290	Sophomore Practicum	2			
ETGR 2272	Engineering Analysis II	3			Must complete with a grade of C or better
LBST 110X	Arts & Society	3	X		

30 Credit Hours for Year

Junior Year					
Course Number	**Course Title**	**Credit Hours**	**General Education**	**W/O Course**	**Notes**
Fall Semester					
ELET 3113	Network Analysis	3			
ELET 3132	Digital Systems	3			
ELET 3132L	Digital Systems Laboratory	1	X	W	
ELET 3141	Power Systems & Machines	3			
ELET 3190	Junior Practicum	3			
ETGR 3171 OR ETGR 4272	Engineering Analysis III **OR** Engineering Analysis IV	3			
Spring Semester					
ELET 3222	Electronics II	3			
ELET 3222L	Electronics II Laboratory	1	X	W	
ELET 3232	Microcontroller Systems	3			
ELET 3242	Fundamentals of Control Systems	3			
ETGR 3222	Engineering Economics	3			
LBST 2301	Critical Thinking and Communication	3	X		

32 Credit Hours for Year

Senior Year					
Course Number	**Course Title**	**Credit Hours**	**General Education**	**W/O Course**	**Notes**
Fall Semester					
ELET 4123	Active Filters	3			
ELET 4142	Power Electronics / Networks	3			
ETGR 4100	Capstone Design Project I	2	X	W, O	Requires department approval
XXXX XXXX	Major Elective	3			Chosen from approved major elective list
LBST 2XXX	LBST2101, 2102 or 221X	3	X		
Spring Semester					
ETGR 3295	Multidisciplinary Professional Development	1			
ETGR 4200	Capstone Design Project II	2	X	W, O	
XXXX XXXX	Major Elective	3			Chosen from approved major elective list
XXXX XXXX	Major Elective	3			Chosen from approved major elective list
XXXX XXXX	Major Elective	3			Chosen from approved major elective list
LBST 2XXX	LBST2101, 2102 or 221X	3	X		

29 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
- University Advising Center website: advisingcenter.uncc.edu