B.S.E.T. in Fire Safety 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:*** 122 hours
- ***Concentrations:*** Fire Safety, Fire Protection
- ***Declaring the Major:*** Students may declare a major in Fire Safety 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 Fire Safety 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 followed by individual advising by appointment.
- ***Advising (For General Education):*** By Student Service Specialists in the department
- ***Minimum Grades/GPA:*** GPA of a 2.0 in the major required for graduation. Grades of C or better are required in all freshman level courses, as shown on the 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 the 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 Fire Safety Engineering Technology 2+2 Program, either on campus or through distance education. On campus 2+2 students can complete their B.S.E.T. degree with approximately two additional years of coursework. Distance education 2+2 students can complete their BSET degree in approximately four years.
- ***Contact(s):*** Ms. Laura Holland, Student Services Specialist, lholla12@uncc.edu
  Mr. Jeff Kimble, Program Director, jkimble@uncc.edu

PROGRAM REQUIREMENTS

The Fire Safety Engineering Technology program at UNC Charlotte leads to a Bachelor of Science degree in Fire Safety Engineering Technology. The program has emphasis on both technical and non-technical aspects in the fields of fire and safety. The program is directed toward those seeking positions within the fire service (Fire Safety Concentration) as well as those preparing for work in fire protection (Fire Protection Concentration) related occupations.

The **Fire Safety Concentration** curriculum is designed to prepare students for increasingly responsible roles in leadership and management. In addition, the program provides comprehensive classes dealing with fire behavior, active and passive protection systems as well as the foundational principles of research investigation.

Areas	Credit Hours	Description
Pre-Major/ Prerequisites	-	Any student declaring a major in the Fire Safety Engineering Technology program 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 FSET majors are required to meet with their Student Support Specialist for pre-registration advising.
Major (Fire Safety Concentration)	76	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 1100 & 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	11	Students must complete 11 credit hours of major electives. Major electives are selected from the list of approved core Fire Safety electives and approved by the advisor.
Total Credit Hours	122	

The **Fire Protection Concentration** curriculum is designed to prepare students for increasingly responsible roles in leadership and management. In addition, the program provides comprehensive classes dealing with fire behavior, active and passive protection systems, fire hazard analysis, fire safety design and fire testing as well as the foundational principles of research investigation.

Areas	Credit Hours	Description
Pre-Major/ Prerequisites	-	Any student declaring a major in the Fire Safety Engineering Technology program 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 FSET majors are required to meet with their Student Support Specialist for pre-registration advising.
Major (Fire Protection	82	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 1100 & 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	5	Students must complete 5 credit hours of major electives. Major electives are selected from the list of approved core Fire Safety electives and approved by the advisor.
Total Credit Hours	122	

SUGGEST PLAN OF STUDY – FIRE SAFETY CONCENTRATION

Freshman Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
UWRT 1103	Writing and Inquiry in Academic Contexts I & II	3	X		Must complete with a grade of C or better
ETFS 1120	Fundamentals of Fire Protection	3			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
ETFS 1252	Fire Protection Law	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
MATH 1100	College Algebra and Probability	3	X		Must complete with a grade of C or better
Spring Semester					
ETFS 1232	Fire Protection Hydraulics and Water Supply	3			Must complete with a grade of C or better
ETFS 2144	Fire Protection Systems	3			Must complete with a grade of C or better
LBST 110X	Arts and Society	3	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
ETGR 1103	Technical Drawing I	2			

29 Credit Hours for Year

Sophomore Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
ETFS 2124	Fundamentals of Fire Protection	3			
ETFS 2132	Building Construction for Fire Protection	3			
PHYS 1101	Introductory Physics I	3	X		Must complete with a grade of C or
PHYS 1101L	Introductory Physics I Laboratory	1	X		Must complete with a grade of C or
ETFS 2230	Hazardous Materials	3			
XXXX XXXX	Social Science Elective	3	X		
Spring Semester					
ETFS 2126	Fire Investigation	3			
ETFS 2264	Fire Behavior and Combustion	3			
ETFS 2264L	Fire Behavior and Combustion Laboratory	1		W	
LBST 2XXX	LBST Series	3	X		
PHYS 1102	Introductory Physics II	3	X		
PHYS 1102L	Introductory Physics II Laboratory	1	X		

30 Credit Hours for Year

Junior Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
ETFS 3113	Building Fire Safety	3		W	
ETFS 3124	Risk Management for the Emergency Services	3			
ETFS 3611	Professional Leadership Seminar	1		W, O	
ETGR 3222	Engineering Economics	3			
CHEM 1251	Principles of Chemistry I	3	X		
PSYC 2171	Introduction to Industrial/Organizational Psychology	3			
Spring Semester					
ETFS 3103	Principles of Fire Behavior	3			
ETFS 4123	Community Threat Assessment and Mitigation	3			
LBST 2XXX	LBST Series	3	X		
POLS 3119	State and Local Government	3			
XXXX XXXX	Major Elective	3			

31 Credit Hours for Year

Senior Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
ETFS 3144	Active Fire Protection	3			
ETFS 4323	Advanced Fire Service Administration	3			
LBST 2301	LBST Series: Critical Thinking and Communication	3	X		
PSYC 3174	Organizational Psychology	3			
XXXX XXXX	Major Elective	3			
XXXX XXXX	Major Elective	2			
Spring Semester					
ETFS 3123	Industrial Hazards and Electricity	3			
ETFS 3233	Introduction to Performance-Based Fire Safety	3			
ETFS 4243	Research Methodology	3		W, O	
POLS 3126	Administrative Behavior	3			
XXXX XXXX	Major Elective	3			

32 Credit Hours for Year

SUGGEST PLAN OF STUDY – FIRE PROTECTION CONCENTRATION

Freshman Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
UWRT 1103	Writing and Inquiry in Academic Contexts I & II	3	X		Must complete with a grade of C or better
ETFS 1120	Fundamentals of Fire Protection	3			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
ETGR 1103	Technical Drawing	2			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 & Engineering	3	X		Must complete with a grade of C or better
Spring Semester					
ETFS 1232	Fire Protection Hydraulics and Water Supply	3			Must complete with a grade of C or better
ETFS 2144	Fire Protection Systems	3			Must complete with a grade of C or better
LBST 110X	Arts and Society	3	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
XXXX XXXX	Social Science Elective	3	X		

29 Credit Hours for Year

Sophomore Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
ETFS 2124	Fundamentals of Fire Protection	3			
ETFS 2132	Building Construction for Fire Protection	3			
PHYS 1101	Introductory Physics I	3	X		Must complete with a grade of C or
PHYS 1101L	Introductory Physics I Laboratory	1	X		Must complete with a grade of C or
ETGR 2101	Applied Mechanics I	3			
MATH 1121	ET Calculus or ETGR 2171	3			
Spring Semester					
ETFS 2126	Fire Investigation	3			
ETFS 2264	Fire Behavior and Combustion	3			
ETFS 2264L	Fire Behavior and Combustion Laboratory	1		W	
LBST 2XXX	LBST Series	3	X		
PHYS 1102	Introductory Physics II	3	X		
PHYS 1102L	Introductory Physics II Laboratory	1	X		

30 Credit Hours for Year

Junior Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
ETFS 3113	Building Fire Safety	3		W	
ETGR 2272	Engineering Analysis II	3			
ETFS 3611	Professional Leadership Seminar	1		W, O	
ETME 3123	Strength of Materials or ETGR 2102	3			
CHEM 1251	Principles of Chemistry I	3	X		
ETME 3133	Fluid Mechanics	3			
Spring Semester					
ETFS 3103	Principles of Fire Behavior	3			
ETFS 3103L	Principles of Fire Behavior Lab	1		W	
ETME 3143	Thermodynamics	3			
ETFS 3123	Industrial Hazards and Electricity	3			
ETGR 2106	Electrical Circuits	3			
ETGR XXXX	Engineering Analysis : ETGR 3171 or ETGR 4272	3			

32 Credit Hours for Year

Senior Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
Fall Semester					
ETFS 3144	Active Fire Protection	3			
ETFS 3242L	Fire Testing and Measurement Lab	1		W	
ETFS 3344	Intro to Structural Fire Safety	3			
ETFS 3344L	Intro to Structural Fire Safety Lab	1		W	
LBST 2XXX	LBST Series	3	X		
ETME 3244	Applied Heat Transfer	3			
XXXX XXXX	Major Elective	2			
Spring Semester					
ETFS 3283	Fire Hazard Analysis	3			
ETFS 3233	Introduction to Performance-Based Fire Safety	3			
ETGR 3222	Engineering Economics	3			
LBST 2301	LBST Series: Critical Thinking and Communication	3	X		
XXXX XXXX	Major Elective	3			

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