FIRE SCIENCE, B.S.

Completion of this major prepares one for a career in the Fire Service and related industries. It also prepares one to be firefighters and fire officers. In the Fire Protection industry, completion of this major prepares one for code enforcement, fire investigation, and fire protection systems. Our majors are also prepared for fire-related private industry.

The 2.0 minimum overall GPA and a 2.0 minimum cumulative GPA in the major are requirements for continuation in the major as well as for graduation.

Students concentrating in Fire Science will be required to complete 39 semester hours in Fire Science Courses in residence at NJCU.

Code	Title	Credits
Requirement Courses [1]		
FS 140	Introduction to Fire Science	3
FS 150	Introduction to Engine Company Operations	3
FS 151	Introduction to Ladder Company Operations	3
FS 336	Firefighting Tactics	3
FS 342	Building Construction	3
FS 435	Problems in Fire Engineering	3
FS 365	Fire Officer Company Management	3
FS 436	Firefighting Strategies	3
FS 464	Fire Department Organization & Administration	3
Electives Courses: Select a Minimum of 12 Credits [2]		
FS 137	Emergency Personnel Fitness	3
FS 241	Fire Prevention & Related Codes	3
FS 243	Fire Detection & Suppression Systems	3
FS 334	Fire Investigation & Arson	3
FS 344	Hazardous Materials	3
FS 431	Transportation & Industrial Fire Hazards	3
Work/Study Cooperative Education (2-6 credits)		
Portfolio/Certification Review (1-6 credits)		
Total Credits		**39**

1 Students must earn a grade of C or better

2 Select 12 credits of approved electives in Fire Science, National Security Studies, Business, Languages, and other disciplines. Must earn a C or better in each course. (This is not a complete list of electives, please see the Fire Science Department for additional information)

Freshman

Semester 1		**Credits**
FS 140	Introduction to Fire Science	3
FS 137	Emergency Personnel Fitness	3
ENGL 101 or ESL 101	English Composition I or English Composition I for English as a Second Language Students	4
MATH 114 or MATH 140	Contemporary Mathematics or Statistics I	3
General Education Tier I Course		3
INTD 101	Orientation to College *first time freshmen only	1
	Credits	**17**
Semester 2		
FS 151	Introduction to Ladder Company Operations (Spring Only)	3
ENGL 102 or ESL 102	English Composition II or English Composition 2 ESL	4
General Education Tier I Course		3
General Education Tier I Course		3
General Education Tier II Course		3
	Credits	**16**
Sophomore		
Semester 1		
FS 150	Introduction to Engine Company Operations	3
FS 200- or 300-level Course		3
General Education Tier II Course		3
General Education Tier II Course		3
General Education Tier II Course		3
	Credits	**15**
Semester 2		
FS 200- or 300-level Course [1]		3
FS 200- or 300-level Course [1]		3
General Education Tier III Course		3
Elective or Minor Course		3
Elective or Minor Course		3
	Credits	**15**
Junior		
Semester 1		
FS 200- or 300-level Course [1]		3
FS 200- or 300-level Course [1]		3
Elective or Minor Course		3
Elective or Minor Course		3
Elective or Minor Course		3
	Credits	**15**
Semester 2		
FS 200- or 300-level Course [1]		3
Elective or Minor Course		3
Elective or Minor Course		3
Elective or Minor Course		3
Elective or Minor Course		3
	Credits	**15**
Senior		
Semester 1		
FS 300- or 400-level Course		3
FS 300- or 400-level Course		3
Elective or Minor Course		3
Elective or Minor Course		3
Elective or Minor Course		3
	Credits	**15**

Semester 2		
FS 365	Fire Officer Company Management ((Spring Only))	3
FS 435	Problems in Fire Engineering ((Spring Only))	3
Elective or Minor Course		3
Elective or Minor Course		3
	Credits	**12**
	Total Credits	**120**

[1] Selection of either 200- or 300-level courses is dependent upon the particular course offerings for a given semester.

Student Learning Outcomes

Upon completion of the Fire Science BS program, students will be able to:

1. Students will be able to communicate clearly and concisely (orally and/or in writing) regarding current critical emergency service issues.
2. Evaluate the role of risk management in the proper formulation of effective tactics and strategies to safely and successfully mitigate fire and emergency events.
3. Appraise and analyze building construction in terms of structural limitations and collapse / fire spread potential.
4. Utilize available technology and/or software to research and analyze date to create solutions to enhance decision-making on the emergency ground.
5. Apply ethical reasoning and analysis to the decision-making process in regard to personnel and resource management.

1.