

RISK MANAGEMENT MINOR

The risk management minor is a versatile, interdisciplinary program designed to blend the theoretical and applied aspects of risk management and insurance for upper-level undergraduate students. Students will develop a strong foundation in four competencies:

1. the fundamentals of the risk management and insurance industry
2. critical appraisal of data, quantitative analysis, and risk management strategies
3. high-level computational and analytical skills
4. effective communication.

Students can expect hands-on application through computational risk modeling, data analysis, case studies, and group projects involving risk assessment and management that are accompanied by written reports and oral presentations.

Requirements

In addition to the program requirements listed below, students must:

- take at least nine hours of their minor "core" requirements at UNC–Chapel Hill
- earn a minimum cumulative GPA of 2.000 in the minor core requirements. Some programs may require higher standards for minor or specific courses.

For more information, please consult the degree requirements section of the catalog (<https://catalog.unc.edu/undergraduate/degree-requirements/>).


Code	Title	Hours
Core Requirements		
DATA/ENEC/ ENVR 540	Introduction to Risk Management and Insurance ¹	3
Select one of the following paths:		3
DATA/ENEC/ ENVR 541	Natural Hazards and Financial Risk ¹	
DATA 542 & BUSI 600	Insurance: Balancing Risk and Return and Risk Management ¹	
DATA/ENEC/ ENVR 543	Risk, Data Science and AI ¹	3
Two additional elective courses chosen from the list below. ²		6
Total Hours		15

¹ Course requires a requisite(s) not otherwise counting in the minor. Please review the requisite information carefully.

² Other courses may be used to fulfill the elective requirement with approval from the Program Director.

Elective Courses

Code	Title	Hours
COMP 435	Computer Security Concepts ¹	3
COMP/BUSI 488	Data Science in the Business World	3
COMP 560	Artificial Intelligence ¹	3
COMP 562	Introduction to Machine Learning ^{1, H}	3
DATA 521	Foundations in Artificial Intelligence ¹	3

ECON 423	Financial Markets and Economic Fluctuations ^{1, H}	3
ECON 425	Financial Economics ¹	3
EMES 414/ ENEC 514	Flood Hydrology: Models and Data Analysis ¹	3
ENEC/ECON 470	Environmental Risk Assessment	3
ENEC/ENVR 635	Energy Modeling for Environment and Public Health	3
ENVR 468	Temporal GIS and Space/Time Geostatistics for the Environment and Public Health ¹	3
ENVR 575	Global Climate Change: Science, Impacts, Solutions	3
MATH 528	Mathematical Methods for the Physical Sciences I ¹	3
MATH 560	Optimization with Applications in Machine Learning ¹	3
PLAN 655	Planning for Natural Hazards and Climate Risk	3
PLAN 656	 Climate Change Impacts and Adaptation	3
STOR 471	Long-Term Actuarial Models ¹	3
STOR 472	Short Term Actuarial Models ¹	3
STOR 565	Machine Learning ¹	3
STOR 566	Introduction to Deep Learning ¹	3

H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

¹ Course requires a prerequisite(s) not otherwise counting in the minor. Please review prerequisite information carefully when planning your course selection.

Department Programs

Major

- Data Science, B.S. (<https://catalog.unc.edu/undergraduate/programs-study/data-science-major-bs/>)

Minor

- Risk Management Minor (p. 1)

Courses

- Data Science (DATA) (<https://catalog.unc.edu/courses/data/>)

Contact Information

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