FINANCE, BACHELOR OF SCIENCE (B.S.) WITH A CONCENTRATION IN RISK MANAGEMENT AND INSURANCE

The Bachelor of Science in Finance with a concentration in risk management and insurance prepares students for careers in the insurance industry on all levels including underwriting, claims adjusting, employee benefits, risk modeling and analysis, risk management in all sectors of the economy, financial planning, and graduate-level study of risk management.

Learning goals
The goal of the risk management and insurance concentration is to provide students with skills in financial management, risk management and financial planning. Graduates will be able to analyze and communicate findings on complex financial issues.

Student learning outcomes
Upon completing this program:

• Students will be able to identify risks, measure them and find mitigating solutions using all financial hedging instruments and insurance. The students will use relevant data to measure risks and solutions including design risk/awards and forecasting, loss reserves, frequency and severity. The students will be using appropriate quantitative measures for making informed risk management decisions as well as financial plans.
• Students will learn how to interpret data and apply the analysis and design they create to various situations.
• Students will be able to produce written reports and to express verbally the analytic, quantitative and ethical dimensions of risks and risk management of various entities to a variety of audiences.
• Students will be able to identify and analyze ethical dimensions of every element in risk management situations and relate those dimensions to professional ethical standards. Specifically, students will understand and articulate their fiduciary responsibility in a variety of topics and scenarios.

Special requirements
The admission requirements for the School of Business detail the deadlines and other requirements for students to be admitted to one of these major programs of study. The following courses must be completed before the student may declare a specific business major: ACCT 203, ACCT 204, BUSN 201 or BUSN 205, BUSN 212 or MATH 200, BUSN 225, MATH 200, ECON 210, ECON 211, UNIV 111, UNIV 112 and UNIV 200.

The School of Business has special academic policies (http://bulletin.vcu.edu/undergraduate/business/undergraduate-information/academic-policies/), including policies on transfer credits, that apply to all undergraduate degrees.

All baccalaureate degree programs in the School of Business require successful completion of the business knowledge exam as administered in BUSN 499.

Students may need to take additional mathematics courses as prerequisites to BUSN 212 or MATH 200. These credits will count as open electives in the degree program.

No more than six credits from the BUSN 16X Digital Literacy courses may be applied to the degree.

No more than four credits in physical education courses may be applied to the degree.

INTL 493 may not be counted toward a business degree.

Credit for SPCH 121 or SPCH 321 will substitute for BUSN 225, and no more than three credits of these courses may be applied toward a business degree. Students who earned a minimum grade of B in either ECON 203 or ECON 205 at VCU may substitute that credit for ECON 210.

The pass/fail grading policy may not be used for many course requirements. Students should check with their academic adviser before taking the pass/fail grading option.

Students must receive a minimum grade of C in FIRE 309, FIRE 317 and FIRE 479 and must have a minimum GPA of 2.0 in the remainder of the risk management and insurance concentration requirements. Students must attain a minimum grade of C in FIRE 309, FIRE 317 and FIRE 479 after two attempts or they will be asked to change concentrations.

Degree requirements for Finance, Bachelor of Science (B.S.) with a concentration in risk management and insurance

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>FIRE 309</td>
<td>Risk Management and Insurance</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 429</td>
<td>Property and Liability Insurance</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 439</td>
<td>Life Cycle Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 459</td>
<td>Insurance Law</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 479</td>
<td>Managing Financial Risk</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 312</td>
<td>Financial Modeling</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 317</td>
<td>Investments</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 321</td>
<td>Intermediate Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 317</td>
<td>Financial Modeling</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 317</td>
<td>Investments</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 321</td>
<td>Intermediate Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 317</td>
<td>Financial Modeling</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 317</td>
<td>Investments</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 321</td>
<td>Intermediate Financial Management</td>
<td>3</td>
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</tbody>
</table>

Concentration electives
Approved RMI electives (Choose three from approved list.)

Ancillary requirements
• Ancillary core courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACCT 203 &amp; ACCT 204</td>
<td>Introduction to Accounting I and Introduction to Accounting II</td>
<td>6</td>
</tr>
<tr>
<td>BUSN 301</td>
<td>Career and Professional Development</td>
<td>1</td>
</tr>
<tr>
<td>BUSN 225</td>
<td>Winning Presentations</td>
<td>3</td>
</tr>
<tr>
<td>BUSN 499</td>
<td>Business Knowledge Exam</td>
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</table>
Finance, Bachelor of Science (B.S.) with a concentration in risk management and insurance

- **ECON 210**  
  Principles of Microeconomics (satisfies general education BOK for social/behavioral sciences and/or AOI for global perspectives)  
  Hours: 3

- **ECON 211**  
  Principles of Macroeconomics  
  Hours: 3

- **FIRE 311**  
  Financial Management  
  Hours: 3

- **INFO 360**  
  Business Information Systems  
  Hours: 3

- **MGMT 303**  
  Creativity and Ideation  
  Hours: 3

- **MGMT 310**  
  Managing People in Organizations  
  Hours: 3

- **MGMT 434**  
  Strategic Management  
  Hours: 3

- **MKTG 301**  
  Marketing Principles  
  Hours: 3

- **SCMA 301**  
  Business Statistics I  
  Hours: 3

- **SCMA 320**  
  Production/Operations Management  
  Hours: 3

- **BUSN 201**  
  Foundations of Business  
  Hours: 3

- **BUSN 205**  
  Introduction to the World of Business  
  Hours: 3

- **BUSN 212**  
  Business Problem Solving and Analysis  
  (either satisfies general education quantitative foundations)  
  Hours: 4

- **MATH 200**  
  Calculus with Analytic Geometry I  
  Hours: 3

- **Open electives**  
  Select any course.  
  Hours: 16

**Total Hours**: 120

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**Approved risk management and insurance electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACCT 301</td>
<td>Federal Income Taxation for Individuals</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 303</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 410</td>
<td>Advanced Tax Accounting</td>
<td>3</td>
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<tr>
<td>BUSN 400</td>
<td>Principles of Consulting and International Consulting Practicum (must get credit for both courses to count toward degree completion)</td>
<td>6</td>
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<tr>
<td>BUSN 401</td>
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<tr>
<td>ECON 300</td>
<td>Contemporary Economic Issues</td>
<td>3</td>
</tr>
<tr>
<td>ECON 301</td>
<td>Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Macroeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 303</td>
<td>Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 305</td>
<td>Public Finance</td>
<td>3</td>
</tr>
<tr>
<td>ECON 307</td>
<td>Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>ECON 315</td>
<td>Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>ECON 321</td>
<td>Urban Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 325</td>
<td>Environmental Economics</td>
<td>3</td>
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<tr>
<td>ECON 333</td>
<td>Behavioral Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 338</td>
<td>Game Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 402</td>
<td>Business Cycles and Forecasting</td>
<td>3</td>
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<tr>
<td>ECON 403</td>
<td>Introduction to Mathematical Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 419</td>
<td>History of Economic Thought</td>
<td>3</td>
</tr>
<tr>
<td>ECON 421</td>
<td>Government and Business</td>
<td>3</td>
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<tr>
<td>ECON 431</td>
<td>Labor Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 442</td>
<td>Economic Growth</td>
<td>3</td>
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<tr>
<td>FIRE 305</td>
<td>Principles of Real Estate</td>
<td>3</td>
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<tr>
<td>FIRE 315</td>
<td>Real Property Management</td>
<td>3</td>
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<tr>
<td>FIRE 316</td>
<td>International Financial Management</td>
<td>3</td>
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<tr>
<td>FIRE 319</td>
<td>Financial Mathematics</td>
<td>3</td>
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<tr>
<td>FIRE 320</td>
<td>Actuarial Probability Concepts</td>
<td>3</td>
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<tr>
<td>FIRE 359</td>
<td>Issues in Risk Management and Insurance</td>
<td>3</td>
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<td>FIRE 417</td>
<td>Security Analysis and Portfolio Management</td>
<td>3</td>
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<td>FIRE 429</td>
<td>Property and Liability Insurance</td>
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<td>FIRE 441</td>
<td>Funds Management in Financial Institutions</td>
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<td>FIRE 445</td>
<td>Real Estate Investment Analysis</td>
<td>3</td>
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<tr>
<td>FIRE 449</td>
<td>Employee Benefit Planning</td>
<td>3</td>
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<td>FIRE 451</td>
<td>Options, Futures and Swaps</td>
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<td>FIRE 461</td>
<td>Cases in Financial Management</td>
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<tr>
<td>FIRE 469</td>
<td>Advanced Property/Casualty Insurance: Alternative Markets</td>
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<tr>
<td>FIRE 491</td>
<td>Topics in Finance, Insurance and Real Estate</td>
<td>1-3</td>
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<tr>
<td>FIRE 492</td>
<td>Independent Study in Finance, Insurance and Real Estate</td>
<td>1-3</td>
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<tr>
<td>FIRE 493</td>
<td>Internship in Finance, Insurance and Real Estate (requires departmental approval)</td>
<td>3</td>
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<tr>
<td>MGMT 319</td>
<td>Leadership</td>
<td>3</td>
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<tr>
<td>MGMT 331</td>
<td>Human Resource Management</td>
<td>3</td>
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<tr>
<td>MKTG 315</td>
<td>Buyer Behavior</td>
<td>3</td>
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<tr>
<td>MKTG 335</td>
<td>Introduction to Personal Selling</td>
<td>3</td>
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<tr>
<td>MKTG 442</td>
<td>Services Marketing</td>
<td>3</td>
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<tr>
<td>SCMA 302</td>
<td>Business Statistics II</td>
<td>3</td>
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**Freshman year**

**Fall semester**

| Term Hours: | 16 |

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MATH 151</td>
<td>Precalculus Mathematics (counts toward open electives)</td>
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<tr>
<td>UNIV 111</td>
<td>Play course video for Focused Inquiry I</td>
<td>3</td>
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<tr>
<td>General education course</td>
<td>3</td>
<td></td>
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<tr>
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**Spring semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BUSN 225</td>
<td>Winning Presentations</td>
<td>3</td>
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</table>
**Finance, Bachelor of Science (B.S.) with a concentration in risk management and insurance**

**Sophomore year**

**Fall semester**

- MATH 200 or BUSN 212
  - Calculus with Analytic Geometry I (satisfies general education quantitative foundations)
  - or Business Problem Solving and Analysis

- UNIV 112
  - Focused Inquiry II (satisfies general education UNIV foundations)

- General education course

**Spring semester**

- MATH 200 or BUSN 212
  - Calculus with Analytic Geometry I (satisfies general education quantitative foundations)
  - or Business Problem Solving and Analysis

- UNIV 112
  - Focused Inquiry II (satisfies general education UNIV foundations)

- General education course

**Junior year**

**Fall semester**

- ACCT 203
  - Introduction to Accounting I

- BUSN 201 or BUSN 205
  - Foundations of Business
  - or Introduction to the World of Business

- ECON 210
  - Principles of Microeconomics (satisfies general education BOK for social/behavioral sciences and/or AOI for global perspectives)

- UNIV 200
  - Advanced Focused Inquiry: Literacies, Research and Communication (satisfies general education UNIV foundations)

- Open elective

**Spring semester**

- ACCT 204
  - Introduction to Accounting II

- BUSN 301
  - Career and Professional Development

- ECON 211
  - Principles of Macroeconomics

- MKTG 301
  - Marketing Principles

- SCMA 301
  - Business Statistics I

- Open elective

**Senior year**

**Fall semester**

- FIRE 311
  - Financial Management

- FIRE 459
  - Insurance Law

- MGMT 310
  - Managing People in Organizations

- SCMA 320
  - Production/Operations Management (Open elective)

- Open elective

**Spring semester**

- FIRE 309
  - Risk Management and Insurance

- FIRE 312
  - Financial Modeling

- FIRE 317
  - Investments

- MGMT 303
  - Creativity and Ideation

- Approved RMI elective

**Term Hours:**

**Total Hours:** 120

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**FIRE 479**

Managing Financial Risk

**INFO 360**

Business Information Systems

**FIRE 429**

Property and Liability Insurance

Approved RMI elective

**Term Hours:**

**Spring semester**

- BUSN 499
  - Business Knowledge Exam

- FIRE 321
  - Intermediate Financial Management

- FIRE 439
  - Life Cycle Risk Management

- MGMT 434
  - Strategic Management

- Approved RMI elective

- Open elective

**Term Hours:**

**Total Hours:** 120

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FIRE 201. Personal Financial Planning. 3 Hours.

Semester course; 3 lecture hours (delivered online, face-to-face or hybrid).

3 credits. Designed to assist individuals and households in understanding and making common financial decisions. Units include income and expenditure, credit, borrowing, banking, savings, insurance, home buying, investment, and estate planning.

FIRE 291. Topics in Finance, Insurance and Real Estate. 1-3 Hours.

Variable hours. Variable credit. Maximum of 3 credits per topic.

Prerequisite: permission of instructor. An in-depth study of selected business topics. Graded as pass/fail at the option of the department.

FIRE 301. Personal Financial Planning. 3 Hours.

Semester course; 3 lecture hours (delivered online, face-to-face or hybrid).

3 credits. Designed to assist individuals and households in understanding and making common financial decisions. Units include income and expenditure, credit, borrowing, banking, savings, insurance, home buying, investment, and estate planning.

FIRE 305. Principles of Real Estate. 3 Hours.

Semester course; 3 lecture hours (delivered online, face-to-face or hybrid).

3 credits. Focuses on the language, principles, practices and laws that govern the real estate enterprise, including property rights, legal elements, physical aspects of location and production, brokerage, valuation, ethical dimensions, development, financing and land use.

FIRE 309. Risk Management and Insurance. 3 Hours.

Semester course; 3 lecture hours (delivered online, face-to-face or hybrid).

3 credits. Introduction to the study of risk management as it applies to individuals and enterprises. This course introduces the use of non-insurance (capital markets) and insurance tools for managing property, liability, all life cycle risks (life, health, disability and pensions) and financial risks. The course covers sustainability, InsurTech and cyber risks and is structured to generate an awareness of the changing nature of risks and their handling. The course is designed as a basis for more advanced risk management and insurance courses as well as for non-business majors.
FIRE 311. Financial Management. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisites: MATH 200 or BUSN 212*, ACCT 203 or ACCT 202 (for non-business majors); and ECON 210, or ECON 203 or ECON 205 with a minimum grade of B. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing) or 24 credits with minimum cumulative GPA of 2.5. Principles of optimal financial policy in the procurement and management of wealth by profit-seeking enterprises; the application of theory to financial decisions involving cash flow, capital structure and capital budgeting. *Formerly MGMT 212, SCMA 212.

FIRE 312. Financial Modeling. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisites: FIRE 311 with a minimum grade of C; and SCMA 301, STAT 210, STAT 212 or STAT 541. Enrollment is restricted to students with majors or concentrations offered by the Department of Finance, Insurance and Real Estate who have completed at least 54 credit hours (junior standing). This course is designed to introduce students to a wide array of primarily Excel techniques used in financial model building. Students will be introduced to techniques such as data tables, solver, matrix manipulation, array formulas, pivot tables, etc., to create financial models that are common in the areas of finance, risk management and real estate finance.

FIRE 313. Financial Management for Small Business. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 311. This course is restricted to students who have completed at least 54 credit hours (junior standing). This course emphasizes financial management needs for entrepreneurs or persons who expect to be employed in closely held corporations.

FIRE 315. Real Property Management. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). Real property economics, planning, construction, marketing and management of leased properties.

FIRE 316. International Financial Management. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 311. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). Financial management of business in an international environment. Emphasis on tools and techniques to prepare financial managers of multinational firms to effectively respond to the challenges of the international environment. Crosslisted as: INTL 416.

FIRE 317. Investments. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisites: FIRE 311; and SCMA 301, STAT 210, STAT 212, STAT 312 or STAT 541. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). An analysis of the market for long-term corporate securities. Emphasis is given to the valuation of bonds, common stocks, options and convertible securities, and portfolio concepts. Designed to provide an understanding of the functioning of an efficient market.

FIRE 319. Financial Mathematics. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: MATH 200 or BUSN 212, either with a minimum grade of C. The course provides an understanding of the fundamental concepts of financial mathematics, and how those concepts are applied in calculating present and accumulated values for various streams of cash flows as a basis for future use in reserving, valuation, pricing, asset/liability management, investment income, capital budgeting and valuing contingent cash flows.

FIRE 320. Actuarial Probability Concepts. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: MATH 200 or BUSN 212 with a minimum grade of C. Probability models, random variables, expectation, special distributions and the central limit theorem. The theory is illustrated by numerous examples from actuarial and financial fields. This class covers parts of CAS Exam 1 and SOA Exam P which are required for the designation of associate of the Society of Actuaries and Casualty Actuarial Society.

FIRE 321. Intermediate Financial Management. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 312 with a minimum grade of C. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). Advanced topics in financial management with emphasis on the theoretical bases for the valuation of the firm.

FIRE 325. Real Estate Law. 3 Hours.
Semester course; 3 lecture hours. 3 credits. This course is restricted to students who have completed at least 54 credit hours (junior standing). Legal fundamentals of real estate including contracts, risk management, environmental and ethical issues, concepts of title, title examination, easements, conveyances, liens and recording statutes affecting real estate.

FIRE 359. Issues in Risk Management and Insurance. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). The course focuses on timely issues in the field of risk management and insurance. Students will consider the role of government and the insurance industry as well as the use of other financial solutions in handling risks faced by businesses and individuals. The topics covered change to reflect current societal and industry issues and to explore new risk management innovations.

FIRE 391. Topics in Finance, Insurance and Real Estate. 1-3 Hours.
Semester course; 1-3 lecture hours (delivered online, face-to-face or hybrid). 1-3 credits. May be repeated for a maximum of six credits. Study of current topics. Topics may vary by semester. See the Schedule of Classes for specific topics offered.

FIRE 417. Security Analysis and Portfolio Management. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 317 with a minimum grade of C. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). A detailed analysis of stocks and bonds as well as options and futures. Emphasis is on models for portfolio selection, revision and performance evaluation.
FIRE 419. Advanced Risk and Insurance. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 311. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). It is a risk and insurance course with emphasis on more mathematical computations and analysis. Market, credit and operational risks are covered, along with legal and catastrophic risk assessments. Sustainability is important to this course. Topics covered include (but not limited to) forecasting of losses -- loss triangles and computations of reserves; risk mapping and the risk management matrix; cost/benefit and risk/award analyses; pricing; capital structure, risk-based capital and economic capital; financial statements using audit techniques (accounting); insurance regulation; life cycle financial risks; insurance solutions to property/casualty and life/health risks.

FIRE 425. Real Estate Appraisal. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 305 or FIRE 316. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). Theory and practice of real property valuation from fundamental concepts to complex income-producing properties and partial-interest valuations. Technology-related tools are employed in the course, including financial modeling with various software programs.

FIRE 429. Property and Liability Insurance. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 309. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). Regulated property and liability risks with emphasis on regulated and non-regulated markets and products. The course includes major commercial line coverages including fire, marine, automobile, general liability, worker’s compensation, fidelity and surety bonds and unusual new risks, including catastrophic risks covered by alternative, less-regulated insurance solutions. The course includes sustainability issues and the way to mitigate natural and man-made catastrophes and InsurTech.

FIRE 435. Real Estate Finance and Capital Markets. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 305. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). Instruments, techniques and institutions of real estate finance; the mortgage market; financing process; mortgage risk analysis; creative financing; emphasis on policies and procedures used in financing residential and commercial properties and their interaction with the capital markets. Technology-related tools are employed in the course, including financial modeling with various software programs.

FIRE 439. Life Cycle Risk Management. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 309. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). The function, nature and uses of life and health insurance and annuities; operational aspects of life and health insurance companies. Management of group life, health, disability and retirement plans. Governmental and employers’ solutions to life cycle risks -- sustainability through social insurance programs, group insurance and innovations. The course reflects the dynamic nature of this field and covers cost/benefits analysis, best solutions to risks and a complete portfolio project of plan design, cost considerations, funding, regulation and tax considerations. Full-time students who pass this course can receive credit for the CLU HS323 examination from the American College. See instructor for details.

FIRE 441. Funds Management in Financial Institutions. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 312 with a minimum grade of C. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). Funds management techniques for selected financial institutions including investment companies (mutual funds), life and casualty insurers, savings and loans, mutual savings banks, commercial banks, and pension funds.

FIRE 444. Occupational Safety, Health and Security. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Covers the principles and practices, and regulatory dimensions of occupational safety, health and security. Causes of workplace health hazard exposures, accidents and domestic and international industrial violence are studied with an emphasis on prevention. Characteristics of effective occupational safety, health and workplace security programs are studied to facilitate understanding and application in the workplace.

FIRE 445. Real Estate Investment Analysis. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisites: FIRE 425 and FIRE 435. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). This is the capstone course for real estate majors and covers the analytical methods and tools useful for analyzing commercial real estate investments, including a multidisciplinary approach to financial, spatial and social economics, which builds a cohesive framework for analyzing complex investment decisions emphasizing fundamentals of property and financial markets.

FIRE 449. Employee Benefit Planning. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Management of group life, health, disability and retirement plans. Governmental and employers’ solutions to life cycle risks -- sustainability through social insurance programs, group insurance and innovations. The course reflects the dynamic nature of this field and requires cost/benefits analysis, best solutions to risks and a complete portfolio project of plan design, cost considerations, funding, regulation and tax considerations.

FIRE 451. Options, Futures and Swaps. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 321 with a minimum grade of C or FIRE 317 with a minimum grade of C. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). Analysis and valuation of speculative securities and markets, including options, futures and swaps, with emphasis on their use for hedging and speculative purposes. Major valuation models and term structure models are discussed with applications to problems in finance considered.

FIRE 459. Insurance Law. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). The course covers the legal concepts and doctrines applicable to insurance. Fundamental legal aspects of all risks and aspects of sustainability. The course provides legislatives issues for all solutions to life cycles risks: life and health insurance, pensions, catastrophes (natural and man-made such as terrorism) and property and liability insurance.

FIRE 461. Cases in Financial Management. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 321 with a minimum grade of C. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). Cases involving financial decisions for various forms of business enterprises.
FIRE 469. Advanced Property/Casualty Insurance: Alternative Markets. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 309 or FIRE 419. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). Property and liability risk with emphasis on alternative, less-regulated insurance solutions to all types of risks. The course includes sustainability issues and the way to mitigate natural and man-made catastrophes including sophisticated modeling and techniques. The course covers Lloyds of London; excess and surplus lines carriers; risk retention group, self-insurance, captives and shadow insurance; reinsurance; multilayers of coverage; catastrophe bonds; terrorism; regulation; liability issues globally; social responsibility.

FIRE 479. Managing Financial Risk. 3 Hours.
Semester course; 3 lecture hours (delivered online, face-to-face or hybrid). 3 credits. Prerequisite: FIRE 309. Pre- or corequisite: FIRE 317. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). Sources of financial risk. Measurement and uses of enterprise-wide financial risk techniques. A variety of analytical tools will be used to learn about value at risk, credit risk, stress testing, financial risk management and actuarial models, and how to manage financial risk.

FIRE 491. Topics in Finance, Insurance and Real Estate. 1-3 Hours.
Semester course; 1-3 lecture hours (delivered online, face-to-face or hybrid). 1-3 credits. Maximum of three credits per course; maximum total of six credits for all topic courses. Enrollment is restricted to students who have completed at least 54 credit hours (junior standing). An in-depth study of a selected business topic, to be announced in advance.

FIRE 492. Independent Study in Finance, Insurance and Real Estate. 1-3 Hours.
Semester course; 1-3 independent study hours (delivered online, face-to-face or hybrid). 1-3 credits. May be repeated for a maximum total of three credits. Enrollment is restricted to students with junior or senior standing as a major in a business curriculum and requires approval of adviser and department chair prior to course registration. Intensive study under supervision of a faculty member in an area not covered in-depth or contained in the regular curriculum.

FIRE 493. Internship in Finance, Insurance and Real Estate. 3 Hours.
Semester course; 3 field experience hours (delivered online, face-to-face or hybrid). 3 credits. Enrollment is restricted to students with junior standing and a concentration in finance or risk management and insurance or a declared major in financial technology or real estate, a minimum GPA of 2.5, and permission of the department chair or the director of the insurance or real estate programs. Involves students in a meaningful experience in finance, insurance or real estate. Intention to enroll must be indicated to the chair or appropriate program director.

FIRE 496. Practicum in Portfolio Management. 3 Hours.
Semester course; 3 practicum hours. 3 credits. Enrollment is restricted to students with senior standing and two prior semesters of active participation in the VCU Student Managed Investment Portfolio. Registration for this course requires permission of the Department of Finance, Insurance and Real Estate chair or the director of the Capital Markets Center. This course is an experiential learning project in applied portfolio management. Students will perform fundamental security analysis, security selection and risk management for a real money portfolio funded by the VCU School of Business Foundation. They will also build a mock portfolio, create a detailed company valuation model and write a reflection paper.