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

The concentration in risk management and insurance prepares students for careers in the insurance industry on all levels including (but not limited to) 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 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.

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.

• The students will learn how to interpret data and apply the analysis and design they create to various situations.

• Students will be able to express the analytic, quantitative and ethical dimensions of risks and risk management of firms. Written and verbal communication are stressed in the RMI classes continually and match the analytical and syntheses capabilities. The students learn to create outlines and position the projects with articulation and clarity in mind. This is present throughout all the RMI classes. Students will be able to identify and analyze ethical dimensions of every element in the RMI education. The students will understand and articulate their fiduciary responsibility in each topic and each scenario.

• Students will develop a global perspective in their courses and especially in the final class (FIRE 479). The global RMI and enterprise risk management are stressed on all levels — the firms themselves, the products, the instruments, the coverages, the regulation and the challenges, especially in the era of systemic risk and financial stability on global levels for multinational firms.

• Students in the RMI/corporate concentration will develop in-depth knowledge and skills in the commercial aspects of corporate RMI while personal RMI is still covered. The learning outcomes will be emphasized in the area of enterprise RMI, property and casualty insurance, catastrophe coverage and models. Students will learn about life cycle RMI, life and health insurance and annuities, social insurance, pensions, and employee benefits.

Special requirements
The foundation program specifies course work required during the freshman and sophomore years. Students are eligible for admission into the advanced business program with a major in the School of Business upon meeting the minimum cumulative GPA requirement and successful completion of:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A minimum of 54 credits in the foundation program</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>ACCT 203</td>
<td>Introduction to Accounting I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; ACCT 204</td>
<td>Introduction to Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BUSN 201</td>
<td>Foundations of Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSN 225</td>
<td>Winning Presentations</td>
<td>3</td>
</tr>
<tr>
<td>ECON 210</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 211</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>INFO 160</td>
<td>Digital Literacy: Computer Concepts, Internet, Digital Devices</td>
<td>1</td>
</tr>
<tr>
<td>INFO 161</td>
<td>Digital Literacy: Word Processing Skills</td>
<td>1</td>
</tr>
<tr>
<td>INFO 162</td>
<td>Digital Literacy: Spreadsheets Skills I</td>
<td>1</td>
</tr>
<tr>
<td>INFO 165</td>
<td>Digital Literacy: Spreadsheet Skills II</td>
<td>1</td>
</tr>
<tr>
<td>SCMA 212</td>
<td>Differential Calculus and Optimization for Business</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 200</td>
<td>Calculus with Analytic Geometry</td>
<td></td>
</tr>
<tr>
<td>UNIV 111 Play course video for Focused Inquiry I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>UNIV 112 Play course video for Focused Inquiry II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>UNIV 200</td>
<td>Inquiry and the Craft of Argument (with a minimum grade of C)</td>
<td>3</td>
</tr>
</tbody>
</table>

The admission requirements for the School of Business (http://bulletin.vcu.edu/undergraduate/business/undergraduate-information/academic-policies) detail the deadlines for students to be admitted to the advanced business program with a major in the school. At least 30 hours of the required business courses for the Bachelor of Science must be taken at VCU.

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 SCMA 212 or MATH 200. These credits will count as electives in the foundation program. The sample curriculum outline includes SCMA 171 since many of our students will need to complete this course.

The INFO 160, INFO 161, INFO 162 and INFO 165 requirements may be waived upon successful completion of a Knowledge Equivalency Test administered by the Office of Undergraduate Studies. No more than two additional credits may be applied to the degree from the INFO 16x series.

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. Credit for STAT 210 or STAT 212 will substitute for SCMA 301. Students who earned a minimum grade of B in ECON 203 at VCU may substitute that credit for ECON 210.

Students must receive a minimum grade of C in FIRE 309, FIRE 449 and FIRE 479 and must have a minimum GPA of 2.0 in the remainder of the finance concentration requirements.

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

#### General Education requirements (34 credits minimum)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIV 111</td>
<td>Play course video for Focused Inquiry I</td>
<td>3</td>
</tr>
<tr>
<td>UNIV 112</td>
<td>Play course video for Focused Inquiry II</td>
<td>3</td>
</tr>
<tr>
<td>UNIV 200</td>
<td>Inquiry and the Craft of Argument</td>
<td>3</td>
</tr>
<tr>
<td>Approved humanities/fine arts</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Approved natural/physical sciences</td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td>Approved quantitative literacy:</td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td>SCMA 212</td>
<td>Differential Calculus and Optimization for Business</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 200</td>
<td>Calculus with Analytic Geometry</td>
<td>3-4</td>
</tr>
<tr>
<td>Approved social/behavioral sciences</td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>21-24</td>
</tr>
</tbody>
</table>

#### Additional Business Foundation requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 210</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 211</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>INFO 160</td>
<td>Digital Literacy: Computer Concepts, Internet, Digital Devices</td>
<td>1</td>
</tr>
<tr>
<td>INFO 161</td>
<td>Digital Literacy: Word Processing Skills</td>
<td>1</td>
</tr>
<tr>
<td>INFO 162</td>
<td>Digital Literacy: Spreadsheets Skills I</td>
<td>1</td>
</tr>
<tr>
<td>INFO 165</td>
<td>Digital Literacy: Spreadsheet Skills II</td>
<td>1</td>
</tr>
<tr>
<td>Business general education elective (Select credits from the approved list.)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

#### Advanced business program (60 credits minimum)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSN 325</td>
<td>Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>BUSN 499</td>
<td>Business Knowledge Exam</td>
<td>0</td>
</tr>
<tr>
<td>FIRE 311</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 303</td>
<td>Creativity and Ideation</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 310</td>
<td>Managing People in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 434</td>
<td>Strategic Management (capstone)</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 301</td>
<td>Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>SCMA 301</td>
<td>Business Statistics I</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 459</td>
<td>Insurance Law</td>
<td>3</td>
</tr>
<tr>
<td>INFO 360</td>
<td>Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 319</td>
<td>Leadership</td>
<td>3</td>
</tr>
<tr>
<td>or BUSN 329</td>
<td>Introduction to Intercultural Communication</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>60</td>
</tr>
</tbody>
</table>

#### Total minimum requirement 120 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 203</td>
<td>Introduction to Accounting I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; ACCT 204</td>
<td>and Introduction to Accounting II</td>
<td></td>
</tr>
<tr>
<td>BUSN 201</td>
<td>Foundations of Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSN 225</td>
<td>Winning Presentations</td>
<td>3</td>
</tr>
<tr>
<td>SCMA 302</td>
<td>Business Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>Open electives</td>
<td></td>
<td>8-11</td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>23-26</td>
</tr>
</tbody>
</table>
Any honors-designated course taught outside of the School of Business

Any of the following UNIV courses:

- UNIV 211 Food for Thought
- UNIV 213 Play course video for The Truth About Lying
- UNIV 217 Finding Your Voice in Contemporary Society
- UNIV 222 Pseudoscience
- UNIV 299 What’s the Big Idea?

Approved risk management and insurance/corporate electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSN 400 &amp; BUSN 401</td>
<td>Principles of Consulting and International Consulting Practicum (must get credit for both courses to count toward degree completion)</td>
<td>6</td>
</tr>
<tr>
<td>ECON 307</td>
<td>Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>ECON 402</td>
<td>Business Cycles and Forecasting</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 305</td>
<td>Principles of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 329</td>
<td>E-business Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 359</td>
<td>Issues in Risk Management and Insurance</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 451</td>
<td>Options, Futures and Swaps</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 491</td>
<td>Topics in Finance, Insurance and Real Estate</td>
<td>1-3</td>
</tr>
<tr>
<td>FIRE 493</td>
<td>Internship in Finance, Insurance and Real Estate (requires departmental approval)</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 331</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT/FIRE 444</td>
<td>Occupational Safety, Health and Security</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 315</td>
<td>Buyer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 335</td>
<td>Introduction to Personal Selling</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 442</td>
<td>Services Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

Approved University Core Education Curriculum course

| Term Hours: | 15 |

Sophomore year

Fall semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 203</td>
<td>Introduction to Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BUSN 201</td>
<td>Foundations of Business</td>
<td>3</td>
</tr>
<tr>
<td>ECON 210</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>UNIV 200</td>
<td>Inquiry and the Craft of Argument</td>
<td>3</td>
</tr>
<tr>
<td>Business general education elective</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Term Hours: | 15 |

Spring semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 204</td>
<td>Introduction to Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ECON 211</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 301</td>
<td>Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>SCMA 301</td>
<td>Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>Open elective</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Term Hours: | 15 |

Junior year

Fall semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSN 325</td>
<td>Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 311</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 459</td>
<td>Insurance Law</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 310</td>
<td>Managing People in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>SCMA 302</td>
<td>Business Statistics II</td>
<td>3</td>
</tr>
</tbody>
</table>

Term Hours: | 15 |

Spring semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 309</td>
<td>Risk and Insurance</td>
<td>3</td>
</tr>
<tr>
<td>or FIRE 419</td>
<td>Advanced Risk and Insurance</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 439</td>
<td>Life and Health Insurance</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 303</td>
<td>Creativity and Ideation</td>
<td>3</td>
</tr>
</tbody>
</table>

Term Hours: | 15 |

Senior year

Fall semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 429</td>
<td>Property and Liability Insurance</td>
<td>3</td>
</tr>
<tr>
<td>FIRE 479</td>
<td>Managing Financial Risk</td>
<td>3</td>
</tr>
<tr>
<td>INFO 360</td>
<td>Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 319</td>
<td>Leadership</td>
<td>3</td>
</tr>
<tr>
<td>or BUSN 329</td>
<td>Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Approved RMI/corporate elective

| Hours: | 3 |

Term Hours: | 15 |
Spring semester

BUSN 499  Business Knowledge Exam  0
FIRE 449  Employee Benefit Planning  3
FIRE 307 or System Safety  3
or Occupational Safety, Health and Security
FIRE 444
FIRE 469  Advanced Property/Casualty Insurance: Alternative Markets  3
MGMT 434  Strategic Management  3
Open elective  3

Semester course; 3 lecture hours. 3 credits. Nature of risk; insurance and other risk-handling methods; examination of basic life, health, property and liability principles and coverages.

FIRE 444

FIRE 312. Financial Modeling. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 311 with a minimum grade of C. 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.

Total minimum requirement 120 credits

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. 3 credits. Designed to assist households and those providing financial services and advice to households in making complex 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. 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 306. Regulatory Aspects of Safety and Risk Control. 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). Examines political, scientific and social concepts of risk that influence the regulation of certain societal hazards and threats. Includes a survey of federal and state laws, regulations and standards that impact upon employment, the environment, industrial security, consumer protection and occupational safety and health.

FIRE 307. System Safety. 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). Addresses the concepts and practices of system safety; included are basic system concepts, application of system safety techniques, qualitative and quantitative applications such as fault-free, failure-mode-and-effects, MORT and cost-benefit analyses.

FIRE 308. Incident Investigation and Analysis. 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). Reviews various conceptual and analytical models used in accident/incident investigation strategies and reporting systems, report formats, data collection methods, causal inferences, problem identification and data analysis; in-depth case studies and epidemiological reviews of recent events will be emphasized.

FIRE 309. Risk and Insurance. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Nature of risk; insurance and other risk-handling methods; examination of basic life, health, property and liability principles and coverages.

FIRE 311. Financial Management. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: MGMT 212, MATH 200 or SCMA 212; and ACCT 203 or ACCT 202 (for non-business majors). This course 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.

FIRE 312. Financial Modeling. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 311 with a minimum grade of C. 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. 3 credits. This course 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. 3 credits. Prerequisite: FIRE 311. This course 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. 3 credits. Prerequisites: FIRE 311; and SCMA 301, STAT 210, STAT 312 or STAT 541. This course 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 321. Intermediate Financial Management. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 312 with a minimum grade of C. Pre- or corequisite: SCMA 302, MATH/STAT 309, STAT 314 or STAT 321. This course 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 329. E-business Risk Management. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: INFO 202. This course is restricted to students who have completed at least 54 credit hours (junior standing). An analysis of the risks associated with e-business and the practice of e-commerce.

FIRE 359. Issues in Risk Management and Insurance. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: 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 413. Comparative Financial Systems. 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). An analysis of the structure and functioning of financial systems in different parts of the world. Emphasis is on the evolution of such systems in relation to the U.S. financial system. Different regions of the world may be studied in different semesters. Crosslisted as: INTL 413.

FIRE 417. Security Analysis and Portfolio Management. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: FIRE 317 with a minimum grade of C; and SCMA 302, MATH 309/STAT 309, STAT 314 or STAT 321. This course 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. 3 credits. Prerequisite: FIRE 311. This course 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 421. Property and Liability Insurance. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 309. This course is restricted to students who have completed at least 54 credit hours (junior standing). Property and liability risk identification and measurement. Major commercial line coverages including fire, marine, automobile, general liability, worker’s compensation, fidelity and surety bonds.

FIRE 425. Real Estate Appraisal. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 305 or FIRE 316. This course 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. 3 credits. Prerequisite: FIRE 309 or FIRE 333. This course is restricted to students who have completed at least 54 credit hours (junior standing). Property and liability risk identification and measurement. Major commercial line coverages including fire, marine, automobile, general liability, worker’s compensation, fidelity and surety bonds.

FIRE 435. Real Estate Finance and Capital Markets. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 305. This course 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 and Health Insurance. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: junior standing. The function, nature and uses of life and health insurance and annuities; operational aspects of life insurance companies. The course covers insurance solutions for life cycle risks: death; health and longevity -- sustainability; legal and tax aspects. 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. 3 credits. Prerequisite: FIRE 312 with a minimum grade of C. This course 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. Crosslisted as: MGMT 444.

FIRE 445. Real Estate Investment Analysis. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: FIRE 425 and FIRE 435. This course 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. 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. 3 credits. Prerequisite: FIRE 321 with a minimum grade of C or FIRE 317 with a minimum grade of C. This course 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. 3 credits. Prerequisite: 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 legislative 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. 3 credits. Prerequisite: FIRE 321 with a minimum grade of C. This course 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. 3 credits. Prerequisite: FIRE 309 or FIRE 419. This course 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. 3 credits. Prerequisites: FIRE 309 and FIRE 317. This course 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; variable hours. Variable credit. Maximum of 3 credits per course; maximum total of 6 credits for all topic courses. Prerequisite: 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 credits. Maximum total of 3 credits. Prerequisites: junior or senior standing as a major in a business curriculum and 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 credits. Course 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 of Finance, Insurance and Real Estate 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 520. Financial Concepts of Management. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Pre- or corequisites: MGMT 524, STAT/BIOS 543, STAT 541, or MGMT 301 and MGMT 302. Not open to students who have completed FIRE 311 or the equivalent. A study of the essential concepts of financial management in a global environment, including working capital management, capital budgeting, capital structure planning and dividend policy. This is a foundation course.

FIRE 533. Insurance Education Institute for High School Teachers. 3 Hours.
3 credits. This is a summer course designed for high school teachers in such fields as business, marketing, economics, mathematics, social sciences, history, life skills, home economics, or other disciplines in which the subject of risk and insurance can be incorporated into the curriculum. Teachers will learn about risk management, life, health, auto, homeowners insurance and financial planning. They will receive instructional materials and guidance to develop lesson plans for their use in teaching the subject to their students.

FIRE 620. Introduction to Financial Management. 3 Hours.
Semester course; 3 lecture hours. 3 credits. A study of essential concepts of financial management in a global environment, including time value, capital budgeting and valuation, cost of capital structure, divided policy, and working capital management, at a level appropriate to the Master of Management program.

FIRE 621. Cases in Financial Management. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 623. Analysis, in a global environment, of financial problems and policies of nonfinancial firms, including capital management, capital rationing and cost of capital, and capital structure.

FIRE 622. Financial Management of Financial Institutions. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 520. Understanding the application of concepts relevant to the financial management of financial institutions in a global environment.

FIRE 623. Financial Management. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 520. Analyzes the theory and practice of corporate finance. Detailed investigation of the investment and financing decision of the firm in an environment of uncertainty.
FIRE 625. Group Insurance and Pension Planning. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: FIRE 520 and MGMT 530. Analysis of major elements of employee benefit plans including: life, health and disability benefits, pension, and profit-sharing plans. Design principles, financing, legal and tax considerations are examined. Major issues and new developments. Courses directly related to risk, insurance and employee benefits are approved for Virginia Insurance Continuing Education. Forty-two credits for insurance agents. Contact the director of insurance studies for further information.

FIRE 626. Risk Management. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 623 or FIRE 635. Property and liability risks faced by businesses and public institutions are studied. Insurance and alternative methods of controlling and financing these risks are analyzed and compared. Courses directly related to risk, insurance and employee benefits are approved for Virginia Insurance Continuing Education. Forty-two credits for insurance agents. Contact the director of insurance studies for further information.

FIRE 627. Real Estate Development. 3 Hours.
Semester course; 3 lecture hours. 3 credits. A study of the development process; including market analysis, site selection, pre-acquisition strategic planning, and project management.

FIRE 628. Using GIS in Real Estate Decisions. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Acquaints students with Geographic Information Systems technology as a means of selecting and comparatively analyzing prospective sites. Students will use GIS software in making location decisions.

FIRE 629. Real Estate Investment Analysis. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Housing demand forecasting, commercial site selection, and real estate investment analysis.

FIRE 635. Investments and Security Analysis. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisites: FIRE 520; and MGMT 524, STAT/BIOS 543, STAT 541, or MGMT 301 and MGMT 302. The process of investing in stocks and bonds in a global environment, from the analysis of individual securities to portfolio formation and evaluation, using experiential analytic exercises.

FIRE 638. Real Property Investment Law. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: MGMT 323 or MGMT 530. Covers legal aspects of real property development from acquisition through disposition; emphasizes selection of appropriate ownership form, financing, operation, and tax considerations.

FIRE 639. International Finance. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 520. A study of financial management of multinational enterprises, banks, firms with foreign subsidiaries, exporters, and service industries. Additionally, financing trade and investments, international money and capital markets, foreign exchange risks, and governmental policies will be covered.

FIRE 650. Derivatives. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 520. Analysis of derivatives contracts: forwards, futures, swaps and options. Study of valuation, pricing and use of derivatives to manage risk in a global environment.

FIRE 654. Short-term Financial Management. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 520. Techniques of short-term financial management (or working capital management) in a global environment for business firms, including understanding payment systems to achieve efficient cash management of accounts receivable, management of inventory, management of accounts payable, and short-term borrowing from banks and other suppliers of short-term credit.

FIRE 657. Current Issues in Investments and Markets. 3 Hours.
3 lecture hours. 3 credits. Prerequisite: FIRE 635. Advanced study of selected topics in global investments and securities markets using experiential exercises. Topics selected by the instructor. Readings from recent journals, cases, and/or software may be used. Possible topics may include: fixed income mathematics; portfolio management; advanced investments theory; factors explaining security price movements; advanced security analysis; using information to make investment decisions; and security market microstructure.

FIRE 658. Real Estate Finance and Investments. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 431. Emphasizes economic and financial analysis of commercial real estate investments, alternative financing structures and surveys recent trends in the securitization of commercial real estate debt and equity markets.

FIRE 664. Current Issues in Corporate Finance. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: FIRE 623. Advanced study of selected topics in corporate finance and financial management in global entrepreneurial settings. Topics selected by the instructor. Readings from recent journals, cases and/or software may be used. Possible topics include: theory and evidence concerning major corporate financial policy decisions, bankruptcy costs and agency costs that relate to capital structure and dividend policy, issues in corporate control, alternative methods of issuing and retiring securities mergers and acquisitions, advanced valuation theory, advanced financial analysis, advanced capital budgeting, using information to make financial decisions.

FIRE 690. Research Seminar in Finance, Insurance and Real Estate. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: Approval of proposed work is required by graduate studies office in the School of Business. This course is designed to provide research experience for candidates not following the FIRE 798-799 program.

FIRE 691. Topics in Finance, Insurance and Real Estate. 1-3 Hours.
Semester course; 1-3 lecture hours. 1, 2 or 3 credits. Prerequisites vary by topic. Study of current topics. Topics may vary from semester to semester.

FIRE 693. Field Project in Finance, Insurance and Real Estate. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: Approval of proposed work is required by graduate studies office in the School of Business. Students will work under the supervision of a faculty adviser in planning and carrying out a practical research project using experiential exercises. A written report of the investigations is required. To be taken at the end of the program.
FIRE 697. Guided Study in Finance, Insurance and Real Estate. 1-3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: Approval of proposed work is required by graduate studies office in the School of Business. Graduate students wishing to do research on problems in business administration or business education in an international environment will submit a detailed outline of their problem. They will be assigned reading and will prepare a written report on the problem. To be taken at the end of the program.