## DECISION ANALYTICS, MASTER OF (M.D.A.) WITH A CONCENTRATION IN HEALTH CARE MANAGEMENT

### Program accreditation
Association to Advance Collegiate Schools of Business (http://www.aacsb.edu)

### Program goal
The Master of Decision Analytics provides students with knowledge of the statistical, mathematical and scientific skills and experience necessary to utilize advanced methods of data analysis for business decision-making.

### Student learning outcomes
1. After examining a situation/problem, students will be able to develop appropriate hypotheses along with a method for testing them and be able to draw logical conclusions and make reasonable decisions based on available information.
2. Students will be able to apply quantitative procedures to obtain solutions for real-world problems.
3. Students will be able to appropriately address the target audience, use proper organization, create clear graphical displays and express ideas with clarity and grammatical correctness.
4. Students will be able to show a clear understanding of the ethical nature of the issue and recommend appropriate action.

### VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

Visit the Graduate study section for additional information on academic regulations for graduate students.

### Degree candidacy requirements
A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master’s or doctoral status according to the degree candidacy requirements of the student’s graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student’s faculty regarding the student’s academic achievements and the student’s readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Visit the Graduate study section for additional information on degree candidacy requirements.

### Graduation requirements
As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Visit the Graduate study section for additional information on graduation requirements.

### Other information
School of Business policies and procedures for graduate master’s degree students are available on the school’s website at business.vcu.edu/graduate-studies/current-graduate-students. Published on the school’s website is a complete list of instructions and a graduation checklist.

Apply online at graduate.admissions.vcu.edu (http://www.graduate.admissions.vcu.edu).

### Admission requirements

<table>
<thead>
<tr>
<th>Degree:</th>
<th>Semester(s) of entry:</th>
<th>Deadline dates:</th>
<th>Test requirements:</th>
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<tbody>
<tr>
<td>M.D.A.</td>
<td>Fall</td>
<td>Jul 1</td>
<td>GMAT or GRE</td>
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<td></td>
<td>Spring</td>
<td>Nov 1</td>
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<td>Summer</td>
<td>Mar 1</td>
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In addition to the general admission requirements of the VCU Graduate School (http://bulletin.vcu.edu/graduate/study/admission-graduate-study/admission-requirements), applicants to the master’s program in business must submit an up-to-date resume.

### Degree requirements

The decision analytics degree provides students with knowledge of quantitative skills and experience in analyzing problems and using data for decision-making in a business environment. Depending upon individual student interests and adviser approval, the required nucleus is supplemented with relevant elective courses from within the School of Business or from outside departments.

In addition to the VCU Graduate School graduation requirements (http://bulletin.vcu.edu/graduate/study/general-academic-regulations-graduate-students/graduation-requirements):

1. All students must have completed a course in calculus prior to attempting graduate business courses. This prerequisite can be met after admission to the program.
2. Students must complete up to four classes (zero to 12 credit hours) of foundation course work. At the time of application, all
undergraduate and graduate transcripts will be reviewed to determine if the following courses may be waived. Waiver of a foundation course may be awarded when a student demonstrates equivalent knowledge, such as completing the required undergraduate equivalent course with minimum grade of C.

The concentration in health care administration requires an additional nine credit hours beyond the minimum 30-credit hours required for the degree.

**Curriculum requirements**

**Prerequisite**

**Calculus**
- SCMA 212 Differential Calculus and Optimization for Business 3
- or SCMA 500 Quantitative Foundation for Decision-making

**Foundation courses**
- SCMA 524 Statistical Fundamentals for Business Management 3

Select three of the following: 9
- ACCT 507 Fundamentals of Accounting
- ECON 500 Concepts in Economics
- FIRE 520 Financial Concepts of Management
- MGMT 540 Management Theory and Practice
- MKTG 570 Concepts and Issues in Marketing
- SCMA 530 Fundamentals of the Legal Environment of Business

**Required core courses**
- INFO 614 Data Mining 3
- INFO 664 Information Systems for Business Intelligence 3
- SCMA 632 Statistical Analysis and Modeling 3
- SCMA 645 Management Science 3
- SCMA 648 Analytics for Organizational Decision-making 3

**Approved electives**
Select 15 credits from: 15
- ACCT 608 Managerial Accounting Concepts
- ECON 501 Introduction to Econometrics
- ECON 610 Managerial Economics
- ECON 612 Econometrics
- FIRE 629 Real Estate Investment Analysis
- FIRE 635 Investments and Security Analysis
- INFO 610 Analysis and Design of Database Systems
- INFO 611 Data Re-engineering
- INFO 616 Data Warehousing
- MGMT 642 Business Policy and Strategy
- MGMT 697 Guided Study in Management
- MKTG 673 Marketing Research
- OPER 528 Stochastic Simulation
- OPER/STAT 636 Machine Learning Algorithms
- OPER 643 Decision and Risk Analysis
- SCMA 643 Applied Multivariate Methods

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SCMA 669</td>
<td>Developing and Implementing Forecasting Methods for Business</td>
<td></td>
</tr>
<tr>
<td>SCMA 675</td>
<td>Operations Management</td>
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</tbody>
</table>

**Health care management concentration required courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FMBA 614</td>
<td>Health Care Management I: National Perspective</td>
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</tr>
<tr>
<td>FMBA 615</td>
<td>Health Care Management II: Employer’s Perspective</td>
<td>3</td>
</tr>
<tr>
<td>FMBA 616</td>
<td>Health Care Management III: Industry Perspective</td>
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**Total Hours**

54

Total graduate credit hours required (minimum) 54 (39 if prerequisite and all foundation courses are waived)

**Graduate program director**
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**Program website**
business.vcu.edu/graduate/dsba.html (http://business.vcu.edu/graduate/dsba.html)