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

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

Program goal
The M.D.A. program provides in-depth knowledge of one business discipline and allows students to develop and build technical skills in their specific areas of interest. It is frequently recommended for students with undergraduate business degrees.

Student learning goals
Students will be able to examine a situation/problem to determine a relevant data-driven analysis to provide valuable information for decision-makers and apply advanced analytical and quantitative skills to the decision problems of businesses, organizations and society. Students will be able to communicate analysis information and recommend decisions in a clear, ethical and transparent manner.

Student learning outcomes
1. Database structures and query: Students will have an understanding of basic database structures, be able to query databases and organize data for analysis.
2. Quantitative skills: Students will be able to identify appropriate data analysis approaches to address real-world problems. They will be able to perform the analysis using commercial software.
3. Problem formulation: Students will have the knowledge, skills and practice to take nonquantitative and perhaps ill-formed problems and issues and determine ways objective analysis can bring organization and insight to them. They will be able to determine data requirements and query available databases.
4. Analytical applications: Students will experience various applications of analytics in real situations.
5. Technical communications and teamwork: Students will be able to communicate analytical analysis and results effectively to nonquantitative audiences and will develop skills in organizing, interacting and analyzing real problems as members of a team.

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 academic regulations 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.

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 degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Visit the academic regulations section for additional information on degree candidacy requirements.

Other information
School of Business policies and procedures for graduate master’s degree students (http://business.vcu.edu/graduate-studies/current-graduate-students) are available on the school’s website.

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>Apr 15</td>
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</table>

In addition to the general admission requirements of the VCU Graduate School (http://bulletin.vcu.edu/graduate/study/admission-graduate-study/admission-requirements), applicants should have three years of work experience in an application area. Students without the required work experience may take six credit hours of graduate-level courses in an application area prior to acceptance into the program. Applicants are expected to have successfully completed an undergraduate or graduate course in statistics, and it is preferable that they have programming
experience. Exceptions may be made at the discretion of the program
director.

Degree requirements

The Master of Decision Analytics provides students with a breadth
of analytical and quantitative skills with experience in analyzing and
communicating solutions to problems arising in an organization.

Leading organizations gain competitive advantage through the use
of analysis of relevant data to guide and drive strategic and tactical
decisions. Increased volumes of data and emphasis on data-driven
decision-making create new challenges for decision-makers and provide
new employment opportunities for people with deep analytical skills.
There is a significant and growing demand for individuals with the ability
to work collaboratively within an organization to mine relevant raw data
and refine data into a recommended action of value to the enterprise. The
decision analytics degree equips students with the essential skills to be
analytically functional in an organization.

Skills, abilities and knowledge necessary for success in analytics:

1. Work in a collaborative environment
2. Translate specific business questions into problems that can be
insighted through data analysis
3. Acquire and organize appropriate data so it can be used for analysis
4. Know general principles and common tools and be able to apply them
to analyze specific business problems
5. Develop and effectively communicate an actionable solution for
specific business questions

The decision analytics degree focuses on the applications of digital and
information technology, decision sciences and statistics to decision-
making and problem-solving in organizations. The program will give
students the theory, knowledge and skills to:

1. Formulate frequently nonquantitative and ill-formed business issues
so they can be insighted through data analytics
2. Retrieve, cleanse and organize data from mega databases (big data)
3. Perform appropriate statistical analysis and interpret the results
4. Explain analytical results to nonquantitative management

The professional track is presented in a concentrated weekend schedule,
making the program attractive to midcareer professionals who want to
gain or increase their analytics skills without interrupting their careers.

In addition to the VCU Graduate School graduation requirements (http://
bulletin.vcu.edu/academic-regs/grad/graduation-info) and credit hour
requirements, 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. Waivers of foundation courses
only occur when a student has completed the required undergraduate
equivalent courses with a minimum grade of C.

The concentration in health care management will require an additional
nine credit hours beyond the minimum 33-credit hours required for the
degree.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>DAPT 611</td>
<td>Analysis and Design of Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>DAPT 612</td>
<td>Text Mining and Unstructured Data</td>
<td>2</td>
</tr>
<tr>
<td>DAPT 613</td>
<td>Tools for Business Intelligence</td>
<td>1</td>
</tr>
<tr>
<td>DAPT 614</td>
<td>Advanced SQL</td>
<td>1</td>
</tr>
<tr>
<td>DAPT 615</td>
<td>Emerging Technologies</td>
<td>1</td>
</tr>
<tr>
<td>DAPT 621</td>
<td>Statistics for the World of Big Data</td>
<td>3</td>
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<tr>
<td>DAPT 622</td>
<td>Statistics for the World of Big Data II</td>
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<tr>
<td>DAPT 631</td>
<td>Data Mining</td>
<td>2</td>
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<tr>
<td>DAPT 632</td>
<td>Forecasting Methods and Applications for Managerial Decision-making</td>
<td>2</td>
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<tr>
<td>DAPT 633</td>
<td>Introduction to Marketing and Customer Analytics</td>
<td>2</td>
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<tr>
<td>DAPT 641</td>
<td>Introduction to Simulation Methods</td>
<td>1</td>
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<tr>
<td>DAPT 642</td>
<td>Introduction to Risk Analysis</td>
<td>1</td>
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<tr>
<td>DAPT 643</td>
<td>Introduction to Optimization Models</td>
<td>1</td>
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<tr>
<td>DAPT 651</td>
<td>Personal, Interpersonal and Organizational Awareness</td>
<td>1</td>
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<tr>
<td>DAPT 652</td>
<td>Professional Presentations: Strategy, Delivery and Technology</td>
<td>1</td>
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<tr>
<td>DAPT 653</td>
<td>Written Communications: Strategy, Structure and Connection</td>
<td>1</td>
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<tr>
<td>DAPT 661</td>
<td>Issues and Analytics (one-credit course repeated for three credits total)</td>
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<tr>
<td>DAPT 670</td>
<td>Analytics Problem Formation</td>
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<tr>
<td>DAPT 681</td>
<td>Analytics Practicum I</td>
<td>1</td>
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<tr>
<td>DAPT 682</td>
<td>Analytics Practicum II</td>
<td>2</td>
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Required concentration courses

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>FMBA 614</td>
<td>Health Care Management I: National Perspective</td>
<td>3</td>
</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>
<td>3</td>
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Total Hours 42

The minimum total of graduate credit hours required for this degree is 42.

There are no electives, substitutions or exemptions.

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Phone: (804) 828-4622

Program website: business.vcu.edu/graduate/analytics.html (http://
business.vcu.edu/graduate/analytics.html)