DECISION ANALYTICS, MASTER OF (M.D.A.) – 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 recommended 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. **Analytics 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.

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.

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 academic regulations section for additional information on graduation requirements.

Other information

School of Business **policies and procedures for graduate students** are available on the school's website.

Apply online today. (https://www.vcu.edu/admissions/apply/graduate/)

Admission requirements

Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.D.A.	Fall	Apr 15	

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.

Curriculum requirements

Course	Title	Hours
Courses		
DAPT 611	Analysis and Design of Database Systems	2
DAPT 612	Text Mining and Unstructured Data	2
DAPT 613	Tools for Business Intelligence	1
DAPT 614	Advanced SQL	1
DAPT 615	Emerging Technologies	1
DAPT 621	Statistics for the World of Big Data	3
DAPT 622	Statistics for the World of Big Data II	3
DAPT 631	Data Mining	2
DAPT 632	Forecasting Methods and Applications for Managerial Decision-making	2
DAPT 633	Introduction to Marketing and Web Analytics	2
DAPT 641	Introduction to Simulation Methods	1
DAPT 642	Decision and Risk Analysis	1
DAPT 643	Introduction to Optimization Models	1
DAPT 651	Personal, Interpersonal and Organizational Awareness	1
DAPT 652	Professional Presentations: Strategy, Delivery and Technology	1
DAPT 653	Leadership Communication in Analytics	1
DAPT 661	Issues and Analytics (one-credit course repeated for two credits total)	2
DAPT 670	Analytics Problem Formation	1
DAPT 681	Analytics Practicum I (one-credit course repeated for two credits total)	2
DAPT 682	Analytics Practicum II	2
DAPT 691	Topics in Decision Analytics	1
Total Hours		33

The minimum total of graduate credit hours required for this degree is 33.

There are no electives, substitutions or exemptions.

Contact
Brittany Gracik
gracikbm@vcu.edu
(804) 827-7427

Additional contact
Graduate Studies in Business
gsib@vcu.edu
(804) 828-4622

Program website: business.vcu.edu/academics/supply-chain-management-and-analytics/master-of-decision-analytics-mda--professional-track (https://business.vcu.edu/academics/supply-chain-management-and-analytics/master-of-decision-analytics-mda--professional-track/)