

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 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.

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 master's degree students** are available on the school's website.

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

Admission requirements

Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.D.A.	Fall	Jul 1	GMAT or GRE
	Spring	Nov 1	
	Summer	Mar 1	

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/academic-regs/grad/graduation-info/>):

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

Course	Title	Hours
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	Advanced Decision Analytics	3
SCMA 648	Business Data Analytics	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	
SCMA 669	Developing and Implementing Forecasting Methods for Business	
SCMA 675	Operations Management	
Health care management concentration required courses		
FMBA 614	Health Care Management I: National Perspective	3
FMBA 615	Health Care Management II: Employer's Perspective	3
FMBA 616	Health Care Management III: Industry Perspective	3
Total Hours		54

The minimum total of graduate credit hours required for this degree is 54 (39 if prerequisite and all foundation courses are waived).

Graduate program director

Austen Gouldman
 Director, graduate programs
 Email: gouldmana@vcu.edu
 Phone: (804) 828-4622

Additional contact

Graduate Studies in Business
 Email: gsib@vcu.edu
 Phone: (804) 828-4622

Program website: business.vcu.edu/graduate/dsba.html (<http://business.vcu.edu/graduate/dsba.html>)