

# DECISION ANALYTICS, MASTER OF (M.D.A.)

## 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. Analytic skills: Students will demonstrate the ability to develop appropriate hypotheses, test those hypotheses, draw logical conclusions and make reasonable decisions based on available information.
2. Quantitative skills: Students will demonstrate the ability to apply quantitative procedures and apply data-driven decision approaches to solving problems in contemporary organizations using business-oriented computational software.
3. Communication skills: Students will demonstrate the ability to communicate complex business problems by any appropriate method, including graphical displays of data to express ideas with clarity.
4. Students will demonstrate the ability to discern an ethical dilemma in a business context and determine the appropriate course of action to communicate data and analyses ethically.

## 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 at [business.vcu.edu/graduate-studies/current-graduate-students](http://business.vcu.edu/graduate-studies/current-graduate-students) (<http://business.vcu.edu/graduate-studies/current-graduate-students>).

Apply online at [graduate.admissions.vcu.edu](http://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 must submit an up-to-date resume.

\*Test requirements may be waived for candidates with an undergraduate or graduate degree from an accredited U.S. institution with a minimum GPA of 3.25. Waiver request information can be found on the Graduate Studies in Business webpage (<https://business.vcu.edu/graduate-studies/how-to-apply>).

## 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 and database systems. Students must also be proficient at an intermediate level with a spreadsheet. These prerequisites can be met after admission to the program.
2. At the time of application, all undergraduate and graduate transcripts will be reviewed to determine if the following prerequisite courses and/or foundation course may be waived. A waiver may be awarded when a student demonstrates equivalent knowledge, such as completing the required undergraduate equivalent course to the satisfaction of the admission committee.

## Prerequisites

INFO 364	Database Systems	3
SCMA 212	Differential Calculus and Optimization for Business	3
or MATH 200	Calculus with Analytic Geometry	

## Curriculum requirements

### Foundation course

SCMA 524	Statistical Fundamentals for Business Management	3
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### Required core courses

INFO 610	Analysis and Design of Database Systems	3
SCMA 632	Statistical Analysis and Modeling	3
SCMA 645	Management Science	3
SCMA 648	Analytics for Organizational Decision-making	3
SCMA 669	Developing and Implementing Forecasting Methods for Business	3

### Approved electives

Select 15 credits from:		15
ACCT 608	Managerial Accounting Concepts	
ECON 501	Introduction to Econometrics	
ECON 612	Econometrics	
ECON 614	Mathematical Economics	
FIRE 629	Real Estate Investment Analysis	
FIRE 635	Investments and Security Analysis	
INFO 609	Data-centric Re-engineering Analysis/Planning	
INFO 611	Data Re-engineering	
INFO 614	Data Mining	
INFO 616	Data Warehousing	
INFO 632	Business Process Engineering	
INFO 664	Information Systems for Business Intelligence	
MGMT 642	Business Policy and Strategy	
MKTG 673	Marketing Research	
MKTG 678	Marketing Analytics	
OPER 528	Stochastic Simulation	
OPER/STAT 636	Machine Learning Algorithms	
OPER 643	Decision and Risk Analysis	
OPER 647	Multiobjective Decision Analysis	
SCMA 602	Global Supply Chain Management	

SCMA 603	SAP ERP and Supply Chain Management	
SCMA 606	Supply Chain Innovation	
SCMA 643	Applied Multivariate Methods	
SCMA 675	Operations Management	
SCMA 677	Quality Management and Six Sigma	
SCMA 697	Guided Study in Supply Chain Management	
Total Hours		33

## Total graduate credit hours required (minimum) 33 (30 if foundation course is waived)

### Graduate program director

Austen Gouldman  
 Director, graduate programs  
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### Additional contact

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