DECISION ANALYTICS, CERTIFICATE IN (GRADUATE CERTIFICATE)

The graduate Certificate in Decision Analytics will introduce students to the fundamental methods for machine learning and prescriptive analytics applied to business problems.

Student learning outcomes

Upon completing the program, students will be able to:

- Create machine learning models to make predictions
- Create a quantitative framework for reconciling input from a variety of experts
- Build statistical models for system understanding
- Generate forecasts using time series methods

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 (http://www.graduate.vcu.edu/) 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. (http://bulletin.vcu.edu/academic-regs/)

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. (http://bulletin.vcu.edu/academic-regs/grad/graduation-info/)

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

Admission requirements

Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Certificate	Fall	Jul 1	
	Spring	Nov 1	
	Summer^	Mar 1	

^All curriculum requirements may not be offered in the summer semester. A summer semester of entry may only be feasible for students that wish to complete prerequisite requirements.

All applicants to the graduate certificate program are required to meet the admission requirements of the VCU Graduate School (http://bulletin.vcu.edu/graduate/study/admission-graduate-study/admission-requirements/). Applicants will be required to submit the following materials to the Graduate Admissions office:

- Application form and application fee
- Three letters of recommendation, professional and/or academic
- Official undergraduate transcripts from all schools attended
- A statement of purpose outlining career goals
- A resume stating relevant work experience

No transfer credit hours are accepted for the program. Credits from a degree already awarded cannot be applied toward the certificate.

For international students, the following is required:

- An official transcript evaluation from a recognized foreign educational credentials evaluation service accredited by the National Association of Credential Evaluation Services or the American Association of Collegiate Registrars and Admissions Officers
- A Test of English as a Foreign Language minimum composite score of 100 for the Internet-Based Test or 600 for the paper-based score; or an International English language Testing System minimum score of 6.5 on the academic exam.
- A minimum score of 68 on the VCU English Language Program Compression test (Students who do not achieve a score of 68 will be placed in the appropriate level English language proficiency courses.)

Prerequisite course work

SCMA 212 or MATH 200, as well as SCMA 524 are prerequisites for this certificate program. The prerequisite may be waived for students who present satisfactory equivalent preparation at the undergraduate or graduate level. The determination is made by the faculty adviser at the time of admission.

Degree requirements

In addition to general VCU Graduate School graduation requirements (http://bulletin.vcu.edu/academic-regs/grad/graduation-info/), students in the Certificate in Decision Analytics program must complete 12 credit hours of course work.

The curriculum will train students to prepare data for analysis, create models to investigate patterns in data, assimilate expert opinions, produce forecasts based on historical data, use prescriptive models to determine optimal strategies and present analytics results to stakeholders. The core courses focus on educating students about data analytics, decision and risk analytics, forecasting, optimization and simulation.

Prerequisite undergraduate and/or foundation courses

Prerequisite and/or foundation courses may be waived for students who present satisfactory equivalent preparation at either the undergraduate or graduate level. This determination is made by the faculty adviser at the time of admission.

Course	Title	Hours
Foundation course		
SCMA 524	Statistical Fundamentals for Business Management	3

Curriculum requirements

Course	Title	Hours
INFO 648	Business Data Analytics	3
SCMA 632	Statistical Analysis and Modeling	3
SCMA 642	Decision and Risk Analytics	3
SCMA 669	Developing and Implementing Forecasting Methods for Business	3
Total Hours		**12**

The minimum number of graduate credit hours required for this certificate is 12.

Students who complete the requirements for this program will receive a Certificate in Decision Analytics.

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Program website: business.vcu.edu/academics/supply-chain-management-and-analytics/certificate-in-decision-analytics/ (https://business.vcu.edu/academics/supply-chain-management-and-analytics/certificate-in-decision-analytics/)