

FAQs for the Graduate Certificate in Data Analytics at Virginia Tech

Q: Who can receive a certificate in data analytics?

A: The certificate is open to all graduate students enrolled in Virginia Tech's graduate school. The certificate is particularly well suited to compliment the technical training of students enrolled in the university's graduate programs in Computer Science, Statistics, or Electrical and Computer Engineering.

Q: How do I apply for the certificate?

A: Students first have to be admitted to the Virginia Tech graduate school, in any discipline of their choice or as non-degree seeking. For more information about applying to the Virginia Tech graduate school visit: <http://graduateschool.vt.edu/applying>

Q: What do I do after getting admitted?

A: Take the necessary courses to fulfill the certificate requirements.

Q: What are the certificate credit requirements?

A: Students should complete at least 2 courses from the core list and 2 courses from the elective list for a total of 12 credits (refer to Appendix A for the list of Core and Restricted Elective Courses). Courses taken must span all three departments; Computer Science, Statistics and Electrical and Computer Engineering. Cross-listed courses can count either way. Students must attain at least a 3.0 grade average for the 4 courses. Per university requirements, at most 6 of the 12 required credits for the certificate can be double counted toward a student's degree program.

Q: How do I get the certificate after finishing all the requirements?

A: First fill out the Check Sheet for the certificate found at <http://dac.cs.vt.edu/academics/data-analytics/> and the Graduate Certificate Application found at http://graduateschool.vt.edu/forms/academics/Application_Certificate.pdf Then submit both forms along with your transcript to DAC (contact info below) to be signed and then submit the Graduate Certificate Application to the Graduate School.

Q: Are there any pre-requisites for the certificate?

A: Some of the courses listed may have pre-requisites, please refer to the Graduate Catalog for more information. Students are expected to have a technical background in mathematics and computer programming relevant to data analytics. If you are looking for a less technical certificate program, please visit <http://analytics.cs.vt.edu/edu.php> for a list of other Data Analytics programs offered at Virginia Tech.

Q: What is the time to complete the certificate?

A: The estimated time of completion for students is one year. Time to completion will not substantially increase student's time to completion for their degree program.

Q: Which department administers the certificate?

A: The certificate is administered by the Discovery Analytics Center. The certificate is a collaboration between the departments of Computer Science, Statistics and Electrical and Computer Engineering.

Q: Who can I contact for additional questions?

A: Either Wanawsha Hawrami, manager of operations for the Discovery Analytics Center (wanah92@vt.edu) or Chris North, professor of computer science (north@vt.edu).

Appendix A

Core Courses: (Choose 2)

- CS/STAT 5525 Data Analytics I
- CS/STAT 5526 Data Analytics II
- CS 5824/ECE 5424: Advanced Machine Learning

Restricted Elective Courses: (Choose 2)

- CS 5234 Advanced Parallel Computation
- CS 5604 Information Storage and Retrieval
- CS 5614 Database Management Systems
- CS 5764 Information Visualization
- CS 5804 Introduction to Artificial Intelligence
- CS 6604 Advanced Topics in Data and Information
- STAT 5114 Statistical Inference
- STAT 5314 Monte Carlo Methods in Statistics
- STAT 5414 Time Series Analysis I
- STAT 5444 Bayesian Statistics
- STAT 5444G Advanced Applied Bayesian Statistics
- STAT 5504 Multivariate Statistical Methods
- STAT 5544 Spatial Statistics
- ECE 5524 Pattern Recognition
- ECE 5554 Computer Vision
- ECE 5606 Signal Detection and Estimation
- ECE 5734 Convex Optimization
- ECE 6504 Deep Learning for Perception
- ECE 6554 Advanced Computer Vision
- CS6424/ECE6424 Probabilistic Graphical Models and Structured Prediction