Data Mining

Many companies collect reams of data about their customers and their transactions, but must drill through these repositories of data to unearth crucial insights and knowledge about customer behavior and market trends.

This graduate certificate provides an introduction to data mining with an emphasis on large-scale databases as a source of knowledge generation and competitive advantage.

Who would be suited to take this program?

This certificate is designed for data analysts working with large organizations to design and use their data resources.

What will I learn?

In this program you'll gain 12 credits that can be applied to NJIT master's programs, and learn:

- The fundamentals of relational database technology, concurrency, and recovery
- Methods of database design and conceptual modeling
- The principles of information-retrieval system design
- Techniques essential for building text databases, document-processing systems, office automation systems, and other advanced information management systems
- And more in two elective courses

Why study Data Mining at NJIT?

The graduate certificate's narrow focus allows you to dig deep into this specific topic, and start applying your knowledge sooner. It's possible to earn the certificate entirely through online courses, so you can more easily fit it into your busy life. And whether you take courses online or on campus, you'll learn from NJIT's distinguished professors and instructors of the Department of Computer Science.

Prerequisites

An undergraduate Computer Science or closely related degree from an accredited institution or three years or more in programming or database work are required.

NJIT's standard admission requirements apply to this graduate certificate.

Related Degree Programs

All credits from the data mining graduate certificate can be applied toward these NJIT programs:

- M.S. Computer Science (http://cs.njit.edu/academics/graduate/mscs.php)
- M.S. Information Systems (https://is.njit.edu/academics/graduate/msis/)
- M.S. Business and Information Systems (https://is.njit.edu/academics/graduate/msbis/)

Take Note

Some courses have prerequisites, and must be taken in order.

What are the Required Courses?

Code	Title	Credits
Core Courses (2)		**6**
CS 631	Data Management System Design	3
or IS 631	Enterprise Database Management	
CS 634	Data Mining	3
Electives		**6**
Select two of the following:		
DS 642	Applications of Parallel Computing	3
DS 644	Introduction to Big Data	3
DS 650	Data Visualization and Interpretation	3
DS 675	Machine Learning	3
DS 680	Natural Language Processing	3

IS 601	Python for Web API Development	3
CS 602	Java Programming	3
IS 634	Information Retrieval	3
IS 665	Data Analytics for Info System	3
IS 687		3
IS 688	Web Mining	3
MGMT 635	Data Mining and Analysis	3
Total Credits:		**12**