

# COLLEGE OF INFORMATION DEPARTMENT OF INFORMATION SCIENCE MASTER OF SCIENCE IN DATA SCIENCE PROGRAM



## OUTSTANDING STUDENT SUPPORT AND ACCOLADES

The educational experience is enhanced by student organizations activities, interaction with local chapters of national professional associations and pre-professional work with community libraries and corporations.

In addition to the American Library Association accreditation, our programs are nationally recognized and have received several other recognitions including:

- Ranked one of the nation's **Top 10** best Medical Informatics graduate programs by *U.S. News and World Report*
- Ranked one of the nation's best master's programs in Library and Information Sciences, according to *U.S. News and World Report*
- Ranked one of the nation's **Top 10** best School Media Library graduate programs by *U.S. News and World Report*
- Received funds for research and student support from the Institute of Museum and Library Services, the Library of Congress, the Online Computer Library Center and the Texas State Library and Archives Commission

## PROGRAM OVERVIEW

The [Master of Science in Data Science](#) degree at the University of North Texas is designed to meet the rising demand for highly skilled data science and data analytics professionals. It prepares students for careers in data science and analytics with a broad knowledge of the required tools, techniques, and methods. The program focuses on relevant areas such as statistical analysis, natural language processing, computational linguistics, information retrieval, information visualization, social network analysis, text analytics and data mining.

The program helps graduates to acquire the types of skills and competencies needed in designing, implementing and transforming sets and large volumes of information into actionable knowledge. It provides students with the knowledge they need to manage data science and data analytics projects and work with analytics tools and technologies. The program is aimed at educating a new generation of information professionals capable of taking the leadership role through connecting the dots and using data to support strategic initiatives within the organization.

## INNOVATIVE COURSE DELIVERY

The program in Denton, Texas offers students the flexibility to select a combination of face-to-face, online, and blended courses.

The Online and Distance learning program is offered in the form of cohorts located in areas across the country. This format requires a face-to-face component called Onsite Institutes, where students are required to attend six days of face-to-face meetings in locations specific to each cohort, usually in the first two semesters. The Institutes include an orientation, advising, and an introduction to the core courses. After completing the institutes, students pursue the remainder of their studies online. For more information about our cohorts and program visit: <http://informationscience.unt.edu/cohorts-and-program>

## RESEARCH RESOURCES

We are a member of key organizations and consortiums that provide unique research opportunities for our students. We are a member of the prestigious iSchools organization, a collection of Information Schools committed to advancing the information field. This partnership provides opportunities for our students to be trained in research from world-renowned scholars.

Research labs and centers on campus provide the resources necessary to conduct in-depth study in your field. These include the **Information Research and Analysis Lab**, the **Intelligent Information Access Lab** and the **Visual Thinking Lab**.

# Graduate Faculty & Research Areas

**Dr. Jeff Allen**, Regents Professor. Knowledge management; learning and performance innovation; data analytics.

**Dr. Bobbie Bushman**, Lecturer. Children and young adult services; library services for the deaf, public libraries; special needs library programming.

**Dr. Yvonne Chandler**, Associate Professor. Legal information services & research; law librarianship; internet resources & services; LIS education.

**Dr. Hsia-Ching Chang**, Assistant Professor. Cyber security; adoption & diffusion of social media; business analytics; knowledge/ science mapping; human information interaction; information architecture; cloud computing security.

**Dr. Jiangping Chen**, Professor. Digital libraries; intelligent information access; natural language processing; information systems design and analysis.

**Dr. Ana Cleveland**, Regents Professor. Medical informatics; information storage and retrieval; indexing and abstracting.

**Dr. Yunfei Du**, Professor. Academic libraries; international librarianship; learning styles; eLearning.

**Larry Enoch**, Lecturer. Information organization; design theory; information access; special libraries

**Dr. Suliman Hawamdeh**, Professor. Knowledge management; library services and digital resource management; content, document and records management; learning organization and organizational learning.

**Dr. Jeonghyun Kim**, Associate Professor. Data curation and management; human information behavior; human computer interaction; LIS education.

**Dr. John Marino**, Assistant Professor. Information behavior in context; digital learning environments; the Big6 information problem-solving process; LIS education.

**Dr. Shawne Miksa**, Associate Professor. Information organization, control, access and theory; classification research and theory; information retrieval; bibliometrics; scholarly communication.

**Dr. Brian O'Connor**, Professor. Image document access; information seeking behavior; browsing; representation of questions and documents.

**Dr. Guillermo Oyarce**, Associate Professor. Information retrieval systems; feature selection; human computer interaction: direct manipulation in IR and visualization; cognitive issues in distributed networks and the digital library.

**Dr. Jodi Philbrick**, Senior Lecturer. Health informatics; health sciences libraries; competencies for information professionals; social media, mobile technology and information access.

**Dr. Barbara Schultz-Jones**, Associate Professor. Cataloging; automation systems; collaboration networks; information behavior in context; social network analysis.

**Dr. Daniella Smith**, Associate Professor. Leadership development; diversity; technology in schools; school libraries; online learning.

**Dr. Michele Villagran**, Lecturer. Legal information services and research; diversity issues/cultural intelligence; conflict management; competitive intelligence; special libraries; organizational leadership.

**Dr. Xin Wang**, Senior Lecturer. Usability and user experience research; health informatics; human computer interaction; image system design.

**Dr. Maurice Wheeler**, Associate Professor. Management; leadership; organizational culture; public libraries.

**Dr. Oksana Zavalina**, Associate Professor. Information organization, access and retrieval; subject access; metadata; cataloging and classification; semantic web; digital libraries and aggregations; human computer interaction.

# Admission Process

## Admission Requirements

- An undergraduate degree or higher from an accredited institution
- Overall GPA of at least 3.0
- Standardized test scores (if your overall GPA is less than 3.0)

## How to Apply

The application process consists of two steps:

1. Apply to the UNT [Toulouse Graduate School](https://tgs.unt.edu)
  - a. Complete an online application
  - b. Submit transcripts from all colleges attended
  - c. Submit standardized test scores (if necessary)
2. Apply to the IS Department and submit the following:
  - a. An online program application
  - b. Statement of purpose
  - c. Two letters of recommendation
  - d. A current resume

**\* International applicants must demonstrate English Language Proficiency by submitting TOEFL or IELTS scores.**

**For more information regarding International Admissions visit <https://tgs.unt.edu/international>.**



## Degree Requirements:

- 9 credit hours of core courses
- 24 credit hours of electives
- 3 credit hours of field experience or research seminar in the area of data science or a closely related topic

## Financial Assistance

Both the university and the IS Department offer multiple financial options to help you pursue your graduate degree including scholarships, loans, graduate assistantships, internships or co-ops, and part-time employment. For more information visit <http://informationscience.unt.edu/financial-assistance>

## About UNT

The University of North Texas, established in 1890, is one of the largest student-focused public research universities, dedicated to providing superior graduate education, scholarship and artistic endeavors. Ranked a Tier One research university by the Carnegie Classification, UNT is a catalyst for creativity — fueling progress, innovation and entrepreneurship for the North Texas region and the state. Our programs are internationally recognized with research and scholarship spanning all disciplines. We offer 100 bachelors', 82 master's and 38 doctoral degrees.

UNT is located in Denton, a city about 30 miles north of Dallas and Fort Worth, with a population of approximately 122,000.

For more information, visit [www.unt.edu](http://www.unt.edu)



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Innovation *through* Information