

Master of Science in DATA ANALYTICS and INFORMATION SYSTEMS

Data analytics and information systems is a growing field in major lending institutions and consulting firms that provide services for banking, technology corporations, federal defense agencies, and the healthcare industry. The Master of Science in Data Analytics and Information Systems program can advance a career and prepare individuals for new challenges and opportunities.

The Master of Science in Data Analytics and Information Systems program aims to advance students' capacity to derive and communicate information from data and to develop and manage computer information systems that are used in data analytics and other areas. Skills include data collection, preparation, representation, analysis, and processing.

Shepherd University's program is a multi-disciplinary field of study with significant historical context, modern relevance, and future promise. Hal Varian, Google's chief economist, stated that data analytics is more than "the sexy job of the next 10 years." (*The McKinsey Quarterly*, Jan. 2009) Information systems, the operational component behind data analytics, has been a long-standing field of study since computers were adopted in business. Our curriculum addresses both disciplines on information processing to improve business decision making and gain a more competitive edge and strategic advantage over competitors.

Graduates of Master of Science in Data Analytics and Information Systems program enjoy long, successful, and productive careers whether they choose to stay in academia and contribute to research organizations, work in industry, or follow entrepreneurial instincts.

For more information about Shepherd University's Master of Science in Data Analytics and Information Systems, contact:

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Learn more: www.shepherd.edu/dais

MASTER OF SCIENCE IN DATA ANALYTICS AND INFORMATION SYSTEMS

■ Admission Requirements

Graduate entrants must:

- Hold a baccalaureate degree granted by a regionally accredited institution (for international students, a degree granted by a recognized institution).
- Submit the official transcript for undergraduate studies with a minimum cumulative grade point average of 2.75.
- Provide one of the following items:
 - A 75th percentile score on the quantitative section of the GRE or MAT.
 - One of the following industry certifications:
 - IBM certification in Cognos, Risk Analytics, or SPSS
 - SAS certification in Foundation, Analytics, Administration, Data Management, or Enterprise Business Intelligence
 - Microsoft certification, such as MCITP, MCSE, MCSM, or MCDBA
 - Certified business intelligence professional
 - Certified analytics professional
 - Certified data management professional
 - Certified health data analyst
 - Submit two letters of recommendation that speak to the applicant's ability in the field and potential for success in a graduate program.

International entrants also must:

- Satisfy one of the following English proficiency tests: a minimum score of 79 Internet-based, 550 paper-based, or 213 computer-based on TOEFL, 6.5 on IELTS, 77 on MELAB, or Grade Pre-1 on EIKEN. *Note: Students who do not meet the English language proficiency requirement may take foundational Intensive English Language Program courses at Shepherd.*
- Submit an academic credential evaluation for coursework completed at all non-U.S. colleges and universities.
- Provide a proof of financial support to cover the tuition and living expenses for at least 12 months' study.

See full instructions on international graduate admissions online at www.shepherd.edu/international-graduate-admissions or contact an admissions counselor at 304-876-5212 (inside the U.S.) or +1 304-433-7343 (outside the U.S.).

Admission Procedure:

Applicants should fill out a graduate application at www.shepherd.edu/graduate-studies/apply or request a copy by phoning 304-876-5313. The application, \$40 application fee (a check or money order, payable to "Shepherd University"), and all supporting materials should be sent to the Office of Graduate Admissions, P.O. Box 5000, Shepherdstown, WV 25443-5000.

■ Curriculum for a Master Science in Data Analytics and Information Systems

Data Science Requirements, 12 hours:

Complete four from the following:

- DATA 509 - Statistical Analysis (3 cr)
- DATA 510 - Mathematical Modeling (3 cr)
- DATA 512 - Operations Research (3 cr)
- DATA 518 - Big Data Analytics (3 cr)
- DATA 599 - Special Topics in Data Analysis (3 cr)

- BIOL 507 - Genomics and Bioinformatics (3 cr)
- BIOL 599 - Special Topics: Biology (1-4 cr)

Information Systems Requirements, 12 hours:

Complete four from the following:

- IS 580 - Networking (3 cr)
- IS 581 - Web Programming (3 cr)
- IS 582 - Management Information Systems (3 cr)
- IS 584 - Artificial Intelligence (3 cr)
- IS 599 - Special Topics in Information Systems (3 cr)

Capstone Requirement, 3 hours:

Choose one with advisor:

- DATA 590 - Applied Research Project and Capstone (3-6 cr)
- DATA 591 - Internship (3-6 cr)

Electives, 9 hours:

- DATA 599 - Special Topics in Data Analysis (3 cr)
- IS 583 - E-Commerce (3 cr)
- IS 585 - Information Security (3 cr)
- IS 588 - Database Management Systems (3 cr)
- IS 599 - Special Topics in Information Systems (3 cr)
- BIOL 501 - Evolution (3 cr)
- BIOL 599 - Special Topics: Biology (1-4 cr)

About Shepherd University Graduate Studies

Shepherd University, a public university in West Virginia, established graduate studies in 2003. The university offers a variety of post-baccalaureate opportunities including a doctoral degree in nursing practice; master's degrees in business administration, college student development and administration, curriculum and instruction, data analytics and information systems, and teaching; and non-degree certificates at www.shepherd.edu/graduate-studies. Our location in the eastern panhandle of the state provides many regional opportunities, and being 90 minutes from the Washington, D.C., Baltimore, and northern Virginia metro areas provides unique locations for internships, practicum, and clinical experiences. The university's core values of learning, engagement, integrity, accessibility, and community are embraced by graduate studies and shared with the diversity of learners in our graduate programs.