The MS in Data Science is a cutting-edge program that provides advanced knowledge and practical skills in the science of big data. You will learn to turn real-world data into insights and solutions, that drive decision-making in organizations, and have the opportunity to pursue a Professional Certificate in Business Intelligence and Data Mining with SAS.
Overview
The MS in Data Science is an advanced program of study that prepares students for a professional career in Information Technology, particularly in handling big volumes of data, finding patterns in data, making predictions, and effectively visualizing and communicating data, with the intent to facilitate organizational decision making. Students develop expertise in dealing with various types of structured and unstructured data, including business transaction data, text and images. The program equips participants with a well-calibrated, theoretical, and practical synthesis of applied mathematics, computer science, statistics, and business information skills. The program allows students to pursue the professional pathway for immediate professional application or the research pathway for advanced graduate studies in universities or employment in research departments of large organizations.

Program Structure
Students must successfully complete 12 graduate-level courses, representing a total of 36 US credits. Students must choose one of two pathways: the professional pathway that leads to practical oriented project work with the possibility to a professional certificate by SAS, or the research pathway that is ideal for pursuing advanced graduate studies in universities or employment in research departments of large organizations.

Curriculum

Required Courses:
- Introduction to Big Data
- Exploring and Analyzing Data
- Applied Machine Learning
- Data Visualization
- Knowledge Graphs
- Big Data Architectures
- Search Engines and Web Mining
- Machine Vision in Data Science
- Natural Language Processing

Two of the following electives:
- Strategic Thinking for Data Scientists
- SAS Platform for Business Analytics
- Deep Learning
- Machine Learning and Applications

Required Project – Year 2:
- Capstone Project
- Thesis

Learning Outcomes
By the end of the program, students should be able to:
- Critically evaluate the techniques for storing and processing big volumes of data, including transaction business data, text data, and images, and to apply the relevant tools.

Career Services & Placement Opportunities
Deree graduates receive support from the Office of Career Services, which help them connect with the 50,000 ACG alumni around the globe, expand their professional network, and gain access to various job positions. Our graduate students and alumni may also benefit from the Alba Graduate School of Business Services, including career coaching, participation in career events and workshops, participation in the Alba annual career forum, one-to-one career advice sessions, and a direct mail list for job posts and career advice.

Admission to Program
The minimum graduate admission requirements are:
- A college or university degree in Science, Engineering, Information Technology, Economics, Business, or a recognized equivalent from an accredited institution
- Evidence of proficiency in the English language: TOEFL, IELTS, Proficiency, or GCE
- Basic programming and mathematical skills
- Motivation and/or relevant experience to specialize in this area: Evidence of strong motivation to work in the fields of Data Science or Information Technology will be sought in the interview and the personal statement submitted with the application form.

The admissions committee will consider applications from students holding a Bachelor of Science degree from other disciplines, but they may be required to take up to 3 undergraduate courses in Statistics, Mathematics, and Programming, as needed. The courses are assumed to be preparatory, therefore these credits will not contribute toward the master’s completion.

Tuition & Scholarships
Deree strives to provide opportunities to students regardless of their ability to finance their education. For this reason, we offer scholarships to all applicants who have demonstrated exceptional academic performance. A discount policy is also available for organization and ACG alumni.

Flexible Study & Course Duration
The program may be completed in one year (full-time) or up to three years (part-time). Classes run Monday to Thursday from 10:30-21:30. New students are admitted at the start of the fall, winter and spring terms. Completing the program in one year is only possible for students who begin their studies in the fall term.

Why pursue an MS in Data Science at Deree
- Become equipped on various levels with the competencies needed to work in the fields of Data Science or Big Data.
- Accelerate your career prospects by choosing a master’s program that awards a Professional Certificate in Business Intelligence and Data Mining from SAS.
- Experience first-hand how data mining, big data processing, and visualization can be used to extract useful information at scale from raw data (business transaction, text, or image) and how to communicate it in a corporate environment.
- Obtain hands-on experience with advanced programming techniques, distributed processing platforms, and data mining libraries and tools.
- Engage with experienced faculty with significant research experience, who are committed to support you as you develop and advance your knowledge and relevant professional skills.
- Benefit from a flexible program that may be pursued full-time or part-time.

Graduate Program Coordinator
Dr. Dimitris Vogiatzis holds a BSc in Computer Science from the National and Kapodistrian University of Athens, an MSc in Knowledge-Based Systems from the University of Edinburgh, and a PhD in Neural Networks from the National Technical University of Athens (NTUA). Since 2010, Dr. Vogiatzis has been the faculty member of the IT department at Deree, teaching courses in the areas of intelligent systems, theoretical computer science, and programming. Over the past 20 years, he has conducted research in the areas of machine learning, neural networks, and their applications in user modeling, recommender systems, social networks and precision medicine. He has published over 40 articles in refereed international conferences and journals and participated in 14 national and European research projects. He has served as a collaborating researcher at NTUA, a visiting lecturer in the Scientific School at the University of Cyprus, and as a collaborating researcher at the NCSR “Demokritos”. He has also served as a reviewer at various conferences and journals, and as a consultant to the European Network and Information Security Agency.
Deree – The American College of Greece accepts students of any race, color and national or ethnic origin and does not discriminate in its programs.

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