ABOUT THE PROGRAM

Harvard Business Review has dubbed the Data Scientist job the most desirable job of the 21st century! CareerCast.com lists Data Scientist as the top job in 2021, with a projected growth of 33%. This means that demand is fierce and the pay is outstanding. The shortage of data scientists will soon exceed 150,000. This shortage is in addition to a projected shortage of 1.5 million data-savvy managers who can convert data to actionable information. Big data is driving an intense need for data scientists who know what to do with huge amounts of data. Thus, occupations involving data science are exploding.

Slippery Rock University’s Master of Science in Data Analytics (MSDA) prepares professionals to work in the rapidly-growing field of data science and big data. The SRU program is aligned with standards established by professional certification programs. Students completing the program will receive a joint certificate in statistical applications and data analytics from SRU and SAS Institute Inc. (www.sas.com). SAS is one of the most widely used software platforms in the world for performing data analytics, statistical analysis and data visualization. SRU is one of a select few institutions in the country that offer joint SAS certification. This will give graduates of the program a significant advantage in the marketplace.

Moreover, the MSDA will provide the training necessary for the Certified Analytics Professional (CAP) exam. The CAP exam is a broad-based analytics exam administered by the Institute for Operations Research and the Management Sciences (INFORMS). INFORMS is the largest professional organization in the world that supports operations research, management science, and data analytics.

PROGRAM HIGHLIGHTS

SRU’s Master of Science degree in Data Analytics offers:

- 100% Online Coursework
- A 33-credit program that can be completed in 10 months full-time or two years part-time
- Joint SAS Certification
- Preparation for the CAP exam
- Training in big data analytics, machine learning, and state-of-the-art technologies
- Highly accomplished faculty with big business experience
- Internship option

CURRICULUM GUIDE

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPSC 605</td>
<td>Data Mining and Data Analysis</td>
<td>3</td>
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<tr>
<td>CPSC 685</td>
<td>Big Data Analytics</td>
<td>3</td>
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<tr>
<td>MATH 611</td>
<td>Optimization Models</td>
<td>3</td>
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<tr>
<td>MATH 678</td>
<td>Data Analytics Capstone I</td>
<td>3</td>
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<tr>
<td>MATH 668</td>
<td>Model Analysis</td>
<td>3</td>
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<td>MATH 688</td>
<td>Data Analytics Capstone II</td>
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<td>STAT 603</td>
<td>Statistical Methods</td>
<td>3</td>
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<tr>
<td>STAT 630</td>
<td>Regression Methods</td>
<td>3</td>
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<td>STAT 656</td>
<td>Statistical Computing</td>
<td>3</td>
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<tr>
<td>STAT 660</td>
<td>Advanced Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>STAT 672</td>
<td>Forecasting and Time Series</td>
<td>3</td>
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</table>

Total Hours: 33

IMPORTANT CURRICULUM GUIDE NOTES

This Curriculum Guide is provided to help SRU students and prospective students better understand their intended major curriculum. Enrolled SRU students should note that the My Rock Audit may place already-earned and/or in progress courses in different, yet valid, curriculum categories. Enrolled SRU students should use the My Rock Audit Report and materials and information provided by their faculty advisers to ensure accurate progress towards degree completion. The information on this guide is current as of the date listed. Students are responsible for curriculum requirements at the time of enrollment at the University.

PASSHE - Pennsylvania State System of Higher Education Institutions
Major Code: 9MDA
ADMISSION REQUIREMENTS
All applicants must submit the following materials along with a completed online graduate application and non-refundable application fee:

- Official undergraduate degree transcript(s) and any graduate transcripts
- Students with a GPA below 3.0 with prerequisite coursework may apply for conditional admission
- Complete the following prerequisite courses with a grade of C or better:
  - Differential Calculus
  - Integral Calculus
  - Probability/Inferential Statistics
  - A programming language (C, C++, Java, Python) or equivalent experience
- Students are expected to be familiar with multi-variable calculus, linear algebra and mathematical statistics
- All prerequisite courses must be complete before entering the program
- GRE not required

PROFESSIONAL LICENSURE CERTIFICATION
All candidates completing this program are eligible to sit for the Certified Analytics Professional (CAP) examination after 3 years of field experience. While certification is not required for employment, certification can advance your career.

TUITION AND ASSISTANTSHIPS
Information on current tuition and assistantships can be found on the main Graduate Admissions website at www.sru.edu/graduate. Financial Aid brochures are available through the Financial Aid Office at www.sru.edu/FinAid or the Office of Graduate Admissions.

TESTIMONIAL
“The MSDA program encouraged research and collaboration opportunities with fellow colleagues of varying professions to enrich and expand my knowledge of the field and the possibilities that it presented. This knowledge and experience gained from this program provided me with the necessary skills and traits to compete amongst other candidates, and the support from the faculty instilled confidence in me to succeed and achieve my dreams.” Eric Nero, Market Analyst at Infiltrator Water Technologies, SRU Graduate ‘21.

FOR QUESTIONS ABOUT ACADEMICS AND COURSE SCHEDULING:
Dr. Richard Marchand, Ph.D.
Professor and Graduate Coordinator
Chair, Dept of Mathematics & Statistics
200M Vincent Science Center
724.738.4952
richard.marchand@sru.edu

The educational policies and procedures are continually being reviewed and changed in keeping with the mission of the university. Consequently, this document cannot be considered binding and is intended to be used as only an informational guide. Students are responsible for being informed of official policies and regulations for meeting all appropriate requirements.

FOR QUESTIONS ABOUT ADMISSIONS:
Office of Graduate Admissions
104 North Hall, Welcome Center
Slippery Rock, PA 16057
www.sru.edu/graduate
724.738.2051 or 877.SRU.GRAD
graduate.admissions@sru.edu

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