

Master of Science – Data Science and Analytics

2025-2026

REQUIREMENTS	SUGGESTED SEQUENCES
<p style="text-align: center;"><u>Admission Requirements</u></p> <p>Candidates must satisfy all of the following:</p> <ol style="list-style-type: none"> Grade point average of 3.0 (B) from all undergraduate coursework. Resume detailing work experiences and accomplishments. Personal statement of career goals and background experiences, including an explanation of how this program will help achieve educational and professional objectives. Recommendations: Two professional or academic recommendations received online, addressing the candidate's potential for graduate study completion. You will provide the emails of two references, and they will be sent a link to fill out their online recommendation. Candidates must possess knowledge of a programming language equivalent to 2 or 3 undergraduate courses. Candidates must possess a knowledge of applied statistics. STA 610-01 or STA 610-02 can be taken to fill in deficiencies. <p style="text-align: center;"><u>Degree Requirements</u></p> <p>The data science and analytics (M.S.) program requires a minimum of 36 credits.</p> <p style="text-align: center;">Computing Requirements (12 credits)</p> <ul style="list-style-type: none"> CIS 635 Knowledge Discovery and Data Mining CIS 660 Data Engineering CIS 671 Information Visualization <u>One</u> of the following: <ul style="list-style-type: none"> CIS 677 High-Performance Computing CIS 678 Machine Learning <p style="text-align: center;">Statistics Requirements (12 credits)</p> <ul style="list-style-type: none"> STA 518 Statistical Computing and Graphics with R STA 631 Statistical Modeling and Regression STA 632 Statistical Modeling II STA 526 Multivariate Data Analysis <p style="text-align: center;">Professional Science Requirements (9 credits)</p> <ul style="list-style-type: none"> PSM 650 Ethics and Professionalism in Applied Science PSM 662 Seminar in Professional Sci. Practice (2 credits) PSM 691 Internship (4 credits) <p style="text-align: center;">Electives Requirements (3 credits)</p> <ul style="list-style-type: none"> Elective <u>must</u> be approved by Data Science and Analytics Graduate Program Director. (CIS 661 is NOT allowed as an elective) 	<p>Two suggested course sequences are provided below – work with your advisor to design a schedule to fit your specific needs.</p> <p style="text-align: center;"><u>First Year</u></p> <p><u>Fall</u></p> <p>CIS 660 Data Engineering STA 518 Statistical Computing and Graphics with R PSM 662 Seminar in Prof. Science Practice PSM 691 Internship (section 10) (if you need 9 credits)</p> <p><u>Winter</u></p> <p>CIS 635 Knowledge Discovery and Data Mining CIS 671 Information Visualization STA 631 Statistical Modeling and Regression</p> <p style="text-align: center;"><u>Second Year</u></p> <p><u>Fall</u></p> <p>PSM 650 Ethics and Professionalism in Applied Science STA 632 Statistical Modeling II Elective (<u>must</u> be approved)</p> <p><u>Winter</u></p> <p>CIS 678 Machine Learning or CIS 677 PSM 691 Internship STA 526 Multivariate Data Analysis</p> <p style="text-align: center;">*Students without necessary Statistics background*</p> <p style="text-align: center;"><u>First Year</u></p> <p><u>Fall</u></p> <p>CIS 660 Data Engineering STA 610 Intermediate Applied Statistics (section 01 or 02) PSM 662 Seminar in Prof. Science Practice PSM 691 Internship (1 credit) (section 10)</p> <p><u>Winter</u></p> <p>CIS 635 Knowledge Discovery and Data Mining PSM 650 Ethics and Professionalism in Applied Science STA 518 Statistical Computing and Graphics with R</p> <p><u>Summer</u></p> <p>Elective (<u>must</u> be approved)</p> <p style="text-align: center;"><u>Second Year</u></p> <p><u>Fall</u></p> <p>CIS 671 Information Visualization STA 526 Multivariate Data Analysis STA 631 Statistical Modeling and Regression</p> <p><u>Winter</u></p> <p>CIS 677 or CIS 678 PSM 691 Internship STA 632 Statistical Modeling II</p>