



2023-2024 Catalog

Applied Data Science

Master of Science

Program

School of Arts and Sciences

Total Credits 30

Degree Requirements

Note: MSDS 5301X/5302X are proficiency courses taken only if needed and are not a part of the total degree hours.

Item #	Course Title		Credits
☐ MSDS 5301X	Programming for Data Science		3
☐ MSDS 5302X	Statistics for Data Science		3
☐ MSDS 5311	Introduction to Analytics	MSDS 5311 Co/Prerequisite: MSDS 5302X or equivalent.	3
☐ MSDS 5315	Databases and Data Management	MSDS 5315 Co/Prerequisites: MSDS 5311, 5301X or equivalent.	3
☐ MSDS 6311	Big Data Analytics	MSDS 6311 Prerequisites: MSDS 5311	3
☐ MSDS 5321	Data Science Research Methods	MSDS 5321 Prerequisites: MSDS 5311	3
☐ MSDS 5312	Data Visualization	MSDS 5312 Prerequisites: MSDS 5302X or equivalent.	3
☐ MSDS 6331	Machine Learning	MSDS 6331 Prerequisites: MSDS 6311	3
☐ MSDS 5350	Statistical Models	MSDS 5350 Prerequisites: MSDS 5302X or equivalent.	3
☐ MSDS 5361	Data and Social Issues	MSDS 5361 Prerequisites: MSDS 5321	3
☐ MSDS 6381	Practicum I	MSDS 6381 Prerequisites: MSDS 5321	3
☐ MSDS 6382	Practicum II	MSDS 6382 Prerequisites: MSDS 6381	3

Full-Time (9 Hours/Semester)

Semester 1 (Fall)

Item #	Course Title		Credits
☐ MSDS 5311	Introduction to Analytics	MSDS 5311 Co/Prerequisite: MSDS 5302X or equivalent.	3
☐ MSDS 5315	Databases and Data Management	MSDS 5315 Co/Prerequisites: MSDS 5311, 5301X or equivalent.	3

Semester 2 (Spring)

Item #	Course Title		Credits
☐ MSDS 6311	Big Data Analytics	MSDS 6311 Prerequisites: MSDS 5311	3
☐ MSDS 5321	Data Science Research Methods	MSDS 5321 Prerequisites: MSDS 5311	3
☐ MSDS 5312	Data Visualization	MSDS 5312 Prerequisites: MSDS 5302X or equivalent.	3

Semester 3 (Fall)

Item #	Course Title		Credits
☐ MSDS 6331	Machine Learning	MSDS 6331 Prerequisites: MSDS 6311	3
☐ MSDS 5350	Statistical Models	MSDS 5350 Prerequisites: MSDS 5302X or equivalent.	3
☐ MSDS 6381	Practicum I	MSDS 6381 Prerequisites: MSDS 5321	3

Semester 4 (Spring)

MSDS 5361: Domain Knowledge Course
MSDS 6382: Course is not required for MSDS degree

Item #	Course Title		Credits
☐ MSDS 5361	Data and Social Issues	MSDS 5361 Prerequisites: MSDS 5321	3
☐ MSDS 6382	Practicum II	MSDS 6382 Prerequisites: MSDS 6381	3

Part-Time (6 Hours/Semester)**Semester 1 (Fall)**

Item #	Course Title		Credits
☐ MSDS 5311	Introduction to Analytics	MSDS 5311 Co/Prerequisite: MSDS 5302X or equivalent.	3
☐ MSDS 5315	Databases and Data Management	MSDS 5315 Co/Prerequisites: MSDS 5311, 5301X or equivalent.	3

Semester 2 (Spring)

Item #	Course Title		Credits
☐ MSDS 6311	Big Data Analytics	MSDS 6311 Prerequisites: MSDS 5311	3
☐ MSDS 5321	Data Science Research Methods	MSDS 5321 Prerequisites: MSDS 5311	3

Semester 3 (Fall)

Item #	Course Title		Credits
☐ MSDS 6331	Machine Learning	MSDS 6331 Prerequisites: MSDS 6311	3
☐ MSDS 5350	Statistical Models	MSDS 5350 Prerequisites: MSDS 5302X or equivalent.	3

Semester 4 (Spring)			
Item #	Course Title		Credits
☐ MSDS 5312	Data Visualization	MSDS 5312 Prerequisites: MSDS 5302X or equivalent.	3
☐ MSDS 5361	Data and Social Issues	MSDS 5361 Prerequisites: MSDS 5321	3

Semester 5 (Fall)			
Item #	Course Title		Credits
☐ MSDS 6381	Practicum I	MSDS 6381 Prerequisites: MSDS 5321	3

Semester 6 (Spring)			
Item #	Course Title		Credits
☐ MSDS 6382	Practicum II	MSDS 6382 Prerequisites: MSDS 6381	3

Proficiency Track, Part-Time

Semester 1 (Fall)			
Item #	Course Title		Credits
☐ MSDS 5311	Introduction to Analytics	MSDS 5311 Co/Prerequisite: MSDS 5302X or equivalent.	3
☐ MSDS 5302X	Statistics for Data Science		3

Semester 2 (Spring)			
Item #	Course Title		Credits
☐ MSDS 5321	Data Science Research Methods	MSDS 5321 Prerequisites: MSDS 5311	3
☐ MSDS 5301X	Programming for Data Science		3

Semester 3 (Fall)			
Item #	Course Title		Credits
☐ MSDS 5315	Databases and Data Management	MSDS 5315 Co/Prerequisites: MSDS 5311, 5301X or equivalent.	3

☐	MSDS 5350	Statistical Models	MSDS 5350 Prerequisites: MSDS 5302X or equivalent.	3
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Semester 4 (Spring)

Item #	Course Title		Credits
☐ MSDS 6311	Big Data Analytics	MSDS 6311 Prerequisites: MSDS 5311	3
☐ MSDS 5312	Data Visualization	MSDS 5312 Prerequisites: MSDS 5302X or equivalent.	3

Semester 5 (Fall)

Item #	Course Title		Credits
☐ MSDS 6331	Machine Learning	MSDS 6331 Prerequisites: MSDS 6311	3
☐ MSDS 6381	Practicum I	MSDS 6381 Prerequisites: MSDS 5321	3

Semester 6 (Spring)

Item #	Course Title		Credits
☐ MSDS 5361	Data and Social Issues	MSDS 5361 Prerequisites: MSDS 5321	3
☐ MSDS 6382	Practicum II	MSDS 6382 Prerequisites: MSDS 6381	3