# MADS Schedule Options

## Fall 2019 Start

### One Course per Month - breaks in the summer - 13 terms - sample 1

This schedule has no classes in the summer due to prerequisites. There is one instance where you will have to take two courses at once (The second half of Milestone II and Network Analysis).

| UMSI MADS Program | Fall | Winter | Spring/Summer | Fall | Winter | Spring/Summer | Fall | Winter | Spring/Summer | Fall | Winter | Spring/Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Semester 1 | Semester 2 | Semester 3 | Semester 4 | Semester 5 | Semester 6 | Semester 7 | Semester 8 | Semester 9 | Semester 10 | Semester 11 | Semester 12 | Semester 13 |
| | Data Manipulation | Being a Data Scientist | - | SQL & Databases | Milestone I | - | Supervised learning | Causal Inference | - | | Network Analysis | - | Experiment Design and Analysis |
| | - | - | - | - | - | - | - | - | - | - | Milestone II | - | - |
| Month 1 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Math Methods for Data Science | Information Visualization I | - | Efficient Data Processing | Data Mining II | - | Unsupervised Learning | Qualitative Inquiry for Data Scientists OR Information Visualization II OR Database Architectures and Technolgies | - | Qualitative Inquiry for Data Scientists OR Information Visualization II OR Database Architectures and Technolgies | Qualitative Inquiry for Data Scientists OR Information Visualization II OR Database Architectures and Technolgies | - | Learning Analytics |
| | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Month 2 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Visual Exploration of Data | Data Science Ethics | - | Big Data: Scalable Data Processing | - | - | Deep Learning OR Machine Learning Pipelines | Deep Learning OR Machine Learning Pipelines | - | Information Retrieval | Social Media Analytics | - | Capstone |
| | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Month 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Data Mining I | Communicating Data Science Results | - | Milestone I | Presenting Uncertainty | - | Applied Natural Language Processing | - | - | Milestone II | - | - | Capstone |
| | - | - | - | - | - | - | - | - | - | - | - | - | Capstone |
| Month 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Number of Credits | 4 | 4 | 0 | 4 | 3 | 0 | 4 | 3 | 0 | 3 | 4 | 0 | 5 |

### One Course per Month - breaks in the summer - 13 terms - sample 2

This schedule has no classes in the summer due to prerequisites. There are zero instances where you will have to take two courses at once.

| UMSI MADS Program | Fall | Winter | Spring/Summer | Fall | Winter | Spring/Summer | Fall | Winter | Spring/Summer | Fall | Winter | Spring/Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Semester 1 | Semester 2 | Semester 3 | Semester 4 | Semester 5 | Semester 6 | Semester 7 | Semester 8 | Semester 9 | Semester 10 | Semester 11 | Semester 12 | Semester 13 |
| | Data Manipulation | Being a Data Scientist | - | SQL & Databases | Milestone I | - | Supervised learning | Causal Inference | - | Network Analysis | Milestone II | - | Experiment Design and Analysis |
| | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Month 1 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Math Methods for Data Science | Information Visualization I | - | Efficient Data Processing | Data Mining II | - | Unsupervised Learning | Qualitative Inquiry for Data Scientists OR Information Visualization II OR Database Architectures and Technolgies | - | Qualitative Inquiry for Data Scientists OR Information Visualization II OR Database Architectures and Technolgies | Qualitative Inquiry for Data Scientists OR Information Visualization II OR Database Architectures and Technolgies | - | Learning Analytics |
| | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Month 2 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Visual Exploration of Data | Data Science Ethics | - | Big Data: Scalable Data Processing | - | - | Deep Learning OR Machine Learning Pipelines | Deep Learning OR Machine Learning Pipelines | - | Information Retrieval | Social Media Analytics | - | Capstone |
| | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Month 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Data Mining I | Communicating Data Science Results | - | Milestone I | Presenting Uncertainty | - | Applied Natural Language Processing OR None | Applied Natural Language Processing OR None | - | Milestone II | - | - | Capstone |
| | - | - | - | - | - | - | - | - | - | - | - | - | Capstone |
| Month 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Number of Credits | 4 | 4 | 0 | 4 | 3 | 0 | 3 - 4 | 3 - 4 | 0 | 4 | 3 | 0 | 5 |

# MADS Schedule Options

## One Course per Month - breaks in most summers - 11 terms - sample 1

This schedule has three classes in the summer total. There is one instance where you will have to take two courses at once (Winter 2023).

| UMSI MADS Program | Fall / Semester 1 | Winter / Semester 2 | Spring/Summer / Semester 3 | Fall / Semester 4 | Winter / Semester 5 | Spring/Summer / Semester 6 | Fall / Semester 7 | Winter / Semester 8 | Spring/Summer / Semester 9 | Fall / Semester 10 | Winter / Semester 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Month 1 | Data Manipulation | Being a Data Scientist | SQL & Databases | Supervised learning | Milestone I | - | Causal Inference | Network Analysis | - | Milestone II | Experiment Design and Analysis |
| Month 2 | Math Methods for Data Science | Information Visualization I | - | Efficient Data Processing | Data Mining II | - | Unsupervised Learning | Information Visualization II | - | Qualitative Inquiry for Data Scientists OR Database Architectures and Technolgies | Qualitative Inquiry for Data Scientists OR Database Architectures and Technolgies / Learning Analytics |
| Month 3 | Visual Exploration of Data | Data Science Ethics | Big Data: Scalable Data Processing | Big Data: Scalable Data Processing | Deep Learning | - | Machine Learning Pipelines | Information Retrieval | - | Social Media Analytics | Capstone |
| Month 4 | Data Mining I | Communicating Data Science Results | - | Milestone I | Presenting Uncertainty | - | Applied Natural Language Processing OR None | Applied Natural Language Processing OR None | Milestone II | - | Capstone |
| Number of Credits | 4 | 4 | 2 | 4 | 4 | 0 | 3 - 4 | 3 - 4 | 1 | 3 | 6 |

## One Course per Month - reduced load most summers - 11 terms - sample 2

This sample schedule has two classes in the summer total. There is one instance where you will have to take two courses at once (Fall 2022).

| UMSI MADS Program | Fall / Semester 1 | Winter / Semester 2 | Spring/Summer / Semester 3 | Fall / Semester 4 | Winter / Semester 5 | Spring/Summer / Semester 6 | Fall / Semester 7 | Winter / Semester 8 | Spring/Summer / Semester 9 | Fall / Semester 10 | Winter / Semester 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Month 1 | Data Manipulation | Being a Data Scientist | SQL & Databases | Supervised learning | Milestone I | - | Causal Inference | Network Analysis | Milestone II | Experiment Design and Analysis | - |
| Month 2 | Math Methods for Data Science | Information Visualization I | - | Efficient Data Processing | Data Mining II | - | Unsupervised Learning | Information Visualization II | - | Qualitative Inquiry for Data Scientists / Database Architectures and Technolgies | Learning Analytics |
| Month 3 | Visual Exploration of Data | Data Science Ethics | - | Big Data: Scalable Data Processing | Deep Learning | - | Machine Learning Pipelines | Information Retrieval | - | Social Media Analytics | Capstone |
| Month 4 | Data Mining I | Communicating Data Science Results | - | Milestone I | Presenting Uncertainty | - | Applied Natural Language Processing | Milestone II | - | - | Capstone |
| Number of Credits | 4 | 4 | 1 | 4 | 4 | 0 | 4 | 4 | 1 | 4 | 4 |

# MADS Schedule Options

## One Course per Month - reduced load most summers - 11 terms - sample 3

This sample schedule has zero classes in the summer total. There are four instances where you will have to take two courses at once (Fall 2020, Fall 2021, Winter 2022, and Fall 2022).

| UMSI MADS Program | Fall — Semester 1 | Winter — Semester 2 | Spring/Summer — Semester 3 | Fall — Semester 4 | Winter — Semester 5 | Spring/Summer — Semester 6 | Fall — Semester 7 | Winter — Semester 8 | Spring/Summer — Semester 9 | Fall — Semester 10 | Winter — Semester 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Data Manipulation | Being a Data Scientist | - | Supervised learning | Milestone I | - | Causal Inference | Network Analysis | - | Experiment Design and Analysis | - |
|  | - | - | - | SQL & Databases | - | - | - | Milestone II | - | - | - |
| Month 1 | - | - | - | - | - | - | - | - | - | - | - |
|  | Math Methods for Data Science | Information Visualization I | - | Efficient Data Processing | Data Mining II | - | Unsupervised Learning | Information Visualization II | - | Qualitative Inquiry for Data Scientists | Learning Analytics |
|  | - | - | - | - | - | - | - | - | - | Database Architectures and Technolgies | - |
| Month 2 | - | - | - | - | - | - | - | - | - | - | - |
|  | Visual Exploration of Data | Data Science Ethics | - | Big Data: Scalable Data Processing | Deep Learning | - | Machine Learning Pipelines | Information Retrieval | - | Social Media Analytics | Capstone |
|  | - | - | - | - | - | - | - | - | - | - | - |
| Month 3 | - | - | - | - | - | - | - | - | - | - | - |
|  | Data Mining I | Communicating Data Science Results | - | Milestone I | Presenting Uncertainty | - | Applied Natural Language Processing | - | - | - | Capstone |
|  | - | - | - | - | - | - | Milestone II | - | - | - | Capstone |
| Month 4 | - | - | - | - | - | - | - | - | - | - | - |
| Number of Credits | 4 | 4 | 0 | 5 | 4 | 0 | 5 | 4 | 0 | 4 | 4 |