Computer Science, MSDS
Graduation Planning Strategy (GPS) 2024-2025

WRIGHT STATE UNIVERSITY | COMPUTER SCIENCE AND ENGINEERING

Name & UID: _____

Program Total: 30

Year One

Course	Cr	Semester	Grade	Course Name
DS 7730	3			Fundamentals of Data Science
STT 6660	4			Statistical Methods 1
CS 6700	3			Database Management Systems
CS 6840	3			Intro Machine Learning
CEG 7560	3			Visualization & Image Processing for Cyber Security

Total Credit Hours: 16

Year Two Thesis Option

Course	Cr	Semester	Grade	Course Name
Elective One	3 - 4			Choose from back
Elective Two	3 - 4			Choose from back
DS 7950	9			Master's Thesis Research in Data Science

Total Credit Hours: 14

Year Two Project Option / Co-op or Internship

Course	Cr	Semester	Grade	Course Name
Elective One	3 - 4			Choose from back
Elective Two	3 - 4			Choose from back
Elective Three	3 - 4			Choose from back
DS 7960	6			MSDS Capstone Project

Total Credit Hours: 14

Track 1: Machine Learning and Data Mining

- **CS 6710 - Introduction to Data Mining** (3 Credit Hours)
- **CS 7720 - Advanced Data Mining** (3 Credit Hours)
- **CS 7830 - Machine Learning** (3 Credit Hours)
- **CS 6850 - Foundations of Artificial Intelligence** (3 Credit Hours)
- **STT 6110 - Applied Time Series** (3 Credit Hours)
- **STT 7440 - Applied Multivariate Analysis** (3 Credit Hours)
- **STT 7670 - Applied Regression Analysis** (3 Credit Hours)

Track 2: Systems and Cloud Computing

- **CEG 6360 - Distributed Systems & Cloud Computing** (3 Credit Hours)
- **CEG 7370 - Distributed Computing** (3 Credit Hours)
- **CEG 7380 - Cloud Computing** (3 Credit Hours)
- **CS 6370 - Parallel Programming for Many-Core GPUs** (3 Credit Hours)

Track 3: Algorithms and Database Systems

- **CS 6270 - Optimization Techniques** (3 Credit Hours)
- **CS 7200 - Algorithm Design and Analysis** (3 Credit Hours)
- **CS 7700 - Advanced Database Systems** (3 Credit Hours)
- **CS 7800 - Information Retrieval** (3 Credit Hours)
- **CS 7810 - Metadata Representation Languages** (3 Credit Hours)

Track 4: Statistics and Statistical Methods

- **STT 6210 - Sampling Design** (3 Credit Hours)
- **STT 6610 - Theory of Statistics I** (4 Credit Hours)
- **STT 6620 - Theory of Statistics II** (4 Credit Hours)
- **STT 6670 - Statistical Methods II** (4 Credit Hours)
- **STT 7020 - Applied Stochastic Processes** (3 Credit Hours)

Track 5: Theory and Algorithms

- **CS 6280 - Combinatorics and Graph Theory** (4 Credit Hours)
- **CS 7200 - Algorithm Design and Analysis** (3 Credit Hours)

You need 5-8 elective credits from the above options. The tracks are optional and not required.