



FLORIDA ATLANTIC UNIVERSITY

Department of Electrical Engineering and Computer Science

College of Engineering & Computer Science

M.S. in Data Science & Analytics (EG-MS-DSAL)
Concentration: Data Science & Engineering
Program Worksheet

Name: _____ Z#: _____ Starting Term: _____

Phone #: _____ Overall GPA: _____ Date: _____

Degree Requirements

Students can choose between thesis and non-thesis options. Both options require a minimum of 30 credit hours. (crs). Regardless of the option chosen, all students must complete the following requirements:

- Maintain a minimum 3.00 GPA to remain and graduate from the program.
All courses within the degree program must be completed with a letter grade of "C" or higher.
A minimum of 15 credit hours must be taken at the 6000 level.
A maximum of 3 credit hours of Directed Independent Study (DIS) can be taken (faculty approval required).
After completing 9 credit hours of coursework, students are required to submit a Plan of Study (POS) via MyPOS.

Thesis Option Requirements

- Students must secure a Thesis Advisor.
Complete 6 credits hours of Master's Thesis under the supervision of a faculty advisor.

See additional Thesis Requirements on the last page

Prerequisite Courses Required for Admissions (Mandatory, need to be taken first semester)

Table with 3 columns: Course Number & Title, Semester Taken, Grade. Contains 3 empty rows for data entry.

Core Courses section- Complete three graduate courses (9 crs) from the list below.

Table with 3 columns: Course Number & Title, Semester Taken, Grade. Contains two rows: CAP 5768 Intro to Data Science (Required) and CAP 6673 Data Mining & Machine Learning (Required).

The program worksheet undergoes periodic review and is subject to change. This worksheet is intended to assist with tracking your coursework and completing the required POS.

Course Number & Title	Semester Taken	Grade
STA 5195 Biostatistics OR ISM 6404 Intro to Business Analytics & Big Data OR POS 6934 Special Topics (Quantitative Methods)		

Concentration Courses section- Complete a total of four graduate courses (12 crs) from the list below. Select any course with the prefix ‘CAP’ or any of the below listed Topics in Computer Science courses or CEN 6405.

Course Number & Title	Semester Taken	Grade
CAP		
CAP		
CAP		
CAP		
COT 5930 Cloud Security		
COT 5930 Mobile App Development with iOS		
COT 5930 Conversational AI		
COT 5930 Cloud Native Development		
COT 6930 Intro Intelligent Auton Robots		
COT 6930 Generative AI & Software Development Lifecycles		
CEN 6405 Computer Performance Modeling		

Electives section– Complete three courses (9crs) from the list below if Non-Thesis option. Complete one course (3 crs) from the list below if Thesis option.

Course Number & Title	Semester Taken	Grade
Database and Cloud Computing		
CEN 5035 Software Engineering		
CEN 5086 Cloud Computing		
COP 6726 New Directions in Database Systems		
COP 6731 Theory and Implementation of Database Systems		
ISM 6217 Database Management Systems		
Data Mining and Machine Learning		
CAP 5615 Introduction to Neural Networks		
CAP 6546 Data Mining for Bioinformatics		
CAP 6618 Machine Learning for Computer Vision		
CAP 6619 Deep Learning		
CAP 6629 Reinforcement Learning		
CAP 6635 Artificial Intelligence		
CAP 6673 Data Mining and Machine Learning		
CAP 6778 Advanced Data Mining and Machine Learning		
CAP 6776 Information Retrieval		
CAP 6777 Web Mining		
CEN 6405 Computer Performance Modeling		
ISM 6136 Data Mining and Predictive Analytics		
Data Security and Privacy		
CIS 6370 Computer Data Security		
CTS 6319 Cyber Security: Measurement and Data Analysis		

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ISM 6328 Management of Information Assurance and Security		
MAD 5474 Introduction to Cryptology and Information Security		
MAD 6478 Cryptanalysis		
PHY 6646 Quantum Mechanics/Computing 2		
Scientific Applications and Modeling		
GIS 6028C Photogrammetry & Aerial Photography Interpretation		
GIS 6032C LiDAR Remote Sensing and Applications		
GIS 6061C Web GIS		
GIS 6112C Geospatial Databases		
GIS 6127 Hyperspectral Remote Sensing		
GIS 6306 Spatial Data Analysis		
PHY 6938 Quantum Information Processing		
PHZ 5156 Computational Physics		
PHZ 7609 Numerical Relativity		
Social Data Science		
ANG 6090 Advanced Anthropological Research 1		
ANG 6092 Advanced Anthropological Research 2		
ANG 6486 Quantitative Reasoning in Anthropological Research		
CAP 6315 Social Networks and Big Data Analytics		
COM 6316 Quantitative Communications Research		
POS 6934 Quantitative Methods		
POS 6736 Research Design in Political Science		
SYA 6305 Seminar in Advanced Research Methods		
Statistics and Data Applications		
BSC 6459 Biomedical Data and Informatics		
MTG 6329 Applied Computational Topology		
STA 5195 Biostatistics		
STA 6106 Statistical Computing		
STA 6177 Survival Analysis		
STA 6197 Biostatistics – Longitudinal Data Analysis		
STA 6207 Applied Statistical Methods		
STA 6208 Regression Analysis		
STA 6326 Mathematical Statistics		
STA 6857 Applied Time Series Analysis		
Business Analytics		
CAP 6315 Social Networks and Big Data Analytics		
CAP 6780 Big Data Analytics with Hadoop		
CAP 6807 Computational Advertising & Real-time Data Analytics		
ISM 6136 Data Mining and Predictive Analytics		
ISM 6217 Database Management Systems		
ISM 6404 Introduction to Business Analytics and Big Data		
ISM 6405 Advanced Business Analytics		
ISM 6555 Social Media and Web Analytics		
QMB 6303 Data Management and Analysis with Excel		
QMB 6603 Data Analysis for Managers		

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Thesis Option- Complete 6 credit hours of Thesis. Student is required to have a thesis form signed by a faculty advisor to register for thesis credits.

Course Number & Title	Semester Taken	Grade

List any Directed Independent Study (DIS) course here. Student is required to have a DIS form signed by a faculty advisor to register for a DIS course.

Course Number & Title	Semester Taken	Grade

The EECS Department may approve substitutions for core or elective courses. List any course substitutions here. Student is required to have advisor approval in writing.

Course Number & Title	Indicate “core” or “elective”	Semester Taken	Grade

List all failed courses here, with letter grades lower than a “C.”

Course Number & Title	Semester Taken	Grade

Eligibility Requirements for Thesis Candidacy:

Students may apply for candidacy upon completing 9 credit hours of coursework and maintaining a 3.00 overall/cumulative GPA. Students must prepare a POS via MyPOS in consultation with their graduate advisor, detailing the courses necessary for fulfilling their degree requirements. Approval from the student’s advisor is required for all listed courses.

Students working toward the MS Thesis option degree may not register for thesis credits until their POS has been approved.

The Thesis Committee is composed of:

- At least three faculty members
- A minimum of two members are from the EECS Department
- The Committee Chair from the EECS Department

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