FLORIDA ATLANTIC UNIVERSITY
Department of Electrical Engineering and Computer Science
College of Engineering & Computer Science

Worksheet for students who started in Summer 2025 or later.

M.S. in Data Science & Analytics (EG-MS-DSAL)
Concentration: Data Science & Engineering
Program Worksheet (30 credit hours total)

Name: _____ Z#: _____ Starting Term: _____

Phone #: _____ Overall GPA: _____ Date: _____

Are you pursuing a certificate ☐ or minor ☐? Certificate or Minor Program Name: _____

Did You submit your certificate or minor worksheet ? Yes ☐ No ☐

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 18 credit hours of coursework, students are required to submit their program worksheet and Plan of Study (POS) to the Electrical Engineering & Computer Science (EECS) Department.
- Students who wish to pursue a minor or certificate program must apply and be accepted by 18 earned credits. Otherwise, they are ineligible to apply.

Thesis Option Requirements

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

See additional Thesis Requirements on page 4*

IF Prerequisite Courses were Required for Admissions, list here. Must be completed within the first semester.

Course Number s Title	Semester Taken	Grade

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.

Common Core Courses section- Complete two graduate courses (6 crs) from the list .

Core Course Numbers Title	Semester Taken	Grade
CAP 5768 Intro to Data Science **(Required)**		
CAP 5625 Computational Foundations of AI **(Required)**		

Additional Core Course section: Choose any one course (3 crs) from the list below. *Note:*

- *If you take extra core or elective courses outside your concentration, they must be from different concentrations only one course per concentration is allowed.*

***Example**: If you take ISM 6404 as an additional core, you cannot take another ISM course as an elective. Choose the elective from a different area, like CAI,CAP,STA,POS,COP,MAD,PHY..*

Core Course Numbers Title	Semester Taken	Grade
STA 6106 Statistical Computing **OR** ----------▶		
ISM 6404 Intro to Business Analytics & Big Data **OR** ----------▶		
POS 6746 Quantitative Methods in Political Science ----------▶		

Concentration Courses section- Complete one graduate course (3 crs) from below.

Concentration Course Numbers Title	Semester Taken	Grade
CEN 5086 Cloud Computing **(Required)**		

Concentration Courses section - Choose any one Database system Course (3crs) from the list below:

Concentration Course Numbers Title	Semester Taken	Grade
COP 6726 New Directions in Database Systems **OR**		
COP 6731 Theory and Implementation of Database Systems		

Concentration Courses section - Choose two EECS graduate courses (6 crs) with prefix "CAP":

Concentration Course Numbers Title	Semester Taken	Grade
CAP		
CAP		

Elective Courses section- Choose any three combination of courses (9crs) total from the list below if non-thesis option. Choose one course (3 crs) from the list below if thesis option.

Electives Courses	Semester Taken	Grade
Business 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		
Database and Cloud Computing		
CDA 6132 Multiprocessor Architecture		
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 6315 Social Networks and Big Data Analytics		
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 6610 Applied Machine Learning		
CAP 6776 Information Retrieval		
CAP 6777 Web Mining		
CAP 6778 Advanced Data Mining and Machine Learning		
CAP 6780 Big Data Analytics with Hadoop		
CAP 6807 Computational Advertising and Real-Time Analytics		
CEN 6405 Computer Performance Modeling		
ISM 6136 Data Mining and Predictive Analytics		
Data Security and Privacy		
CIS 6370 Computer Data Security		
CAI 6803 Data Analysis and Modeling for Cybersecurity		
ISM 6328 Management of Information Assurance and Security		
MAD 5474 Introduction to Cryptology and Information Security		
MAD 6478 Cryptanalysis		
PHY 6646 Quantum Mechanics 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 Special Topics (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 6746 Quantitative Methods in Political Science		
POS 6736 Research Design in Political Science		
SYA 6305 Seminar in Advanced Research Methods		
Statistics and Data Applications		
BSC 6459 Biomedical Data and Informatics		
STA 5195 Biostatistics		

STA 6106 Statistical Computing		
STA 6177 Survival Analysis		
STA 6197 Biostatistics – Longitudinal Data Analysis		
STA 6207 Applied Statistical Methods		
STA 6236 Regression Analysis		
STA 6326 Mathematical Statistics		
STA 6857 Applied Time Series Analysis		
MTA 6329 Applied Computational Topology		

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

Course Numbers Title	Semester Taken	Grade
COT 6970 Master's Thesis-Computer Science		
COT 6970 Master's Thesis-Computer Science		

IF Directed Independent Study (DIS) course (3 crs) was completed, list below. A **DIS will substitute for one Elective course. Students are required to have a DIS form signed by a faculty advisor to register for a DIS course.**

DIS Course Numbers Title	Semester Taken	Grade

Course Substitution section. The EECS Department may approve course substitutions on a case-by-case basis. List approved course substitutions here. Students are required to have advisor approval in writing.

Substitution Course Numbers Title	Concentration or Elective Course	Semester Taken	Grade

Failed Courses section. List all failed courses here, with letter grades lower than a "C".

Failed Course Numbers 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 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

How to Search for EECS Department Graduate Courses

When you perform a search on the Searchable Schedule, select the term. In the Department box, select Electrical Engin & Computer Sci. In the Level box, select Graduate. Then click on Search. This will display the entire course schedule of classes under the EECS department for that semester.