UF Herbert Wertheim College of Engineering
UNIVERSITY of FLORIDA

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Master of Science in Artificial Intelligence Systems

Herbert Wertheim College of Engineering

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POWERING THE NEW ENGINEER TO TRANSFORM THE FUTURE

Congratulations on your admission to the Master of Science in AI Systems at the University of Florida!

MS in Artificial Intelligence Systems

HWCOE

EEd Department

MS in AI Systems

- The Department of Engineering Education (EEd) in the **Herbert Wertheim College of Engineering (HWCOE)** offers the:
  - **MS in Artificial Intelligence Systems**
    - Website: msais.eng.ufl.edu

Idalis Villanueva, Ph.D.
EEd Department Chair

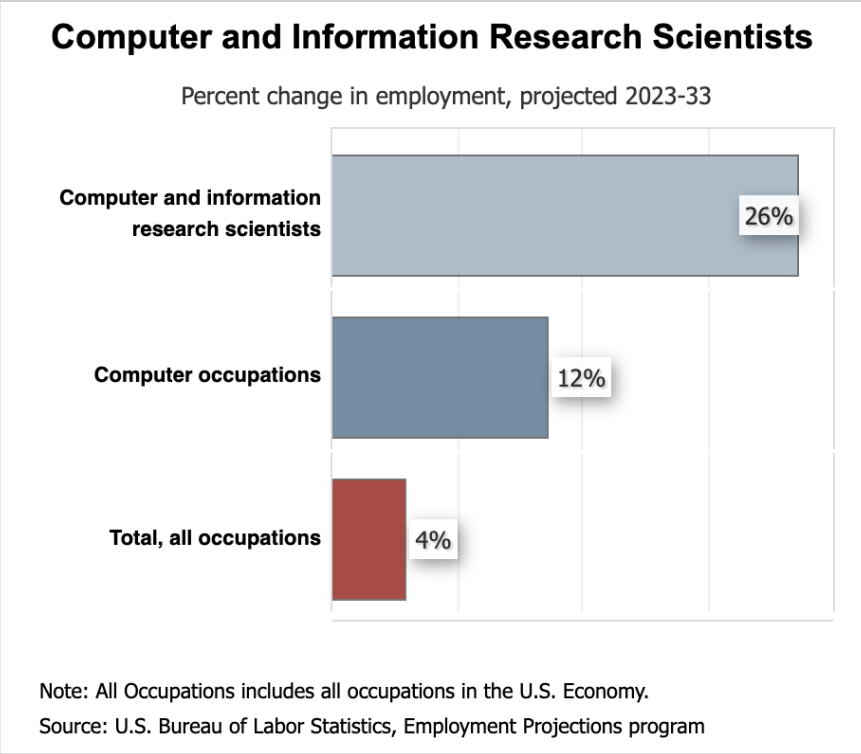
Catia S. Silva, Ph.D.
Program Coordinator

Lisa Hibbs
Academic Advisor

Pamela Simon
Academic Assistant (Admissions)

What is the M.S. in Artificial Intelligence Systems?

M.S. in Artificial Intelligent Systems



Quick Facts: Computer and Information Research Scientists	
2023 Median Pay	$145,080 per year $69.75 per hour
Typical Entry-Level Education	Master's degree
Work Experience in a Related Occupation	None
On-the-job Training	None
Number of Jobs, 2023	36,600
Job Outlook, 2023-33	26% (Much faster than average)
Employment Change, 2023-33	9,400

- The Master of Science (M.S.) in Artificial Intelligence Systems (MSAIS) addresses the increasing significance of artificial intelligence (AI) across diverse industries and the growing demand for skilled professionals in this field.
- Through its interdisciplinary approach, the program equips students with a comprehensive skillset, merging knowledge from diverse fields such as computer science, mathematics, engineering, and ethics.
- The MS program is an in-person, non-thesis major in Artificial Intelligence Systems with a total of 30 credits hours.

Target Audience & Industry Careers

- The program is designed for students or working professionals with a B.S. degree with a **strong analytical and computing** background

Top paying industries for Computer and Information Research Scientists:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Web Search Portals, Libraries, Archives, and Other Information Services	1,160	0.63	$ 138.07	$ 287,180
Software Publishers	2,900	0.44	$ 104.49	$ 217,340
Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	70	0.03	$ 102.45	$ 213,100
Semiconductor and Other Electronic Component Manufacturing	610	0.16	$ 93.76	$ 195,030
Communications Equipment Manufacturing	50	0.06	$ 92.50	$ 192,400

Source: Top paying industries from U.S. Bureau of Labor Statistics

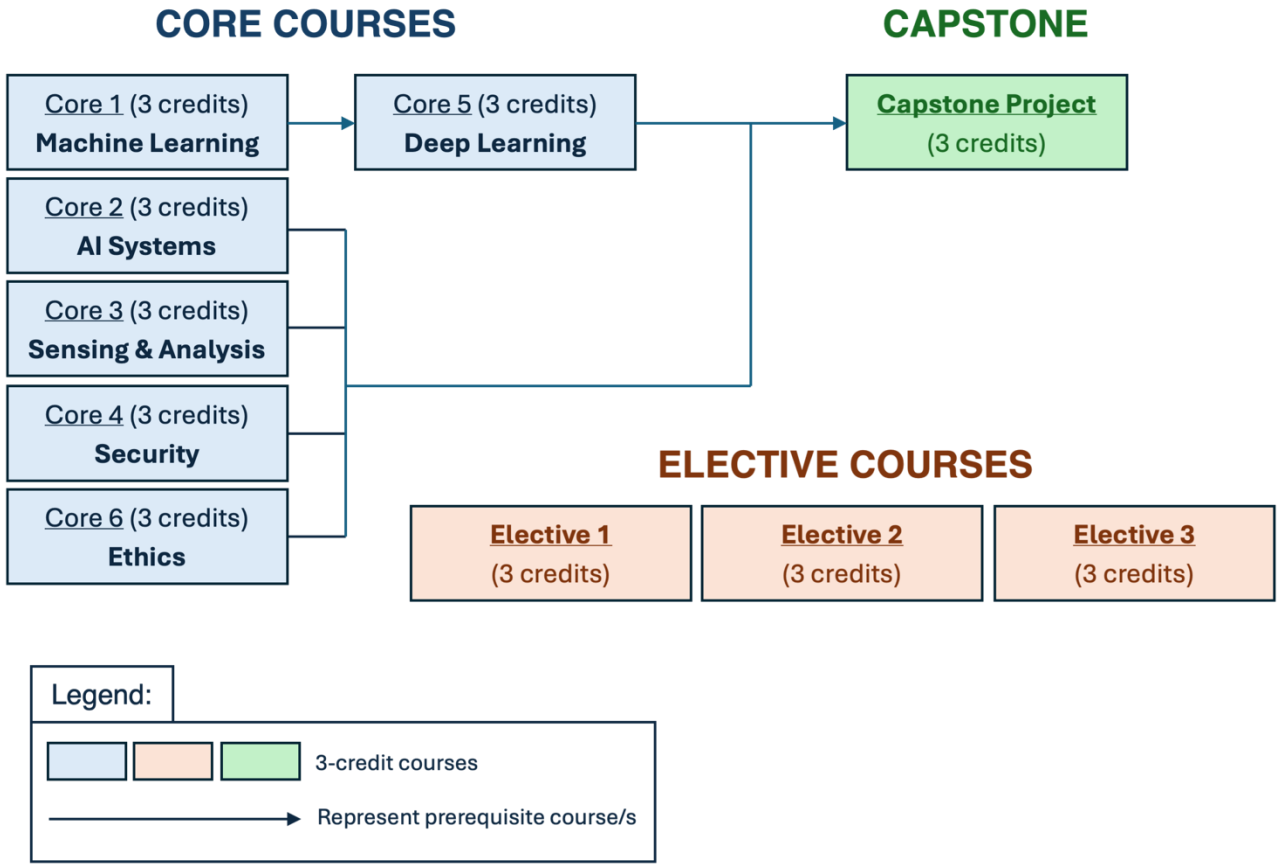
  - Strong analytical and computing engineering majors include computer science, computer engineering, electrical engineering, and more.

- The program will train you for a wide range of industry careers including technological and IT services, healthcare, finance and banking, robotics and manufacturing, telecommunications, energy and utilities, education and research, automotive, aerospace and defense, and more.

Curriculum

Curriculum

- The curriculum will consist of a set of:
  - 6 Core Courses (18 credit hours)
  - 3 Elective Courses (9 credit hours)
  - 1 Capstone Project (3 credit hours)



AI engineer responsibilities

AI engineers play an important role in organizations that use AI. They chart the AI strategy and define the problems to be solved with AI. They're in charge of building AI development and production infrastructure and then implementing them. Here are some specific tasks and responsibilities of an AI engineer:

- Create and manage the AI development and production infrastructure.
- Conduct statistical analysis and interpret the results to guide and optimize the organization's decision-making process.
- Automate AI infrastructures for the data science team.
- Build AI models from scratch and help product managers and other stakeholders with analysis and implementation.
- Transform machine learning models into APIs that can be integrated with other applications.
- Collaborate across teams to help with AI adoption and best practices.

Source: "What is an AI Engineer" by Coursera, accessed on 1/24/2025.

Curriculum – Core Courses

Core Courses

(choose 1 from each core area)

Core 1: Machine Learning	**EGN 5216** Machine Learning for AI Systems		
Core 2: AI Systems	**EGN 6930** Artificial Intelligent Systems		
Core 3: Sensing & Analytics	**CAP 5416** Computer Vision	**EEE 6512** Image Processing and Computer Vision	**EEL 5406** Computational Photography
Core 4: Security	**EEL 5739** IoT Security and Privacy	**EEE 6561** Fundamentals of Biometric Identification	**CIS 6930** Trustworthy Machine Learning
Core 5: Deep Learning	**CAP 6615** Neural Networks for Computing	**EGN 6217** Applied Deep Learning	
Core 6: Ethics	**EGN 6933** A.I. Ethics for Tech Leaders		

Curriculum – Elective Courses

Elective Courses

(choose 3, at least 1 in AML-DDM and 1 in AR-HCC)

<table>
<tr><td rowspan="3">AML-DDM:
Advanced Machine Learning and Data-Driven Modeling</td><td>BME 6938
Biomedical Data Science</td><td>CAP 6617
Advanced Machine Learning</td><td rowspan="2">EEL5840
Fundamentals of ML, or
STA 6703
Statistical ML</td></tr>
<tr><td>EEL 6814
Deep Learning</td><td>EEL 6825
Pattern Recognition and Intelligent Systems</td></tr>
<tr><td>ESI 6492
Global Optimization</td><td>EEE 6504
Machine Learning for Time Series</td><td>ESI 6355
Decision Support Systems for ISE</td></tr>
<tr><td rowspan="2">AR-HCC:
Autonomy, Robotics, and Human-Centered Computing</td><td rowspan="2">ABE 6005
Applied Control for Automation and Robotics</td><td rowspan="2">CAP 5108
Research Methods for Human Centered Computing</td><td>CEN 5726
Natural User Interaction</td></tr>
<tr><td>EML 6351
Adaptive Control</td></tr>
<tr><td>UT:
Unrestricted Technical Electives</td><td colspan="3">This group allows the students to take a technical elective course for greater curriculum flexibility. The technical elective courses in this group must be chosen in coordination with the graduate advisor to ensure prerequisite fulfillment and to optimize for achieving student career goals (e.g., courses related to entrepreneurship).</td></tr>
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Note: some courses are not available every semester, please plan your electives in advance and consult the schedule.

Standard Plan of Study

	Year 1	Year 2
Fall	• **Core 1**: Machine Learning • **Core 2**: AI Systems • **Core 3**: Sensing & Analysis	• Elective I • Elective II • Elective III
Spring	• **Core 4**: Security • **Core 5**: Deep Learning • **Core 6**: Ethics	• **CAI 6826** Project in AI Systems

Internship & Research

- You may count up to 3 credits of internship work towards your degree.
  - Upon approval, a 3-credit internship would substitute a 3-credit elective course.
- You may engage in research in several forms:
  - As course credits, on a volunteering basis at 0-credits.
  - As a University employer, under an OPS Student Assistant or Research Assistant (RA) position[1].
- You may serve as a Teaching Assistant (TA).
  - This would not count towards your degree, but it may be valuable experience[1].

[1]International students must always consult with their UF International Advisor prior to enrolling in any employment activity (paid, unpaid, volunteering, etc.).

Example – Plan of Study w/ Summer Internship

	Year 1	Year 2
Fall	• **Core 1**: Machine Learning • **Core 2**: AI Systems • **Core 3**: Sensing & Analysis	• Elective I • Elective II • ~~Elective III~~ • **CAI 6826** Project in AI Systems
Spring	• **Core 4**: Security • **Core 5**: Deep Learning • **Core 6**: Ethics	• ~~**CAI 6826**Project in AI Systems~~
Summer	• **EGN 6933** Practical Work in AI Systems	

Capstone Project

Capstone Project

- Option 1: CAI6826 Project in AI Systems (3 credits or 1 course)
  - **Personal passion.** Some students have specific personal interests that they want to pursue on their own. As long as you can define a realistic business/organizational problem you are solving and have the necessary data to solve it, this can be a very fulfilling project.
  - **Extension of current work.** Many students maintain part-time jobs or find RA/OPS positions with faculty and want to leverage that work to become their Capstone. As long as there is a defined, discrete problem to be solved, this allows your capstone to enhance and support what you are already doing.
  - **Something new.** Many students want to do something different. Every semester, our faculty pursue possible capstone projects with industry partners and faculty/researchers at University of Florida. Students apply for these and get selected by those partners running the project(s).

Capstone Project

- Option 2: Integrated Process & Product Design (IPPD) (6 credits or 2 courses)
  - **Industry-sponsored** AI-based projects.
  - 2-semester commitment (**IPPD 1** in Fall and **IPPD 2** in subsequent Spring).
  - **IPPD 1 substitutes an elective course**.
  - IPPD 2 substitutes CAI6826 Project in AI Systems.
  - If you did not complete IPPD 1, you cannot enroll in IPPD 2.
  - Group project with other graduate students.

Example – Plan of Study w/ IPPD

	Year 1	Year 2
Fall	• **Core 1**: Machine Learning • **Core 2**: AI Systems • **Core 3**: Sensing & Analysis	• Elective I • Elective II • ~~Elective III~~ • IPPD 1
Spring	• **Core 4**: Security • **Core 5**: Deep Learning • **Core 6**: Ethics	• ~~**CAI 6826** Project in AI Systems~~ • IPPD 2

Planning for your 1st Semester at UF

Acceptance Letter

- If you haven’t already, please send us your signed acceptance letter.

Registration

- Make sure there are **no holds** on your record
  - **Common holds:** ISIS, insurance, financial, credentials, etc.
  - Other holds: emergency contact (every 4 months), immunization hold, registration prep (every semester), local address information, student insurance, financial, etc.
  - "Degree/credential verification". A hold on your record for this reason will keep you from registering! Contact the **Office of Admissions** immediately.
  - **Email Lisa Hibbs at hibbslisa@ufl.edu when your holds are cleared.**
- We will register you for your first semester.

Registration – continued

- Must register for 9 credits.
  - 9 credits is a full-time load for graduate students.
- **Do not** register for more than 9 credits!
- Register for **at least one** course by 5 p.m. on Wednesday August 20th, to avoid the late registration fee ($100).

Full Time Enrollment

- Students must be enrolled in a minimum of 9 credits for the fall and spring to be considered full-time.
- International students must always maintain a full-time schedule to satisfy visa requirements.
  - Except the summer semester and the last semester of the program.[2]

[2]For questions related to immigration, please consult with your UFIC international advisor.

Fall 2025 Important Dates

- **In-person Orientation**: Tuesday August 19th , 1pm – 5pm.
  - Agenda will be posted on the website.
- Classes begin Thursday, August 21st.
- Drop & Add Week is August 21st – 27th.
  - **The Advising office closes at 4:30 p.m. on August 27th. We will not be able to assist you after 4:30 p.m.!**
  - Your schedule needs to be set by the end of drop & add week (severe $$ consequences otherwise).
- Monday, September 1st Labor Day – No Classes
- More dates and holidays: https://catalog.ufl.edu/UGRD/dates-deadlines/2025-2026/#fall25text.

Fall 2025 Important Dates – continued

- Fees for courses are due by 3:30p.m. on Friday, September 5th.
  - (late = $100 late payment fee)
  - Students with **Achievement Award** pay total amount shown on fees due statement LESS $1500 in any semester registered for 9 credits.
- Please refer to the Graduate School Deadline URL below—https://gradcatalog.ufl.edu/graduate/calendar/.

Grades & Transfer of Credits

Transfer of Credit

- MS students can transfer **up to 9 credits**.
- Transferred courses (specific courses) cannot have been counted toward another degree.
- Transfer should be done during the **first semester**.
  - Please email Lisa Hibbs, hibbslisa@ufl.edu, directly if you feel that you have credits that can be transferred to your Master's degree.

Course Equivalency

- If you believe that you have taken a course (or courses), including undergraduate course(s), that is equivalent to a course in the program's curriculum, you will need to take the following steps:
  - Obtain a copy of your finalized transcript from your prior institution.
  - Prepare a copy of the course syllabi and catalog description of the equivalent course(s) as well as any supporting material such as exams, projects, and homework.
  - Send (via email) these items, along with the equivalency form (email hibbslisa@ufl.edu for the form) to the instructor who teaches the core course for determining whether the course can be waived.
- Remember: This is a different process than **transferring** prior credits, a process which should be handled, with the help of your grad advisor early in your first semester.

Dropping a Course (Withdrawal)

- Graduate students can drop a **maximum of two courses** during their entire enrollment.
  - International students must file a UFIC RCL form.
- Students are **not allowed** to adjust schedules after the official drop & add period.

Grade Issues

- You must have **at least** a 3.0 overall grade point average and **at least** a 3.0 major GPA to graduate.
  - Students with less than a 3.0 are **not** considered in good standing.
  - Students with GPAs below a 3.0 will be **reviewed by the Graduate Affairs Committee** for further action (including possible dismissal) at the end of each semester.
- Any grade below C (e.g. C-, D+, etc.) **will not count** toward graduation.
- Repeating coursework is strongly discouraged.
- Undergraduate coursework **does not count** toward graduation.

“I” Incomplete Grades

- If a student fails to complete all course requirements, the instructor has the option to give a grade of “I” (incomplete).
- Most instructors will use this option **only** if there are extenuating circumstances (family emergency, medical situation, etc.).
- An “I” must be made up the following term.
- Students cannot sit in on a course to make up an “I” grade.
- Failure to correct an “I” will result in the grade being calculated as an E (fail) for the GPA.
- Students are **not allowed** to graduate with an “I”, “H”, “J”, or “N” on their record.

Resources

Program Questions

- For advising help, please email:
  - **Lisa Hibbs** at hibbslisa@ufl.edu or **Pam Simon** at phs@ufl.edu.

Lisa Hibbs
Academic Advisor

Pamela Simon
Academic Assistant (Admissions)

- For course or discipline-specific questions, please email the Program Director:
  - **Dr. Catia Silva** at catiaspsilva@ece.ufl.edu.

Catia S. Silva, Ph.D.
Program Coordinator

Campus Resources

- UF Counseling Center – 301 Peabody Hall – 392-1575
- Student Mental Health – Infirmary Building – 24-hour helpline - 392-1171
- Student Healthcare Center – Infirmary Building – 392-3261
- University Police Department – Building 51, Museum Rd. 392-1111. Call 911 for emergencies.
- Dean of Students Office – 202 Peabody Hall
  - Disability Resource Center
  - Judicial Affairs
  - Multicultural Affairs
  - Student Legal Services

Engineering Education Resources

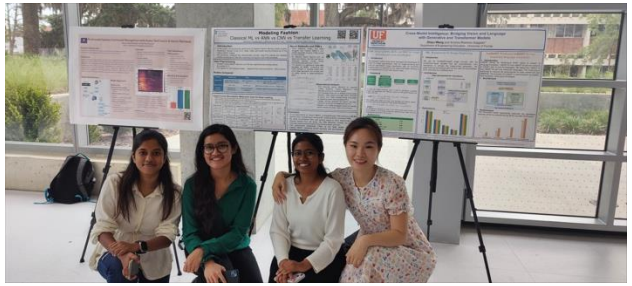
- The EED provides help with:
  - Course scheduling
  - Adding and dropping courses
  - Withdrawing from a semester
  - Petitions
  - Supervisory committees
  - Academic problems
  - Graduation
  - Exam sign-up
  - Internships
  - And tons of other things!
- As a courtesy, when e-mailing EED, please **include your UFID number**.
- Always **email from your UFL.edu** account. This is the only address that will be used once enrolled.
- **Please email us** if you have questions about **anything** – squelch a crisis before it grows unmanageable!!

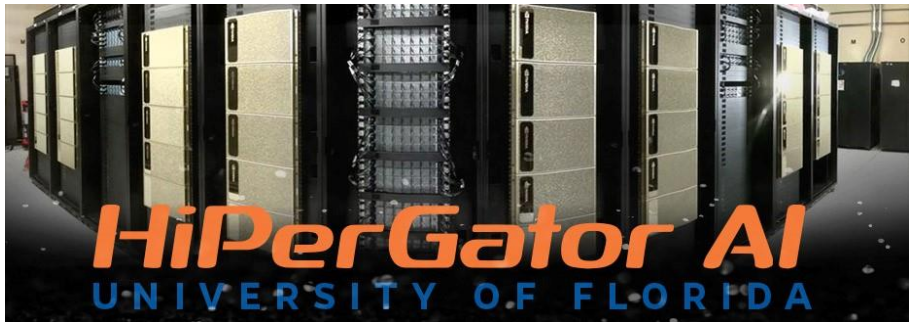
More Help

- International Friendship, www.internationalfriendship.org
  - An organization that exists to befriend and assist international students and their families during their transition and stay in America – free English classes every week, plus more. . .

Are you ready to become a Florida Gator?

It’s Great to be a Florida Gator!





Go Gators!

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