COLLEGE OF
ENGINEERING, ARCHITECTURE
AND TECHNOLOGY

MASTER OF SCIENCE

ARTIFICIAL INTELLIGENCE

CPE

PROGRAM OVERVIEW

The Master of Science (MS) in Artificial Intelligence – Computer Engineering Track prepares students to integrate and advance AI methodologies within the domain of computer engineering. The curriculum emphasizes the design and implementation of intelligent systems, smart technologies, and autonomous decision-making processes through machine learning, robotics, computer vision, and deep neural networks. This 33-credit-hour program equips graduates with the analytical and computational expertise required for emerging careers in AI-driven system design, advanced algorithm development, and intelligent automation across industries such as energy, defense, manufacturing, and healthcare.

WHY OSU ECE?

- Strong interdisciplinary collaboration between the School of Electrical and Computer Engineering and the School of Computer Science
- Jointly supported by a dynamic team of research-active and teaching-focused faculty dedicated to academic excellence and student success
- Access to state-of-the-art computing resources and modern laboratory facilities
- Flexible learning options with both in-person and online delivery formats
- Opportunities to engage in faculty-led research in Artificial Intelligence, Energy Systems, and Robotics
- Extensive industry partnerships providing pathways for internships, mentorship, and professional growth

HOW LONG DOES IT TAKE TO COMPLETE THE JOINT MS IN AI PROGRAM (CPE TRACK)?

The Joint MS in Artificial Intelligence (Computer Engineering Track) offers a flexible pathway tailored to your pace and goals. The program requires completion of 11 courses (33 credit hours, CH) and can be pursued full-time or part-time, with guidance from the Graduate Coordinator to help you plan your degree.

Current OSU ECE undergraduates can accelerate their studies through the 4+1 pathway, applying up to 9 credit hours toward both BS and MS degrees. Depending on your course load, you can earn your MS in AI (CpE Track) in as little as one year or up to four years while balancing professional and academic commitments.

CAREER PATHWAYS

GRADUATES ARE PREPARED FOR CAREERS SUCH AS:

- AI & Machine Learning Engineer
- Data Scientist / Computer Vision Engineer
- Robotics & Intelligent Systems Engineer
- R&D Engineer in Smart Energy, Smart Manufacturing, Intelligent Automation, and Semiconductor Design

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MASTER OF SCIENCE

ARTIFICIAL INTELLIGENCE: COMPUTER ENGINEERING

Curriculum designed for individualized and self-paced learning

CORE COURSES

9 Hours

CS	5723	Artificial Intelligence I
CS	5783	Machine Learning
ECEN	5733	Neural Networks
ECEN	5773	Intelligent Systems

TRACK REQUIRED COURSES

6 Hours

ECEN	5513	Stochastic Systems
ECEN	5743	Deep Learning

ELECTIVE COURSES*

18 Hours

CS	5793	Artificial Intelligence II
CS	5683	Big Data Analytics
ECEN	5283	Computer Vision
ECEN	5243	Advanced Mobile Robotics
ECEN	5453	Applied AI in Electrical and Computer Engineering
ECEN	5793	Digital Image Processing

Any core course not selected

ECEN	5080	Special Topics (*up to 6 hrs)*

Mobile Robotics, AI in Engineering
Applied Numerical Method with Python for Engineers

At least 12 hours of elective courses must be from Computer Engineering (ECEN)

TOTAL HOURS: 33

SAMPLE ENROLLMENT TIMELINE

# of semesters	1	2	3	4	5	6	7	8
Accelerated 4+1 Program	12 CH	12 CH						
Full-time maximum load	12CH	12CH	9CH					
Full-time minimum load	9CH	9CH	9CH	6CH				
Part-time maximum load	6CH	6CH	6CH	6CH	6CH	3CH		
Part-time Minimum load	3CH	6CH	3CH	6CH	3CH	6CH	3CH	3CH

ENGAGE ECE COMMUNITY EMPOWER COMMUNICATE

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This course plan is for general guidance only. An official course plan will be provided upon enrollment.

Contact | ceat.recruitment@okstate.edu | (405)-744-5279