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Updated: Summer 2024

BIOMEDICAL ENGINEERING TO ARTIFICIAL INTELLIGENCE BACHELOR OF SCIENCE (B.S.) IN BIOMEDICAL ENGINEERING TO MASTER OF SCIENCE (M.S.) IN ARTIFICIAL INTELLIGENCE COMBINED PROGRAM

(Minimum of 150 credits required)

This combined degree program allows Bachelor of Science (B.S.) students in Biomedical Engineering with a cumulative GPA of at least 3.25 at the end of their junior year the opportunity to jointly complete their B.S. and a Master of Science (M.S.) in Artificial Intelligence degree within approximately five years. After application and admittance to the graduate program at the beginning of their senior year, up to 12 credits of approved graduate-level courses (5000-level or higher) may be taken and counted toward both the B.S. and M.S. degrees, as long as the following criteria are met:

1. The student has met the minimum of 120 credits for the B.S. degree, and
2. The student has taken a minimum of 30 credits (5000-level or higher) for the M.S. in Artificial Intelligence.

The combined degree program is 150 credits, with 120 for the undergraduate degree and 30 for the master's degree. Students complete the undergraduate degree first and take up to 12 credits of graduate coursework in their senior year, which will be used to satisfy both degrees. Students must retain a cumulative GPA of 3.25 by the time of graduation.

Prerequisite coursework for the M.S. in Artificial Intelligence includes undergraduate-level calculus, statistics, and programming, all of which are fulfilled through the required coursework in the B.S. in Biomedical Engineering. Therefore, all remaining requirements for the M.S. in Artificial Intelligence consist of graduate-level courses. To meet these requirements within the combined program, students may substitute their three B.S. in Biomedical Engineering technical electives (3 credits each) with three of the following M.S. in Artificial Intelligence core courses:

CAP 5625 Computational Foundations of Artificial Intelligence (3 credits)

CAP 6415 Computer Vision (3 credits)

CAP 6635 Artificial Intelligence (3 credits)

CAP 6618 Machine Learning for Computer Vision (3 credits)

CAP 6619 Deep Learning (3 credits)

CAP 6629 Reinforcement Learning (3 credits)

CAP 6640 Natural Language Processing (3 credits)

Other graduate-level courses within the M.S. in Artificial Intelligence program may also be considered, but must be approved by the student's academic advisor.



RE: BS BME/MS AI

From Hari Kalva <hkalva@fau.edu>

Date Tue 9/23/2025 10:17 AM

To Javad Hashemi <jhashemi@fau.edu>; Fred Bloetscher <fbloetsc@fau.edu>

Cc Raquel Assis <rassis@fau.edu>; Myeongsub Kim <kimm@fau.edu>; Stella Batalama <sbatalama@fau.edu>; Hanqi Zhuang <zhuang@fau.edu>

Hi Javad, EECS supports the proposed BS BME/MS AI program.

Best,
Hari

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Hari Kalva, Ph.D., FNAI

Chair and Professor

Dept. of Electrical Engineering and Computer Science (eeecs.fau.edu)

Director, Multimedia Systems Lab, (mlab.fau.edu)

Florida Atlantic University
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From: Javad Hashemi <jhashemi@fau.edu>

Sent: Tuesday, September 23, 2025 8:52 AM

To: Fred Bloetscher <fbloetsc@fau.edu>

Cc: Raquel Assis <rassis@fau.edu>; Myeongsub Kim <kimm@fau.edu>; Hari Kalva <hkalva@fau.edu>; Stella Batalama <sbatalama@fau.edu>; Hanqi Zhuang <zhuang@fau.edu>

Subject: BS BME/MS AI

Dear Fred, as discussed before, BS ME/MS AI, BS EE/MS AI, and even BS CE / MS AI were all developed with Hanqi's help. BS BME/MS AI is an extension of this initiative and has exactly the same requirements. I discussed this with both the Dean and Hari. Please approve the program so we can proceed.

Mike, please provide anything else that Fred may need.

Thank you.

Javad

Javad Hashemi, PhD

Chair, Department of Biomedical Engineering

Associate Dean for Research

Administrator, Link Ocean Engineering and Instrumentation Program

College of Engineering and Computer Science

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