# NEW/CHANGE PROGRAM REQUEST
## Undergraduate Programs

FLORIDA ATLANTIC UNIVERSITY

**Department** Electrical Engineering and Computer Science

**College** Engineering and Computer Science

UUPC Approval 10-12-2026
UFS Approval _____
Banner _____
Catalog _____

**Program Name**
Bachelor of Science in Artificial Intelligence with Education

☐ **New Program***
☑ **Change Program***

**Effective Date**
*(TERM & YEAR)*
Fall 2027

**Please explain the requested change(s) and offer rationale below or on an attachment.**

The Dept. of Curriculum and Instruction in the College of Education and the Dept. of Electrical Engineering and Computer Science in the College of Engineering and Computer Science are requesting that changes be made to the Bachelor of Science in Artificial Intelligence with Education degree, to revise some of the Education Core Courses and Education Electives. These changes ensure students take key courses in both ESOL strategies and classroom management, remove core courses no longer offered (EDF 2854), and provide more elective course options for students to choose from in order to best fit their curricular interests.

1) Course Requirement Changes: (a) Remove ESE 3940 Secondary School Effective Instruction as a required course. (b) Add notation of 15 hour field component requirement to EDF 2005. (c) Remove the notation "or" between TSL 4324 and EDG 4419. Proposed requirement: ESE 3940 will now be listed as an elective. Both TSL 4324 and EDG 4419 are required courses.

2) Elective Changes: (a) Add "OR" for SCE 4350 Principles & Methods K-9 Sci. / SCE 4360 Science: Middle & Sec. School; students may take either SCE 4350 OR SCE 4360 as an elective. (b) The dept would like to remove EDF 2854 and add the following courses and comment to the elective list: EDG 4343 - Instructional Strategies and Assessment Practices; RED 4335 - Reading in the Content Area; EEX 4763 - Special Education Technology; EDG 4916 - Directed Independent Research; ESE 3940 - Secondary School Effective Instruction (90 hours field experience). Addition of the following phrase at the end of the list of electives: "Additional electives can be added based on advisor input."

*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.

**Faculty Contact/Email/Phone**
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**Consult and list departments that may be affected by the change(s) and attach documentation**

| ***Approved by*** | ***Date*** |
|---|---|
| Department Chair Hai Kalva | 10/05/2026 |
| College Curriculum Chair | 10/5/26 |
| College Dean | 10/5/26 |
| UUPC Chair Korey Sorge | 10-12-2026 |
| Undergraduate Studies Dean Dan Meeroff | 10-12-2026 |
| UFS President | |
| Provost | |

Email this form and attachments to mjenning@fau.edu seven business days before the UUPC meeting.

Artificial Intelligence with education
Bachelor of science (b.s.)

*(Minimum of 120 credits required)*

The mission of the interdisciplinary artificial intelligence programs is to prepare graduates who can build and architect AI systems informed by deep domain expertise to solve complex, real-world challenges across diverse fields. The programs provide a strong foundation in AI principles and domain-specific knowledge, cultivating interdisciplinary innovators with the technical skills to create novel AI solutions, the ability to deploy them responsibly and the adaptability to thrive in a rapidly evolving technological landscape. Graduates will be highly competitive in the workforce and well-prepared to lead innovation across industry, research and society.

Admission Requirements
All students must meet the minimum admission requirements of the University. Please refer to the Admissions section of this catalog.

The Bachelor of Science in Artificial Intelligence with Education (B.S.) is an interdisciplinary program jointly administered by the Department of Curriculum and Instruction in the College of Education and the Department of Electrical Engineering and Computer Science (EECS) in the College of Engineering and Computer Science. This program aims to prepare students with balanced training in AI/computer science and Education to meet growing workforce demand at the intersection of education and technology.

Prerequisite Coursework for Transfer Students
Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Curriculum) and requirements for the college and major. Lower-division requirements may be completed through an Associate in Arts (A.A.) degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the Transition Guides.

All courses not listed with the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

Degree Requirements
The minimum number of credits required for the Bachelor of Science in Artificial Intelligence with Education degree is 120 credits: 36 credits in the General Education Curriculum, 24 credits in AI core, 15 credits in AI electives, 24 credits in Education core, 15 credits in Education

electives, 3 credits capstone course, 3 credits mathematics for AI. This degree will be awarded to students who satisfy all admission and degree requirements.

Students must attain a minimum grade of "C" in Mathematics of Data Science, AI Core, AI Electives, Education Core, Education Electives, and AI Capstone.

Foreign Language Requirement
All students must satisfy the foreign language requirement for admission to the University.

Specific Requirements

| Course Title | Course Number | Credits |
|---|---|---|
| *General Education Courses*** | | *36* |
| Mathematics of Data Science | MAP 2192 | 3 |
| *AI Core Courses* | | |
| Applications of Artificial Intelligence | CAP 2603 | 3 |
| Introduction to Artificial Intelligence | CAP 4630 | 3 |
| Introduction to Data Science and Analytics | CAP 4773 | 3 |
| Introduction to Software Design | CEN 3062C | 3 |
| Introduction to Programming in Python | COP 3035C | 3 |
| Data Structures and Algorithm Analysis with Python | COP 3410C | 3 |
| Foundations of Computing | COT 2000C | 3 |
| Design and Analysis of Algorithms | COT 4400 | 3 |
| | Total AI Core Credits | 24 |
| *Artificial Intelligence Electives**** | | |
| *Select five courses totaling 15 credits* | | |
| Introduction to Large Language Models | CAI 4223 | 3 |
| Introduction to Natural Language Processing | CAI 4304 | 3 |
| Introduction to Deep Learning | CAP 4613 | 3 |
| Trustworthy Artificial Intelligence | CAP 4623 | 3 |

| | | |
|---|---|---|
| Introduction to Data Mining and Machine Learning | CAP 4770 | 3 |
| Introduction to Database Structures | COP 3540 | 3 |
| Introduction to Web Programming | COP 3834 | 3 |
| Python Programming | COP 4045 | 3 |
| Applied Database Systems | COP 4703 | 3 |
| | Total AI Electives Credits | 15 |

| Course Title | Course Number | Credits |
|---|---|---|
| *Education Core Courses* | | |
| Introduction to the Teaching Profession (15 hour field component required) | EDF 2005 | 3 |
| Applied Learning Theory | EDF 3210 | 3 |
| Education Measurement and Evaluation | EDF 3430 | 3 |
| Building Classroom Management and Discipline | EDG 4419 | 3 ~~or~~ |
| ESOL Strategies for Content Area Teachers | TSL 4324 | 3 |
| Introduction to Technology for Educators | EME 2040 | 3 |
| Digital Literacy | EME 2620 | 3 |
| ~~Secondary School Effective Instruction~~ | ~~ESE 3940~~ | ~~3~~ |
| Principles and Methods: K-9 School Math | MAE 4350 | 3 or |
| Teaching Middle and Secondary School Mathematics | MAE 4360 | 3 |
| | Total Education Core Credits | 24 |
| *Education Electives* | | |
| *Select five courses totaling 15 credits* | | |
| ~~The Educated Citizen in a Global Context~~ | ~~EDF 2854~~ | ~~3~~ |
| Special Education Strategies for Elementary Educators | EEX 4070 | 3 |

| | | |
|---|---|---|
| Educational Technology for 21st Century Teacher | EME 4312 | 3 |
| Principles and Methods: K-9 School Science | SCE 4350 | 3 or |
| Teaching Secondary Science | SCE 4360 | 3 |
| Introduction to Theories and Practices of TESOL | TSL 4080 | 3 |
| Secondary School Effective Instruction | ESE 3940 | 3 |
| Classroom Instructional and Assessment Strategies | EDG 4343 | 3 |
| Content Reading: Middle and Secondary Schools | RED 4335 | 3 |
| Special Education Technology | EEX 4763 | 3 |
| Directed Independent Research in Curriculum & Instruction | EDG 4916 | 3 |
| Sec. School Effective Instruction (90 hour field component required) | ESE 3940 | 3 |
| Additional electives can be added based on advisor input | | |
| | Total Education Electives Credits | 15 |
| Free Electives | | |
| AI Capstone Projects | CAI 4951 | 3 |
| | Total | 120 |

** Students must take STA 2023 and MAC 2233 in Mathematics area

*** Certain 3000- and 4000-level courses offered by the Electrical Engineering and Computer Science Department may be used as AI electives. Certain 5000- or 6000level courses offered by the Electrical Engineering and Computer Science Department may be taken as AI electives. Students must see an advisor for a current list of elective courses.