

This Program Change form will enable you to propose several types of changes to any existing program. You may propose changes to an existing program's:

- Title
- Description
- Requirements
 - Prerequisites
 - Required courses
 - Elective courses
 - Graduation requirements

In addition, this program change form should be used to propose a new major or track (or specialization, concentration, area of emphasis). Each of these types of programs is defined by the Board of Governors (BOG) of the State University System of Florida, in its Regulation 8.011 Academic Degree Program Coordination and Approval. These definitions are outlined in FIU Policy 350.010 Academic Degree Program Coordination and Approval.

- **Program Major:** An organized curriculum offered as part or all of an existing or proposed degree program. A major must be reasonably associated with the degree program under which it is offered and share a minimum of 15% of core courses with other majors within the same degree program. For an undergraduate degree, each major requires completion of a minimum of 30 credits (including core courses). Graduate degrees typically focus only on the specific discipline; therefore, there is no minimum credit requirement for graduate majors. There are cases where the major and degree program names are identical, thus creating only one major.
- **Program Track (or Specialization, Concentration, Area of Emphasis):** An organized curriculum, offered as part of an individual student's degree program, which enhances or complements the degree to be awarded in a manner that leads to specific educational or occupational goals. In order to establish some uniformity across degree programs, this level of categorization should be termed a track unless a different terminology is required for accreditation or discipline purposes. The number of credit hours of a track, specialization, concentration, or area of emphasis shall not equal or exceed the number of credit hours established for a program major at the same degree level.

Standing committees of the FIU Faculty Senate will review these changes. The members that comprise these governing bodies may not understand the nuances of your department or academic discipline. Therefore, you will be required to provide a justification for the changes you are proposing. The committees request that justifications be specific and written for an audience that is unfamiliar with your department and program.

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Program & Proposal Type

Which type of program do you propose changing?

Degree Program

Select each type of change you are proposing to an existing program. (You may propose more than one type of change/ addition.)

Name, Description, Admission Requirements, Program Requirements

Justification

Please provide a justification for the changes you are proposing.

The proposed program name change and course additions/adjustments are in response to the program's Industry Advisor Board recommendations and industry demands for graduates to acquire the skills, knowledge, and understanding of applying AI in ECE domains. Additionally, this program will be a feeder to the MS in Applied AI and IoT and therefore the name change is warranted. The name change replaces the current program name with "Applied AI & IoT" to appropriately represent the incorporation of additional AI courses in the program.

Effective term

Proposed program changes will become **effective the next academic year**.

For example: changes submitted in 2024-25 will become effective in 2025-26.

Questions Specific to the List of Courses Required for this Program

If proposing additional courses, do all courses exist in the current catalog?

No

If courses are not in the current catalog, are they currently in the workflow process?

Yes

New Course Form

Please submit a New Course Form for the courses you wish to propose.

Are all courses to be added taught in the same proposing department?

Yes

Are courses to be deleted taught in the same proposing department?

No

If no, provide written approval/acknowledgment of the other department(s).

[Program_CS_Agreement.docx](#)

Does this change affect the courses measuring Student Learning Outcomes (SLOs) or Program Outcomes (POs) for the program?

No

Please upload your revised Student Learning Outcomes (SLOs) and/or Program Outcomes (POs).

-

Catalog Fields

Current Program Title

Bachelor of Science in Internet of Things

Proposed Program Title

Bachelor of Science in Applied AI & IoT

Current Program Description

The College of Engineering and Computing offers a Bachelor of Science (BS) degree in Internet of Things related to technologies used in numerous daily life applications from electrified connected cars, homes, medical devices, and smart city infrastructure.

For more information, visit the College of Engineering and Computing website.

Proposed Program Description

The College of Engineering and Computing offers a Bachelor of Science (BS) degree in Applied AI & IoT related to Applied AI technologies used in numerous daily life applications from electrified connected cars, homes, medical devices, and smart city infrastructure.

For more information, visit the College of Engineering and Computing website.

To explore more about this program, visit the website below:

Program Website

Current Program Website

Program Website

Proposed Program Website Change

[Program Website](#)

Requirements

Simple Requisites

Admissions Requirements

See general university admissions requirements at admissions.fiu.edu.

Program Requirements

Academic Progression Standards

Students who are unsuccessful in passing common pre-requisites after two attempts will be advised to change their major into an area where they can be successful. Drops after the add/drop period, which result in a DR grade, are considered an attempt in the course and count as an unsuccessful enrollment.

Lower Division Preparation

Type

Completion Requirement

Common Prerequisite Courses

For a list of all state-approved common prerequisites, including alternatives, visit <https://cpm.flvc.org>.

Complete ALL of the following Courses:

- MAC1105 - College Algebra
- MAC1114 - Trigonometry
OR MAC1147 - Pre-Calculus Algebra and Trigonometry
- PHY2053 - Physics without Calculus I
AND PHY2048L - General Physics Laboratory I
- PHY2054 - Physics W/O Calc II
AND PHY2049L - General Physics Laboratory II

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Additional Degree Requirements

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Complete ALL of the following Courses:

- CGS2518 - Computer Data Analysis
- CHM1045 - General Chemistry I
AND CHM1045L - General Chemistry Lab I
- COP2250 - Java Programming
- EGS1041 - Technology, Humans, and Society
- IDS3315 - Gaining Global Perspectives

-

Additional Comments:

-

Degree Program Requirements

Type

Completion Requirement

Degree Program Requirements

-

Fulfill ALL of the following requirements:

IoT Core Courses : 39 credits

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Complete ALL of the following Courses:

- TCN2720 - Introduction to Internet of Things
- CTS1120 - Fundamentals of Cybersecurity
- EGN2271 - Introduction to Circuits and Electronic Hardware
- CDA3104 - Introduction to Computer Design
- CNT3142 - Microcontrollers for Internet of Things
- CNT3162 - Wireless Communications for IoT
- EEL2880 - C Programming for Embedded Systems
- EEL4730 - Programming Embedded Systems
- EEL4734 - Embedded Operating Systems
- TCN4211 - Telecommunication Networks
- EEE4717 - Introduction to IoT Security
- CGS3767 - Computer Operating Systems
- CEN3721 - Introduction to Human-Computer Interaction

-

AND

Electives:

Complete 9 credits of Electives from the Department of Electrical and Computing Engineering:

Complete ANY of the following Courses:

- TCN4081 - Telecommunication Network Security

- CNT4185 - Internet of Things Privacy
- CNT4165 - Network Protocols for Internet of Things
- CNT4188 - Internet of Things Forensics

Elective Courses from Other Departments in CEC (Up to 9 credits): As long as the prerequisites are met, up to 9 credits can be taken from other engineering departments.

Elective Courses from other Colleges (up to 12 credits): As long as the prerequisites are met, 12 credits can be taken from other Colleges. Out of 12, up to 6 credits are acceptable/transferrable from other FL universities' online programs.

Additional Comments:

-

Major Requirements

There are no majors associated with this program.

Track, Specialization, Concentration, Area of Emphasis, or Other Curricular Offering Requirements

There are no tracks, specializations, concentrations, areas of emphasis, or other curricular offerings associated with this program.

No Requirement Level

Admission Requirements Changes

Instructions

To propose changes to existing catalog text, first select the "+ Add New" button below. A text box will appear. Then, copy the existing Admissions Requirements text from the Admissions Requirements section above and paste the text in the text box below.

In the text box, use your cursor to select (i.e., highlight) the text you want to change. Use the strikethrough icon to denote deletions of text and the underline icon to denote added text.

If there are any courses referenced as requirements for admissions, any additions should be added using the "Embed Course Link" (book icon) in the toolbar above. Click the icon. Then, search using the prefix and number of the course you wish to add. Then click "Embed Link".

If you are trying to add a course that has been deactivated, it must be reactivated before submission of this proposal.

Changes

Students who are unsuccessful in passing common pre-requisites after two attempts will be advised to change their major into an area where they can be successful. Drops after the add/drop period, which result in a DR grade, are considered an attempt in the course and count as an unsuccessful enrollment.

Lower Division Preparation

Completion requirement

Common Prerequisite Courses

For a list of all state-approved common prerequisites, including alternatives, visit <https://cpm.flvc.org>.

Complete ALL of the following Courses:

- MAC1105 - College Algebra

- MAC1114 - Trigonometry
OR MAC1147 - Pre-Calculus Algebra and Trigonometry

- PHY2053 - Physics without Calculus I
AND PHY2048L - General Physics Laboratory I

- PHY2054 - Physics W/O Calc II
AND PHY2049L - General Physics Laboratory II

Additional Degree Requirements

~~Complete ALL of the following Courses:~~

- ~~CGS2518 - Computer Data Analysis~~
- ~~CHM1045 - General Chemistry I
AND CHM1045L - General Chemistry Lab I~~
- ~~COP2250 - Java Programming~~
- ~~EGS1041 - Technology, Humans, and Society~~
- ~~IDS3315 - Gaining Global Perspectives~~

Program Requirement Changes

Instructions

To propose changes to existing catalog text, first select the "+ Add New" button below. A text box will appear. Then, copy the existing Program Requirements text from the Program Requirements section above and paste the text in the text box below.

In the text box, use your cursor to select (i.e., highlight) the text you want to change. Use the strikethrough icon to denote deletions of text/courses and the underline icon to denote added text.

For additional courses, use the "Embed Course Link" (book icon) in the toolbar above. Click the icon. Then, search using the prefix and number of the course you wish to add. Then click "Embed Link".

If you are trying to add a course that has been deactivated, it must be reactivated before submission of this proposal.

Degree Program Requirements

Fulfill ALL of the following requirements:**Applied AI & IoT Core Courses : 42 credits****Complete ALL of the following Courses:**

TCN2720 - Introduction to Internet of Things

CTS1120 - Fundamentals of Cybersecurity

EGN2271 - Introduction to Circuits and Electronic Hardware

CDA3104 - Introduction to Computer Design

~~CNT3142 – Microcontrollers for Internet of Things~~

~~CNT3162 – Wireless Communications for IoT~~

EEL2880 - C Programming for Embedded Systems

EEL4730 - Programming Embedded Systems

~~EEL4734 – Embedded Operating Systems~~

~~TCN4211 – Telecommunication Networks~~

~~EEE4717 – Introduction to IoT Security~~

~~CGS3767 – Computer Operating Systems~~

~~CEN3721 – Introduction to Human-Computer Interaction~~

EEL 4806 Ethical Hacking & Countermeasures EEL4806 Ethical Hacking

EEL 4802 Intro to Digital Forensics Engineering EEL4802 Intro to Digi Forensics or

EEL 4804 Intro Malware Reverse Engineering EEL4804 Intro Malware Reverse Eng

CNT 3143 Analytics and Cloud Services in ECE CNT3143 Analytics & Cloud in ECE

CNT 4149 Deep Learning in ECE CNT4149 Deep Learning in ECE

CNT 4153 Machine Learning in ECE CNT4153 Machine Learning in ECE

CNT 4155 Python Programming in ECE CNT4155 Python Programming in ECE

CNT 3xxx Data Engineering in ECE CNT Data Engineering in ECE

CNT 4xxx Generative AI in ECE CNT Generative AI Fundamentals in ECE

Electives:

Complete 18 credits of Electives from the Department of Electrical and Computing Engineering:

Complete ANY of the following Courses:

TCN4081 - Telecommunication Network Security

TCN 4212 Telecomm. Network Analysis & Des.

EEL 3370 C++ Programming for Embedded Systems

EEE 4754 Intro to Mobile Forensics

EEE 4750 Intro to Image & Video Forensics

EEE 4752 Intro to Network Forensics & Incident Resp.

CNT 4147 Big Data Analytics in ECE CNT4147 Big Data Analytic in ECE

CNT 4151 Data Visualization in ECE CNT4151 Data Visual in ECE

CNT3142 - Microcontrollers for Internet of Things CNT3142 Microcontrollers for IoT

CNT3162 - Wireless Communications for IoT CNT3162 Wireless Comm. for IoT

CNT3162 - Introduction to IoT Security CNT3162 Wireless Comm. for IoT

CNT4185 - Internet of Things Privacy

TCN4211 - Telecommunication Networks TCN4211TCN4211 Telecom Networks

CNT4165 - Network Protocols for Internet of Things

CNT4188 - Internet of Things Forensics

EEL4734 - Embedded Operating Systems

CNT 4xxx Embedded AI CNTCNT Embedded AI

~~COP 4610 - Operating Systems Principles~~

~~COP 4655 - Mobile Application Development~~

~~COT 3100 - Discrete Structures~~

~~COP 3337 - Programming II~~

~~COP 3530 – Data Structures~~

~~COP 4338 – Systems Programming~~

Elective Courses from Other Departments in CEC (Up to 9 credits): As long as the prerequisites are met, up to 9 credits can be taken from other engineering departments.

Elective Courses from other Colleges (up to 12 credits): As long as the prerequisites are met, 12 credits can be taken from other Colleges. Out of 12, up to 6 credits are ~~acceptable/transferrable~~ acceptable/transferable from other FL universities' online programs with departmental/advising approval.

Major Requirements

Instructions

This section allows you to make "changes to a current major" or propose a "new major".

To propose **changes** to the catalog information for an existing major(s):

1. Select "**Change(s) to a current major**" in the drop down below.
2. Use the "+ Add New" button and a text box will appear.
3. Copy the existing Major Requirements text from the Major Requirements section above and paste in the text box.
4. In the text box, use your cursor to select (i.e., highlight) the text you want to change. Use the strikethrough icon to denote deletions of text/courses and the underline icon to denote added text.
5. For additional courses, use the "Embed Course Link" (book icon) in the toolbar above. Click the icon. Then, search using the prefix and number of the course you wish to add. Then click "Embed Link".

If you are trying to add a course that has been deactivated, it must be reactivated before submission of this proposal.

6. Repeat steps 2 - 5 for each major which requires changes.

To propose a **new major(s)** in this degree program:

1. Select "**New major**" in the drop down below.
2. Use the "+ Add New" button.
3. Complete all the required fields.
4. In the Major Requirements field, provide a detailed course listing and any specifics regarding course requirements.
5. For each course, use the "Embed Course Link"(book icon) in the toolbar above. Click the icon. Then, search using the prefix and number of the course you wish to add. Then click "Embed Link".

If you are trying to add a course that has been deactivated, it must be reactivated before submission of this proposal.

6. Repeat steps 2 - 5 for each additional new major.

Using the drop down menu below, please select the changes you would like to make.

-

Change(s) to a Current Major

-

New Major(s)

-

Track, Specialization, Concentration, Area of Emphasis, or Other Curricular Offering Requirement

Instructions

This section allows you to make "Change(s) to a current Track, Specialization, Concentration, Area of Emphasis, or Other Curricular Offering Requirement" or propose a "New Track, Specialization, Concentration, Area of Emphasis, or Other Curricular Offering".

To propose **changes** to the catalog information for an existing Track, Specialization, Concentration, Area of Emphasis, or Other Curricular Offering(s):

1. Select "**Change(s) to a current Track, Specialization, Concentration, Area of Emphasis, or Other Curricular Offering Requirement**" in the drop down below.
2. Use the "+ Add New" button and a text box will appear.
3. Copy the existing text from the Track, Specialization, Concentration, Area of Emphasis, or Other Curricular Offering Requirements section above and paste in the text box.
4. In the text box, use your cursor to select (i.e., highlight) the text you want to change. Use the strikethrough icon to denote deletions of text/courses and the underline icon to denote added text.
5. For additional courses, use the "Embed Course Link"(book icon) in the toolbar above. Click the icon. Then, search using the prefix and number of the course you wish to add. Then click "Embed Link".

If you are trying to add a course that has been deactivated, it must be reactivated before submission of this proposal.

6. Repeat steps 2 - 5 for each offering which requires changes.

To propose a **new Track, Specialization, Concentration, Area of Emphasis, or Other Curricular Offering (s)** in this degree program:

1. Select "**New Track, Specialization, Concentration, Area of Emphasis, or Other Curricular Offering**" in the drop down below.
2. Use the "+ Add New" button.
3. Complete all the required fields.
4. In the Requirements field, provide a detailed course listing and any specifics regarding course requirements.
5. For each course, use the "Embed Course Link" (book icon) in the toolbar above. Click the icon. Then, search using the prefix and number of the course you wish to add. Then click "Embed Link".

If you are trying to add a course that has been deactivated, it must be reactivated before submission of this proposal.

6. Repeat steps 2 - 5 for each additional new offering.

Using the drop down menu below, please choose the changes you would like to make.

-

Change(s) to a current Track, Specialization, Concentration, Area of Emphasis, or Other Curricular Offering Requirement

-

New Track, Specialization, Concentration, Area of Emphasis, or Other Curricular Offering

-

SACSCOC Substantive Change

If you have any questions or concerns regarding SACSCOC and Substantive Change, please contact the Office of Academic Planning and Accountability.

Will additional facilities be needed to deliver the revised program?

No

If so, describe the additional facilities that will be needed.

-

Will additional equipment be needed to deliver the revised program?

No

If so, describe the additional equipment that will be needed.

-

<p>Will additional financial resources be needed to deliver the revised program?</p>	<p>If so, describe the additional financial resources that will be needed.</p>
<p>No</p>	<p>-</p>
<p>Will additional library/learning resources be needed to deliver the revised program?</p>	<p>If so, describe the additional library/learning resources that will be needed.</p>
<p>No</p>	<p>-</p>
<p>Will new faculty need to be hired to deliver the revised program?</p>	<p>If so, describe the additional faculty resources that will be needed.</p>
<p>No</p>	<p>-</p>
<p>Will new content be required for the revised program?</p>	<p>If so, select the percentage of new content for the revised program.</p>
<p>No</p>	<p>-</p>
<p>Will some or all of the revised program be offered at a new location geographically apart from the Modesto A. Maidique Campus (or its Engineering Center)?</p>	<p>If so, select the percentage of the program that will be offered at a new location.</p>
<p>No</p>	<p>-</p>
<p>Enter the name of the location where the revised program will be offered.</p>	
<p>-</p>	
<p>Will the revised program be offered via a different method of delivery than is currently used?</p>	<p>If so, by which method of delivery will the revised program be delivered?</p>
<p>No</p>	<p>-</p>
<p>Select the percentage of the program that will be offered via distance education (i.e., online).</p>	
<p>-</p>	
<p>Will the revised program enter into a collaborative academic arrangement that includes the initiation of a dual academic program with another institution?</p>	<p>If so, with which institution will you collaborate in this dual academic program?</p>
<p>No</p>	<p>-</p>
<p>Will the revised program enter into a contract by which an entity not eligible for Title IV funding offers 25% or more of the program (e.g., international university)?</p>	<p>If so, with which entity will you contract?</p>
<p>No</p>	<p>-</p>

Supporting Documentation

Please include additional relevant documentation.

[Jason Support Email.pdf](#)

Dependencies

FIU Acad Plan

fiuAcadPlan

Unit Cumulative Total

120

SAP Eligibility Percentage

0.5