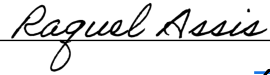
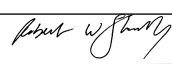


 FLORIDA ATLANTIC UNIVERSITY	NEW COURSE PROPOSAL Graduate Programs		UGPC Approval _____ UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner _____ Catalog _____	
	Department Electrical Engineering and Computer Science College Engineering and Computer Science (To obtain a course number, contact erudolph@fau.edu)			
Prefix CAI Number 5006	(L = Lab Course; C = Combined Lecture/Lab; add if appropriate) Lab Code	Type of Course Lecture	Course Title	
Credits (See Definition of a Credit Hour) 3	Grading (Select One Option) Regular ☐ Sat/UnSat ☐	Course Description (Syllabus must be attached; see Template and Guidelines)		
Effective Date (TERM & YEAR) Spring 2026				
Prerequisites <i>Prerequisites, Corequisites and Registration Controls are enforced for all sections of course.</i>		Academic Service Learning (ASL) course ☐ Academic Service Learning statement must be indicated in syllabus and approval attached to this form.		
		Corequisites	Registration Controls (For example, Major, College, Level)	
Minimum qualifications needed to teach course: Member of the FAU graduate faculty and has a terminal degree in the subject area (or a closely related field).		List textbook information in syllabus or here		
Faculty Contact/Email/Phone Michael DeGiorgio / mdegioro@fau.edu / 561-297		List/Attach comments from departments affected by new course Attached.		

Approved by Department Chair  College Curriculum Chair  College Dean  UGPC Chair  (Sep. 6, 2025 09:12-24 EDT) UGC Chair  (Sep. 6, 2025 09:12-24 EDT) Graduate College Dean  UFS President _____ Provost _____	Date 8/26/2025 8/26/2025 8/26/25 09/06/2025 09/06/2025 09/06/2025 _____ _____
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Email this form and syllabus to UGPC@fau.edu 10 days before the UGPC meeting.

CAI 5006

Foundations of AI for Non-majors

MWF 11:00 – 11:50
3 credits

Semester, Year
Prof. XXXXX YYYYY
Office: XXXXX
Office hours: MWF 11-12
Classroom: XXXX
Telephone: 561-297-XXXX
Email: zzzzz@fau.edu



TA name	xxxxxx xxxxxxxxxx
Office	xxxxxxx
Office hours	MWF xx:xx – xx:xx
Telephone	561-297-xxxx
Email	xxxxxx@fau.edu

Course Description

This course provides an introduction to a broad spectrum of Artificial Intelligence (AI) topics for students with no prior experience in computer science or programming. We will explore the fundamental concepts, applications, and recent advances in AI, including generative AI, ethical considerations, and its societal impacts. Students will have a first experience with AI technology by working on a simple, practical AI application using a low-code environment. Students may not enroll in CAI 5006 if they have already taken CAI 4004.

Instructional Method

This class is designated as “In-Person w/Recorded Lecture” (section XXX) or “Videotaped Class” (section YYY). In-person class sessions will be automatically recorded and uploaded to Canvas within 24 hours. Student enrolled in section XXX may choose to attend in-person classes or view recordings, whereas students enrolled in section YYY are only able to view recordings.

Prerequisites/Corequisites

Graduate standing.

Course Objectives/Student Learning Outcomes

By the end of this course, students will:

- Understand the core principles and techniques underlying AI
- Gain awareness of recent advancements, such as generative AI, and their implications.
- Understand the ethical, societal, and economic impacts of AI.
- Develop hands-on experience with low-code/no-code tools for creating AI models and applications.

Course Evaluation Method

The course will be applying the following popular low-/no-code tools:

- **Teachable Machine** (Google): For building simple machine learning models like image or sound classification.
- **Google Sheets with AI Add-ons**: Tools like AutoML Tables or AI plugins for quick exploration of structured datasets.
- **Microsoft Power Apps**: For creating apps with simple logic and AI features.
- **Hugging Face Transformers via Gradio**: A no-code interface for experimenting with text classification, summarization, and translation.

Each exercise will provide a quick tutorial on how students can access and apply these tools.

The course will be evaluated with the following breakdown.

- **Hands-On Projects (40%)**: Graded based on effort, creativity, and alignment with the project goals.
- **Quizzes and Knowledge Checks (20%)**: Description: Short quizzes at the end of key sections to assess theoretical understanding of core AI concepts.
- **Final Presentation/Demonstration (30%)**: A showcase of the final AI project, including a description of their approach and learning outcomes.

Course Grading Scale

Grade	Total (%)
A	[93 – 100]
A-	[90 – 92)
B+	[87 – 89)
B	[83 – 86)
B-	[80 – 82)
C+	[77 – 79)
C	[73 – 76)
C-	[70 – 72)
D+	[67 – 69)
D	[63 – 66)
D-	[60 – 62)
F	[0 – 59)

Policy on Makeup Tests, Late Work, and Incompletes (if applicable)

Late work will not be accepted. All assignments will be posted well in advance, and students may submit assignments early. Any assignment not turned in by the due date will result in a zero.

Make-up tests are given only if there is solid evidence of a medical or otherwise serious emergency situation that prevented the student from participating in the exam.

Incomplete grades are against the policy of the department, and they will only be assigned if there is solid evidence of medical or otherwise serious emergency situation.

Policy on the Recording of Lectures

Students enrolled in this course may record video or audio of class lectures for their own personal educational use. A class lecture is defined as a formal or methodical oral presentation as part of a university course intended to present information or teach students about a particular subject. Recording class activities other than class lectures, including but not limited to student presentations (whether individually or as part of a group), class discussion (except when incidental to and incorporated within a class lecture), labs, clinical presentations such as patient history, academic exercises involving student participation, test or examination administrations, field trips, and private conversations between students in the class or between a student and the lecturer, is prohibited. Recordings may not be used as a substitute for class participation or class attendance and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the University's Student Code of Conduct and/or the Code of Academic Integrity.

Attendance Policy

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

Disability Policy

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

Code of Academic Integrity

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community,

which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see [University Regulation 4.001](#).

Required Texts/Readings

Michael Negnevitsky, *Artificial Intelligence: A Guide to Intelligent Systems*, 2011, 3rd Ed., Addison Wesley, ISBN-13:978-1408225745

* Book has freely available PDFs or excerpts will be provided

Course Topical Outline

Part 1: Introduction to AI

- What is AI? History and evolution
- Key terminology in AI
- AI vs. Human Intelligence
- Overview of AI applications in daily life
- Discussion on AI Myths and Realities

Part 2: Core Concepts in AI

- AI vs. Machine Learning (ML) vs. Deep Learning (DL)
- Key techniques: classification, regression, and clustering
- Hands-on: Creating a basic AI model using a no-code platform

Part 3: Data and AI

- Importance of data in AI
- Types of data: structured vs. unstructured
- Data preprocessing basics
- Data annotation and labeling: Why it's crucial and how it's done
- Understanding overfitting and underfitting in AI models
- Hands-on: Preparing and cleaning a dataset for AI model training

Part 4: Natural Language Processing (NLP)

- Fundamentals of NLP
- Text preprocessing: tokenization, stopword removal, and stemming
- Applications: chatbots, sentiment analysis, and translation
- Hands-on: Building a text classifier using low-code tools

Part 5: Computer Vision

- Basics of computer vision: image recognition and object detection
- Common algorithms: Convolutional Neural Networks (CNNs) explained visually
- Facial recognition technology: benefits and controversies
- Image segmentation: techniques and applications
- Real-time video analysis for surveillance and safety
- Applications in healthcare, retail, and autonomous systems
- Hands-on: Building an image classifier using no-code tools

Part 6: Generative AI

- Overview of Generative AI
- How does Generative AI work?
- Key industry applications of Generative AI
- Applications: content creation, summarization, classification, debating

- Hands-on: Using generative AI tools to talk to documents

Part 7: Trustworthy AI

- Ethical concerns: bias, fairness, and accountability
- Societal implications: job displacement, surveillance, and privacy
- Case studies and discussions
- Hands-on: Analyzing and mitigating bias in an AI model

Part 8: Explainable and Interpretable AI

- What is explainable AI (XAI) and why is it important?
- Techniques for interpreting AI models: SHAP, LIME, and saliency maps.
- Regulatory requirements for explainability in AI.
- Hands-on: Visualizing and interpreting a model's predictions.

Part 9: AI in the Real World

- Integrating AI models into user-friendly applications
- Applications across industries: healthcare, finance, education, and more
- Collaboration between AI and other technologies: IoT, blockchain, and robotics
- Challenges in scaling AI projects in the industry

Part 10: Capstone Project

- The capstone project serves as the culminating activity of the course, allowing students to integrate and apply the knowledge and skills acquired throughout the course.
- Students will work individually or in small groups to create a functional AI application using low-code/no-code tools. The project will demonstrate their understanding of AI concepts, ethical considerations, and practical implementation.

Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

From Alan Kersten <akersten@fau.edu>

Date Tue 8/26/2025 4:23 PM

To Hari Kalva <hkalva@fau.edu>

Hi Hari,

The only potential overlap with Psychology courses from this list is the Foundations of AI for Non-majors course. We have offered special topics courses in AI and Psychology and Social AI at the undergraduate and graduate levels, respectively, and will likely submit new course proposals for one or both courses in the coming year. Given that the proposed course appears to be a general treatment of AI, however, whereas any Psychology courses will be more specifically focused on the relationship between artificial intelligence and human intelligence, I don't see a problem with both types of courses co-existing in the FAU curriculum. The other courses (i.e., data engineering, foundations of programming, foundations of cloud computing, and cybersecurity) do not overlap with Psychology offerings and thus the Psychology Department has no concerns about these other course proposals.

Sincerely,

Alan

Alan Kersten

Professor and Chair

Department of Psychology

Florida Atlantic University

Boca Raton, FL 33431

From: Hari Kalva <hkalva@fau.edu>

Sent: Monday, August 25, 2025 11:54 PM

To: Alan Kersten <akersten@fau.edu>

Subject: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Hi Alan:

Attached please find the syllabi and new course forms for five proposed 5000-level courses the EECS Department is developing to support computing, AI, and data science for non-EECS majors across FAU.

At the suggestion of UGPC, I am reaching out to seek your comments on these course proposals. A brief response would be greatly appreciated to keep the UGPC process moving. Since UGPC has asked for agenda items by August 26, I apologize for the short notice and would appreciate anything you can provide on this timeline. I would also be happy to join a call to answer any questions.

The courses are:

1. CAI 5006: Foundations of AI for Non-majors
2. CAP 5796: Foundations of Data Engineering for Non-majors
3. CIS 5624: Foundations of Cloud Computing for Non-majors
4. CIS 5775: Foundations of Cybersecurity for Non-majors
5. COP 5048: Foundations of Programming for Non-majors

I appreciate your time and collegial support, and I look forward to collaborating with you on future interdisciplinary research and educational initiatives.

Best,
Hari

--

Hari Kalva, Ph.D., FNAI
Chair and Professor
Dept. of Electrical Engineering and Computer Science (eecs.fau.edu)
Director, Multimedia Systems Lab, (mlab.fau.edu)

Florida Atlantic University
Boca Raton, FL 33431



RE: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

From Ryan Meldrum <meldrumr@fau.edu>

Date Tue 8/26/2025 8:09 AM

To Hari Kalva <hkalva@fau.edu>

Hi Hari,

I had the opportunities to browse the syllabi and examine our own CCJ course offerings at the graduate level. I have no objections to these courses, and some of our students likely could be interested in taking the AI and cybersecurity courses as electives once they become available.

Cheers,

Ryan



Ryan Charles Meldrum, PhD

Director and Professor

School of Criminology and Criminal Justice

College of Social Work & Criminal Justice

Florida Atlantic University

fau.edu/sw-cj

(561) 297-2461

Social Science Building, Room 208E

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"To give anything less than your best is to sacrifice the gift." - Steve Prefontaine



From: Hari Kalva <hkalva@fau.edu>

Sent: Monday, August 25, 2025 11:56 PM

To: Ryan Meldrum <meldrumr@fau.edu>

Subject: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Hi Ryan, attached please find the syllabi and new course forms for five proposed 5000-level courses the EECS Department is developing to support computing, AI, and data science for non-EECS majors across FAU.

At the suggestion of UGPC, I am reaching out to seek your comments on these course proposals. A brief response would be greatly appreciated to keep the UGPC process moving. Since UGPC has asked for agenda items by August 26, I apologize for the short notice and would appreciate anything you can provide on this timeline. I would also be happy to join a call to answer any questions.

The courses are:

1. CAI 5006: Foundations of AI for Non-majors
2. CAP 5796: Foundations of Data Engineering for Non-majors
3. CIS 5624: Foundations of Cloud Computing for Non-majors
4. CIS 5775: Foundations of Cybersecurity for Non-majors
5. COP 5048: Foundations of Programming for Non-majors

I appreciate your time and collegial support, and I look forward to collaborating with you on future interdisciplinary research and educational initiatives.

Best,
Hari

--

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
Boca Raton, FL 33431



Outlook

Re: Fw: Getting permission from other departments for our non-majors courses

From Tamara Dinev <tdinev@fau.edu>**Date** Thu 2/6/2025 4:18 PM**To** Mehrdad Nojournian <mnojournian@fau.edu>; Hari Kalva <hkalva@fau.edu>

Dear Mehrdad:

ITOM has always been supportive of your curriculum development.
More often than not, your department has supported us as well.

I am all for our beneficial cooperation.
I have no objections to the proposed courses.

Best Regards:

Tamara Dinev, Ph.D.

Department Chair and Professor

Dean's Distinguished Research Fellow

Department of Information Technology and Operations Management, FL 219

College of Business,

Florida Atlantic University

Boca Raton, Florida 33431

Web: <https://business.fau.edu/faculty-research/faculty-profiles/profile/tdinev.php>Google Scholar: <https://scholar.google.com/citations?user=YH8QZ-YAAAAJ&hl=en>

On 2/6/25 16:00, Mehrdad Nojournian wrote:

Dear Tamara,

I hope all is well with you. I'm reaching out to inquire if you would support our attached course proposals for non-majors. Please see the email below for details.

If you have any questions, please don't hesitate to contact me.

Thanks in advance,

Mehrdad

Mehrdad Nojournian, Associate Professor

Director of the Privacy, Security & Trust in Autonomy Lab

Department of Electrical Engineering & Computer Science

Florida Atlantic University

777 Glades Rd, EE 429, Boca Raton, FL 33431

Cell: (618) 305-4348

<https://faculty.eng.fau.edu/nojournian/>

From: Michael DeGiorgio <mdegior@fau.edu>**Sent:** Wednesday, February 5, 2025 2:17 PM

To: Mehrdad Nojournian <mnojournal@fau.edu>
Cc: Waseem Asghar <wasghar@fau.edu>; Hari Kalva <hkalva@fau.edu>
Subject: Getting permission from other departments for our non-majors courses

Hi Mehrdad,

Based on the feedback from the undergraduate and graduate program committees within the department and college, we are reaching out to seek feedback and support from other departments regarding some of our proposed non-major courses. Specifically, we are looking for input on whether these departments would support our applications to create these new courses.

The EECS Department Chair (Hari Kalva) and the COECS Associate Dean for Faculty Affairs (Hanqi Zhung) are collaborating with the VA public affairs offices of Broward and Palm Beach Counties on a proposal aimed at providing experiential learning opportunities for veterans, with a focus on training in emerging technologies.

The proposed non-major courses will be part of this program and will also be available to students pursuing an Applied Track in an AI certificate. In addition to coursework, the department plans to engage students in these courses with industry partners to help translate their learning into real-world applications.

To ensure the accessibility of these courses, we are proposing to develop low-code courses at both the undergraduate (4000-level) and graduate (5000-level) levels, which we hope to cross list when offered. These courses are designed to be accessible to veterans returning for further education in emerging fields such as Data Engineering, Artificial Intelligence, and Cybersecurity. The content will cover many foundational topics from our existing curriculum, but with an emphasis on accessibility—requiring no prerequisites and tailored to students who have not previously been exposed to coding.

Could you please reach out to the following contacts to inquire if they would support our course proposals in these areas?

Data Engineering

Proposed 4000-level course (Introduction to Data Engineering for Non-majors; CAP 4790)
Proposed 5000-level course (Foundations of Data Engineering for Non-majors; CAP 5796)

Please reach out to the following Departments for these course:

Information Technology and Operations Managements (Dr. Tamara Dinev;
tdinev@fau.edu)

Artificial Intelligence

Proposed 4000-level course (Introduction to Artificial Intelligence for Non-majors; CAI 4004)
Proposed 5000-level course (Foundations of Artificial Intelligence for Non-majors; CAI 5006)

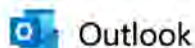
Please reach out to the following Department for these course:

Information Technology and Operations Managements (Dr. Tamara Dinev;
tdinev@fau.edu)

Best,
Mike

--

Michael DeGiorgio, Ph.D.
Associate Chair and Associate Professor
Department of Electrical Engineering and Computer Science
Florida Atlantic University
Boca Raton, FL 33431 USA
mdegiorg@fau.edu
<http://degiorgiogroup.fau.edu>



Outlook

Re: Fw: Getting permission from other departments for our non-majors courses

From Yuan Wang <YWANG@fau.edu>

Date Wed 3/12/2025 5:25 PM

To Hari Kalva <hkalva@fau.edu>; Mehrdad Nojournian <mnojourmian@fau.edu>

Cc Michael DeGiorgio <mdegiorg@fau.edu>; Dukhong Kim <dkim4@fau.edu>

Hello Hari and Mehrdad,

Sorry for taking this long to get back to you. The course proposals will be fine with us if you can add registration controls not to allow Math majors (both undergraduate and graduate) to enroll in these classes, for both pairs CIS5775/CIS4771 and CAP5796/CAP4790.

Thank you very much.

Best regards,

Yuan

On 2/12/2025 11:53 AM, Hari Kalva wrote:

Hi Yuan, these courses are intended for students who don't have Engineering or Math background to take our regular cybersecurity courses. We don't expect these courses to have any significant overlap with MAD 5474. Let us know if there are any topics you think would overlap and what could be changed. We can also add registration controls to not allow Math majors to enroll in these classes.

Happy to discuss. Looking forward to you input on shaping these courses.

Best,
Hari

—
Hari Kalva, Ph.D.
eecs.fau.edu

From: Mehrdad Nojournian <mnojourmian@fau.edu>

Sent: Tuesday, February 11, 2025 11:35 AM

To: Yuan Wang <YWANG@fau.edu>

Cc: Hari Kalva <hkalva@fau.edu>; Michael DeGiorgio <mdegiorg@fau.edu>

Subject: Re: Fw: Getting permission from other departments for our non-majors courses

Hi Yuan,

I have cc-ed Hari, our chair, and Mike, our associate chair to reply.

Thanks,
Mehrdad

Mehrdad Nojournian, Associate Professor
Director of the Privacy, Security & Trust in Autonomy Lab
Department of Electrical Engineering & Computer Science
Florida Atlantic University
777 Glades Rd, EE 429, Boca Raton, FL 33431
Cell: (618) 305-4348
<https://faculty.eng.fau.edu/nojournian/>

From: Yuan Wang <YWANG@fau.edu>

Sent: Tuesday, February 11, 2025 9:44 AM

To: Mehrdad Nojournian <mnojournian@fau.edu>

Subject: Re: Fw: Getting permission from other departments for our non-majors courses

Good morning, Mehrdad,

Thank you for check with us. But our faculty have quite some concerns about the pair of cybersecurity courses. They believe that these are low-level zero-prerequisites courses providing 4000 and 5000 level credits and overlap with several of our courses such as MAD 5474.

Please let me know if further discussions are needed. Thank you.

Best regards,
Yuan

On 2/6/2025 4:02 PM, Mehrdad Nojournian wrote:

Dear Dr. Wang,

I hope all is well with you. I'm reaching out to inquire if you would support our attached course proposals for non-majors. Please see the email below for details.

If you have any questions, please don't hesitate to contact me.

Thanks in advance,
Mehrdad

Mehrdad Nojournian, Associate Professor

Director of the Privacy, Security & Trust in Autonomy Lab
Department of Electrical Engineering & Computer Science
Florida Atlantic University
777 Glades Rd, EE 429, Boca Raton, FL 33431
Cell: (618) 305-4348
<https://faculty.eng.fau.edu/nojournian/>

From: Michael DeGiorgio <mdegiorg@fau.edu>
Sent: Wednesday, February 5, 2025 2:17 PM
To: Mehrdad Nojournian <mnojournian@fau.edu>
Cc: Waseem Asghar <wasghar@fau.edu>; Hari Kalva <hkalva@fau.edu>
Subject: Getting permission from other departments for our non-majors courses

Hi Mehrdad,

Based on the feedback from the undergraduate and graduate program committees within the department and college, we are reaching out to seek feedback and support from other departments regarding some of our proposed non-major courses. Specifically, we are looking for input on whether these departments would support our applications to create these new courses.

The EECS Department Chair (Hari Kalva) and the COECS Associate Dean for Faculty Affairs (Hanqi Zhong) are collaborating with the VA public affairs offices of Broward and Palm Beach Counties on a proposal aimed at providing experiential learning opportunities for veterans, with a focus on training in emerging technologies.

The proposed non-major courses will be part of this program and will also be available to students pursuing an Applied Track in an AI certificate. In addition to coursework, the department plans to engage students in these courses with industry partners to help translate their learning into real-world applications.

To ensure the accessibility of these courses, we are proposing to develop low-code courses at both the undergraduate (4000-level) and graduate (5000-level) levels, which we hope to cross list when offered. These courses are designed to be accessible to veterans returning for further education in emerging fields such as Data Engineering, Artificial Intelligence, and Cybersecurity. The content will cover many foundational topics from our existing curriculum, but with an emphasis on accessibility—requiring no prerequisites and tailored to students who have not previously been exposed to coding.

Could you please reach out to the following contacts to inquire if they would support our course proposals in these areas?

Cybersecurity

Proposed 4000-level course (Introduction to Cybersecurity for Non-majors; CIS 4771)

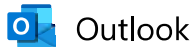
Proposed 5000-level course (Foundations of Cybersecurity for Non-majors; CIS 5775)

Please reach out to the following Department for these course:
Mathematics (Dr. Yuan Wang; ywang@fau.edu)

Best,
Mike

--

Michael DeGiorgio, Ph.D.
Associate Chair and Associate Professor
Department of Electrical Engineering and Computer Science
Florida Atlantic University
Boca Raton, FL 33431 USA
mdegorg@fau.edu
<http://degorgiogroup.fau.edu>



Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

From Hari Kalva <hkalva@fau.edu>

Date Tue 9/2/2025 12:29 PM

To Sarah Milton <smilton@fau.edu>

Hi Sarah, your suggested option 2 would work and we will ask our instructors not to use problems in biology.

to be clear, we don't mention biology anywhere in the course description or the syllabus. Your students can also be advised to take only your course.

Thank you for your support.

Let me know if you need additional clarifications.

-hari

--

Hari Kalva, Ph.D.

eeecs.fau.edu

From: Sarah Milton <smilton@fau.edu>

Sent: Tuesday, September 2, 2025 11:33 AM

To: Hari Kalva <hkalva@fau.edu>

Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Good morning Hari - Biology fully supports 4 of the five proposed courses.

However, your proposed course CAP 5796 overlaps at least 40% with our IDS course AI Applications in Biology, which if you remember was originally developed between our departments to be offered as a joint course that engineers and biologists could both take (and was intended to be team taught until your guy left for the private sector). We offer it to both UG and grad students as 4000 level and 6000 level sections.

And it's been a success in terms of enrolment, so your students could take our course instead.

Other suggestions are:

1 - change weeks 6-10 so it doesn't overlap. I am sending attached the AI Applications in Biology outline to facilitate the comparison.

2 - or perhaps make it clear that applications in biology are not addressed. You could for example propose problems and projects in areas we don't work with (business, finance, etc.)

Thanks,

Sarah

Dr. Sarah L. Milton
Professor and Chair
Department of Biological Sciences
FAU

From: Hari Kalva <hkalva@fau.edu>
Sent: Tuesday, September 2, 2025 11:27 AM
To: Sarah Milton <smilton@fau.edu>
Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Hi Sarah, was there any further clarification needed? We would like to provide an update if anything comes up at the UGPC meeting this afternoon.

--

Hari Kalva, Ph.D.
eecs.fau.edu

From: Hari Kalva <hkalva@fau.edu>
Sent: Tuesday, August 26, 2025 2:55 PM
To: Sarah Milton <smilton@fau.edu>
Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Hi Sarah, we mean "hands on activities" that cover the full data engineering workflow including exploration, modeling, visualization, and communication.

Best,
Hari

--

Hari Kalva, Ph.D.
eecs.fau.edu

From: Sarah Milton <smilton@fau.edu>
Sent: Tuesday, August 26, 2025 1:33 PM
To: Hari Kalva <hkalva@fau.edu>
Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Good afternoon Hari - my faculty who teach courses in the field have no problem with the majority of courses, but would like clarification for CAP 5796. There's a lot of overlap in weeks 6-10 (approximately 40% of the course overlaps with our AI Applications in Biology - which is an Interdisciplinary course originally planned with having engineers take it). Having said that, CAP 5796 says "hands on calculations". If this actually means "Pen and paper" calculations, then it's fine because we don't do

that. Ours is more applied with computer coding problems. So we are asking you to clarify this point with the instructor - I doubt they actually do pen and paper either.

Thanks,
Sarah

Dr. Sarah L. Milton
Professor and Chair
Department of Biological Sciences
FAU

From: Hari Kalva <hkalva@fau.edu>
Sent: Monday, August 25, 2025 11:53 PM
To: Sarah Milton <smilton@fau.edu>
Subject: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Hi Sarah:

Attached please find the syllabi and new course forms for five proposed 5000-level courses the EECS Department is developing to support computing, AI, and data science for non-EECS majors across FAU.

At the suggestion of UGPC, I am reaching out to seek your comments on these course proposals. A brief response would be greatly appreciated to keep the UGPC process moving. Since UGPC has asked for agenda items by August 26, I apologize for the short notice and would appreciate anything you can provide on this timeline. I would also be happy to join a call to answer any questions.

The courses are:

1. CAI 5006: Foundations of AI for Non-majors
2. CAP 5796: Foundations of Data Engineering for Non-majors
3. CIS 5624: Foundations of Cloud Computing for Non-majors
4. CIS 5775: Foundations of Cybersecurity for Non-majors
5. COP 5048: Foundations of Programming for Non-majors

I appreciate your time and collegial support, and I look forward to collaborating with you on future interdisciplinary research and educational initiatives.

Best,
Hari

--

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
Boca Raton, FL 33431



Outlook

RE: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

From Sabrina Sembiante <ssembiante@fau.edu>

Date Wed 8/27/2025 11:53 AM

To Hari Kalva <hkalva@fau.edu>

Cc Michelle McGovern <mvaugha3@fau.edu>

Hello Hari,

Upon review of EECS Graduate-level courses, these courses are relevant and would align well with efforts in our department to heighten the computer science knowledge of our pre- and in-service teachers across our C&I masters degree offerings. In particular, we would be willing to consider inclusion of these courses as part of a new Masters degree program (currently in development) that will look to improve educators' and school district administrators' ability to engage with AI and other computer technologies for educational purposes. The designation of "non-major" for these courses provides an access point for our students who may not have the technical background needed to take traditional computer science or data engineering courses.

Warmly,

Sabrina F. Sembiante, Ph.D.

Interim Department Co-Chair and Professor

Department of Curriculum and Instruction

777 Glades Road Boca Raton, FL 33431

Work-phone: (561) 297-6594

ssembiante@fau.edu

<https://www.fau.edu/education/faculty/ssembiante/>



FLORIDA ATLANTIC UNIVERSITY

College of Education

From: Hari Kalva <hkalva@fau.edu>

Sent: Tuesday, August 26, 2025 12:47 PM

To: Sabrina Sembiante <ssembiante@fau.edu>

Subject: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Dear Sabrina, attached please find the syllabi for five proposed 5000-level courses the EECS Department is developing to support computing, AI, and data science for non-EECS majors across FAU.

I am reaching out to seek your comments on these course proposals. A brief response would be greatly appreciated to keep the UGPC process moving. Since UGPC has asked for agenda items by August 26, I apologize for the short notice and would appreciate anything you can provide on this timeline. I would also be happy to join a call to answer any questions.

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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
Boca Raton, FL 33431

Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)
Date: Tuesday, September 2, 2025 at 14:47:05 Eastern Daylight Time
From: Hari Kalva
To: David Newman
CC: Raquel Assis, Robert Stackman
Attachments: image001.jpg

Thanks, David, for your support. Copying Bob and Raquel to share your support.

Best,
Hari

--

Hari Kalva, Ph.D.
eecs.fau.edu

From: David Newman <dnewma14@health.fau.edu>
Sent: Tuesday, September 2, 2025 2:42 PM
To: Hari Kalva <hkalva@fau.edu>
Subject: RE: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Sorry, I missed the email before I left for the weekend, and then it got buried.. I looked over the proposed classes, and I do not see much of an overlap between what you are offering and what we are proposing in next month's meeting.

Thank you,
David

David Newman, PhD
Professor & Biostatistician
Christine E. Lynn College of Nursing, NU Room 116A
Florida Atlantic University
777 Glades Rd.
Boca Raton, FL 33431-2048
Office Phone: 561-297-2670
Cell Phone: 330-607-3799



From: Hari Kalva <hkalva@fau.edu>
Sent: Tuesday, September 2, 2025 2:34 PM
To: David Newman <dnewma14@health.fau.edu>
Cc: Robert Stackman <rstackma@fau.edu>; Raquel Assis <rassis@fau.edu>
Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Hi David, would you please let me know if you have any comments on the our proposed courses bellow?

Best,
Hari

--

Hari Kalva, Ph.D.
eeecs.fau.edu

From: Hari Kalva <hkalva@fau.edu>
Sent: Monday, August 25, 2025 11:52 PM
To: David Newman <dnewma14@health.fau.edu>
Subject: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Dear David:

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At the suggestion of UGPC, I am reaching out to seek your comments on these course proposals. A brief response would be greatly appreciated to keep the UGPC process moving. Since UGPC has asked for agenda items by August 26, I apologize for the short notice and would appreciate anything you can provide on this timeline. I would also be happy to join a call to answer any questions.

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Best,
Hari

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Hari Kalva, Ph.D., FNAI
Chair and Professor

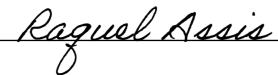
Dept. of Electrical Engineering and Computer Science (eeecs.fau.edu)

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

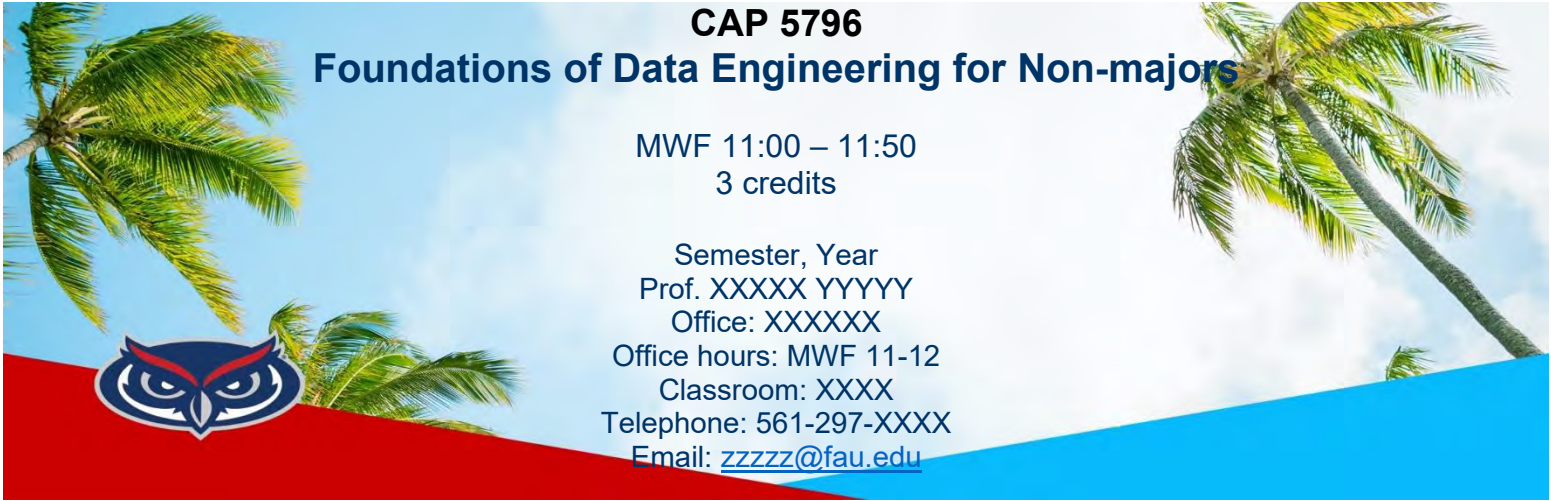
Florida Atlantic University
Boca Raton, FL 33431

CONFIDENTIALITY NOTICE: The information contained in this transmission may contain privileged and confidential information, including patient information protected by federal and state privacy laws. It is intended only for the use of the person(s) named above. If you are not the intended recipient, you are hereby notified that any review, dissemination, distribution, or duplication of this communication is strictly prohibited. If you are not the intended recipient, please contact the sender by reply email, report the error to FAU's Chief Compliance Officer, and destroy all copies of the original message.

 FLORIDA ATLANTIC UNIVERSITY	NEW COURSE PROPOSAL Graduate Programs		UGPC Approval _____ UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner _____ Catalog _____	
	Department Electrical Engineering and Computer Science College Engineering and Computer Science (To obtain a course number, contact erudolph@fau.edu)			
Prefix CAI Number 5006	(L = Lab Course; C = Combined Lecture/Lab; add if appropriate) Lab Code	Type of Course Lecture	Course Title	
Credits (See Definition of a Credit Hour) 3	Grading (Select One Option) Regular ☐ Sat/UnSat ☐	Course Description (Syllabus must be attached; see Template and Guidelines)		
Effective Date (TERM & YEAR) Spring 2026				
Prerequisites <i>Prerequisites, Corequisites and Registration Controls are enforced for all sections of course.</i>		Academic Service Learning (ASL) course ☐ Academic Service Learning statement must be indicated in syllabus and approval attached to this form.		
		Corequisites	Registration Controls (For example, Major, College, Level) and outside of Math Department	
Minimum qualifications needed to teach course: Member of the FAU graduate faculty and has a terminal degree in the subject area (or a closely related field).		List textbook information in syllabus or here		
Faculty Contact/Email/Phone Michael DeGiorgio / mdegior@fau.edu / 561-297		List/Attach comments from departments affected by new course Attached.		

Approved by Department Chair  College Curriculum Chair  College Dean  UGPC Chair _____ UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____	Date 8/26/2025 8/26/2025 8/26/25 _____ _____ _____ _____ _____
--	---

Email this form and syllabus to UGPC@fau.edu 10 days before the UGPC meeting.



CAP 5796

Foundations of Data Engineering for Non-majors

MWF 11:00 – 11:50
3 credits

Semester, Year
Prof. XXXXX YYYYY
Office: XXXXX
Office hours: MWF 11-12
Classroom: XXXX
Telephone: 561-297-XXXX
Email: zzzzz@fau.edu



TA name	xxxxxx xxxxxxxxxx
Office	xxxxxx
Office hours	MWF xx:xx – xx:xx
Telephone	561-297-xxxx
Email	xxxxxx@fau.edu

Course Description

This course provides an overview of data engineering and data science for students with no prior experience in computer science or programming. The topics include data cleaning, ETL (extract, transform, load) pipelines, databases, exploratory data analysis, data visualization, and introductory machine learning. By the end of the course, students will have a foundational understanding of how data drives decision-making in various fields and get hands-on skills to solve real-world challenges using a low-code environment. Students may not enroll in CAP 5796 if they have already taken CAP 4790.

Instructional Method

This class is designated as “In-Person w/Recorded Lecture” (section XXX) or “Videotaped Class” (section YYY). In-person class sessions will be automatically recorded and uploaded to Canvas within 24 hours. Student enrolled in section XXX may choose to attend in-person classes or view recordings, whereas students enrolled in section YYY are only able to view recordings.

Prerequisites/Corequisites

Graduate standing.

Course Objectives/Student Learning Outcomes

By the end of this course, students will:

- Understand the roles of data engineering and data science in the data ecosystem.
- Learn the basics of data collection, transformation, storage, and visualization.
- Develop foundational skills in exploratory data analysis (EDA) and machine learning.
- Build and present a small project combining data engineering and data science concepts.

Course Evaluation Method

Weekly labs	40%
Quizzes	30%
Term project	30%
Total	100%

The course will be applying the following popular low-/no-code tools:

- Google AutoML : <https://cloud.google.com/automl>
- Google Teachable Machine : <https://teachablemachine.withgoogle.com/>
- Apache NiFi : <https://nifi.apache.org/>
- Orange Data Mining : <https://orangedatamining.com/>
- Obviously AI: <https://www.obviously.ai/>

Course Grading Scale

Grade	Total (%)
A	[93 – 100]
A-	[90 – 92)
B+	[87 – 89)
B	[83 – 86)
B-	[80 – 82)
C+	[77 – 79)
C	[73 – 76)
C-	[70 – 72)
D+	[67 – 69)
D	[63 – 66)
D-	[60 – 62)
F	[0 – 59)

Policy on Makeup Tests, Late Work, and Incompletes (if applicable)

Late work will not be accepted. All assignments will be posted well in advance, and students may submit assignments early. Any assignment not turned in by the due date will result in a zero.

Make-up tests are given only if there is solid evidence of a medical or otherwise serious emergency situation that prevented the student from participating in the exam.

Incomplete grades are against the policy of the department, and they will only be assigned if there is solid evidence of medical or otherwise serious emergency situation.

Policy on the Recording of Lectures

Students enrolled in this course may record video or audio of class lectures for their own personal educational use. A class lecture is defined as a formal or methodical oral presentation as part of a university course intended to present information or teach students about a particular subject. Recording class activities other than class lectures, including but not limited to student presentations (whether individually or as part of a group), class discussion (except when incidental to and incorporated within a class lecture), labs, clinical presentations such as patient history, academic exercises involving student participation, test or examination administrations, field trips,

and private conversations between students in the class or between a student and the lecturer, is prohibited. Recordings may not be used as a substitute for class participation or class attendance and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the University's Student Code of Conduct and/or the Code of Academic Integrity.

Attendance Policy

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

Disability Policy

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

Code of Academic Integrity

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see [University Regulation 4.001](#).

Required Texts/Readings

N/A

Course Topical Outline

Week	Session	Content	Lab	Tools
1	Introduction to Data Engineering and Data Science	What are Data Engineering and Data Science? The Data Lifecycle and Ecosystem.		
2	Databases and Data Storage	Relational Databases (RDBMS): Basics and SQL. Introduction to NoSQL Databases	Querying data	SQLite or MySQL Google BigQuery
3	Introduction to ETL and Data Pipelines	The ETL Process: Extract, Transform, Load. Batch Processing vs. Stream Processing	A simple ETL pipeline	Apache NiFi
4	Data Cleaning and Basics of Exploratory Data Analysis (EDA)	Common Data Quality Issues: Missing, Inconsistent, Duplicate Data. Cleaning Techniques: Imputation, Filtering, and Normalization.	Cleaning and transforming data Performing EDA	LowCode tools
5	Introduction to Statistics and Machine Learning	Descriptive and Inferential Statistics Supervised vs. Unsupervised Learning Definitions	Hands on statistical calculations	
6	Regression	Simple Linear and Multiple Linear regression	Hands on calculations	LowCode tools
7	Supervised Learning	Simple classification models : KNN, SVM	Hands on calculations	LowCode tools
8	Unsupervised Learning	Simple clustering models : Kmeans, Hierarchical	Hands on calculations	LowCode tools
9	Data Visualization	Principles of Effective Data Visualization. Introduction to Visualization Dashboards		LowCode tools
10	Model Evaluation	Model Evaluation Metrics: Accuracy, Precision, and Recall. Confusion Matrix	Hands on calculations	LowCode tools
11	Term Project	Term Project for real-world applications of machine learning		

Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

From Alan Kersten <akersten@fau.edu>

Date Tue 8/26/2025 4:23 PM

To Hari Kalva <hkalva@fau.edu>

Hi Hari,

The only potential overlap with Psychology courses from this list is the Foundations of AI for Non-majors course. We have offered special topics courses in AI and Psychology and Social AI at the undergraduate and graduate levels, respectively, and will likely submit new course proposals for one or both courses in the coming year. Given that the proposed course appears to be a general treatment of AI, however, whereas any Psychology courses will be more specifically focused on the relationship between artificial intelligence and human intelligence, I don't see a problem with both types of courses co-existing in the FAU curriculum. The other courses (i.e., data engineering, foundations of programming, foundations of cloud computing, and cybersecurity) do not overlap with Psychology offerings and thus the Psychology Department has no concerns about these other course proposals.

Sincerely,
Alan

Alan Kersten
Professor and Chair
Department of Psychology
Florida Atlantic University
Boca Raton, FL 33431

From: Hari Kalva <hkalva@fau.edu>

Sent: Monday, August 25, 2025 11:54 PM

To: Alan Kersten <akersten@fau.edu>

Subject: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Hi Alan:

Attached please find the syllabi and new course forms for five proposed 5000-level courses the EECS Department is developing to support computing, AI, and data science for non-EECS majors across FAU.

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Best,
Hari

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Hari Kalva, Ph.D., FNAI

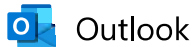
Chair and Professor

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

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

Florida Atlantic University

Boca Raton, FL 33431



Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

From Hari Kalva <hkalva@fau.edu>

Date Tue 9/2/2025 12:29 PM

To Sarah Milton <smilton@fau.edu>

Hi Sarah, your suggested option 2 would work and we will ask our instructors not to use problems in biology.

to be clear, we don't mention biology anywhere in the course description or the syllabus. Your students can also be advised to take only your course.

Thank you for your support.

Let me know if you need additional clarifications.

-hari

--

Hari Kalva, Ph.D.

eeecs.fau.edu

From: Sarah Milton <smilton@fau.edu>

Sent: Tuesday, September 2, 2025 11:33 AM

To: Hari Kalva <hkalva@fau.edu>

Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Good morning Hari - Biology fully supports 4 of the five proposed courses.

However, your proposed course CAP 5796 overlaps at least 40% with our IDS course AI Applications in Biology, which if you remember was originally developed between our departments to be offered as a joint course that engineers and biologists could both take (and was intended to be team taught until your guy left for the private sector). We offer it to both UG and grad students as 4000 level and 6000 level sections.

And it's been a success in terms of enrolment, so your students could take our course instead.

Other suggestions are:

1 - change weeks 6-10 so it doesn't overlap. I am sending attached the AI Applications in Biology outline to facilitate the comparison.

2 - or perhaps make it clear that applications in biology are not addressed. You could for example propose problems and projects in areas we don't work with (business, finance, etc.)

Thanks,

Sarah

Dr. Sarah L. Milton
Professor and Chair
Department of Biological Sciences
FAU

From: Hari Kalva <hkalva@fau.edu>
Sent: Tuesday, September 2, 2025 11:27 AM
To: Sarah Milton <smilton@fau.edu>
Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Hi Sarah, was there any further clarification needed? We would like to provide an update if anything comes up at the UGPC meeting this afternoon.

--

Hari Kalva, Ph.D.
eecs.fau.edu

From: Hari Kalva <hkalva@fau.edu>
Sent: Tuesday, August 26, 2025 2:55 PM
To: Sarah Milton <smilton@fau.edu>
Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Hi Sarah, we mean "hands on activities" that cover the full data engineering workflow including exploration, modeling, visualization, and communication.

Best,
Hari

--

Hari Kalva, Ph.D.
eecs.fau.edu

From: Sarah Milton <smilton@fau.edu>
Sent: Tuesday, August 26, 2025 1:33 PM
To: Hari Kalva <hkalva@fau.edu>
Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Good afternoon Hari - my faculty who teach courses in the field have no problem with the majority of courses, but would like clarification for CAP 5796. There's a lot of overlap in weeks 6-10 (approximately 40% of the course overlaps with our AI Applications in Biology - which is an Interdisciplinary course originally planned with having engineers take it). Having said that, CAP 5796 says "hands on calculations". If this actually means "Pen and paper" calculations, then it's fine because we don't do

that. Ours is more applied with computer coding problems. So we are asking you to clarify this point with the instructor - I doubt they actually do pen and paper either.

Thanks,
Sarah

Dr. Sarah L. Milton
Professor and Chair
Department of Biological Sciences
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From: Hari Kalva <hkalva@fau.edu>
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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
Boca Raton, FL 33431



RE: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

From Ryan Meldrum <meldrumr@fau.edu>

Date Tue 8/26/2025 8:09 AM

To Hari Kalva <hkalva@fau.edu>

Hi Hari,

I had the opportunities to browse the syllabi and examine our own CCJ course offerings at the graduate level. I have no objections to these courses, and some of our students likely could be interested in taking the AI and cybersecurity courses as electives once they become available.

Cheers,

Ryan



Ryan Charles Meldrum, PhD

Director and Professor

School of Criminology and Criminal Justice

College of Social Work & Criminal Justice

Florida Atlantic University

fau.edu/sw-cj

(561) 297-2461

Social Science Building, Room 208E

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"To give anything less than your best is to sacrifice the gift." - Steve Prefontaine



From: Hari Kalva <hkalva@fau.edu>

Sent: Monday, August 25, 2025 11:56 PM

To: Ryan Meldrum <meldrumr@fau.edu>

Subject: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Hi Ryan, attached please find the syllabi and new course forms for five proposed 5000-level courses the EECS Department is developing to support computing, AI, and data science for non-EECS majors across FAU.

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I appreciate your time and collegial support, and I look forward to collaborating with you on future interdisciplinary research and educational initiatives.

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
Boca Raton, FL 33431



Outlook

Re: Fw: Getting permission from other departments for our non-majors courses

From Tamara Dinev <tdinev@fau.edu>

Date Thu 2/6/2025 4:18 PM

To Mehrdad Nojournian <mnojournian@fau.edu>; Hari Kalva <hkalva@fau.edu>

Dear Mehrdad:

ITOM has always been supportive of your curriculum development.
More often than not, your department has supported us as well.

I am all for our beneficial cooperation.
I have no objections to the proposed courses.

Best Regards:

Tamara Dinev, Ph.D.

Department Chair and Professor

Dean's Distinguished Research Fellow

Department of Information Technology and Operations Management, FL 219

College of Business,

Florida Atlantic University

Boca Raton, Florida 33431

Web: <https://business.fau.edu/faculty-research/faculty-profiles/profile/tdinev.php>

Google Scholar: <https://scholar.google.com/citations?user=YH8QZ-YAAAAJ&hl=en>

On 2/6/25 16:00, Mehrdad Nojournian wrote:

Dear Tamara,

I hope all is well with you. I'm reaching out to inquire if you would support our attached course proposals for non-majors. Please see the email below for details.

If you have any questions, please don't hesitate to contact me.

Thanks in advance,
Mehrdad

Mehrdad Nojournian, Associate Professor

Director of the Privacy, Security & Trust in Autonomy Lab

Department of Electrical Engineering & Computer Science

Florida Atlantic University

777 Glades Rd, EE 429, Boca Raton, FL 33431

Cell: (618) 305-4348

<https://faculty.eng.fau.edu/nojournian/>

From: Michael DeGiorgio <mdegiorg@fau.edu>

Sent: Wednesday, February 5, 2025 2:17 PM

To: Mehrdad Nojournian <mnojourmian@fau.edu>

Cc: Waseem Asghar <wasghar@fau.edu>; Hari Kalva <hkalva@fau.edu>

Subject: Getting permission from other departments for our non-majors courses

Hi Mehrdad,

Based on the feedback from the undergraduate and graduate program committees within the department and college, we are reaching out to seek feedback and support from other departments regarding some of our proposed non-major courses. Specifically, we are looking for input on whether these departments would support our applications to create these new courses.

The EECS Department Chair (Hari Kalva) and the COECS Associate Dean for Faculty Affairs (Hanqi Zhung) are collaborating with the VA public affairs offices of Broward and Palm Beach Counties on a proposal aimed at providing experiential learning opportunities for veterans, with a focus on training in emerging technologies.

The proposed non-major courses will be part of this program and will also be available to students pursuing an Applied Track in an AI certificate. In addition to coursework, the department plans to engage students in these courses with industry partners to help translate their learning into real-world applications.

To ensure the accessibility of these courses, we are proposing to develop low-code courses at both the undergraduate (4000-level) and graduate (5000-level) levels, which we hope to cross list when offered. These courses are designed to be accessible to veterans returning for further education in emerging fields such as Data Engineering, Artificial Intelligence, and Cybersecurity. The content will cover many foundational topics from our existing curriculum, but with an emphasis on accessibility—requiring no prerequisites and tailored to students who have not previously been exposed to coding.

Could you please reach out to the following contacts to inquire if they would support our course proposals in these areas?

Data Engineering

Proposed 4000-level course (Introduction to Data Engineering for Non-majors; CAP 4790)

Proposed 5000-level course (Foundations of Data Engineering for Non-majors; CAP 5796)

Please reach out to the following Departments for these course:

Information Technology and Operations Managements (Dr. Tamara Dinev;
tdinev@fau.edu)

Artificial Intelligence

Proposed 4000-level course (Introduction to Artificial Intelligence for Non-majors; CAI 4004)

Proposed 5000-level course (Foundations of Artificial Intelligence for Non-majors; CAI 5006)

Please reach out to the following Department for these course:

Information Technology and Operations Managements (Dr. Tamara Dinev;
tdinev@fau.edu)

Best,
Mike

--

Michael DeGiorgio, Ph.D.
Associate Chair and Associate Professor
Department of Electrical Engineering and Computer Science
Florida Atlantic University
Boca Raton, FL 33431 USA
mdegiorg@fau.edu
<http://degiorgiogroup.fau.edu>



Re: Fw: Getting permission from other departments for our non-majors courses

From Yuan Wang <YWANG@fau.edu>

Date Wed 3/12/2025 5:25 PM

To Hari Kalva <hkalva@fau.edu>; Mehrdad Nojournian <mnojourmian@fau.edu>

Cc Michael DeGiorgio <mdegiorg@fau.edu>; Dukhong Kim <dkim4@fau.edu>

Hello Hari and Mehrdad,

Sorry for taking this long to get back to you. The course proposals will be fine with us if you can add registration controls not to allow Math majors (both undergraduate and graduate) to enroll in these classes, for both pairs CIS5775/CIS4771 and CAP5796/CAP4790.

Thank you very much.

Best regards,
Yuan

On 2/12/2025 11:53 AM, Hari Kalva wrote:

Hi Yuan, these courses are intended for students who don't have Engineering or Math background to take our regular cybersecurity courses. We don't expect these courses to have any significant overlap with MAD 5474. Let us know if there are any topics you think would overlap and what could be changed. We can also add registration controls to not allow Math majors to enroll in these classes.

Happy to discuss. Looking forward to you input on shaping these courses.

Best,
Hari

--

Hari Kalva, Ph.D.
eecs.fau.edu

From: Mehrdad Nojournian <mnojourmian@fau.edu>

Sent: Tuesday, February 11, 2025 11:35 AM

To: Yuan Wang <YWANG@fau.edu>

Cc: Hari Kalva <hkalva@fau.edu>; Michael DeGiorgio <mdegiorg@fau.edu>

Subject: Re: Fw: Getting permission from other departments for our non-majors courses

Hi Yuan,

I have cc-ed Hari, our chair, and Mike, our associate chair to reply.

Thanks,
Mehrdad

Mehrdad Nojournian, Associate Professor
Director of the Privacy, Security & Trust in Autonomy Lab
Department of Electrical Engineering & Computer Science
Florida Atlantic University
777 Glades Rd, EE 429, Boca Raton, FL 33431
Cell: (618) 305-4348
<https://faculty.eng.fau.edu/nojournian/>

From: Yuan Wang <YWANG@fau.edu>

Sent: Tuesday, February 11, 2025 9:44 AM

To: Mehrdad Nojournian <mnojournian@fau.edu>

Subject: Re: Fw: Getting permission from other departments for our non-majors courses

Good morning, Mehrdad,

Thank you for check with us. But our faculty have quite some concerns about the pair of cybersecurity courses. They believe that these are low-level zero-prerequisites courses providing 4000 and 5000 level credits and overlap with several of our courses such as MAD 5474.

Please let me know if further discussions are needed. Thank you.

Best regards,
Yuan

On 2/6/2025 4:02 PM, Mehrdad Nojournian wrote:

Dear Dr. Wang,

I hope all is well with you. I'm reaching out to inquire if you would support our attached course proposals for non-majors. Please see the email below for details.

If you have any questions, please don't hesitate to contact me.

Thanks in advance,
Mehrdad

Mehrdad Nojournian, Associate Professor

Director of the Privacy, Security & Trust in Autonomy Lab
Department of Electrical Engineering & Computer Science
Florida Atlantic University
777 Glades Rd, EE 429, Boca Raton, FL 33431
Cell: (618) 305-4348
<https://faculty.eng.fau.edu/nojournian/>

From: Michael DeGiorgio <mdegiorg@fau.edu>
Sent: Wednesday, February 5, 2025 2:17 PM
To: Mehrdad Nojournian <mnojournian@fau.edu>
Cc: Waseem Asghar <wasghar@fau.edu>; Hari Kalva <hkalva@fau.edu>
Subject: Getting permission from other departments for our non-majors courses

Hi Mehrdad,

Based on the feedback from the undergraduate and graduate program committees within the department and college, we are reaching out to seek feedback and support from other departments regarding some of our proposed non-major courses. Specifically, we are looking for input on whether these departments would support our applications to create these new courses.

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To ensure the accessibility of these courses, we are proposing to develop low-code courses at both the undergraduate (4000-level) and graduate (5000-level) levels, which we hope to cross list when offered. These courses are designed to be accessible to veterans returning for further education in emerging fields such as Data Engineering, Artificial Intelligence, and Cybersecurity. The content will cover many foundational topics from our existing curriculum, but with an emphasis on accessibility—requiring no prerequisites and tailored to students who have not previously been exposed to coding.

Could you please reach out to the following contacts to inquire if they would support our course proposals in these areas?

Cybersecurity

Proposed 4000-level course (Introduction to Cybersecurity for Non-majors; CIS 4771)

Proposed 5000-level course (Foundations of Cybersecurity for Non-majors; CIS 5775)

Please reach out to the following Department for these course:
Mathematics (Dr. Yuan Wang; ywang@fau.edu)

Best,
Mike

--

Michael DeGiorgio, Ph.D.
Associate Chair and Associate Professor
Department of Electrical Engineering and Computer Science
Florida Atlantic University
Boca Raton, FL 33431 USA
mdegiorge@fau.edu
<http://degiorgiogroup.fau.edu>



Outlook

RE: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

From Sabrina Sembiante <ssembiante@fau.edu>

Date Wed 8/27/2025 11:53 AM

To Hari Kalva <hkalva@fau.edu>

Cc Michelle McGovern <mvaugha3@fau.edu>

Hello Hari,

Upon review of EECS Graduate-level courses, these courses are relevant and would align well with efforts in our department to heighten the computer science knowledge of our pre- and in-service teachers across our C&I masters degree offerings. In particular, we would be willing to consider inclusion of these courses as part of a new Masters degree program (currently in development) that will look to improve educators' and school district administrators' ability to engage with AI and other computer technologies for educational purposes. The designation of "non-major" for these courses provides an access point for our students who may not have the technical background needed to take traditional computer science or data engineering courses.

Warmly,

Sabrina F. Sembiante, Ph.D.

Interim Department Co-Chair and Professor

Department of Curriculum and Instruction

777 Glades Road Boca Raton, FL 33431

Work-phone: (561) 297-6594

ssembiante@fau.edu

<https://www.fau.edu/education/faculty/ssembiante/>



FLORIDA ATLANTIC UNIVERSITY

College of Education

From: Hari Kalva <hkalva@fau.edu>

Sent: Tuesday, August 26, 2025 12:47 PM

To: Sabrina Sembiante <ssembiante@fau.edu>

Subject: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Dear Sabrina, attached please find the syllabi for five proposed 5000-level courses the EECS Department is developing to support computing, AI, and data science for non-EECS majors across FAU.

I am reaching out to seek your comments on these course proposals. A brief response would be greatly appreciated to keep the UGPC process moving. Since UGPC has asked for agenda items by August 26, I apologize for the short notice and would appreciate anything you can provide on this timeline. I would also be happy to join a call to answer any questions.

The courses are:

1. CAI 5006: Foundations of AI for Non-majors
2. CAP 5796: Foundations of Data Engineering for Non-majors
3. CIS 5624: Foundations of Cloud Computing for Non-majors
4. CIS 5775: Foundations of Cybersecurity for Non-majors
5. COP 5048: Foundations of Programming for Non-majors

I appreciate your time and collegial support, and I look forward to collaborating with you on future interdisciplinary research and educational initiatives.

Best,
Hari

--

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
Boca Raton, FL 33431

Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)
Date: Tuesday, September 2, 2025 at 14:47:05 Eastern Daylight Time
From: Hari Kalva
To: David Newman
CC: Raquel Assis, Robert Stackman
Attachments: image001.jpg

Thanks, David, for your support. Copying Bob and Raquel to share your support.

Best,
Hari

--

Hari Kalva, Ph.D.
eeecs.fau.edu

From: David Newman <dnewma14@health.fau.edu>
Sent: Tuesday, September 2, 2025 2:42 PM
To: Hari Kalva <hkalva@fau.edu>
Subject: RE: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Sorry, I missed the email before I left for the weekend, and then it got buried.. I looked over the proposed classes, and I do not see much of an overlap between what you are offering and what we are proposing in next month's meeting.

Thank you,
David

David Newman, PhD
Professor & Biostatistician
Christine E. Lynn College of Nursing, NU Room 116A
Florida Atlantic University
777 Glades Rd.
Boca Raton, FL 33431-2048
Office Phone: 561-297-2670
Cell Phone: 330-607-3799



From: Hari Kalva <hkalva@fau.edu>
Sent: Tuesday, September 2, 2025 2:34 PM
To: David Newman <dnewma14@health.fau.edu>
Cc: Robert Stackman <rstackma@fau.edu>; Raquel Assis <rassis@fau.edu>
Subject: Re: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Hi David, would you please let me know if you have any comments on the our proposed courses bellow?

Best,
Hari

--

Hari Kalva, Ph.D.
eeecs.fau.edu

From: Hari Kalva <hkalva@fau.edu>
Sent: Monday, August 25, 2025 11:52 PM
To: David Newman <dnewma14@health.fau.edu>
Subject: Proposed EECS Graduate-Level Courses (UGPC Aug 26)

Dear David:

Attached please find the syllabi and new course forms for five proposed 5000-level courses the EECS Department is developing to support computing, AI, and data science for non-EECS majors across FAU.

At the suggestion of UGPC, I am reaching out to seek your comments on these course proposals. A brief response would be greatly appreciated to keep the UGPC process moving. Since UGPC has asked for agenda items by August 26, I apologize for the short notice and would appreciate anything you can provide on this timeline. I would also be happy to join a call to answer any questions.

The courses are:

1. CAI 5006: Foundations of AI for Non-majors
2. CAP 5796: Foundations of Data Engineering for Non-majors

3. CIS 5624: Foundations of Cloud Computing for Non-majors
4. CIS 5775: Foundations of Cybersecurity for Non-majors
5. COP 5048: Foundations of Programming for Non-majors

I appreciate your time and collegial support, and I look forward to collaborating with you on future interdisciplinary research and educational initiatives.

Best,
Hari

--

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
Boca Raton, FL 33431

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ENG - Sept (1 of 5)

Final Audit Report

2025-09-06

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By:	Robert Stackman (rstackma@fau.edu)
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-  Email viewed by sementel@fau.edu
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-  Signer sementel@fau.edu entered name at signing as Arthur Sementelli
2025-09-06 - 1:12:22 PM GMT
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