FAU

NEW COURSE PROPOSAL Undergraduate Programs

UUPC Approval <u>9-9-24</u>
UFS Approval
SCNS Submittal
Confirmed
Banner Posted
Catalog

FLORIDA	De	epartment Information	Confirmed			
ATLANTIC	C	Ilogo Businoss			Banner Posted	
UNIVERSITY	College Business (To obtain a course number, contact erudolph@fau.edu)			Catalog		
D C*	<u> </u>	(L = Lab Course; C =				
Prefix ISM		Combined Lecture/Lab; add if appropriate)	Type of Course	Course Title Business Product Development with Al		
Number 4432	2	айи ії арргорпасе;	Lecture			
		Lab Code				
Credits (Review Provost Memorandum)		Grading (Select One Option)	Course Description (Syllabus must be attached; Syllabus Checklist recommended; see Guidelines)			
3		Regular 💿	This course introduces a practical approach to building products that leverage AI for business success. By designing and developing AI-native applications using low-code/no-code tools, the participants will acquire the necessary knowledge to examine business opportunities, gain practical skills in managing the AI product development lifecycle, and navigate complexities			
Effective Date (TERM & YEAR)		Pass/Fail				
Spring 2025		Sat/UnSat associated with Al products in various verticals.				
Prerequisites, v	with	n minimum grade*	Corequisites	Registration Controls (Major,		
No Prerequisite)			Colleg	ge, Level)	
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*Default minim	um	passing grade is D	Prereqs., Coreqs. &	Reg. Controls are er	forced for all sections of course	
WAC/Gordon Rule Course		Intellectual Foundations Program (General Education) Requirement (Select One Option)				
Yes No			None			
WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to proposal. See WAC Guidelines.			General Education criteria must be indicated in the syllabus and approval attached to the proposal. See <u>GE Guidelines</u> .			
		ations to teach cours				
Member of the FAU graduate faculty and has a terminal degree in the subject area (or a closely related field.)						
Faculty Contact/Email/Phone			List/Attach comments from departments affected by new course			
Tamara Dinev / tdinev@fau.edu / 73181 Department of Electrical Engineering and Computer Science has no objection						
Approved by		Dtun			Date 8/23/2024	
Department Chair		<u> </u>	<i>U</i> .	<u></u>	6/20/24	
College Curriculum Chair May A. Rhorer			Digitally signed by Marc A. Rhorer		8/28/24	
College Dean				0 0 211		
UUPC Chair Korsy Sorgs					9-9-24	
Undergraduate Studies Dean Dan Mssroff				9-9-24		
UFS President						
Provost						

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



ISM 4432

Business Product Development with AI

Date: TBD
Building: TBD Room: TBD
3 Credit(s)
TBD

Instructor Information

TBD

Email: TBD

Office Hours: TBD

Phone: XXX-XXX-XXXX

Course Description

This course introduces a practical approach to building products that leverage AI for business success. By designing and developing AI-native applications using low-code/no-code tools, the participants will acquire the necessary knowledge to examine business opportunities, gain practical skills in managing the AI product development lifecycle, and navigate complexities associated with AI products in various verticals.

Instructional Method

In-Person w/Live Remote Option

In-person class. Instructor will live stream the class for remote synchronous attendance. In-person attendance not required.

Required Texts/Materials

Low-Code AI: A Practical Project-Driven Introduction to Machine Learning

ISBN: 978-1098146825

Authors: Stripling, Gwendolyn; Abel, Michael

Publisher: O'Reilly Media; 1st edition

Publication Date: October 17, 2023

A Guide to Al Tools ISBN: 979-8385544134 Authors: Nicko Trataris

Publisher: Independently published **Publication Date**: March 1, 2023

Third-Party Software

During this course, you might have the opportunity to use public online services and/or software applications sometimes called third-party software such as a blog or wiki. While some of these could be required assignments, you should not provide personal information about yourself or your classmates on a public site. Where appropriate, you may use a pseudonym or nickname. Some written assignments posted publicly may require personal reflection/comments, but the assignments will not require you to disclose any personal information. If you have any concerns about this process, please contact your instructor.

Course Objectives/Student Learning Outcomes

- CO:01 Describe what artificial intelligence (AI) is, what drives it, and what opportunities it offers to organizations
- CO:02 Examine types of AI products and compare them with other software products
- CO:03 Assess AI product opportunities in various verticals
- CO:04 Recognize the stages of AI product development
- CO:05 Explain challenges of designing AI products
- CO:06 Examine Al product efficiencies
- CO:07 Build various AI products using the design product development model and lowcode/no- code AI tools
- CO:08 Integrate workflow with AI tools to yield a business solution

(CO: Course objective)

Faculty Rights and Responsibilities

Florida Atlantic University respects the rights of instructors to teach and students to learn. Maintenance of these rights requires classroom conditions that do not impede their exercise. To ensure these rights, faculty members have the prerogative to:

- Establish and implement academic standards.
- Establish and enforce reasonable behavior standards in each class.
- Recommend disciplinary action for students whose behavior may be judged as disruptive under the Student Code of Conduct University Regulation 4.007.

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/.

Course Evaluation Method

The graded course components and the maximum available points are the follows.

Total	100%
Homework	15%
In-class assignments	10%
Exam	20%
development and demonstration)	
Portfolio of Al products (product/project	55%

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 <u>University Regulation 4.001</u>.

A note on plagiarism

Plagiarism takes many forms, including but not limited to:

- Direct copying (including 3 words in a row) without using quotations.
- Failure to use citations when an idea is not yours
 - Copying material without quotation marks is always plagiarism, even if you citethe source.
 - Providing references in the reference section without using citations is still plagiarism.

As a student, you are to avoid all types of plagiarism. For example, you must cite the textbook where you paraphrase a definition or concept from it. Failure to paraphrase and/or cite correctly your sources can result in dismissal from the class and the University. Saying you worked on project together and used the same references is not an excuse. Everyone must turn in their own individual paper which follows the correct APA formatting including proper referencing. If you are unsure about

the correct ways to paraphrase concepts and definitions, contact the campus academic advisor, or the Business Communications Department on the Boca Raton campus, for further assistance.

Anti-plagiarism Software

Written components of any assignment or project may be submitted to anti-plagiarism software to evaluate the originality of the work. Any students found to be submitting work that is not their own will be deemed in violation of the University's honor code discussed above.

Use of generative AI and AI-assisted technologies

Where students use generative AI and AI-assisted technologies in the writing process, these technologies should only be used to improve the readability and language of the work. Applying the technology should be done with human oversight and control, and students should carefully review and edit the result because AI can generate authoritative-sounding output that can be incorrect, incomplete, or biased. The students are ultimately responsible and accountable for the contents of the work.

Students should disclose in their manuscript the use of AI and AI-assisted technologies. Declaring the use of these technologies supports transparency and trust and facilitates compliance with the terms of use of the relevant tool or technology.

Attendance Policy Statement

Students are expected to attend all 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.

Religious Accommodation Policy Statement

In accordance with the rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices and beliefs regarding admissions, registration, class attendance, and the scheduling of examinations and work assignments. University Regulation 2.007, Religious Observances, sets forth this policy for FAU and may be accessed on the FAU website at www.fau.edu/regulations.

Any student who feels aggrieved regarding religious accommodations may present a grievance to the executive director of The Office of Civil Rights and Title IX. Any such grievances will follow Florida Atlantic University's established grievance procedure regarding alleged discrimination.

Time Commitment Per Credit Hour

For traditionally delivered courses, not less than one (1) hour of classroom or direct faculty instruction each week for fifteen (15) weeks per Fall or Spring semester, and a minimum of two (2) hours of out-of-class student work for each credit hour. Equivalent time and effort are required for Summer Semesters, which usually have a shortened timeframe. Fully Online courses, hybrid, shortened, intensive format courses, and other non-traditional modes of delivery will demonstrate equivalent time and effort.

Course Grading Scale

This course uses a point system for grading. The grades are completely transparent on Canvas. To be fair to all students, there will be no individual adjustment of any tests or assignment; grades are assigned based on actual performance only.

Letter Grade	Letter Grade
A	930 - 1000
A-	900 - 929
B+	870 - 899
В	830 - 869
B-	800 - 829
C+	770 - 790
С	730 - 769
C-	700 - 729
D+	670 - 699
D	630 - 669
D-	600 - 629
F	Below 600

Grade Appeal Process

You may request a review of the final course grade when you believe that one of the following conditions apply:

- There was a computational or recording error in the grading.
- The grading process used non-academic criteria.
- There was a gross violation of the instructor's own grading system.

<u>University Regulation 4.002</u> of the University Regulations contains information on the grade appeals process

Policy on Make-up Tests, Late work, and Incompletes

All lesson assignments should be submitted by the specified deadline. No assignments will be regraded because of one's failure to follow instructions, including, but not limited to, not having everything required or submitting the wrong file.

Late submissions of in-class assignments will NOT be accepted, except for the work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations, participation in religious observance, or participation in university-approved activities. University-approved reasons for absences include participating on an athletic or academic team, musical and theatrical performances, and debate activities. The students are responsible for giving the instructor notice 24 hours before 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 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.

Unless specified in the assignment description, all assignments should be completed individually. Any inclusion of other people's work (such as from classmates, previously submitted files, or answers found online), as well as Al-generated will be treated as academic integrity violation, resulting a zero (0) for that submission.

A student who is passing a course but has not completed all work due to exceptional circumstances may, with consent of the instructor, temporarily receive a grade of incomplete ("I"). The assignment of the "I" grade is at the discretion of the instructor, but it is allowed only if the student is passing the course.

The specific time required to make up an incomplete grade is at the discretion of the instructor. However, the College of Business policy on the resolution of incomplete grades requires that all work required to satisfy an incomplete ("I") grade must be completed within a period not exceeding one calendar year from the assignment of the incomplete grade. After one calendar year, the incomplete grade automatically becomes a failing ("F") grade.

Special Course Requirements

Required technological skills

- Basic Skills in computer use
- · Access to the internet
- Basic Canvas LMS skills
- Basic Skills for Office programs (word processing and presentation programs)

Required Software

- Microsoft 365 Suite Link to download
- Reliable web browser (recommended <u>Chrome</u> or <u>Firefox</u>)
- Mobile App: Instructions on how to download the Canvas App on an iOS device (<u>Link for iOS Instructions</u>) or Android device (<u>Link for Android instructions</u>).

Internet Connection

- Recommended: Broadband (high-speed) Internet connection with a speed of 4 Mbps or higher
- To function properly, Canvas requires a high-speed Internet connection (cable modem, DSL, satellite broadband, T1, etc.). The minimum Internet connection speed to access Canvas is a consistent 1.5 Mbps (megabits per second) or higher.
- To check your Internet speed, <u>click here</u>.

Minimum Technical Skills Requirements

The general and course-specific technical skills a student must have to succeed in the course include but are not limited to:

- 1. Accessing Internet.
- 2. Using Canvas (including taking tests, attaching documents).
- 3. Using email with attachments.
- 4. Creating and submitting files in commonly used word processing program formats such as Microsoft Office Tools.
- 5. Copying and pasting functions.
- 6. Downloading and installing software.
- 7. Using presentation, graphics, and other programs.
- 8. Posting and commenting in an online discussion.
- 9. Searching the FAU library and websites.

Computer Requirement - Basic computer specifications for Canvas Link to Specifications

Operating System

A computer that can run Mac OSX or Win 7.0 or higher.

Peripherals

 A backup option should be available to minimize the loss of work, such as an external hard drive, a USB drive, cloud storage, or your folder on the FAU servers.

Software

Once logged in to Canvas, make sure your Internet browser is compatible.

• Other software may be required for specific learning modules. If so, the necessary links to download and install will be provided within the applicable module.

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.

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/

Student Support Services and Online Resources

- Center for Learning and Student Success (CLASS)
- Counseling and Psychological Services (CAPS)
- FAU Libraries
- Math Learning Center
- Office of Information Technology Helpdesk
- Center for Global Engagement
- Office of Undergraduate Research and Inquiry (OURI)
- Science Learning Center
- Speaking Center
- Student Accessibility Services
- Student Athlete Success Center (SASC)
- Testing and Certification
- Test Preparation
- University Academic Advising Services

- University Center for Excellence in Writing (UCEW)
- Writing Across the Curriculum (WAC)

Course Topical Outline

- Introduction to Al Landscape
- Fundamental of AI products
- Stages of AI product development
- Fundamentals of AI Decision Systems
- Fundamentals of AI Prediction Systems
- Fundamentals of Conversational AI
- Benchmarking Al product performance
- Customization of AI products for Verticals
- Integrating AI into existing non-AI products
- Commercializing AI products
- Ethical Al
- Understanding integration of workflow to AI applications using low code/no code tools
- Fundamentals of assessing AI products for efficiencies and hallucination
- Developing an AI application with an ecosystem for business from design phase to production and maintenance
- Understanding user experience and assessment of customized AI solutions

Al products in the participant portfolio

- Dynamic pricing (predict willness to pay and setup dynamic pricing)
- Predict stock price (time-series)
- Brain tumor detection
- Al tutoring chatbot
- Object recognition
- Voice recognition
- Combining Workflow activities with an AI tool.

Weekly Assignments	Topics	Labs
Week I	Introduction to AI Landscape	Introduction to
		various AI tools
Week II	Fundamental of AI products	Introduction to
		various AI tools
Week III	Stages of AI product development	Introduction to
		various AI tools
Week IV	Fundamentals of AI Decision	Introduction to
	Systems	various AI tools
Week V	Fundamentals of AI Prediction	Application of
	Systems	various AI tools
Week VI	Fundamentals of Conversational	Application of
	Al	various AI tools
Week VII	Benchmarking Al product	Application of
	performance	various AI tools
Week VIII	Customization of AI products for	Application of
	Verticals	various AI tools
Week IX	Customization of AI products for	Using various AI
	Verticals	tools in product
	Part II	development
Week X	Integrating AI into existing non-AI	Using various AI
	products	tools in product
		development
Week XI	Understanding integration of	Using various AI
	workflow to AI applications using	tools in product
	low code/no code tools	development
Week XII	Fundamentals of assessing Al	Using various AI
	products for efficiencies and	tools in product
	hallucination	development
Week XIII	Commercializing AI products	User Experience (UX)
		with AI tools
Week XIV	Ethical Al	Assessing the user
		feedback with AI
		tools
Week XV	Developing an AI application with	Deploying AI product
	an ecosystem for business from	
	design phase to production and	
	maintenance	
Week XVI	Evaluation of AI application	Deploying AI product
	ecosystem	