



**FLORIDA
ATLANTIC
UNIVERSITY**

NEW COURSE PROPOSAL Undergraduate Programs

Department Information Technology and Operations Management
College Business
(To obtain a course number, contact erudolph@fau.edu)

UUPC Approval 3-1-21
UFS Approval _____
SCNS Submittal _____
Confirmed _____
Banner Posted _____
Catalog _____

Prefix ISM
Number 4421

(L = Lab Course; C = Combined Lecture/Lab; add if appropriate)

Lab Code

Type of Course
Lecture

Course Title
Artificial Intelligence and Digital Transformation for Business

Credits *(Review Provost Memorandum)*
3

Grading *(Select One Option)*
Regular

Course Description *(Syllabus must be attached; Syllabus Checklist recommended; see Guidelines)*
Students gain a business perspective of Artificial Intelligence as a driver of innovation and Digital transformation in wide array of industries. They learn how to plan, manage, and maintain AI projects and how to address the Digital transformation challenges and implications for the organization and society.

Effective Date *(TERM & YEAR)*
Fall 2021

Pass/Fail
Sat/UnSat

Prerequisites, with minimum grade*
No Prerequisite

Corequisites

Registration Controls *(Major, College, Level)*

***Default minimum passing grade is D-. Prereqs., Coreqs. & Reg. Controls are enforced for all sections of course**

WAC/Gordon Rule Course
 Yes No

WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to proposal. See [WAC Guidelines](#).

Intellectual Foundations Program (General Education) Requirement *(Select One Option)*
None

General Education criteria must be indicated in the syllabus and approval attached to the proposal. See [GE Guidelines](#).

Minimum qualifications to teach course
A Ph.D. or 18 graduate credits in the field plus related work experience

Faculty Contact/Email/Phone
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List/Attach comments from departments affected by new course

Approved by

Department Chair

[Signature]

Date
1/25/2021

College Curriculum Chair

[Signature]

2/17/21
2.18.2021

College Dean

[Signature]

UUPC Chair

[Signature]

3-2-21

Undergraduate Studies Dean

[Signature]

3-2-21

UFS President

Provost

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



Florida Atlantic University
COLLEGE OF BUSINESS

ISM 4421 – 001

Artificial Intelligence and Digital Transformation for Business

CRN Number: TBA

Term – Fall 2021

Class Location: TBA

Class Meeting Time(s): TBA

Professor Information

Mircea Marandici
ITOM, Boca Raton campus
Office: Fleming Hall xxx
Tel. 561-297-3181
Email: tdinev@fau.edu

Office Hours

TBA
And by appointment

Required Text and Materials

Artificial Intelligence for Business: A Modern Business Approach (2 Books in 1: Artificial Intelligence and Machine Learning for Business & Artificial Intelligence Business Applications), by John Medicine, September 15, 2019, ISBN-13: 978-1693303081
Access to IBM Watson provided for students
Other materials provided on Canvas

Recommended Text and Materials

N/A

Course Description

Students gain a business perspective of Artificial Intelligence as a driver of innovation and Digital transformation in wide array of industries. They learn how to plan, manage, and maintain AI projects and how to address the Digital transformation challenges and implications for the organization and society.

Course Prerequisites, Credit Hours, and Class Time Commitments

This course is worth 3 credit hours.

Requirements: Basic computer and Internet skills, familiarity with Microsoft Office. Additional software and resource requirements will be communicated to you upon registration and/or at the beginning of the course.

Supplemental Course Description

AI drives Digital Transformation and Business innovation and help business stay competitive. Businesses use AI in many realms, including predictive analytics, product pricing, and marketing, fraud detection, and financial services. In healthcare, artificial intelligence can be used in medical image analysis, language processing in dictation, and automated healthcare services. Because of machine learning capabilities in AI, any data that artificial intelligence is provided with, can be used to learn and to make new, unexpected predictions and recommendations! AI can be applied to your business marketing strategies, social media engagement, and a host of other business functions.



In this class students will grasp the vocabulary, concepts, and categories of AI well enough to communicate effectively with technical teams and colleagues. They will learn how to avoid pitfalls associated with these new technologies, how to develop and refine an AI-related project or initiative for the organization. Students will learn from real-world examples such as Microsoft, T-Mobile, Oracle, Netflix, Airbnb, Danske Bank, Infosys, Teradata, Reliance Jio, Fruit of the Loom and many other companies based on the personal consulting experience of the faculty. The project culminates in a real-worlds project paper and plan that uses AI to innovate and transform at least one aspect of the business in a specific organization. The plan can be put into action after elements are tested throughout the program. If a student does not have an organizational project or initiative to develop, faculty will provide project ideas.

Course Learning Objectives

- Learn about Digital Transformation of business companies and organizations
- Learn the terminology and aspects of AI, as they relate to business, well enough to communicate effectively with technical teams and creators of AI models and networks
- Learn how to apply AI to marketing, manage customer experience, operations, and social media, based on use cases from a variety of companies and industries
- Learn how to innovate and transform a business through AI—from strategy and capabilities to planning and implementation
- Learn the challenges and pitfalls of Digital Transformation and AI

Course Resources. Please see the next few pages.

Grading Scale

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
Cutoff	93.00 - 100	90.00	87.00	83.00	80.00	77.00	73.00	70.00	67.00	63.00	60.00	<60.00

In fairness to all, there will be no individual extra credit or adjustment of any test or assignment. Grades are assigned on actual performance only.

Course Evaluation Method

Discussion boards/mini-assignments (4 assignments worth 5% each)	20%
Quizzes	15%
IBM Watson AI Project	20%
Exam (See CANVAS for schedule)	15%
Digital Transformation/AI paper	15%
Presentation “Topic of the Week”	15%
	100%

Information on Grading Components

Discussion boards/mini-assignments. Before coming to class, every student should read the case study with which the chapter to be covered begins. A student will summarize the case for the class before the lecture begins. After completing the lecture and the reading assignment, a class discussion in groups will open over the chapter's case study questions (at the end of the chapter). Each group will come up with a conclusion and proposed solution and the groups' conclusions will be compared.



Exam and quizzes will cover material from lectures, current topics discussed, case studies/videos discussed in class and all assigned readings. They may include multiple-choice and short answer questions. All are closed book, notes, everything and must be taken during the scheduled times in Canvas.

IBM Watson AI Project. IBM has opened Watson for educational purposes. Each student will have account. The IBM Watson project is a team AI project on IBM Watson. More details and example projects will follow throughout the semester.

Presentation “Topic of the Week”. Each week a student will have individual presentation on a current AI topic as gathered from newspapers, technical journals, and the Internet. These presentations are also to be in written form (Power Point preferred) and emailed to me in advance. One presentation per student for the semester. Place name, course number and date on the report. Each presentation should be approximately 10 minutes student talk, 10 minutes discussion. Presentations must be scheduled prior to the due date and coordinated with me. You should inform me as to what topic you plan to cover in advance. All no shows will have a grade of zero.

Digital Transformation/AI paper

The paper is a team project of 2 students. Individual project or a team of 3 can proceed only after documented approval by the professor (email), and this should be done before the proposal’s due date. Majority of the projects will have a business-oriented topic which will advance our understanding of AI.

Students are encouraged to research and present:

- AI topic not covered in class
- AI tool or application demo. Demo of solving a business problem is expected.
- Societal or Legal implications of AI
- AI tools for non-Windows systems (Unix, Linux, Macintosh). Personal laptops may be needed for presentation. Demo of solving a business problem is expected.

Due dates: There is a due date for team formation and a due date for submitting the project proposal, which will be communicated on Canvas.

Presentation. PPT Slides are due before the presentation date by email. Every presentation should be within the time specified by the instructor, dependent on the number of teams presenting. However, maximum time will be 15 minutes, with 5 minutes left for questions.

Project grading. Oral presentations will be graded based on clarity, creativity and originality. Thus, it is very important that every team member is fully prepared, present and fully participating. How much effort s/he put in the project and his or her mastering of the topic will be mainly judged by the individual presentation and the questions – from there will come the difference in the project grades among team members.

Project (the common) grade will be based on the following:

1. The presentation is well prepared, organized and interesting. Coherent arguments, good grammar and explanation.
2. The presentation showcased all major project components
3. The presentation completed within the allocated time
4. All team members are professionally dressed and demonstrate professional behavior
5. The topic chosen is information rich, with the appropriate level of difficulty.



The final project grade will be the average of the common project grade and the individual student grade (based on the quality of the individual presentation and the questions answered).

Additional Course Policies

Submitting your work

Coursework submission dates are provided on your Canvas site. Deadlines are strictly adhered to. You must submit each assignment on, or before, 10pm on the submission date provided.

Missing Exams

Make-up exams will not be given unless the student has a documented serious illness (i.e. hospitalization) or other extreme personal circumstance, or absent due to a University sanctioned event, and must be arranged PRIOR to the scheduled exam period.

Late Assignments

A sliding penalty of 5 points per day late up to 5 business days will be applied to late submissions. Over 5 days late will result in a 0. However, similar to the Missing Exams policy, if you have a documented excuse, exceptions will be made. Please get in touch with me as soon as possible if there are genuine reasons that would cause you to be late on an assignment.

Attendance Policy

You must comply with the working arrangement. In general, 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 action.

Etiquette and/or Netiquette Policy

- Course requirements and Schedule may vary based on class discussions and course progress. This is a web assisted course. Students must have access to a PC with an Internet connection and access to Canvas.
- Students are responsible for retaining copies of all material (hard-copy, grade sheets and disk copies) until the final grade is received.
- Inappropriate behavior distracts other students and interferes with their learning experience. Inappropriate behavior may include arriving late, leaving early, talking, and so on. Rude and inappropriate behavior will not be tolerated. Cell phones must be turned off and beepers set to vibrate before you enter class. Since it is my responsibility to provide an environment that is conducive to learning for everyone in the class, I will ask any student who chooses to repeatedly



(more than once) distract others to leave. In particularly egregious cases, I will have the student permanently removed from the class.

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.

Course Outline and Schedule

Week	Date	Topic	Readings	Critical Items
1		Introduction – Business Aspects of AI and Machine Learning	Chapter 1	Welcome Quiz
2		Ethical and Societal implications of AI and Machine Learning	Chapter 2, 3	Case Discussions 1
3		AI and BIG TECH and Government	Chapter 4, 5	Case Discussions 2
4		The AI Revolution: Trends, Tools, and Applications	Chapter 7	
5		AI Strategy and Capabilities: Transforming Your Business with Deep Learning	Chapter 8	Case Discussions 3
6		Digital Transformation with Cognitive Technologies and Machine Learning	Chapter 9	
7		AI in Select Industries – Marketing and Customer Experience Management	Chapter 10, 11	Case Discussions 4
8		CLASS EXAM		CLASS EXAM
9		SPRING BREAK - NO CLASS SESSION		
10		AI in Select Industries – Healthcare, Operations Management, Autonomous Vehicles and Transportation	Chapter 10, 11	Case Discussions 5
11		Digital Transformation and Key Applications	Additional Materials on Canvas	Case Discussions 6
12		AI and Digital Trnsformation: Strategy, Building Your AI Team	Chapter 10, Additional Material	AI/Machine Learning Project due
13		Student Class Presentations		
14		Student Class Presentations		
15		Review topics		
16		Reading Day		
17		FINAL EXAM		



Code of Academic Integrity Policy Statement

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, please see FAU Regulation 4.001 at:

http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf

Disability/Accessibility Policy Statement

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/.

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>.

Religious Observances Accommodation Policy Statement

In accordance with 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, observances, and beliefs with regard to admissions, registration, class attendance and the scheduling of examinations and work assignments.

For further information, please see FAU Regulation 2.007 at: [FAU Regulation 2.007](#).

University Approved Absence Policy Statement

In accordance with rules of the Florida Atlantic University, students have the right to reasonable accommodations to participate in University approved activities, including athletic or scholastics teams, musical and theatrical performances and debate activities. It is the student's responsibility to notify the course instructor at least one week prior to missing any course assignment.

Incomplete Grade Policy Statement

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 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 of time 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.

Withdrawals



Any student who decides to drop is responsible for completing the proper paper work required to withdraw from the course.

Grade Appeal Process

A student may request a review of the final course grade when s/he believes that one of the following conditions apply:

- There was a computational or recording error in the grading.
- Non-academic criteria were applied in the grading process.
- There was a gross violation of the instructor's own grading system.

The procedures for a grade appeal may be found in Chapter 4 of the University Regulations, <http://www.fau.edu/regulations/chapter4/index.php>

Disruptive Behavior Policy Statement

Disruptive behavior is defined in the FAU Student Code of Conduct as "... activities which interfere with the educational mission within classroom." Students who behave in the classroom such that the educational experiences of other students and/or the instructor's course objectives are disrupted are subject to disciplinary action. Such behavior impedes students' ability to learn or an instructor's ability to teach. Disruptive behavior may include, but is not limited to: non-approved use of electronic devices (including cellular telephones); cursing or shouting at others in such a way as to be disruptive; or, other violations of an instructor's expectations for classroom conduct.

Faculty Rights and Responsibilities

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

- To establish and implement academic standards
- To establish and enforce reasonable behavior standards in each class
- To refer disciplinary action to those students whose behavior may be judged to be disruptive under the Student Code of Conduct.

REFERENCES

Artificial Intelligence for Business: A Modern Business Approach (2 Books in 1: Artificial Intelligence and Machine Learning for Business & Artificial Intelligence Business Applications), by John Medicine, September 15, 2019, ISBN-13: 978-1693303081

Artificial Intelligence: The Insights You Need from Harvard Business Review (HBR Insights Series), by Harvard Business Review, Thomas H. Davenport, Erik Brynjolfsson, Andrew McAfee, H. James Wilson, HBR Insights Series, September 17, 2019, ISBN-13: 978-1633697898

Artificial Intelligence: A No Non-sense Handbook for Business Leaders Paperback – October 16, 2019
by Tyler Dawson (Author), ISBN-13: 978-1700351647

Artificial Intelligence and Machine Learning for Business: A No-Nonsense Guide to Data Driven Technologies, by Steven Finlay, McGraw Hill, 3rd Edition, ISBN-13: 978-1999730345

Artificial Intelligence Basics: A Non-Technical Introduction Paperback – August 2, 2019, by Tom Taulli, Apress, ISBN-13: 978-1484250273



Florida Atlantic University
COLLEGE OF BUSINESS

Artificial Intelligence for Business: A Roadmap for Getting Started with AI 1st Edition,
by Jason L. Anderson (Author), Jeffrey L. Coveyduc (Author), Wiley, 2020. ISBN-13: 978-1119651734

Artificial Intelligence for Business: What You Need to Know about Machine Learning and Neural Networks, by Doug
Rose, Chicago Lakeshore Press 2018, ISBN-13: 978-0986435614

AI for People and Business: A Framework for Better Human Experiences and Business Success 1st Edition, by Alex
Castrounis, O'Reilly Media; 1 edition, ISBN-13: 978-1492036579

The Future of Business: An Introduction to Artificial Intelligence, by David Vandegrift, Oct 7, 2019, ISBN-13: 978-
1698191508

Applied Artificial Intelligence: A Handbook For Business Leaders Paperback – June 5, 2018, by Mariya, Yao, Adelyn Zhou,
Marlene Jia, TOPBOTS 2018, ISBN-13: 978-0998289021