Lincoln University

BA 355 Special Topics in Business: Application of Artificial Intelligence in Modern Information Systems

COURSE SYLLABUS

Fall 2021

Instructor:	Prof. Alexey Brudno
Lecture Schedule:	Wednesday, 12:30 PM – 3:15 PM
Credits:	3 units (45 lecture hours)
Level:	Mastery 2 (M2)
Contact information:	e-mail: abrudno@lincolnuca.edu
Textbook:	**Stuart J. Russell and Peter Norvig,**
	Artificial Intelligence, A Modern Approach, Fourth Edition,
	Copyright © 2021, 2010, 2003 by Pearson Education
	Identifiers: LCCN 2019047498	ISBN 9780134610993
	*** Previous and new editions of this book are okay too ***
Software:	N/A
Last Revision:	August 02, 2021

CATALOG DESCRIPTION

The course focuses on important areas of information systems not covered by the regularly offered courses. A specific topic for it is chosen by the instructor and announced in the syllabus. (3 units) *Prerequisites: Instructor's permission and BA 160 or BA 350*

COURSE OBJECTIVES

To introduce MBA students to the broad area of AI history, mathematical fundamentals, search, planning, decision-making, machine learning, computer vision, and robotics. All topics will be illustrated by examples of practical usage of AI in today's business. The course also presents the risks and benefits of implementing AI in the modern world.

COURSE LEARNING OUTCOMES (CLO) [1]

#	Course LO	Program LO	Institutional LO	Assignment
1	Students are expected to develop familiarity with the theoretical and practical sides of AI.	PLO 1	ILO 1b ILO 2b	Quizzes, exams
2	Students are expected to demonstrate theoretical knowledge and problem solving skills and idenyify associatated risks and financial constrains.	PLO 2	ILO 1b ILO 2b ILO 4b	Course project
3	Students are expected to demonstrate autonomy; creativity and responsibility in developing AI systems.	PLO 3	ILO 4b ILO 5b ILO 6b	Course project
4	Students are expected to demonstrate leadership, and set strategic objectives for team performance.	PLO 4	ILO 5b ILO 6b	Course project

PROCEDURES AND METHODOLOGY

This is an online instruction course.

Lecture method is used in combination with a supervised business case study. The emphasis will be on learning by doing assignments and projects require students to actively use resources of the library. A detailed guide to business resources of the library as well as the description of Lincoln University approach to information literacy are available at the Center for Teaching and Leaning website (cti.linclonuca.edu).

COURSE PROJECT

Projects will be developed by designated teams. Every student must actively participate in course project.

The project should cover high level of planning, design and preparation of MIS system requirements and cost estimates.

Project grades will be adjusted for team members individually based of their contribution and performance.

REQUIREMENTS

Continuous assessment is emphasized. Students must complete all assignments and take all quizzes, mid-term exam and final exam on the dates due.

Plagiarism will result in the grade "F" and a report to the administration.

ATTENDANCE

Students are expected to attend each class session. If you cannot attend a class due to a

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[1] Detailed description of learning outcomes and information about the assessment procedure are available at the Center for Teaching and Learning website (ctl.lincolnuca.edu).

valid reason, please notify the instructor prior to the class.

EXAMS

Both, midterm and final exams are structured as written true/false and multiple-choice questions that cover the theoretical material. Exams will cover all assigned chapters, any additional readings or supplementary materials covered in class. The exams are neither "open book" nor "open notes."

Cheating in exam results in immediate termination of the exam, grade "F" with ZERO points, and report to the dean.

GRAIDING AND SCORING

All activities will be graded according to the points as shown below.

The final grade for the course will be given as the total weighted score for all activities according to the percentage shown in the table below.

Grade	A	A-	B+	B	B-	C+	C	C-	D+	F
Points	94-100	90-93	87-89	84-86	80-83	77-79	74-76	67-69	60-66	0-59

The final grade for the course will be given as a weighted score for all activities.

Activity	Time	Percent
Quizzes, homework	During the course	20%
Course project	According to schedule	30%
Mid-term exam	According to schedule	20%
Final exam	According to schedule	30%
Total		100%

COURSE SCHEDULE

#	Sessions	Topics	Chapters
1	08.25	Introduction, Intelligent Agents	Ch. I
2	09.01	Problems Solving by Searching (games, routings, and others)	Ch. II
3	09.08	Constraint Satisfaction Problems	Ch. II
4	09.15	Knowledge Representation and Automated Planning	Ch. III
5	09.22	Uncertain Knowledge and Reasaning	Ch. IV
6	09.29	Probabalistic models and Decision Making (Big Data)	Ch. IV
7	**10.06**	**Midterm Exam**	
8	10.13	Machine Learning	Ch. V
9	10.20	Natural Language Processing (NLP)	Ch. VI
10	10.27	Computer Vision and Robotics	Ch. VI
11	11.03	Selected AI Business Applications	Special topic
12	11.10	AI Phylosophy, Etics, and Safety	Ch. VII
13	**11.17**	**Final Exam**	
	11.23-27	Fall recess	
14	12.01	Course Project Consultations	
15	12.08	**Course Project Presentations**	

CHEATING AND PLAGIARISM

Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one's grade or obtaining course credit. Acts of cheating include, but are not limited to the following:

a) plagiarism;
b) copying or attempting to copy from others during an examination or on an assigment;
c) communicating test information and/or solutions with another person during an examination;
d) allowing others to do an assignment or portion of an assignment;
e) using a commercial term paper service.

Penalties for cheating and plagiarism range from 0 or F on an assignment, through an F for the course, to expulsion from the university. Anyone caught cheating or plagiarizing willreceive a zero (0) on the exam or assignment, and the instructor may report the incident to the Dean of Students, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action.

LETTERS OF RECOMMENDATION

Letters of recommendation will be provided upon request to students, who have completed all course requirements and received grade "A" for the course.

OTHER COMMENTS

- Please participate. What you put into the class will determine what you get out of it - and what others get out of it.
- Please come on time. Late arrivals disturb everyone else.
- If you miss a class, you are responsible for getting notes/slide printouts on the material covered from a classmate or the instructor.
- To avoid distracting noise in class, cellular phones must be turned off or the ringing mode silenced.
- Questions and comments during the class are welcome. Do not hesitate to ask questions - do not leave anything unclear for you.

MODIFICATION OF THE SYLLABUS

The instructor reserves the right to modify this syllabus at any time during the semester. Announcements of any changes will be made in a classroom.