

**University of North Texas at Dallas
Spring 2016 Syllabus**

CSCE 4310: Introduction to Artificial Intelligence		3Hrs
Department of	Mathematics and Information Sciences	Division of Liberal Arts and Life Sciences
Instructor Name:	Prof. Sam Nakib	
Office Location:	DAL 339	
Office Phone:	(972) 200-4727	
Email Address:	oussama.nakib@unt.edu	
Office Hours:	Mon By Appointment	Wed By Appointment
Virtual Office Hours:		
Classroom Location:	DAL 339	
Class Meeting Days & Times:	Mon 1:00PM – 2:20PM Wed 1:00PM – 2:20PM	
Course Catalog Description:	Introduction to concepts and ideas in artificial intelligence. Topics include search techniques, knowledge representation, control strategies and advanced problem-solving architecture.	
Prerequisites:	CSCE 2110	
Co-requisites:		
Required Text:	Negnevitsky, M., Artificial Intelligence: A Guide to Intelligent Systems, 3rd Edition, 2011, Addison Wesley, ISBN 978-1408225745.	
Recommended Text and References:		
Access to Learning Resources:	UNT Dallas Library: phone: (972) 780-3625; web: http://www.unt.edu/unt-dallas/library.htm UNT Dallas Bookstore: phone: (972) 780-3652; e-mail: 1012mgr@fhcg.follett.com	
Course Goals or Overview:	This course is designed to provide an understanding of modern intelligent systems and how technologies are relates to their chosen fields and how they are applied in various	
Learning Objectives/ Outcomes: At the end of this course, the student will		
1	Understand the history and background of AI.	
2	Understand concepts and applications of rule-based systems, Bayesian reason, fuzzy inference, and evolutionary computation.	
3	Able to identify problems for which AI techniques may be an effective solution.	
Degree Program Student Learning Outcomes:		
1	Core Knowledge: Students will have the ability to apply knowledge of computing, networking and data management.	
2	Resource Management Skills: Students will apply project management principles to analyze problems and define appropriate computing and infrastructure resources.	
3	Social Responsibility: Students will develop an understanding of professional, ethical, legal, security and social responsibilities of information technology professionals.	
4	Written Communication: Students will prepare a written report describing a process, experiment or design activity in the discipline.	

5	Oral Communication: Students will orally describe and defend a design, process or problem solution to a body of peers.
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Course Outline

The following progressive table is tentatively scheduled and subject to change by the instructor. Changes to this schedule will be communicated by in-class as well as WebCT announcements.

Topics		Timeline
Chapter 1	Introduction to Knowledge Based Systems	Week 1
	MLK Holiday	
Chapter 1	Introduction to Knowledge Based Systems (cont'd.) Rule-Based Systems	Week 2
Chapter 2	Rule-Based Systems (cont'd.)	Week 3
	Test 1	Week 4
Chapter 3	Uncertainty Management in Rule-Based Expert Systems	Week 5
Chapter 3	Uncertainty Management in Rule-Based Expert Systems (cont'd.)	Week 6
Chapter 4	Fuzzy Expert Systems	Week 7
	Spring Break	Week 8
Chapter 4	Fuzzy Expert Systems (cont'd.)	Week 9
	Test 2	Week 10
Chapter 6	Artificial Neural networks	Week 11
Chapter 6	Artificial Neural networks (cont'd.)	Week 12
Chapter 7	Evolutionary Computation	Week 13
Chapter 7	Evolutionary Computation (cont'd.)	Week 14
Extra Topic	Intelligent Tutoring Systems	Week 15
	Test 3	Week 16

Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

Exams – written tests designed to measure knowledge of presented course material

Written Assignments – three written assignments designed to supplement and reinforce course material

Class Participation – daily attendance and participation in-class discussions

Grading Matrix:

Instrument	Value (points or percentages)	Total
Test 1	90	90
Test 2	90	90
Test 3	90	90
Assignment 1	30	30
Assignment 2	30	30
Assignment 3	30	30
Class Participation/ Discussion	40	40
Total:		400

Grade Determination:

A = 360 – 400 pts; i.e. 90% or better

B = 320 – 359pts; i.e. 80 – 89 %

C = 280 – 319pts; i.e. 70 – 79 %

D = 240 – 279 pts; i.e. 60 – 69 %

F = 239pts or below; i.e. less than 60%

University Policies and Procedures

Students with Disabilities (ADA Compliance):

Chapter 7(7.004) Disability Accommodations for Students

The University of North Texas at Dallas makes reasonable academic accommodation for students with disabilities. Students seeking accommodations must first register with the Disability Services Office (DSO) to verify their eligibility. If a disability is verified, the DSO will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, DSO notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet/communicate with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Disability Services Office website at <http://www.untdallas.edu/disability>. You may also contact them by phone at 972-338-1777; by email at UNTDdisability@untdallas.edu or at Building 2, room 204.

Blackboard Learn Accessibility Statement:

University of North Texas at Dallas is committed to ensuring its online and hybrid courses are usable by all students and faculty including those with disabilities. If you encounter any difficulties with technologies, please contact our ITSS Department. To better assist them, you would want to have the operating system, web browser and information on any assistive technology being used. Blackboard Learn course management system's accessibility statement is also provided: <http://www.blackboard.com/Platforms/Learn/Resources/Accessibility.aspx>

NOTE: Additional instructional technology tools, such as Turnitin, Respondus, Panopto, and publisher cartridge content (i.e. MyLab, Pearson, etc.) may NOT be fully ADA compliant. Please contact our Disability Office should you require additional assistance utilizing any of these tools.

Student Evaluation of Teaching Effectiveness Policy:

Student's evaluations of teaching effectiveness is a requirement for all organized classes at UNT Dallas. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider students' evaluations to be an important part of your participation in this class.

Assignment Policy: (According to the instructor's discretion while working in concert with the division/program's guidelines).

Exam Policy: (Online exams and the ability to retake is solely at the instructor's discretion). **NOTE:** Online exams may be proctored on campus per instructor's discretion.

Academic Integrity:

Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Academic Integrity at http://www.untdallas.edu/sites/default/files/page_level2/pdf/policy/7.002%20Code%20of%20Academic_Integrity.pdf for complete provisions of this code.

Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students.

Web-based Plagiarism Detection: Please be aware in some online or hybrid courses, students may be required to submit written assignments to Turnitin, a web-based plagiarism detection service, or another method. If submitting to Turnitin, please remove your title page and other personal information.

Classroom Policies

Online Attendance and Participation:

The University attendance policy is in effect for this course. Class attendance in the Blackboard classroom and participation is expected because the class is designed as a shared learning experience, and because essential information not in the textbook will be discussed in the discussion board. Online presence and participation in all class discussions is essential to the integration of course material and your ability to demonstrate proficiency. .

Attendance for this online or hybrid course is considered when you are logged in and active in Blackboard, i.e., posting assignments, taking quizzes, or completing Discussion Boards. To maintain financial aid award eligibility, activity must occur before the census date of the session or term of the course. Refer to <http://www.untDallas.edu/registrar> for specific dates. If you are absent/not active in the course shell, it is YOUR responsibility to let the instructor know immediately, upon your return, the reason for your absence if it is to be excused. All instructors must follow university policy 7.005 covering excused absences; however, it is the instructor's discretion, as outlined in the course syllabus, of how unexcused absences may or may not count against successful completion of the course

Inclement Weather and Online Classes: Online classes may or may not be effected by campus closures due to inclement weather. Unless otherwise notified by your instructor via e-mail, online messaging, or online announcement, students should assume that assignments are due as scheduled.

Online "Netiquette:

In any social interaction, certain rules of etiquette are expected and contribute to more enjoyable and productive communication. Emails, Discussion Board messages and/or any other forms of written communication in the online environment should use proper "netiquette" (i.e., no writing in all caps (usually denotes yelling), no curse words, and no "flaming" messages (angry, personal attacks).

Racial, ethnic, or gender slurs will not be tolerated, nor will pornography of any kind.

Any violation of online netiquette may result in a loss of points or removal from the course and referral to the Dean of Students, including warnings and other sanctions in accordance with the University's policies and procedures. Refer to the Student Code of Student Rights Responsibilities and Conduct at <http://www.untDallas.edu/osa/policies>. Respect is a given principle in all online communication. Therefore, please be sure to proofread all of your written communication prior to submission.

Diversity/Tolerance Policy:

Students are encouraged to contribute their perspectives and insights to class discussions in the online environment. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Dean of Students as the instructor deems appropriate.

Technology Requirements: In order to successfully access the materials in an online or hybrid course, UNT Dallas advises that your computer be equipped with the minimum system requirements.

Blackboard Learn 9.1 is the platform software for this course. Blackboard Learn supports major web browsers such as Windows Internet Explorer, Apple Safari, Mozilla Firefox, and Google Chrome. However, since the latter two are updated continually, some recent versions may not be compatible. If you experience difficulty accessing or using components of the course, try using Internet Explorer. Also, no matter what browser you use, always enable pop-ups. For more information see:

- <http://www.untdallas.edu/dlit/ecampus/requirements>
- https://help.blackboard.com/en-us/Learn/9.1_SP_12_and_SP_13/Student/040_Browser_Support_for_SP_13
- https://learn.unt.edu/bbcswebdav/institution/BrowserCheck/check_full.html