توصيف مقرر دراسى

١ ـ بيانات المقرر		
المستوى: الثالث	اسم المقرر : **Structured Programming**	كود المادة : Math 341
عدد الوحدات الدراسية: ٣ ساعة معتمدة نظرى: ٢ تمارين: ٠ عملى: ٢		التخصص : الإحصاء وعلوم الحاسب

For students undertaking this course, the aims are to: 1. Have gained a deeper appreciation of the way in which computer science has been applied to the problem of artificial intelligence, and in particular for more recent techniques concerning knowledge representation, uncertainty learning. 2. Know how to model situations using a variety of knowledge representations. 3. Be able to design problem solving method based on knowledge representation and learning techniques. 4. Know how probability theory can be applied in practice.	٢ـ هدف المقرر :

	٣ـالمستهدف من تدريس المقرر:
a- Knowledge and Understanding **On completing this course, students will be able to:** a1. Recognize the basic concepts and methods used in the field of Artificial intelligence. a2. Understand the theories, method and practices of Artificial Intelligence techniques. a3. Be familiar with an agent-based intelligent system. a4. Understand how to solve problems by searching. a5. Understand several problem solving using fuzzy logic and statistical learning theory.	أ ـ المعلومات والمفاهيم:
b- Intellectual Skills **On completing this course, students will be able to:** b1. Develop computing algorithms and to analyze their properties. b2. Formulate some of real problems using knowledge representation. b3. Utilize fuzzy logic to deal with uncertainty. b4. Analyze, interpret and model real problems using statistical learning theory techniques.	ب ـ المهارات الذهنية:
c- Professional and Practical Skills **On completing this course, students will be able to:** c1. Apply basic probability theory to machine learning problems. c2. Implement and apply search techniques. c3. Implement, apply and systematically evaluate machine learning techniques. c4. Develop algorithms to solve different problems.	جـ ـ المهارات المهنية الخاصة بالمقرر :
d- General and Transferable Skills **On completing this course, students will be able to:** d1. Design agent-based intelligent system. d2. Apply acquired knowledge to solve real situations in Artificial Intelligence(AI). d3. Deal with current advances in Artificial Intelligence	د ـ المهارات العامة :
– Introduction to Artificial intelligence	٤ـ محتوى المقرر :

– Intelligent Agents part1 – Intelligent Agents part2 – Intelligent Agents part3 – Solving Problems by Searching part1 – Solving Problems by Searching part2 – Introduction to Statistical Learning theory part1 – Introduction to Statistical Learning theory part2 – Introduction to Statistical Learning theory part3 – introduction to Statistical Learning theory part4 – Fuzzy logic part1 – Fuzzy logic part2 – Fuzzy logic part3 – Fuzzy logic part4	
1- **Lectures:** 2 Hours per week (2H/W) 2- **Practical:** 2 Hours per week (2H/W)	٥ـ أساليب التعليم والتعلم :
The same as normal students, only skeletal disabilities are allowed in the faculty of science.	٦ـ أساليب التعليم والتعلم للطلاب ذوى القدرات المحدودة:
	٧ـ تقويم الطلاب:
1- Final exam to assess a1- a5, b1 – b4 , c1 – c4 , 2- Oral exam to assess a1 – a5 , b1- b4,d1-d3 3- Mid-Term Exam to assess 4- Practical Exam to assess	أـ الأساليب المستخدمة:
1- Final exam week 16 2- Oral exam week 16 3- Mid-Term Exam week 7 4- Practical Exam week	ب ـ التوقيت:
- Mid-Term Examination 10% - Final-Term Examination 60% - Oral Examination 10% - Practical Examination 20% Total 100%	جـ ـ توزيع الدرجات
	٨ـ قائمة الكتب الدراسية والمراجع :
	أـ مذكرات :
1. S. Russell and P. Norvig, "Artificial Intelligence: A Modern Approach" Third Edition, Prentice Hall.	ب ـ كتب ملزمة :
1-	جـ كتب مقترحة
2- http://www.freetechbooks.com 3- http://www.e-booksdirectory.com 4- http://www.dfebook.net 5- http://csitlibrary.blogspot.com 6- http://www.techbooksforfree.com/science.shtml 7- http://www.freebookcentre.net/SpecialCat/Free-Mathematics-Books Download.html 8- http://www.onlinecomputerbooks.com/free/books/mathematics/ 9- http://2020ok.com/13884.htm 10- http://tutorial.math.lamar.edu/sitemap.aspx	د ـ دوريات علمية أو نشرات ... الخ

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(أ) مصفوفة المعارف والمهارات المستهدفة من المقرر الدراسى

المحتويات للمقرر	اسبوع الدراسة	المعارف الرئيسية	مهارات ذهنية	مهارات مهنية	مهارات عامة
Introduction to Artificial intelligence	1				
Intelligent Agents part1	2				
Intelligent Agents part2	3				
Intelligent Agents part3	4				
Solving Problems by Searching part1	5				
Solving Problems by Searching part2	6				
Introduction to Statistical Learning theory part1	7				
Introduction to Statistical Learning theory part2	8				
Introduction to Statistical Learning theory part3	9				
introduction to Statistical Learning theory part4	10				
Fuzzy logic part1	11				
Fuzzy logic part2	12				
Fuzzy logic part3	13				
Fuzzy logic part4	14				

أستاذ المادة : د./محمود محمد أحمد عبد اللطيف

رئيس مجلس القسم العلمي : ا.د./ مجدى الياس فارس

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