UMBC UGC Change in Existing Course: IS 427, *Introduction to Artificial Intelligence: Concepts and Applications*

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COURSE INFORMATION: (please provide all information in the "current" column, and only the information changing in the "proposed" column)

change		current	proposed
☐	Course Number(s)	IS 427	
☐	Formal Title	Introduction to Artificial Intelligence: Concepts and Applications	
☐	Transcript Title (≤30c)		
☐	Recommended Course Preparation		
☒	Prerequisite **NOTE:** Unless otherwise indicated, a prerequisite is assumed to be passed with a "D" or better.	Any 300-level IS course with a C or better.	(IS 247 or CMSC 202) and (MATH 215 or MATH 221), each with a C or better.
☐	# of Credits Must adhere to the UMBC Credit Hour Policy	3	
☐	Repeatable?	☐ Yes ☒ No	☐ Yes ☐ No
☐	Max. Total Credits	3	**Max. Total Credits:** This should be equal to the number of credits for courses that cannot be repeated for credit. For courses that may be repeated for credit, enter the maximum total number of credits a student can receive from this course. E.g., enter 6 credits for a 3 credit course that may be taken a second time for credit, but not for a third time. Please note that this does NOT refer to how many times a class may be retaken for a higher grade.
☐	Grading Method(s)	☐ Reg (A-F) ☐ Audit ☐ Pass-Fail	☐ Reg (A-F) ☐ Audit ☐ Pass-Fail

CURRENT CATALOG DESCRIPTION:
This course will provide an introduction to, and hands-on experience with, several artificial intelligence (AI) techniques. It will begin with the concepts and design of knowledge-based systems; the students will identify the issues arising in the design of rule-based systems. Machine learning, particularly neural network topologies will be introduced. The class also will include a discussion of recent advances in AI, including intelligent agents, natural language processing, evolutionary computing and case-based reasoning.

PROPOSED CATALOG DESCRIPTION (Approximately 75 words in length. Please use full sentences**):** leave blank if no changes are being proposed to the catalog description. NOTE: information about prerequisites should NOT appear in the catalog description.)

This course will provide an introduction to the main concepts and methods of Artificial Intelligence. It will cover a broad range of topics such as problem solving by searching, constraint satisfaction problems, knowledge representation and reasoning, machine learning and natural language processing. The class will also include discussions on recent advances in AI.

RATIONALE FOR CHANGE:

The course is taught by different faculty than in past years, and is now offered every year, rather than on occasion. The description has been updated to reflect current course content. Additionally, it has become clear that a number of students do not have sufficient background to complete the course. The introductory programming sequence and finite mathematics (or linear algebra) have been added to correct this.