CSCI 4362 – DATA ANALYTICS II

CREDIT HOURS: 3  
PREREQUISITES: CSCI 3362, MATH 1325 or 2313, STAT 3342  
GRADE REMINDER: Must have a grade of C or better in each prerequisite course.

CATALOG DESCRIPTION

Advanced study of data analytics including data mining techniques, applied machine learning, theory and algorithms for analyzing data for decision making.

PURPOSE OF COURSE

The purpose of this course is to provide a core knowledge of the concepts of data mining. This knowledge will enable the students to apply the data analytics process, theory, and algorithms to various large datasets. Students will acquire a knowledge of applied machine learning, theory, and algorithms used for mining data and understand how to gain insight information through data mining process.

EDUCATIONAL OBJECTIVES

Upon successful completion of the course, students should be able to:

1. Demonstrate a core knowledge of the fundamental concepts of data mining techniques. 
2. Evaluate the applications of various theory and methods mining datasets. 
3. Describe the main issues of the data mining process. 
4. Identify current trends in the field of data mining.

COURSE CALENDAR

This course meets for a minimum of 37.5 lecture contact hours during the semester, including the final exam. Students have significant weekly reading assignments. Students are required to complete a major project and make at least one class presentation, weekly homework/programming assignments, and 2-3 periodic exams in addition to the final exam. Students are expected to prepare for any class assignments or quizzes over the material covered in class or in the reading material. Successful completion of these activities requires at a minimum six additional hours of outside of classroom work each week.

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<td>Current topics</td>
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Exams (plus final) ........................................................................................................................................... 3

TOTAL 45

REFERENCES

Matthew A. Russell. 2011. Mining the Social Web: Analyzing Data from Facebook, Twitter, Linkedin, and Other Social Media Sites (1st ed.). O'Reilly Media, Inc.