COURSE SYLLABUS[1]
CS 544.01
Data Mining and Knowledge Discovery
Dr. Ken Hartness
3 credit hours
Fall 2007

Location of Lecture: AB1 206   **Meeting Times:** 2:00 - 3:20 p.m. TTh

Office: AB1 212F   **Phone:** (936) 294-3524
Office Hours: 9-10 MWF, 3:30-4:30 TTh,   **E-mail:** csc_kth@shsu.edu
     or by appointment   **URL:** http://www.shsu.edu/~csc_kth

Course Description: An introduction into data mining and knowledge discovery. Topics include discussion of a variety of mining techniques. Mining of complex data such as a multimedia database, text database, and world-wide web will be introduced. The applications and trends in data mining will also be discussed.

Prerequisites: CS 566

Course Objectives: The student will learn about algorithms for knowledge discovery and when and how they should be applied. The student will be exposed to current work in this area and possibilities for the near future.

Text Book: *Data Mining: Concepts and Techniques*, by J. Han and M. Kamber (ISBN: 1-55860-489-8)

Attendance policy: Attendance is important for success in the class and may occasionally be counted as part of a participation grade, especially on days when other students are presenting. The student is responsible for any material missed during an absence and cannot assume that late work will be accepted. Ideally, arrangements should be made well in advance with the instructor and work, if possible, submitted prior to the absence. Unexpected absences will be handled on a case-by-case basis, and students with evidence supporting the reason for their absence (doctor's note, etc.) will be more likely to receive accommodation; speak to the instructor as soon as possible after an unexpected absence.

Assignments: Students will be asked to complete tasks throughout the semester, such as implementing and testing an algorithm, completing short-answer homework, writing a short report, or participating in a discussion; these activities will be referred to as "homework," here. Students will write a report on a particular area of data mining, including at least one practical use outside the classroom and, preferably, discussion of the student's implementation; the student will present a summary of their report to the class, preferably using modern presentation tools.

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[1]If the details of this syllabus are modified during the semester, an announcement will be made in class. If a student's grade is affected, he or she may choose to be evaluated according to the original grading policy.

Exams: Two exams and a comprehensive final exam will be used to evaluate your understanding of the material. An optional make-up exam may be offered at the end of the semester, if needed. In addition to questions based on homework and lecture, the student may be asked to show their understanding of when and how algorithms should be used through case studies.

Grading Policy: The student's average is calculated by averaging grades (100-point scale) of a certain type, then combining the uniform averages into a single weighted average according to the following weights[2]:

Homework	40%
Presentation	5%
Report	4%
rough draft	1%
Exams (16% each)	32%
Final Exam	18%

Academic Dishonesty: All work must be your own unless clearly identified. Any ideas or work that comes from someone else must be documented, appropriately (exam answers and homework are assumed to be inspired by your book and lecture notes, but any assistance from web sites or other students should be documented on homework). Anything you include in submitted work that is copied from somewhere else and any ideas incorporated into your report which were first thought by someone else or inspired your own thinking must include credit to the original source. Any type of cheating, especially clear cases of academic dishonesty, may result in all students involved receiving a grade of F for the semester; at the least, part or all of an assignment may be rejected as a warning. (See the University Code of Conduct, www.shsu.edu/students/guide/dean/codeofconduct.html, and my own weg page, www.shsu.edu/~csc_kth/cheating.pdf, for more information.)

Classroom Rules of Conduct: In compliance with the University Code of Conduct, students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Please turn off or mute your cellular phone and/or pager before class begins. Students are prohibited from using tobacco products, making offensive remarks, using inappropriate language, reading newspapers or socializing at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Students will be warned, then directed to leave the class and/or report to the Dean of Students for disciplinary action in accordance with university policy.

Visitors in the Classroom: Occasional visiting of classes by responsible persons is allowed with prior arrangement with the instructor, as long as it does not interfere with the registered members of the class or the educational process.

Americans with Disabilities Act: It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic

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[2]The professor reserves the right to curve class grades in a consistent manner using any reasonable type of curve.

or Student Life program or activity.   The Counseling Center verifies the need for assistance and provides a request for accommodations to be shared with the professor. Students requesting assistance with academically-related problems stemming from individual disabilities should contact the Director of the Counseling Center (Lee Drain Annex, 936-294-1720) in a timely manner so that a suitable learning environment is attained early in the semester.

Religious Holidays: University policy states that a student who is absent from class for the observance of a religious holy day may take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. Whenever possible, the student should make arrangements with the instructor at least one week in advance (see attendance policy).