

## COSC 5390 – Fundamentals of Data Warehouses – Summer 2006

### General Information

<b>Instructor</b>	Leonard Brown
<b>Office Location</b>	HPR 212
<b>Office Hours</b>	TR 1:30 p.m. – 3:00 p.m. or by appointment
<b>Phone</b>	(903) 565-5677
<b>Email</b>	lbrown@uttyler.edu
<b>Class Time/Location</b>	TR 3:30 p.m. – 5:40 p.m. / SCI 0204

**Prerequisites** COSC 5360 (Database Design)

**Required Texts** *Data Warehouse Fundamentals*, 2<sup>nd</sup> Edition, M. Jarke, M. Lenzerini, Y. Vassiliou, and P. Vassiliadis, Springer-Verlag, 2003.

Selected publications will be made available in the course directory.

**Additional Texts** *Building the Data Warehouse*, 3<sup>rd</sup> Edition, W. H. Innon, John Wiley & Sons, 2002.

### Description

This course provides an overview of the fundamentals of data warehousing including the planning, designing, building, populating, and maintaining a successful data warehouse. Specific topics covered include the logical design of a data warehouse, data warehousing architecture, extract-transform-load processing, a comparison of OLAP and OLTP, and query processing utilizing multidimensional views of data.

### Course Topics

- Overview of Data Warehouse and its Components
- Modeling and Measuring Data Warehouse Quality and Data Quality
- Integrating Schemas of Source Data to Construct an Integrated Enterprise Schema
- Data Extraction / Transformation / Loading
- Online Transaction Processing vs. Online Analytical Processing
- Implementing Multidimensional Views of Data
- Optimization of Query Processing
- Integrating Components into a Unified Architecture / Data Warehouse Development

**Exams:** There will be one midterm exam and one final exam given for this class. All exams will be held in the class lecture room. The midterm and final exam will be given during the regular class time. The *tentative* dates of the exams are:

**Midterm** July 11, 2006 (3:30 p.m. – 5:40 p.m.)

**Final Exam** August 10, 2006 (3:30 p.m. – 5:40 p.m.)

You will be notified in advance of any change in the above dates.

**Grading:** There are three (3) components to the course grade totaling 1000 points. They are as follows:

Midterm	250 points
Assignments	400 points
Final Examination	350 points

Course grades will be assigned based on the following scale.

900-1000	A
800-899	B
700-799	C
600-699	D
599 and below	F

**Late Policies:** All homework assignments are due at the beginning of class on the date specified in the assignment. Unless otherwise specified, assignments will not be accepted after that time.

**Plagiarism:** Unless otherwise specified, all work submitted for a grade must be completed by yourself - no group effort. Plagiarism will result in disciplinary actions. To spare yourself accusations of plagiarism-

1. Do not show another student a copy of your work before it has been graded. The penalties for permitting your work to be copied are the same as the penalties for copying someone else's work.
2. Do not leave printouts of your work where other students may pick them up.

**Accommodation of disabilities:** Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her ability should contact me personally as soon as possible so we can discuss accommodations that might improve your educational experience and opportunities.

**The Writing Center:** Located in BUS 202, the UT-Tyler Writing Center provides professional writing tutoring for all students in all disciplines. If you wish to use the Writing Center, you should plan for a minimum of two hour-long tutorials per assignment: the first to provide an initial consultation and drafting plan, and the second to follow up. Be prepared to take an active role in your learning--you will be expected write and/or discuss your work during your tutorial. While Writing Center tutors are happy to provide constructive criticism and teach effective writing techniques, under no circumstances will they fix your paper for you. Appointments: 565-5995. More information: [www.uttyler.edu/writingcenter](http://www.uttyler.edu/writingcenter).