

BCIS 4660.001 & .002

Decision Systems Design (a.k.a. Data Warehousing)

Spring 2015

Instructor: Dr. Jack D. Becker

[Skip to Syllabus \(.pdf\)](#)

Office: [312A BLB](#) (click for map)

Telephone: Office: (940) 565-3113/3110


Fax: Office: (940) 565-4935

E-mail: becker@unt.edu

OFFICE HOURS

Thurs: 1-2 pm & 5-6 PM; and by appointment

Grade Books – Spring 2015:	Section 1 (Thurs/Day)	Section 2 (Thurs/Eve)
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General Class Resources:		 39,000 UNT Fans	UNT 36- UNLV 14; Heart of Dallas Bowl Game	
Service	Component		Weblinks 1	Weblinks 2
Tutors:	BCIS 4660 TUTOR TIMES			
Team Assignments: TEAM CHOICE: .PPT / .PDF	Section 1 (Day) Teams		Section 2 (Eve) Teams	
Practice Exams & Study Guides:	PRACTICE MIDTERM EXAM NEW	Midterm Exam Study Guide NEW	PRACTICE FINAL EXAM NEW	Final Exam Study Guide FINAL EXAM notes
ONLINE Textbook Resources	Pratt & Adamski 7th ed. Student Resources		Adamson & Venerable, Chap 1	Jukic, Chap 1 NEW ERDPlus NEW
Team Evaluations Blank forms	Team Evaluation Form [.pdf]		Team Evaluation Form [.doc]	

SQL References:	SQL Reserved Words	SQL References [Pratt & Adamski]: Appx B Appx C
Semantic Object Models (SOM)	Semantic Object Model Notes (Supplemental Chapter Appendix E)	TABLEDESIGNER [.exe; 8 Mb] FREE Software; for BONUS Hwk #6.B
FREE Microsoft Software	FREE Software Microsoft Academic Alliance (Check Eligibility) New 2014 FALL	

Homework / Assignment	Assignment Guidelines: (Due: Thurs); Scoresheets	End of Chapter Questions [EOCs]; Hints & Tips
General Access Hints	Becker's Rules TBA	Access Tabbed Documents opt. New
1	Assign. #1 DUE: Jan 29	EOCQ1; Hints & Tips; New Access 2007/2010 Tutorial
2	Assign. #2 DUE: Feb 5	EOCQ2; Hints & Tips;
3	Assign. #3 DUE: Feb 19	EOCQ3; Hints & Tips;
4	Assign. #4 DUE: Feb 26 ERDPlus; ELINK Software	EOCQ4; Hints & Tips;
ERD S/W:		ERD Tutorial; Chap 2 Jukic
5	Assign. #5 DUE: Mar 5	
6	Assign. #6 DUE: Apr 2 SOM: Appendix E (.pdf); Extra FL Data (Zip File); NEW	TIME Table 2008-2014 (.accdb file) ; SOM Tutorial; Hints NEW TABLEDESIGNER [.exe; 8 Mb] FREE Software; for BONUS Hwk #6.B
7	Assign. #7 DUE: Apr 9 Assign.#7Sec1.ZIP Assign.#7Sec2.ZIP Pool Zip Assign. #7	Hwk #7 Hints & Tips Assign. #7.Sec1 HINTS Assign. #7.Sec2 HINTS Pooled DATA Hints Teams1-20
8	Assign. #8 DUE: Apr 23	Hwk #8 Hints & Tips; More Hints Part 2 Transformation Maps Hints Hwk #8 TeamMatrix Sec1 Hwk #8 TeamMatrix Sec2

9	Assign. #9 DUE: Apr 30 Assign. #9.4	Hwk #9 ; Menu Systems ; Access Switchboards
9 Hints:	Executive Summary Guidelines	
10	Assign. #10 DUE: May 7 Assign. #10 .ppt Presentation	Hwk #10 ; Presentation in class

REQUIRED TEXTBOOK

1. Adamski and Pratt, ***Concepts of Database Management***, 7th Edition, Course Technology, 2012 ISBN-13: 978-1-111-82591-1

OPTIONAL TEXTBOOKS [Handouts Provided]

2. Jukic, Vrbsky, Nestorov, ***Database Systems: Introduction to Databases and Data Warehouses***, Pearson, 2014. **NOTE:** Materials from this book will be provided in class. [ELink](#)
3. Grauer, Robert T., ***Access 2013 Comprehensive***, Pearson, 2014. [BCIS 3610]
4. Adamson, Christopher and Venerable, Michael, ***Data Warehouse—Design Solutions***, Wiley, 1998.

NOTE: ONLY selected chapters from this book will be covered in class.
Handouts will be provided.

COURSE PREREQUISITES

BCIS 3610 and ACCT 2010 & 2020 with grades of C or better; DSCI 3710 or 3870; 2.7 GPA. Grades of C or better in each previously taken BCIS and DSCI course, or consent of department.

COURSE DESCRIPTION & PURPOSE

This course investigates model-based approaches to the design of decision systems for business and industry. This includes exploring techniques for data management such as data warehousing, data mining, and data visualization for decision-making in management, management science and accounting. Emphasis will be placed upon data mining techniques for financial auditing. This course was designed for Accounting majors.

GRADING [Approximate points]

Quizzes	7%	35 points
Midterm Exam	24%	120 points
Final Examination	24%	120 points
<u>Projects & Assignments</u>	<u>45%</u>	<u>225 points</u>
Totals (subject to chg.)	100%	500 points

Generally course grades will be posted via my website (**see below**). Incomplete grades will not be given. Final course grades will be based on total points accumulated and the subject judgment of by the instructor of your performance in this class. Final grades will not be posted. Please send Dr. Becker an e-mail at becker@unt.edu if you wish to receive information regarding your final grade.

COURSE DATASETS

Several course datasets (Premiere Products and Henry Books) may be found at:

<http://www.coba.unt.edu/itds/faculty/becker/bcis4660/>

We will also be using several datasets on the MICROSOFT SQL Server Data Warehouse and Data Mining Project.

www.TeradataStudentNetwork.com

IDs and passwords (will be provided later)

PREMIER PRODUCTS (3 VERSIONS)

- [Premiere Products.accdb \(Access 2010/2013\)](#) ****NEW****
- [Premiere Products.accdb \(Access 2007\)](#) ****NEW****
- [Premiere Products.mdb \(Access 2003\)](#) ****NEW****

HENRY BOOKS (2 VERSIONS)

- [Henry Books.accdb \(Access 2007/2010/2013\)](#) ****NEW****
- [Henry Books.mdb \(Access 2003\)](#) ****NEW****

Practice JSP Recruiters ACCESS Database

- [JSP Recruiters \(ACCESS 2007/2010/2013\)](#) [.accdb file] ****NEW****

COURSE PROCEDURES AND REQUIREMENTS

The content of this course will be found in selected chapters in the required texts, lectures, notes, Power Point presentations, assigned readings, **BlackBoard** forums and the application of various software packages.

You will find much of this subject matter posted on my website. Some of the content is published in .doc (Word) or .pdf (Adobe) format. If you are working at home and do not have Adobe Acrobat on your machine you may download it from:

<http://www.adobe.com/products/acrobat/readstep.html>

Class Participation

Oral reports, class discussion, topic reports, summarized articles, pop quizzes, etc.

Examinations

The exams will be closed-book. Quizzes will be open or closed book at the instructor's discretion. Early exams will not be given (some extenuating circumstances may apply).

Late quizzes will not be given. Make-up exams will not be given. Final examination will be comprehensive (at least semi-comprehensive) of all subject matter.

Homework, Projects, and/or Assignments

Problems, cases, and readings will be assigned to support and supplement course subject matter. Each assignment which you turn in must have a separate cover sheet when submitted. This cover page must contain the following information which is typed and centered on the page - your name (Last Name First), the assignment number, the due date for the assignment, the topic of the assignment, Text Title (if any), Chapter (if any) and page number (if any), place a computer generated date stamp on all computer output. All assignments are due at the beginning of class on the date due. Late assignments may be turned in for **partial credit**, depending upon your circumstances.

All assignments must reflect your original work. Team assignments will include a team member evaluation sheet, which each team member must complete.

Disability Accommodation

The College of Business Administration complies with the American with Disabilities Acts in making reasonable accommodation for qualified students with disability. If you have an established disability as defined in the Americans with Disabilities Act and would like to request accommodation from the Disability Accommodation Office, Union Building.

Attendance

Regular and punctual attendance is essential for this course. While attendance will not be taken, Pop quizzes will be given throughout the semester. If you are not present, you cannot retake the quiz.

Missed Classes

The student is responsible for obtaining material, which has been distributed in class including assignments and assigned readings. Make a friend in the class and use him/her as your source for missed materials. Generally extra copies of handouts will be placed in my course cabinet outside my office.

Course Communications

All students will use BULK MAIL Email all communication with Dr. Becker or questions about class or assignments. Access your Email regularly--at least once each week. You may use my personal Email: becker@unt.edu for course questions. Be sure to put **BCIS 4660** in the Subject line.

ETHICAL BEHAVIOR IN BCIS CLASSES

The ITDS Department expects its students to behave at all times in an ethical and legal manner. There are at least two reasons for this. First, ethical behavior affirms the personal value and worth of the individual. Second, both IT and Decision Science professionals frequently handle confidential information on behalf of their employers and clients. Thus employers of BCIS and DSCI graduates expect ethical conduct from their employees because that behavior is crucial to the success of the organization.

Academic dishonesty is a major violation of ethical and legal behavior. The ITDS Department defines academic dishonesty as claiming the work of others as your own, or using illegal or unapproved means to raise your grade in a class. Examples include: copying answers from another person's paper; using unapproved notes during an exam; copying computer code from another person's work; having someone else complete your assignments or take tests on your behalf; stealing code printouts, software, or exams; recycling assignments submitted by others in prior or current semesters as your own; and copying the words or ideas of others from books, articles, reports, presentations, etc. for use as your own thoughts without proper attribution (i.e., plagiarism). It does not matter whether you received permission from the owner of the copied work; claiming the material as your own is still academic dishonesty.

The ITDS Department believes it is very important to protect honest students from unfair competition with anyone trying to gain an advantage through academic dishonesty. Consequently, there will be in-class testing to validate all major assignments you complete out of class. This may be accomplished by examination, oral reports, individual interviews or any other means your professor may deem appropriate. You must pass these validation tests with a grade of "C" or better to have your out-of-class work count in your term grade. Further, the student grade for academic dishonesty in BCIS classes is an immediate "F" for the course involved and referral of the case to the COBA Academic Advising Office.

By my signature below, I attest that I understand the above policy. I will behave ethically in this class, and will encourage my classmates to behave ethically. I also understand that I have a moral responsibility to report to my instructor any suspected case of academic dishonesty in this class.

The Student Evaluation of Teaching Effectiveness is a requirement for all organized classes in COBA. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching.

Print your name and give your signature.

_____/_____/2015
Student ID number Today's date

My course scores may be published using the last 5 digits of my student number

(SN) ____ _ ; or the following 5-character (numeric) code: ____ _ .

If both numbers were left blank, your scores will NOT be published.

This is YOUR COPY. Turn in the one below.

BCIS 4660 Data Warehousing; Spring 2015

CLASS SCHEDULE: (Subject to change; effective: **1/16/2015**)

Week	1 & 2 Thurs	Topics	Readings	Assign. No.**
1.1	Jan 22	Introduction to Data Warehousing & Data Mining	Pratt; Jukic, Adamson Introductions	Pop Quizzes (35 pts)*
1.2		Relational Databases	Pratt 1, Jukic 1 & 3	
2.1	Jan 29	QBE	Pratt 2	Assign #1 (10)
2.2		QBE	Pratt 2	
3.1	Feb 5	SQL	Pratt 3; Jukic 5; Appendix B	Assign #2 (10)
3.2		SQL	Pratt 4; Appendix C	
4.1	Feb 12	SQL	Pratt 4; Jukic 2 ERDPlus (software)	
4.2		Normal Forms; DBMS	Pratt 5; Jukic 4	
5.1	Feb 19	Normal Forms; DBMS	Pratt 5; Jukic 6	Assign #3 (20)
5.2		Data Warehousing Overview; Dimensional Modeling	Notes: Adamson 1 (Data Warehouse)	
6.1	Feb 26	Data Warehousing Overview; Dimensional Modeling	Pratt 6; Jukic 7 Notes: Adamson 1 (DW)	Assign #4 (20)
6.2		Fact Tables & Dimension Tables; Retail Sales Models;	Adamson 2 & Home-work #5, #6 Hints & Tips; Jukic 8	
7.1-2	Mar 5	Data Warehousing Overview; Dimensional Modeling EXAM PREVIEW	Jukic 8; Adamson 2 Pratt Chap. 9.1	Assign #5 (20) 1st Pick Teams
8.1	Mar 12	Midterm Exam --Cover thru Class 6.2		Midterm Exam (120 pts)
8.2	Mar 19	AFTER EXAM brief session.	<u>Assign. #6 Tutorial (Notes); [.pdf]</u>	TEAM PROJECTS Commence
	Mar 16 -22	Spring Break	NO CLASS	NO CLASS
9.1 & 9.2	Mar 26	Review Midterm; Data Loading Meta Data; Semantic Object Models (SOM)	Homework 6.A & B Hints; <u>SOM Tutorial & (Appx E);</u>	
10.1	Apr 2	Data Loading Meta Data; Data Warehousing; Semantic Object Models (SOM)	Pratt 9.2; Jukic 9 SOM; <u>(Appx E);</u> <u>Kimball on EDW</u> Tutorial on Assign. #7	Assign #6 (20); ERWin/ SOM Diagrams
10.2			Notes: <u>Data Mining</u> <u>Data Mining Trends;</u>	

Week	1 & 2 Thurs	Topics	Readings	Assn No.**
11.1 & 2	Apr 9	Team Project Work Day; Return Assign. #6; Assignment #7 Review	Adamson 8; Budget and Spending Data Marts; Assign. #7 (Review); Tutorial on Assign. #8;	Assign #7 (40); (Team Project)
12. 1 & 2	Apr 16	Data Loading Meta Data; Tutorial on Assign. #8; Data Warehousing; Semantic Object Models (SOM)	Pratt 9.2; Jukic 9 SOM; (Appx E); Tutorial on Assign. #8;	
13	Apr 23	Data Mining & Visualization; Design Methodology; Order Management; Key Ratios; Future of DW & Data Mining	Adamson 9 & 10: Financial Reporting Data Marts; Assign. #9 Tutorial;	Assign #8 (40); (Team Project); DAY & EVE
14	Apr 30	Data Mining & Visualization; Design Methodology; Order Management; Key Ratios; Future of DW & Data Mining	Adamson 9 & 10: Financial Reporting Data Marts; Assign. #10 Tutorial;	Assign #9: Final Project (55; Bonus 10?); (Team Project)
15	May 7	Class Presentations Class Presentations; FINAL Exam Preview	Quizzes and/or Bonus opportunities; Exam Preview	Assign #10: Class (15) Presentations
16 May 14	DAY 1:30-3:30 pm; EVE 6:30 - 8:30 pm	FINAL EXAM: Semi-Compre- hensive; optional for some (to be determined during semester)	Normal Class Rooms	Final Exam (120)

* Note: Quizzes are always **UNANNOUNCED (and cannot be made up)** and may include information from either today's or previous lecture(s) on Data Warehousing

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TEAM PREFERENCES DATA

NAME
PHONE NO.
EMAIL
LOCATION PREFERENCE: E.g., Denton, Carrollton/Lewisville, Plano, DFW Airport, Ft Worth, Sanger, etc.
TEAMMATE PREFERENCES
List up to 3 other names: 1. _____ 2. _____ 3. _____

TEAM ID: _____

(ASSIGNED BY INSTRUCTOR)