IST365: Database Systems

Course Syllabus - Fall 2014, TR 9:30 AM – 10:45 AM, Prichard Hall 200

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Office Hours : MWF: 8:30a – 10:30a
Other times by appointment ONLY
If you need to find me, search for me along with the hash tag #IST365 on Twitter as I will update my whereabouts and what we cover this semester: http://www.twitter.com/brianmmorgan/

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University Policies : By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to http://www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/wpmu/academic-affairs/?page_id=802

Academic Dishonesty / Excused Absence Policy for Undergraduates / Computing Services Acceptable Use / Inclement Weather / Dead Week / Students with Disabilities / Academic Forgiveness / Academic Probation and Suspension / Academic Rights and Responsibilities of Students / Affirmative Action / Sexual Harassment

Textbook:
The following textbooks/readings are required for the course:

> **Database Systems Design, Implementation and Management (11th ed.),** by Coronel and Morris; Course Technology; ISBN: 978-1-285-19614-5, 2015.

Computer Requirements:
Supplemental materials can be found contained within the Blackboard Learn environment (http://www.marshall.edu/muonline/). I will be sending class announcements, updates, etc. using your Blackboard account (will discuss during the first lecture). Access to a WWW browser is required, as is Adobe Acrobat Reader (http://get.adobe.com/reader/), and Visio 2010 Professional (or higher). This software package is available for free to students in this course (see http://www.marshall.edu/isat/software/ for specifics).

Course Description:
Covers the logical and physical structures of data stored and retrieved from a relational database. Exposure to distributed databases, database administration and structured query language will also be provided.

Credit:
The course is three (3) credit hours. It includes classroom lectures, exams, homework assignments, and a semester project. Students will participate in various aspects of projects that illustrate the implementation of concepts in general applications.

Pre/co-requisites:
N/A

Desired Objectives/Outcomes:
By the end of this course, you should be able to:

Course Student Learning Outcomes	How Practiced in this Course	How Assessed in this Course
Students will Identify problems for which database solutions are suitable	In-class examples, discussions, Chapter 1 review questions	Exam 1; Project Deliverable 1
Students will construct conceptual and logical data models based upon a set of information requirements	In-class examples, discussions, Chapters 2, 3, and 4 review questions	Homeworks 1, 2, and 3; Exams 1 and 2; Project Deliverable 2
Students will translate data model specifications for a relational database	In-class examples, discussions, Chapters 3 and 4 review questions	Homeworks 3 and 4; Exams 1 and 2; Project Deliverable 2;
Students will discuss and show and understanding of the fundamentals of SQL	In-class examples, discussions, Chapters 7 and 8 review questions	Homework 5; Exam 3; Project Deliverable 3
Students will discuss the significance of database security and integrity	In-class examples, discussions, Chapters 10, 11, 12, and 15 review questions	Exam 4
Students will implement a database application using MySQL and/or Access	In-class examples, discussions	Project Deliverable 3
Students will identify requirements for and analyze a problem, implement a solution for that problem, and verify their solution, using computer and information technology	In-class examples, discussions, Chapters 1 through 15 examples	Project Deliverables 1, 2, and 3

Instruction method:
There will be 3 contact hours of classroom lecture per week. Projects covering major topics are part of the course. Students may work on their assignments/projects in University computing facilities or from their place of residence with an Internet connection.

Evaluation method:
Evaluation of student's performance will be based on the quality of your performance on projects, homework assignments, and exams.

Grading Policy:

4 in-class Exams (Exam 1–12%, Exam 2–12%, Exam 3–10%, Exam 4-11%)	45%
Homework Assignments (equally weighted)	15%
Semester Project (Deliverable 1 – 10%, Deliverable 2 – 15%, Deliverable 3 – 15%,)	40%

Attendance 0%

Assessment of Projects:

The grading of all homework assignments and projects will take into account:

1. Although the most important attribute of an assignment is correctness, grading will take into consideration efficiency, **documentation**, etc.
2. Although interactions with other students are encouraged, you must compose your own answers, unless otherwise noted.

Individuals who utilize other people's thoughts or ideas must provide appropriate references to said resources, including any and all web resources consulted. Failure to provide such documentation will result in a failing grade for the assignment, and may result in a failing grade for the course.

Final letter grades are determined based on the following grading scale:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60	F

The instructor reserves the right to change these values depending on the overall class performance and/or extenuating circumstances.

Additional Policy Statements:
My Academic Dishonesty Policy

Academic Dishonesty is defined as any act of a dishonorable nature which gives the student engaged in it an unfair advantage over others engaged in the same or similar course of study and which, if known to the classroom instructor in such course of study, would be prohibited. Academic Dishonesty will not be tolerated as these actions are fundamentally opposed to "assuring the integrity of the curriculum through the maintenance of rigorous standards and high expectations for student learning and performance" as described in Marshall University's Statement of Philosophy.

If you are found cheating on projects or plagiarizing answers from the Internet or other sources (among other things), there will be no second chance. Your penalty is that you will receive a failing grade for the course. In those cases in which the offense is particularly flagrant or where there are other aggravating circumstances, additional, non-academic, sanctions may be pursued through the Office of Judicial Affairs. Notice of an act of academic dishonesty will be reported to the Department Chair, Dean of the College of Science, and to the Office of Academic Affairs. Please refer to the Marshall University Undergraduate Catalog for a full definition of academic dishonesty.

Assignments*:* The course includes a number of projects. All assignments are due **BY THE BEGINNING OF CLASS** on their due date and must be submitted through the Blackboard Assignment Tool. **NO LATE ASSIGNMENTS WILL BE ACCEPTED**. Please do not procrastinate in working on your assignments or trying to submit through Blackboard as many others have done in the past. If you wait until the last night to start on the project or the last minute to submit, chances are, you will fail.

Exams*:* There are FOUR exams worth 45% of your overall grade. The first will come after Chapter 3, the second after Chapter 6, the third after Chapter 8, and the fourth after Chapter 15. Exact dates and times of exams will be announced in class.

Make-up Exams and Late Penalty*:* Make-up exams will not be given except under unusual circumstances and satisfactory written justification. Any student who misses an exam due to an unexcused absence will receive a grade of zero for that exam with no opportunity for make-up or substitution. University excused absences or those occurring with a good reason (and that reason must be given prior to missing the exam – call and leave a message if you have to) will be excused. Make up exams must be taken within one week of the original scheduled date. The decision whether to give a make-up exam rests with the instructor.

Attendance Statement:
As with previous semesters, I am NOT making class attendance mandatory. However, I will keep a record of who is attending and who is not. **If you miss class**, it is your responsibility to catch up on material missed, and it will **not** be my responsibility to catch you up on material missed during office hours, or re-lecture to you.

Withdrawal Policy:
The University withdrawal policy is followed in this course. The last day to drop an individual course for the Fall Semester is October 31, 2014.

University Holidays:
The class is officially dismissed on the following dates:

Fall Break/Thanksgiving	November 25, 2014
	November 27, 2014

Topics and Methodology:
The following outline delineates the tentative class schedule with topics to be addressed during the course. Please note this is a tentative schedule and it may change upon class progress:

August 26	Overview of Course and Syllabus, Introduction to Blackboard (if needed). Overview of how to access course mySQL server. Introduction of Semester Project
August 28	Chapter 1
September 2	Chapter 2
September 4	Chapter 2
September 9	Chapter 3
September 11	Chapter 3
	Homework #1 Due (Chapter 2 Problems (pages 64-66), #'s 6, 7, 14, 15, 16)
September 16	Chapter 4 Review for Exam 1
September 18	Exam 1
September 23	Chapter 4 Homework #2 Due (Chapter 3 Problems (pages 109-112), #'s 10, 11, 13, 14, 15, 25

	from Fig. 3.24)
September 25	Chapter 4
September 30	Chapter 4
October 2	Chapter 6
October 7	Chapter 6 Review for Exam 2 Homework #3 Due (Chapter 4 Problems (pages 152-154), #'s 1, 2, 7)
October 9	Exam 2
October 14	Chapter 7 Homework #4 Due (Chapter 6 Problems (pages 226-228), #'s 3, 4, 6 (a, b, and d))
October 16	Chapter 7
October 21	Chapter 8
October 23	Chapter 8 Homework #5 Due (Chapter 7 Problems (pages 304-311), #'s 44, 45, 46, 47, 48, 49, 50, 51, 54, 55, 57, 60, 64 - See pages 303 and 304 for information regarding the database) Review for Exam 3
October 28	Exam 3
October 30	Chapter 9
November 4	Chapter 9
November 6	Chapter 10 Project Deliverable #1 (Data Dictionary) Due
November 11	Chapter 12
November 13	Chapter 12/13
November 18	Chapter 15 Project Deliverable #2 (ER Diagram) Due Review for Exam 4
November 20	Exam 4
December 2	Dead Week – Tomato Day
December 4	Dead Week – Tomato Day Project Deliverable #3 (Implemented Database) Due

For each topic discussed in the textbook, specific experience of other students and the instructor will be discussed to enhance the characteristics involved. Hands-on projects for the course will be based on creating databases for either real-world or fictitious needs. Additional material may also be covered in the class.

Every student is responsible for all materials presented in class, including lectures, notes, and handouts. In case you are not present for a class, you should contact me to receive information about the material presented in that class. Class attendance is very important.

Effort Required:
As a 300-level course, a considerable amount of work and research effort is required of the student. For every one hour in class, the student is expected to put in an effort of at least 3 hours outside the class for studying and completing assignments and projects. Upon background and preparedness, some students may have to put in additional effort. **PLEASE DO NOT PROCRASTINATE.** Procrastination and the placing of blame on other factors than yourself have become very large problems in my classes. Prioritize, schedule, and take responsibility for your actions and you should do very well in this class.

Communication:
The Discussion Tool within Blackboard and E-mail to your MU e-mail address will be used to make any general announcements, last minute changes, etc. It is **mandatory** that you monitor your e-mail and Blackboard Discussion posts at least once a day.

Note about cell phones in class:
In compliance with Marshall University's cell phone policy, please set your cell phone ringer to "Vibrate Only" mode (or turn it off) before you enter the classroom. If I hear it ring in class or vibrate on top of your desk, I get to answer it -> no exceptions.