Oakland University
Decision and Information Sciences

MIS 5140 – Introduction to Databases and Data Warehouses   **Winter 2018**

Required Texts: 1) Database Systems (ISBN 978-1-943153-19-0) is our Main Textbook
Copyright © 2018 by Nenad Jukic et al. Link

2) Database Management Systems:
Designing and Building Business Applications
Copyright © 2014 by Gerald V. Post

3) Data Mining Applications: Analyzing Business Data
Copyright © 2013 by Gerald V. Post

http://www.jerrypost.com/

Lectures: Wednesdays 6:30 – 9:20 pm (CRN #14423)
327 Elliott Hall

Instructor: Mohammad Dadashzadeh [Pronounced DADASH-ZADEH]
Voice Mail: 248.370.2831
E-Mail: mdz123@yahoo.com *(preferred method of messaging)*
I am ALWAYS just an e-mail away to help.

Office: 306 Elliott Hall
Hours: Wednesdays Before Class, or by appointment

Pre-requisite: MIS 300/524 & MIS 305 or Admission to the MSITM Program
This course assumes that you have mastered the contents of the
prerequisite course, can use the contents on assignments/exams, and can
apply the contents to the projects. You are encouraged to review the
materials from the prerequisite course.

Tentative COURSE SYLLABUS

Jan 3, 2018   **On-Line Class.**
The Role of DBMS in Enterprise-Wide Data Integration
Chapter 1

Jan 10, 2018   Conceptual Data Modeling, Part I
Chapter 2

Jan 17, 2018   Conceptual Data Modeling, Part II
SQL
Chapters 3 and 5

Jan 24, 2018   Advanced SQL

Jan 31, 2018   The Role of Data Normalization
                       Chapters 4 and 6

Feb 7, 2018   Database Application Development
                       Post's DBMS Textbook, Chapters 6, 7, and 8
                       Recommended: *Data Mining Applications Textbook, Chapter 2*

Feb 14, 2018   **Mid-Term Examination**
                       Term Project Progress Status Checkpoint

Feb 21, 2018   *Winter Recess*

Feb 28, 2018   Data Warehouses and Data Mart Modeling
                       Chapters 7 and 8

Mar 7, 2018   Data Warehouses and Data Mining
                       Chapter 9
                       Post's DBMS Textbook, Chapter 9
                       Data Mining Applications Textbook, Chapter 1
                       Term Project Progress Status Checkpoint

Mar 14, 2018   OLAP Cubes, Part I
                       Microsoft PowerPivot, Power BI Desktop
                       Data Mining Applications Textbook, Chapter 3

Mar 21, 2018   OLAP Cubes, Part II

Mar 28, 2018   Association and Market Baskets
                       Appendix G, Association Rule Mining
                       Data Mining Applications Textbook, Chapter 6

Apr 4, 2018   SQL Server Reporting/Analysis/Master Data Services
                       Appendix D, Data Governance and Master Data Management

Apr 11, 2018   Big Data and the Hobson's Choice for IT Management
                       Appendix F, Parallel Databases
                       Appendix I, NoSQL Databases
                       Appendix J, Big Data, MapReduce

Apr 18, 2018   *Study Day*

April 25, 2018   **Final Examination** (**7:00 pm- 10:00 pm**)

WORKLOAD

Attendance and In-Class Exercises 15%
On-Line Discussions 5%
Individual/Group Take-Home Assignments (including on-line quizzes).....................................15%
Group Term Project...25%
Mid-Term Examination...20%
Final Examination...20%

Grading Rule Where Appropriate (Meets Expectations = Average):

	Exceeds Expectations	Meets Expectations	Below Expectations	Unacceptable	Missing
15 % or Points	15	10	5	1	0
10	10	7	4	1	0
5	5	4	3	1	0

GRADING

The average grade point target for the class will be 3.3

The final grade will be based on your score relative to other members of the class. It will be determined after all the points for the different assignments are weighted and totaled by using the following formula:

Final grade = $X_g + [(S-X_t) / (H-X_t)] * D$

Where,

X_g = average grade point target for the class,
S = the student's weighted total points,
X_t = average weighted total points for the class,
H = the weighted total points for the student with the highest weighted total points, and
D = the difference between 4.0 and X_g

For example,

$X_g = 3.3$
$S = 89.00$
$X_t = 91.75$
$H = 96.45$
$D = 4.0 - 3.3 = .7$

Final grade = $3.3 + [(89.00 - 91.75) / (96.45 - 91.75)] * .7 = 2.9$

Frequently Asked Questions

1. What is the policy for …?

Please consult the document named "MIS 5140 Policies" available on *Moodle*.

2. Is attendance required?

Absolutely. I plan to take attendance regularly and often a couple of times during a 3 hour class. You will be considered absent if you are not present when attendance is taken. So, please do not be late. Additionally, every class will have *at least* one in-class exercise that would be reflected in your grade.

3. Is text messaging and/or use of cell phones during class allowed?

Absolutely not. Text messaging during class is forbidden. If you text message in class you will lose attendance and participation credit. Please keep your cell phone/PDA off and put away during class.

4. Can I use my computer during class for …?

Students are permitted to use computers during class for note-taking and other class-related work only. Those using computers during class for work not related to the class will lose attendance and participation credit.

5. Can I work with others on the *individual* assignments?

Students are expected to interact to learn from each other and to share knowledge. Nevertheless, although you may discuss assignment problems with others, **what you hand in on an individual assignment must have been created *from scratch* by you.** Do not turn in other people's work. There will be a serious penalty if you do so.

6. How should take home assignments be turned in?

- Unless otherwise specified, in hard copy, at the start of class on the due date.
- Unless otherwise specified, **Typed, double-spaced, and in 12 point font.**
- Unless otherwise specified, diagrams can be drawn by hand.
- Your name & date must appear on the first page. Make sure to staple together multiple pages.
- CD's to be turned in must be properly labeled with your name and placed along with associated printouts in a properly labeled (name, date, and assignment number) envelope.
- When requested to e-mail assignments, make sure to copy yourself so that you can forward it should the original e-mail does not reach me.
- If an assignment file needs to be uploaded to a **Moodle** drop box, please make sure that it is complete and correctly done by downloading it to see what I will see when I start to grade.

7. What happens if an assignment is turned in past *due date*?

No credit. Assignments are due at the start of class on the due date.

8. Is checking the course on **Moodle** prior to each class required?

Absolutely. All handouts will ONLY be posted there.

9. Are examinations open book/notes?

Yes/No. There will be a written part and a hands-on part to the exams. The hands-on part is, of course, completely open notes. The written part is limited in terms of notes/resources you can use.

10. Are examinations cumulative?

Yes. But, the greatest emphasis is placed on the material since the previous exam.

11. What is the class average for examinations?

That depends on the students' preparation. Examinations in my courses are non-trivial and will test your preparation and comprehension/mastery of *all material* taught in: lectures, handouts, in-class exercises, hands-on lab assignments, posted solutions/answers, take-home assignments, and textbook reading/programming assignments.
Poor performance in a single examination will not be a "disaster" since exams are typically worth only 20% of your grade. However, poor performance on an exam and any other grading component (another exam, attendance/participation, in-class exercises, assignments, and term project) quickly combine to reduce your maneuverability towards the high grade you can achieve in this course.
I reserve the right to assign extra credit (up to 2%) based on negotiated/documented extra deliverables to be produced on your term project, or on extra/optional training provided.

12. Am I studying/programming enough to get the grade I want?

To determine how many hours you need to study each week to get an A, use the following rule of thumb. Study two hours **per credit hour** in an easy class, three hours per credit hour for an average class, and four hours per credit in a difficult class. You need to decide whether this class is easy, moderate or difficult for you based, in part, on your pre-requisite preparation.

13. What was the grade distribution for the previous class (Grade Average Target was 3.5)?

Grade	# of Students
4.0	1 Student
3.9	2 Students
3.8	1 Student
3.7	2 Students
3.6	2 Students
3.5	1 Student
3.4	1 Student
3.3	2 Students
3.2	1 Student
3.1	1 Student
3.0	1 Student
2.8	2 Students
2.5	1 Student
3.4	Average

14. Is my course grade shown on Moodle accurate?

No. I do not enter the weights of each grading component in Moodle. You can calculate your overall grade based on the following formula using your category scores out of 100%.

Overall Grade = .15*(Average (Attendance, In-Class Exercises)) +.05*(On-Line Discussions) +.15*(Average (Quizzes, TH)) +.25*(Term Project) +.2*(Exam1) +.2*(Exam2)

In general, I am very quick in recording your grades on Moodle. Mistakes can be made, so please check your grades and bring any discrepancies immediately to my attention. Thank you.

15. What are the fundamental grading criteria on projects and associated reports?

Correctness

From English usage and spelling *to* solution/response development (process and data modeling, coding, etc.)
Include acknowledgements to code/material that is not your creation.

Completeness

How effectively can another group pick up where you have left off in continuing, maintaining, completing, and enhancing your efforts?