

MISY 830: Business Intelligence and Analytics
Syllabus
Fall, 2018

Instructor: Dr. John H. Wragge (raw-gee') **Office Hrs.:** 2:00 – 5:15 Tues
2:00 – 4:15 Wed
And by appointment
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There is a Canvas site for this course.

Course objective and description:

This course focuses on *Business Intelligence* and *Analytics* and their support of managerial decision-making. The use of IT to analyze complex information about an organization and its competitors for use in business planning and decision-making is stressed. The objective of this use of IT is to create timelier and higher quality input to the decision process. Topics covered in the course include modeling decision processes, data mining, expert systems, data visualization and AI (artificial intelligence), group decision support, and executive information systems.

Text Materials:

- [Business Intelligence, Analytics, and Data Science: A Managerial Perspective, 4th ed.](#) by Sharda, Delen and Turban (Pearson Education, Inc.: 2018); ISBN-10: 0-13-463328-8 and ISBN-13: 978-0-13-463328-2. The publisher's website for this book is
- <https://www.pearson.com/us/higher-education/program/Sharda-Business-Intelligence-Analytics-and-Data-Science-A-Managerial-Perspective-4th-Edition/PGM1228434.html> . An online e-book is also available at that site.
- We will be using software to create a simple expert system. The software is available as a free download. *Tutorials* and a *User's Manual* will be available for free download. The software is only available in a PC version, i.e., there is not a Mac version. More information will be available in class.
- We will be using software to do some simple data mining data visualization exercises. The software is available as a free download. *Tutorials* and a *User's Manual* will be available for free download. The software is available in a PC version and a Mac version. More information will be available in class.

Requirements:

	<u>% of Final Grade</u>
Assignments (4 @ 4 pts each)	16
Quizzes (4 @ 5 pts each)	20
Cases (1 @ 10 pts each)	10
Expert System Software Assignment ...	12
Data Mining Software Assignment	12
Data Visualization Software Assign ...	12
Current Event Presentation	4
Discussion/Participation/Attendance	<u>14</u>
	100

Assignments: Students will be asked to complete four individual written assignments relating to the material from the class. These will be done outside of class and may include written questions, case analysis, and Excel assignments. The last will include a portion of an integrative nature (covering the entire course). The approximate length will be no more than three double-spaced pages. The preferred method of submission is via Canvas but email or hard-copy (in-class) may be used if necessary.

Quizzes: There will be four short in-class, closed book, closed notes quizzes. The quizzes may include true/false, multiple-choice, short answer, and/or short case questions. The material to be covered and the format will be announced in advance.

Cases: Each student will complete one case. The case will present a business situation/problem. The student will then analyze it and develop their solution. The approximate length of a solution will be no more than three double-spaced pages. Details will be discussed in class.

Expert System Software Assignment: Each student will create a simple expert system. Details of the assignment including downloading the shell, etc. will be discussed in class.

Data Mining Software Assignment: Each student will do some simple data mining. Details of the assignment will be discussed in class.

Data Visualization Software Assignment. Each student will do some simple data visualization exercises. Details of the assignment will be discussed in class.

Current Event Presentation: Each student will make a short presentation to the class about some business intelligence, analytics, or IT topic they feel would be of interest to the class. This may include the demonstration of software. The presentation should not exceed 10 minutes (check with professor if more time is required). A sign-up sheet will be available in class. *If possible, please e-mail your topic to the professor in advance (in order to avoid duplication of topics).*

Discussion/Participation/Attendance: Your contribution to class discussion is an important part of the course. Attendance is expected and each student is responsible for all material assigned. If you must miss class for business travel, work, etc., please let the professor know. If you must be absent when an assignment is due, please make arrangements with the professor. Discussion/participation will include the discussion of assigned readings/problems in class as well as in-class exercises. I am looking for *involved participation* which is different from attentive note-taking and passive listening. Please read the **Evaluation of Contributions to Class Discussion/ Participation/Attendance** section of this syllabus.

Grades: Final letter grades will be assigned using the following percentage break-points: 93 = A; 90 = A-; 87 = B+; 75 = B; 72 = B-; 68 = C; D = 60; Below 60 = F.

Evaluation of Contributions to Class Discussion/Participation

Nearly all interactions in an organization are oral. Course participants are from diverse backgrounds and we all learn from shared experiences. For these reasons, the development of your oral communication skills (speaking *and* listening) is important in executive education. Effective participation is characterized by:

- **Relevant points* rather than repetition of facts
- **Interpretation* and *integration* of points made previously
- *Willingness to test new ideas
- *Challenges/tests ideas presented by others
- *Reflects thorough understanding of the facts relating to the assignment

I am looking for *involved participation* which is different from attentive note-taking and passive listening. Your contribution is gauged and points (and consequently final grades) will be assigned based on the following categories:

- Outstanding: Comments reflect thorough preparation. Comments provide major insight and direction for the class. ***Requires active participation.*** (12-14 pts.)
- Good: The student is thoroughly prepared. ***Requires at least frequent participation.*** (9-11 pts.)
- Adequate: Contributions reflect adequate preparation. ***Requires at least semi-frequent participation*** (7-8 pts.)
- Non-participant: The person has said little or nothing in class. There is no basis for evaluation. This person has no effect on the quality of class discussion. (0-6 pts depending on attendance)
- Unsatisfactory: Contributions demonstrate inadequate preparation. This person wastes class time. (0-5 pts depending on attendance)

Dishonest Behavior

Dishonest and/or unethical behavior will not be tolerated. Such behavior includes (but is not limited to) cheating, copying homework, and plagiarism. Students are expected to maintain independence in fact and appearance. For further information and a statement of official University Policy, students should consult the "Official Student Handbook"

Limitations

The course plan presented in this syllabus will be followed to the extent possible. However, it may be necessary to make changes in the form of additions, deletions, and/or modifications (e.g., changing due dates and/or minor changes in the distribution of points). Any changes will be announced in class with sufficient lead-time. It is each student's responsibility to be aware of all announcements made in class.

Reading Assignments
(Details will be added weekly)

Week	Date	Chapter	Chapter Title / Topic
1	Aug 28		Introduction
2	Sep 04	Ch. 1:	An Overview of Business Intelligence, Analytics, and Decision Science 1.1 Opening Vignette: Sports Analytics Application Case 1.2 – Silvaris Application Case 1.4 – Analyzing Athletic Injuries
3	Sep 11		
4	Sep 18		
5	Sep 25		
6	Oct 02		
7	Oct 09		
8	Oct 16		
9	Oct 23		
10	Oct 30		
11	Nov 6		NO CLASS – Election Day
12	Nov 13		
13	Nov 20		NO CLASS - THANKSGIVING VACTION
14	Nov 27		
15	Dec 04		