COURSE SYLLABUS
COM 671 BUSINESS INTELLIGENCE AND DECISION SUPPORT SYSTEMS

COURSE DESCRIPTION

This course provides an overview of business intelligence and data warehousing and explores the major facets of developing and using a data warehouse to make effective business decisions. The course introduces the development of systems designed to capture relevant data from all segments of an enterprise, to organize the data into a coherent structure, and to provide the means to analyze the data to make rational decisions.

We will discuss issues associated with how to ask the right questions about data, how to store data in a way that allows for extensibility, and most importantly presentation of data to support the executive decision-making process.

GENERAL COURSE INFORMATION

Number of Units/Weeks/Sessions	5/5/10
#Hours Lecture/#Hours Laboratory/#Hours ELPs*	50/0/100
Prerequisite(s)	None
Co-requisite(s)	None
Course Developer(s)	John P. Sahlin, Ph.D.
Date Approved / Last Review	September 2008 / July 2014

MBA PROGRAM LEARNING OUTCOMES

- Solve Business Problems Using Quantitative Analyses
- Assess Information Critically

MSISM PROGRAM LEARNING OUTCOMES

- Develop Detailed Business Plans Including Budgets

LEARNING OUTCOMES

- Discuss the role of information systems and how they support organizational decision making and strategic analysis
- Select technology to improve communication and collaboration
- Design, implement, and refine a business intelligence (BI) solution
- Apply a multitier BI process that turns data into actionable intelligence
- Exploit business analytics and performance measurement tools to effect the business decision-making process
- Integrate BI into daily business decisions

INSTRUCTIONAL METHODS EMPLOYED IN THIS COURSE

- Lecture and reading assignments
- In-class discussion of current trends in business intelligence
- Weekly homework to apply principles to real-world examples
- Case Study analysis
- Research
- Student presentations
- Practical application of theory and skills in authentic design projects

INFORMATION RESOURCES FOR THIS COURSE

 **Textbook**

Sharda, R., Delen, D., & Turban, E. (2015). *Business intelligence and analytics: Systems for decision support* (10th ed.). Upper Saddle River, NJ: Prentice Hall. ISBN-10: 0133050904. ISBN-13: 9780133050905.

 **Online Supplemental Materials**

Key Assignment Online Resources:
FiveThirtyEight Data Analytics Blog
http://fivethirtyeight.com

Freakonomics.com
http://freakonomics.com

Additional Online Resources:
BusinessIntelligence.com
http://businessintelligence.com

Business Intelligence Network
http://www.b-eye-network.com/articles/

Perceptual Edge (poorly-designed infographics and how to correct them)
http://www.perceptualedge.com/examples.php

Tips on Decision Making
http://hbr.org/web/management-tip/tips-on-decision-making

7 Tips for Creating Awesome Infographics
http://www.entrepreneur.com/article/232888

Cool Infographics
http://www.coolinfographics.com

TOPICS & ASSIGNMENTS

Types of Assignments:

Lecture –
Considered Lecture Hours

Classroom Discussion –
Considered Lecture Hours

Delivering Oral Presentations –
Considered Lecture Hours

In-Class (IC) Exercise –
Considered Lecture Hours

Homework (HW) Exercise –
Considered Enhanced Learning Project (ELP), work done outside class

Reading –
Considered Enhanced Learning Project (ELP), work done outside class

Lab Work –
Considered Lab Hours

Tests: Mid-Term and Final Exam
Considered Lecture Hours

Session 1

Type	Topic/Description	Lec Time	Lab Time	ELP Time	Point Value	Due
Lecture 1A	Business Intelligence, Analytics, and Decision Support Overview	2	0	0	0	
Lecture 1B	Foundations and Technologies for Decision Making	2	0	0	0	
Reading	Sharda, Delen, & Turban, Chapters 1-2	0	0	4	0	
HW Ex 1	Asking the Right Questions	0	0	2	30	Friday/Wk1
ELP 1A	Weekly Thesis Assignment 1	0	0	10	20	Friday/Wk1
ELP 1B	Team Business Case	0	0	20	200	Friday/Wk4
ELP 1C	Team Presentation File	0	0	2	80	Session 9
HW DT 1	Discussion Thread 1	0	0	1	50	Session 3
	Total Session 1	4	0	39	380	

Session 2

Type	Topic/Description	Lec Time	Lab Time	ELP Time	Point Value	Due
Lecture 2A	Data Warehousing	2	0	0	0	
Lecture 2B	Business Reporting, Visual Analytics, and Performance Management	2	0	0	0	

IC Ex 1	Online Supplement: Decision Making	2	0	0	10	Friday/Wk1
Reading	Sharda, Delen, & Turban, Chapters 3-4	0	0	4	0	Session 2
	Total Session 2	6	0	4	10	

Session 3

Type	Topic/Description	Lec Time	Lab Time	ELP Time	Point Value	Due
Lecture 3A	Data Mining	2	0	0	0	
Lecture 3B	Techniques for Predictive Modeling	2	0	0	0	
HW Ex 2	Critique of Infographics	0	0	2	30	Friday/Wk2
Reading	Sharda, Delen, & Turban, Chapters 5-6	0	0	4	0	
ELP 3A	Weekly Thesis Assignment 2	0	0	10	20	Friday/Wk2
HW DT 2	Discussion Thread 2	0	0	1	50	
	Total Session 3	4	0	17	100	

Session 4

Type	Topic/Description	Lec Time	Lab Time	ELP Time	Point Value	Due
Lecture 4A	Text Analytics, Text Mining, and Sentiment Analysis	2	0	0	0	
Lecture 4B	Web Analytics, Web Mining, and Social Analytics	2	0	0	0	
IC Ex 2	Online Supplement: Decision Making	2	0	0	10	Friday/Wk2
Reading	Sharda, Delen, & Turban, Chapters 7-8	0	0	4	0	
	Total Session 4	6	0	4	10	

Session 5

Type	Topic/Description	Lec Time	Lab Time	ELP Time	Point Value	Due
Lecture 5A	Model-Based Decision Making	2	0	0	0	
Lecture 5B	Modeling and Analysis	1.5	0	0	0	
Lecture 5C	Prepare for MidTerm	.5	0	0	0	
HW Ex 3	Social Media	0	0	2	30	Friday/Wk3
Reading	Sharda, Delen, & Turban, Chapters 9-10	0	0	4	0	
ELP 5A	Weekly Thesis Assignment 3	0	0	10	20	Friday/Wk3
HW DT 3	Discussion Thread 3	0	0	1	50	
	Total Session 5	4	0	17	100	

Session 6

Type	Topic/Description	Lec Time	Lab Time	ELP Time	Point Value	Due
Lecture 6A	Automated Decision Systems and Expert Systems	2	0	0	0	
Lecture 6B	Knowledge Management and Collaborative Systems	2	0	0	0	
IC Ex 3	Online Supplement: Modeling Decisions	1.5	0	0	10	Friday/Wk3
Reading	Sharda, Delen, & Turban, Chapters 11-12	0	0	4	0	
Test	Mid-Term Exam	.5	0	0	60	
	Total Session 6	6	0	4	70	

Session 7

Type	Topic/Description	Lec Time	Lab Time	ELP Time	Point Value	Due
Lecture 7A	Big Data and Analytics	4	0	0	0	
HW Ex 4	Big Data	0	0	2	30	Friday/Wk4
Reading	Sharda, Delen, & Turban, Chapter 13	0	0	2	0	
ELP 7A	Weekly Thesis Assignment 4	0	0	10	20	Friday/Wk4
HW DT 4	Discussion Thread 4	0	0	1	50	
	Total Session 7	4	0	15	100	

Session 8

Type	Topic/Description	Lec Time	Lab Time	ELP Time	Point Value	Due
Lecture 8A	Business Analytics: Emerging Trends and Future Impacts	3	0	0	0	
Lecture 8B	Putting It All Together	1	0	0	0	
IC Ex 8A	Team Design Project Paper	0	0	0	0	Friday/Wk4
IC Ex 8B	Online Supplement: Trends in Big Data and Business Analytics	2	0	0	10	Friday/Wk4
CPT 1	Curricular Practical Training Activities (See CPT Assignment Enclosure sheet)	0	0	2	80	Session 8
Reading	Sharda, Delen, & Turban, Chapter 14	0	0	2	0	
	Total Session 8	6	0	4	90	

Session 9

Type	Topic/Description	Lec Time	Lab Time	ELP Time	Point Value	Due
IC Ex 9A	Team Oral Presentations	4	0	0	60	Week 5
Lecture9	Prepare for Final Exam	1	0	0	0	Week 5
	Total Session 9	5	0	0	60	

Session 10

Type	Topic/Description	Lec Time	Lab Time	ELP Time	Point Value	Due
Lecture 10 A	Team Oral Presentations	4	0	0	0	Week 5
Test	Final Exam	1	0	0	60	Week 5
	Total Session 10	5	0	0	60	

Course Hours Summary:

Session	Topic	Lec Time	Lab Time	ELP Time
1	Information Systems	4	0	38
2	Information Systems, Organizations, & Strategy	6	0	4
3	Foundations of Business Intelligence	4	0	16
1,3,5,7	Discussion Threads 1-4	0	0	4
4	Securing Information Systems	6	0	4
4	Curricular Practical Training Activities (See CPT Assignment Enclosure sheet)	0	0	2
5	Achieving Operational Excellence	4	0	16
6	Enhancing Decision Making	6	0	4
7	Building Information Systems	4	0	14
8	Managing Global Systems	6	0	2
9	Team Presentations	5	0	0
10	Team Presentations	5	0	0
Total		**50**	**0**	**104**

YOUR GRADES FOR THIS COURSE

Your final grade for this course will be based on an assessment by the Instructor of your performance on a number of course activities, which may include objective tests, classroom exercises, laboratory demonstrations, project papers, or other type of activities. The chart below indicates in what activities you will engage, how many possible points can be earned for each activity, and the percentage of your final grade that will be accounted for by each activity. Students in this course should be graded following Coleman University assessment practices and policies. A point system is used in the University to indicate student performance on various required activities or projects. For this course, points will be distributed as follows:

Week	Assignment	Points Possible	Percent of Grade
1-5	Weekly Thesis Assignments 1-5	100	10%
1-4	Homework 1-4	120	12%
1-4	Discussion Threads 1-4	200	20%
2	Curricular Practical Training Activities (See CPT Assignment Enclosure sheet)	80	8%
1-4	Online Supplement: Trends in Big Data and Business Analytics	40	4%
1	Team Business Case	200	20%
1	Team Presentation File	80	8%
3	Mid-Term Exam	60	6%
5	Final Exam	60	6%
5	Oral Presentation	60	6%
Total		**1000**	**100%**

Late Submission Policy
All assignments (including projects, lab work, quizzes and exams) must be completed as scheduled. The following will apply to late assignments:

- 1-24 hours after due date = 20% off point value
- 25-48 hours after due date = 60% off point value
- 49+ hours after due date = No points given

NOTE: If an assignment equals less than 5 points, no points will be given for late work. If there are extenuating circumstances, the student must submit a written explanation to the department Senior Instructor. Upon evaluation, points will be given according to the Senior Instructor's discretion.

COLEMAN UNIVERSITY GRADE ASSIGNMENT POLICY

The Coleman University guidelines for the assignment of grades to total points earned is as follows:

Percent	Letter Grade	Grade Points
94-100	A	20%
90-93	A-	10%
87-89	B+	20%
84-86	B	30%
80-83	B-	5%
77-79	C+	5%
74-76	C	2.0
70-73	C-	1.7
0-69	Fail	0
	INC	0
	W	0
	WP	0
	WF	0
74 or above	CR	0
73 or below	NC	0
70 or above	PASS	0

EXPECTATIONS FOR WRITTEN ASSIGNMENTS

Academic Quality

All written assignments will be submitted in APA format unless otherwise specified. This includes the Team Assignment paper and any Homework assignments. Note that WebClass Discussion Forum posts are not required to follow APA format.

Students with questions about the quality of their writing style are STRONGLY encouraged to consult the Coleman University Center for Academic Success. Located in Room 232, the CAS is a service available to all Coleman University students to review the grammar and style prior to submission. The CAS has a number of tools available to help students improve their ability to communicate clearly in writing.

Coleman University Students should pay close attention to the Spelling and Grammar Check functions of Microsoft Word®. In addition, the Coleman University Library Resource section of WebClass includes a version of TurnItIn, which allows students to check their work for plagiarism and grammar errors.

Scholarly References

All written assignments will include references to scholarly sources. Scholarly sources include peer-reviewed technical and business journals, papers presented at conferences sponsored by professional organizations (e.g., IEEE, ACM, INCOSE, PMI, etc.), and academic books (i.e., textbooks). Scholarly sources can be found using the EBSCO Host and Harvard Business Review databases available in the Coleman University Library Resource section of WebClass, Google Scholar, plos.org, or the Directory of Open Access Journals. If the option is available in the search engine, please limit your search results to peer-reviewed sources.

The following types of sources **WILL NOT** be accepted as scholarly resources:

- Commercial Webpages (except those included in Online Supplemental Materials section of this document, or with written approval by instructor)
- Open-source wiki sites such as wikipedia.com, ask.com, about.com, answers.yahoo.com
- Blogs such as wordpress.com, blogspot.com (except those included in Online Supplemental Materials section of this document, or with written approval by instructor)
- Postings from open discussion forums

White papers published by commercial organizations MAY be considered scholarly references, but tread lightly. Students are encouraged to review the Coleman University presentation regarding evaluation of resources (“CAARBs”) available on the Coleman University Library Resources section of WebClass.

Weekly Thesis Assignments
The primary purpose of the Weekly Thesis Assignments is to prepare each graduate student at Coleman University for the final Master's Thesis.

Each week, students will submit additional progress toward his or her chosen thesis topic. Progress toward the thesis will include a minimum of three (3) pages of new content toward the thesis and cite fewer than three (3) scholarly sources.

Each weekly submission should include a highlighted section indicating the new content form the previous week. New content could either be completely new material, or revision to existing material based on feedback provided by your Thesis Mentor or Teaching Assistant.

At the end of Week 3, each student will provide an in-progress review submission to his or her Thesis Advisor via WebClass in the Thesis In Progress section. The Thesis Advisor will provide feedback regarding the framework and approach each student is taking and provide general guidance regarding completion. This in addition to the Weekly Thesis Assignment submission graded by the course Teaching Assistant.

CLASS DECORUM REQUIREMENTS

Attendance
Classes begin and end as indicated in the published schedule. It is required that students be present at the beginning of each class session and stay until class is dismissed, including lab periods. Excessive tardiness, leaving early and/or absences (from either lecture or lab sessions) are causes for dismissal from the University. A student that arrives in class beyond 30 minutes late will be considered absent. A student leaving more than 30 minutes before the end of class will also be considered absent.

Conduct
Students are expected to conduct themselves in a professional manner while on campus. Rules of conduct are outlined in the University Catalog and students are required to adhere to such policies.

COLEMAN UNIVERSITY POLICY ON ACADEMIC DISHONESTY

Academic dishonesty is cause for dismissal from Coleman University. Presenting another person's ideas, methods, course work, or test answers with the intention that they be taken as one's own is theft of a special kind. It defrauds the originator of the work, the institution, its graduates, its students, and its future students. The student has full responsibility for the authenticity of all academic work and examinations submitted. A student who appears to have violated this policy must submit to a hearing with the reporting instructor and the associate dean. If it is determined that a violation occurred, the matter will be referred to an Officer of the University with recommendations for an appropriate penalty. The student may be dismissed, suspended, or given another penalty.

Coleman University employs the plagiarism software known as TurnItIn. Students are expected to use this tool in an appropriate manner with the sole purpose to support their own academic endeavors at Coleman University. TurnItIn account information cannot be shared with anyone. Contact your instructor if you have any questions about plagiarism related issues.

Once an assignment is submitted in TurnItIn, it cannot be resubmitted. It is each student's responsibility to ensure he or she has submitted the correct and final version of an assignment in a TurnItIn drop box.