

Course Syllabus

MIS 6324 Business Analytics with SAS

The Naveen Jindal School of Management
The University of Texas at Dallas

Course Information

Course

Course Number	MIS 6324
Course Title	Business Analytics with SAS
Term and Dates	Fall 2017

Professor Contact Information

Professor	Mark Thouin, Ph.D.
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Office Location	SOM 3.217
Office Hours	Mondays 3 to 4 PM and by appointment

About the Instructor

Mark Thouin is the Director of Graduate Information Systems Programs at the University of Texas at Dallas where he teaches graduate and undergraduate courses, and promotes academic programs in information systems. His research interests include the study of the clinical and administrative value of information technology. He holds a Ph.D. from Texas Tech University. Prior to joining UT Dallas, he worked for 13 years in a variety of management, technical, and business development positions providing IT consulting services.

Course Description

This course covers theories and applications of business analytics. The focus is on extracting business intelligence from firms' business data for various applications, including (but not limited to) customer segmentation, customer relationship management (CRM), personalization, online recommendation systems, web mining, and product assortment. The emphasis is placed on the 'know-how' -- knowing how to extract and apply business analytics to improve business decision-making. Students will also acquire hands-on experience with business analytics software in the form of SAS Enterprise Miner.

Student Learning Objectives/Outcomes

- To gain a general understanding of business intelligence/data mining, and to appreciate the data rich environment of today's global economy.
- To gain a practical understanding of many key methods integral to data mining.
- To gain an understanding of when to use which technique.
- To become aware of some current trends in the use of BI.
- To gain the intellectual capital required to provide business analytics services.

Required Textbooks and Materials

Required Texts

- Data Mining for Business Intelligence, 2nd Edition, by Shmueli, Patel and Bruce. Wiley, ISBN-10: 0470526823, ISBN-13: 978-0470526828 **(available as an eBook from the UTD library)**

Required Software

- **SAS Enterprise Miner.** There will be many exercises using SAS Enterprise Miner in this class. SAS Enterprise Miner will be accessed using MS Remote desktop and students are required to have a laptop capable of running Microsoft Remote Desktop.
- [PollEverywhere](#) (Approximately \$14 – Required for Class Participation)

Suggested Course Materials

Suggested Readings/Texts

- Data Mining Techniques, 3rd Edition, by Linoff and Berry. Wiley, ISBN-10: 0470650931, ISBN-13: 978-0470650936 **(available as an eBook from the library)**

Textbooks and some other bookstore materials can be ordered online through Off-Campus Books <http://www.offcampusbooks.com> or the UT Dallas Bookstore <http://www.bkstr.com/texasatdallasstore/home>. They are also available in stock at both bookstores.

Course Policies

Make-up exams, Extra Credit and Late Work

Please notify the instructor 1 week prior to the exam if you require a make-up exam and include a reason why a make-up exam is necessary. Opportunities to earn extra credit will not be provided. A one-grade penalty per day the assignment is late will be assessed on all late assignments.

Class Participation

You are expected to actively participate in the discussion of readings, contribute to the learning experience of the class, and meaningfully contribute to all group project work. Poll Everywhere will be used to help assess class participation and a peer evaluation will be performed to help assess group project participation.

Weekly Schedule

Week	TOPIC/LECTURE	READING	ACTIVITY	DUE DATE
1	Introduction		Group Signup Poll Everywhere Signup Login to SAS Enterprise Miner	

2	Data Visualization, Exploration, and Dimensionality Reduction	DMBI Chapter 1 & 2	Exploring Data Using SAS Enterprise Miner	
3	Association Rules/Market Basket Analysis	DMBI Chapter 13		
4	Clustering – Part 1	DMBI Chapter 14	<u>Homework 1</u> Data Visualization and Exploration	September 13 th
5	Clustering – Part 2	DMBI Chapter 14		
6	Decision Trees	DMBI Chapter 9	Group Project Proposal Presentations	September 27 th
7	Regression	DMBI Chapter 10	<u>Homework 2</u> Association Rules and Clustering	October 4th
8	Regression – Part 2	DMBI Chapter 10		
9	Exam 1		Exam 1	October 18 th
10	Logistic Regression	DMBI Chapter 10		
11	Model Assessment and Model Implementation	DMBI Chapter 8	<u>Homework 3</u> Decision Trees and Regression	November 1st
12	Guest Speaker/Text Mining			
13	Group Presentation			
14	Group Presentation			
15	Group Presentation			

Student Assessments

Grading Information

Weights

Exam 1	100	30%
Group Project and Presentation	100	30%
Homework 1	100	10%
Homework 2	100	10%
Homework 3	100	10%
Group Project Participation	100	5%
Class Participation	100	5%
Total		100%

GradingScale

Scaled Score	Letter Equivalent
≥ 93.3	A
≥ 90.0 and < 93.3	A-
≥ 87.7 and < 90.0	B+
≥ 83.3 and < 87.7	B
≥ 80.0 and < 83.3	B-
≥ 77.7 and < 80.0	C+
≥ 73.3 and < 77.7	C
Less than 73.3	F

Accessing Grades

Students can check their grades by clicking “My Grades” under Course Tools after the grade for each assessment task is released.

Assignment submission instructions

You will submit your assignments (in the required file format with a simple file name and a file extension) by using the Assignments tool on the course site. Please see the Assignments link on the course menu or see the icon on the designated page. You can click each assignment name link and follow the on-screen instructions to upload and submit your file(s). Please refer to the Help menu for more information on using this tool. **Please note:** each assignment link will be deactivated after the assignment due time. After your submission is graded, you may click each assignment’s “Graded” tab to check the results and feedback.

Scholastic Honesty

The University has policies and discipline procedures regarding scholastic dishonesty. Detailed information is available on the [UTD Judicial Affairs](#) web page. All students are expected to maintain a high level of responsibility with respect to academic honesty. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced.

Course Evaluation

As required by UTD academic regulations, every student must complete an evaluation for each enrolled course at the end of the semester. An online instructional assessment form will be made available for your confidential use. A link to an online instructional assessment form will be emailed to you for your confidential use.

University Policies

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

These descriptions and timelines are subject to change at the discretion of the Professor.