Online/Blended Course Syllabus

Course Information

Course Number/Section	MIS 6345.0W1/BUAN 6345.0W1
Course Title	High Performance Analytics
Term	Spring 2018

Professor Contact Information

Professor	Kashif Saeed
Office Phone	972-883-5094
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Office Location	2.413
Online Office Hours	Wednesday 10am-noon (By Appointment only)
Other Information	

Course Pre-requisites, Co-requisites, and/or Other Restrictions

MIS 6309

Course Description

High Performance Analytics class covers the descriptive Business Intelligence domain using In-memory Database and In-memory Business Intelligence tools. In-memory tools are used to make the data retrieval fast, which allows for analyzing large datasets without worrying about the query time. The course covers QlikView as the In-memory Business Intelligence tool and uses SAP HANA as the In-memory database. The course also covers some Important Business Intelligence Architectural concepts.

Student Learning Objectives/Outcomes

- Understand Business Intelligence Architectural concepts like importance of Semantic layer in Business Intelligence, software and hardware options to address query performance concerns, understanding of ER and Dimensional models from Business Intelligence perspective, and understanding when performance related concerns are caused by front-end vs. back-end.
- Understand QlikView architecture and the use of memory on QlikView Server for storing data. Also, understand the different components of the QlikView software.
- Learn to develop Business Intelligence applications using QlikView. This includes building QlikView data model, learning how to resolve circular references and synthetic keys, and learning how to build the front-end of the Business Intelligence application using QlikView.
- Understand SAP HANA architecture, implementation options, SAP HANA sizing, SAP BW migration to SAP HANA scenarios, and concept of persistence in SAP HANA.
- Learn SAP HANA modeling concepts by building HANA Information Views.

Required Textbooks and Materials
Optional Texts

QlikView 11 for Developers by Barry Harmsen and Miguel Garcia
ISBN-10: 1849686068
ISBN-13: 978-1849686068

Required Materials
NA

Suggested Course Materials
Suggested Readings/Texts
NA
Suggested Materials
NA

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.

Technical Requirements
In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements http://www.utdallas.edu/elearning/students/getting-started.html#techreqs on the Getting Started with eLearning webpage http://www.utdallas.edu/elearning/students/getting-started.html.

Course Access and Navigation
The course can be accessed using the UT Dallas NetID account at: https://elearning.utdallas.edu. Please see the course access and navigation http://www.utdallas.edu/elearning/students/getting-started.html#courseaccessandnav section of the site for more information.

To become familiar with the eLearning tool, please see the Student eLearning Tutorials http://www.utdallas.edu/elearning/students/eLearningTutorialsStudents.html.

UT Dallas provides eLearning technical support 24 hours a day/7 days a week. The eLearning Support Center http://www.utdallas.edu/elearninghelp services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication
This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the eLearning Tutorials webpage http://www.utdallas.edu/elearning/students/eLearningTutorialsStudents.html for video demonstrations on eLearning tools.

Student emails and discussion board messages will be answered within 3 working days under normal circumstances.

Distance Learning Student Resources
Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the eLearning Current Students page http://www.utdallas.edu/elearning/students/cstudents.htm for details.

Server Unavailability or Other Technical Difficulties
The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk http://www.utdallas.edu/elearninghelp. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Assignments & Academic Calendar

UNIT/ DATES	TOPIC/LECTURE	ACTIVITIES	ASSESSMENT/COMMENTS
Unit 1 Week of 1/8	Refresher/BI Architecture - Understanding ER and Dimensional Models for consumption in Business Intelligence - Importance of Semantic Layer in BI		Please follow eLearning for Assignment due dates.
Unit 2 Week of 1/15	BI Architecture - Understanding the importance speed - Front-end vs. back-end bottlenecks - Software and hardware options for performance remediation		
Unit 3 Week of 1/22	QlikView Approach to Business Intelligence	Activity 1 Activity 2 Activity 3	

Unit 4 Week of 1/29	QlikView Architecture		
Week of 2/5	**Midterm 1** Syllabus: Unit 1 - 4 Location: Testing Center or an approved off-site testing center *Students outside of DFW area need to follow the UTD Testing center guidelines to get an approval for using an off-site testing center.* http://www.utdallas.edu/studentsuccess/testing-center/proctored-exams/		The exam will be available for the entire week for Students outside of DFW area.
Unit 5 Week of 2/12	QlikView Developer - QlikView Scripting	Activity 4 Activity 5	
Unit 6 Week of 2/19	QlikView Developer - QlikView Data Model - Joins and Keep - Concatenate - Synthetic Keys	Activity 6 Activity 6.1 Activity 6.2 Activity 7 Activity 7.1 Activity 8 Activity 9 Activity 10 Activity 10.1	Assignment 1
Unit 7 Week of 2/26	QlikView Developer - Circular Reference - QVD vs. QVW	Activity 11 Activity 11.1 Activity 11.2 Activity 12 Activity 12.1 Activity 13	
Unit 8 Week of 3/5	QlikView Developer - Advance Scripting - Sub-routines and QVS files - Advance Data Models - Dealing with dimensions without facts	Activity 13.1 Activity 13.2	
Week of 3/12	No Class – Spring Break		
Unit 9 Week of 3/19	QlikView Designer - Building the front-end of QlikView application - Understanding different objects available in the front-end part of QlikView - All hands-on related to front-end	Activity 14 Activity 15 Activity 16 Activity 17 Activity 18 Activity 19	Assignment 2
Week	**Midterm 2**		The exam will be available for the

of 3/26	Syllabus: Unit 5-9 Location: Testing Center or an approved off-site testing center *Students outside of DFW area need to follow the UTD Testing center guidelines to get an approval for using an off-site testing center.* http://www.utdallas.edu/studentsuccess/testing-center/proctored-exams/		entire week for Students outside of DFW area.
Unit 10 Week of 4/2	SAP HANA - SAP HANA Deployment Options - Understanding SAP BW - Moving Existing BW to HANA - HANA Sizing and hardware - HANA Architecture		
Unit 11 Week of 4/9	SAP HANA Hands-on - Getting connected to SAP HANA - DDL/DML in HANA - Creating Stored Procs in HANA	Activity 1 Activity 2 Activity 3	Assignment 3
Unit 12 Week of 4/16	SAP HANA Information Models - Attribute, Analytical, and Calculation views - Hands-on related to HANA views	Activity 4 Activity 5 Activity 6	
Unit 13 Week of 4/23	QlikSense Introduction		
Week of 4/30	**Final Exam** (Comprehensive) Location: Testing Center or an approved off-site testing center *Students outside of DFW area need to follow the UTD Testing center guidelines to get an approval for using an off-site testing center.* http://www.utdallas.edu/studentsuccess/testing-center/proctored-exams/		The exam will be available for the entire week for Students outside of DFW area.

Proctored Final Exam Procedures
If your course has a proctored exam requirement, please see the Student Success Center Proctored Exam website http://www.utdallas.edu/studentsuccess/testingcenter/proctored_exams/index.html to make arrangements.

Grading Policy
The course uses Rank based grading based on the total students enrolled in the class as shown.

Top 25% in the class	A
Next 15%	A-
Next 15%	B+
Next 15%	B
Remaining	Other grades

Grade Breakdown
The course breaks down the grade as shown.

Midterm 1	25%
Midterm 2	25%
Final	30%
Assignments	20%

Course Policies
Make-up exams
There is no Make-up exam.
Extra Credit
There is no extra credit.
Late Work
Late assignment penalty will me mentioned on the assignments.
Special Assignments
NA
Class Participation
NA
Classroom Citizenship

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

UT Dallas Syllabus Policies and Procedures

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.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.