



# ERP and Business Intelligence Systems

OSCM 3332 Spring 2024



**Instructor:** Mr. Michael S, Garcia MSPM

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**Class Hours:** TR 1:30–2:50 pm

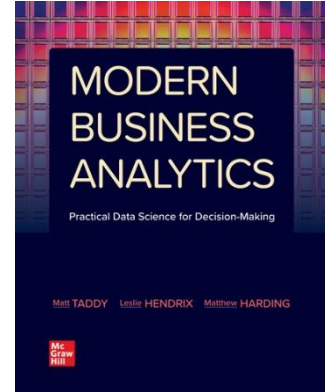
**COBA Room 310**

**Office Hours:** MW 8:00 - 10:15pm, TR 10:00-12:00am or by appointment.

## Recommended References:

*Modern Business Analytics*, by Matt Taddy, Leslie Hendrix and Matthew Harding, 1st Edition, McGraw Hill

*Business Intelligence and Analytics*, by Ramesh Sharda, Dursun Delen, Efraim Turban, Pearson, Tenth Edition, (ISBN-13: 978-0-13-305090-5).



**Access to the ERPsim Lab software platform is required for OSCM 3332.**

The cost will be approximately \$43.00. This will not be needed until later in the semester. More information will be provided on establishing/paying for ERPsim Lab accounts during the first few weeks of class.

Welcome to the undergraduate ERP and Business Intelligence Systems course. Official information for OSCM 3332, including grades, will be posted on Blackboard. You are responsible for reading and responding to Blackboard “Announcements”, “Assignments”, “Assessments”, and any other information concerning this course - check your Blackboard account daily!

## Course description (*From Goldmine*)

This course expands the knowledge of ERP systems and explores their advanced features. Comprehensive ERP applications are studied and advanced business intelligence tools are utilized to understand how they enhance decision making. ERP integrated and external business intelligence tools are considered.

## Prerequisite

ACCT 2301 and ACCT 2302 and ECON 2303 and ECON 2304 and QMB 2301 with at least grade of C.

## Objectives:

At the completion of this course, students will be able to:

1. Compare different data sets based on descriptive analytics
2. Apply predictive analytics tools
3. Analyze decision making environments based on prescriptive analytics
4. Integrate business analytics methods in an ERP environment
5. Identify and apply tools for big data analysis
6. Formulate AI and machine learning strategies to draw information from ERP systems and enhance the decision-making process.

## Lectures

Important material from the textbook, reference books, case studies, multimedia sources, and homework problem examples will be covered in class lectures. The detailed class outline, at the end of this syllabus, shows you exactly what activity and book chapters will be covered during each week of the entire semester session. You should plan to read a lot and take careful lecture notes. Discussion and engagement with your classmates is strongly encouraged about the topics being covered, both in class and through discussion board assignments.



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## Class Labs/Projects in lieu of Regular Exams

There will be no formal exams in OSCM 3332. In lieu of exams, students are expected to complete four detailed case studies/projects that incorporate analytical tools and methods demonstrated in lab sessions prior to each Case Study assignment. Students will generally have one week to complete each Case Study. Case Studies are not group projects – each student is expected to complete their own individual Case Study, based on data and topics that will be unique to each student. **There are no make-ups on Case Studies, and late work is not accepted. Please plan accordingly!**

## How we will Communicate

I will communicate with you through Blackboard announcements, global emails sent to the whole class and in office hours, either in-person or virtual. Your best way to communicate directly with me is via email to [msgarcia4@utep.edu](mailto:msgarcia4@utep.edu). I teach many classes and have many students, so please identify your course number and a message topic clearly in the Subject line of your email. A good example Subject line would be:

Subject: OSCM 3332 – Question about Exam 1 Grades

If you do not include this information in the Subject line of your message, it may significantly delay my response. I will do my best get back to you within 1 business day.

## Netiquette Guidelines:

Netiquette is a set of rules for behaving properly online. We must establish and maintain a safe online learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in a tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea but you are not to dismiss or attack any individual. Working as a community of learners, we will build a polite and respectful course community.

The following netiquette tips will enhance the learning experience for everyone in this course:

- Do not dominate any discussion.
- Give other students the opportunity to join in the discussion.
- Do not use offensive language. Present ideas appropriately and professionally.
- Be cautious in using Internet language. For example, do not capitalize all letters since this suggests shouting. Popular emoticons, such as 😊, can be helpful to convey your tone but do not overdo or overuse them.
- Avoid using vernacular or slang language. This could possibly lead to misinterpretation.
- Never make fun of someone's ability to read or write.
- Share tips with other students.
- Keep an "open-mind" and be willing to express even your minority opinion. Minority opinions will be respected.
- Think, pause, and edit before you push the "Send" button.
- Do not hesitate to ask for feedback.
- Be careful using humor – your perception of what is funny may be very different from someone else's.



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## Grading Policy:

15 %	Case 1	<b>A</b> =	numerical grade $\geq 90$
15 %	Case 2	<b>B</b> =	$80 \leq$ numerical grade $< 90$
15 %	Case 3	<b>C</b> =	$70 \leq$ numerical grade $< 80$
20 %	Final Project	<b>D</b> =	$60 \leq$ numerical grade $< 70$
25 %	Lab Completion	<b>F</b> =	numerical grade $< 60$
10 %	Attendance and Punctuality		

## Lab Activity

This class will be conducted in a COBA computer lab where each student will have a computer at their station for use during class. For each session, the Professor will go through a demonstration of different software platforms and applications using real-world business data and current, relevant topics of study. Students are expected to follow along with each step of the demonstration on their own station computer, be prepared to make experimental changes to the current demonstration, and be prepared to show expected outputs from the demonstration analytical runs, as evidence of lab session completion

## COURSE POLICIES

### 1. Electronic Devices

All electronic devices (cell phones, tablets, camera containing devices, etc.) should be completely turned off during exams and should not be in the hands of students at any time during class. There will be absolutely no texting, phone calls, or social media interaction during class.

### 2. Academic Integrity

Cheating is unethical and unacceptable. Using information or original wording in a paper, assignment or discussion board without giving credit to the source of that information or wording is **plagiarism**, and is absolutely unacceptable. Do not submit work under your name that you did not do yourself. You may not submit work for this class that you did for another class. If you are found to be cheating or plagiarizing, you will be subject to disciplinary action, per UTEP catalog policy. Refer to <https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html> for further information.

### 3. Attendance and Punctuality

Attendance is valued in this class, just as it is in the workplace. Being absent or late to class sends a negative message to the Professor, just as it does to an employer, manager, or customer. You cannot make a contribution to the class if you are not present. Please keep in mind that missing 1 class is equivalent to missing 5 days of work.

Class attendance is required and expected. Exam and quiz material will be substantially based on lectures, therefore you are responsible for all material covered in class. Please arrive on time and take your seat quickly and quietly. Arriving late hinders all students and is considered disruptive to everyone in class.

### 4. Homework

There will generally be one homework assignment associated with Case Study covered in class. Please note that you should complete and turn in homework **exclusively through Blackboard**. Homework will not be accepted via hardcopy, email, or text messages and cannot be turned in after its due date. If you expect to be out-of-pocket, make sure you will be able to do the homework before its due date. No late assignments will be accepted. Unless specifically stated otherwise in a homework assignment, **all homework is a strictly individual, non-group, non-collaborative task**.



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## 5. Quizzes

In classes with a required text, there will generally be one short reading quiz for each text chapter, taken from material that will be covered in the days to follow. These reading quizzes are structured to compel and reward you for reading ahead in the text in preparation for upcoming lectures. Reading quizzes will be administered through Blackboard.

## 6. Need for Assistance

If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to [cass@utep.edu](mailto:cass@utep.edu), or visit their office located in UTEP Union East, Room 106. For additional information, please visit the Center for Accommodations and Support Service (CASS) website at <https://www.utep.edu/student-affairs/cass/>

## 7. Other Student Services

University Writing Center: <http://uwc.utep.edu/index.php>

Sexual Harassment Guide for students: <https://www.utep.edu/titleix/Filing-a-Complaint.html>

University Counseling Center: <https://www.utep.edu/student-affairs/counsel/>, 747-5302, 202 Union West; walk-ins encouraged.

Student Health and Wellness Center: <https://www.utep.edu/chs/shc/>, 747-5624. Many services free to students paid for through student health fee.

Student Engagement and Leadership Center: <https://www.utep.edu/student-affairs/selc/>, 106 Union West, 747-5670. Includes study space with workstations; family friendly room with lactation space.

University Career Center: <https://www.utep.edu/student-affairs/careers/>, 103 Union West, 747-5640.

Mine Tracker: <https://minetracker.utep.edu/>. Events, news and student organizations.

## 8. Campus Carry:

Persons who hold a Concealed Handgun License can lawfully carry their gun into a UTEP classroom as long as it remains concealed. Open carry remains prohibited on campus. Should you feel someone is intentionally displaying a gun (or any other weapon for that matter), do not hesitate to call Campus Police (ext. 5611) or 911. For information on campus concealed carry, see <https://www.utep.edu/campuscarry/>. For more information on overall campus safety, see <https://www.utep.edu/student-affairs/dean-of-students-office/student-emergency/index.html>

Please note that the GBC is a designated **Campus Carry Exclusion Zone** – a property leased by the University which has existing tenant leases *prohibiting weapons*. For more on Exclusion Zones see: <https://www.utep.edu/campuscarry/exclusion-zones/index.html>

## 9. Student Responsibility

Individual students must operate with integrity in their dealings with faculty and other students; engage learning materials with appropriate attention and dedication; maintain engagement when challenged by difficult learning activities; contribute to the learning of others; and perform to standards set by the faculty.



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Class Hours: TR 1:30–2:50 pm

COBA Room 310

## Detailed Course Outline:

Week	Day	Date	Subject	Discussion	Comment
1	Tue	Jan 16	Class Intro	Class Introduction and Expectations	
	Thur	Jan 18	Lab Primer	Intro to R and general Lab procedures	
2	Tue	Jan 23	Lab 1	Text mining: Web of Science & Biblioshiny	
	Thur	Jan 25	Lab 2	Text mining of Twitter comments using R	
3	Tue	Jan 30	Lab 3	Text mining and Sentiment Analysis using R: Amazon reviews	
	Thur	Feb 1	Lab 4	Cluster Analysis, k means using R. Container ports	
4	Tue	Feb 6	Lab 5	Cluster Analysis, k means using R. Medical schools	
	Thur	Feb 8	Lab 6	Hierarchical clustering analysis. Container ports	
5	Tue	Feb 13	Lab 7	Hierarchical clustering analysis. Medical schools	Case #1 Due
	Thur	Feb 15	Lab 8	Machine learning: Decision Trees. Nursing homes.	
6	Tue	Feb 20	Lab 9	Machine Learning: Decision Tree with multiple levels. Nursing homes.	
	Thur	Feb 22	Lab 10	Machine Learning: Random Forest. Nursing homes.	
7	Tue	Feb 27	Lab 11	Machine Learning: Improving Random Forest. Nursing homes.	
	Thur	Feb 29	Lab 12	Neural networks. The case of the nursing homes.	
8	Tue	Mar 5	Lab 13	Deep neural networks. Nursing homes.	
	Thur	Mar 7	Lab 14	Deep neural networks.	Case #2 Due
9	Tue	Mar 12	<b>No Class</b>	<b>Spring Break – University Closed</b>	
	Thur	Mar 14	<b>No Class</b>	<b>Spring Break – University Closed</b>	
10	Tue	Mar 19	Lab 15	Power BI and Machine Learning	
	Thur	Mar 21	Lab 16	Power BI and Machine Learning	



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11	Tue	Mar 26	Lab 17	Power BI and Sentiment Analysis	
	Thur	Mar 28	Lab 18	Power BI and Sentiment Analysis	
12	Tue	Apr 2	Lab 19	Power BI: SAP OData & Retail Int Game	
	Thur	Apr 4	Lab 20	Power BI: SAP OData & Retail Int Game	
13	Tue	Apr 9	Lab 21	Power BI: SAP OData & Retail Extended Game	
	Thur	Apr 11	Lab 22	Power BI: SAP OData & Retail Extended Game	Case #3 Due
14	Tue	Apr 16	Lab 23	Machine learning: Power BI, SAP & R	
	Thur	Apr 18	Lab 24	Machine learning: Power BI, SAP & R	
15	Tue	Apr 23	Lab 25	Machine learning: Power BI, SAP & R	
	Thur	Apr 25	Lab 26	Machine learning: Power BI, SAP & R	
16	Tue	Apr 30	Lab 27	Machine learning: Power BI, SAP & R	
	Thur	May 2	Lab 28	Machine learning: Power BI, SAP & R	Final Project Due

**Note:** This is a tentative syllabus and the Professor reserves the right to make changes at any time.



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## Spring 2024 Academic Calendar:

<b>Oct 23rd</b>	Spring Registration Begins
<b>Jan 4th</b>	Last Day to Clear Students on Suspension/Probation as well as those with Insufficient Prerequisites
<b>Jan 5th</b>	Drops for Students with Unsatisfactory Academic Standing, Insufficient Prerequisites, and Prior Grades of C in the Course
<b>Jan 8th</b>	Financial Aid is Disbursed
<b>Jan 15th</b>	Dr. Martin Luther King, Jr. Holiday – University Closed
<b>Jan 16th</b>	Spring classes begin
<b>Jan 16th-19th</b>	Late Registration (Fees are incurred)
<b>Jan 31st</b>	Spring Census Day. Note: This is the last day to register for classes. Payments are due by 5:00 pm.
<b>Feb 12th</b>	20 <sup>th</sup> Class Day. Note: Students who were given a payment deadline extension will be dropped at 5:00 pm if payment arrangements have not been made.
<b>Feb 16th</b>	Graduation application deadline for degree conferral
<b>Mar 11th-15th</b>	Spring Break
<b>Mar 20th</b>	Freshman midterm grades are due
<b>Mar 28th</b>	Spring Drop/Withdrawal Deadline Note: Student-initiated drops are permitted after this date, but the student is not guaranteed a grade of W. The faculty member of record will issue a grade of either W or F.
<b>Mar 29th</b>	Cesar Chavez Holiday - No classes; Spring Study Day
<b>Apr 12th</b>	Deadline to submit candidates' names for commencement program
<b>May 2nd</b>	Spring – Last day of classes
<b>May 3rd</b>	Dead day
<b>May 6-10th</b>	Spring Final Exams
<b>May 11-12th</b>	Spring Commencement
<b>May 15th</b>	Grades are Due
<b>May 16th</b>	Grades are posted to student records; students are notified of grades and academic standing
<b>Payment Deadlines</b>	For more information on payment deadlines, visit the <a href="#">Student Business Services Website</a>