

# **Syllabus: CIS 3315 – Business Analytics Applications**

## **Fall 2023**

**Instructor:** Professor Godwin Udo

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**Office:** COBA 246;

**Office Hours:** MW 10:30 AM – 12:00 PM; MW 3:00-4:30 PM. (and by Appointment)

**MEETING TIMES:** CIS3315- (CRN: 14914 & 16515), MW 12:00 – 1:20 PM and MW 1:30 – 2:50 PM,  
Room: BUSN 320

**COURSE DESCRIPTION:** This is a hands-on course that familiarizes students with the process of data analytics. Students will learn to process, manipulate, analyze, and visualize data, and make data-driven decisions as they solve real-world problems. Different analytics tools will be used to master skills including data import, retrieval, cleaning, transformation, visualization, data analysis, optimization analysis, and building of dashboards. This course is intended to teach you the application of financial and managerial accounting concepts to current accounting information system software, electronic spreadsheets, and database management systems.

**PREREQUISITE:** Understanding of file management within the Windows Operating System.

### **COURSE OBJECTIVES:**

Upon the successful completion of this course, the student will be able to:

- Demonstrate a basic understanding of the important topics of Microsoft Excel;
- Create and format a workbook and work with formulas, functions, charts, and graphics;
- Use PivotTables and Pivot Charts, advanced formulas and functions;
- Create different data visualization in Excel;
- Demonstrate the ability to perform financial and what-if analyses;
- Build Dashboards in Excel; and
- Design and build databases and define table relationships, maintain and query databases, and create and use forms and reports,

**TEXTBOOK:** (1) ISBN: 10: 1-305-52036-X/ 13: 978-1-305-52036-3. This is a “bundle” that combines New Perspectives on Microsoft® Excel® 2019, Comprehensive and New Perspectives on Microsoft® Access 2019, along with the Course Code to use our online assessment tool. You can also buy the ebook version of the bundle. Please check out the video on Cengage Unlimited MindTap on Blackboard Registration and Login

<https://play.vidyard.com/yUAP2eFUunPkCeXniVjqcY> before making your decision on the textbook.

(2) Data Visualization: Exploring and Explaining with Data by Camm, Cochran, Fry and Ohlmann (2021); ISBN-13: 978-0-357-63134-8.

**Class Drop Date:** **November 3, 2023**

**COMPUTER.** A computer with access to the Internet. Projects **MUST** be completed in Office 2019, in order to receive full credit.

### **COURSE COMPONENTS**

There are 11 chapters on Excel and 5 chapters on Assess. Each chapter has a project with an opening date (when the material is available to you) and a closing date (when the material is no longer available to you). These dates are fixed (set in stone!) unless you have a very good reason why you should be allowed an extension. A computer problem is not a sufficient reason for an extension.

**\*\* Late work will not be accepted. Don't even ask!!! It will not be granted!! \*\***

## **Training**

Each chapter has a number of topics, which varies by chapter. In the training session, you will be shown how to answer each question. You will then be asked to replicate the procedures you were shown (you can repeat this any number of times – and should until you understand the procedures). This component has no closing date (it is available to you as long as you have a valid account). It has no points allocated toward your grade. That is because if you do not complete the Training, you cannot successfully complete the project. Please train as often as necessary.

## **Projects**

You should remember that your grade is based on your ability to DO the work rather than on your ability to follow along as someone else does it. Computer literacy is learned through practice, practice, and practice. Sixteen projects have been assigned on MindTap within the Blackboard (BB) to correlate with each of the sixteen chapters we will be covering as part of this course. The due date and time associated with each case are stated clearly on this syllabus and on BB. You will receive immediate feedback on whether or not your answers are correct and will be allowed 3 attempts in order to complete it correctly before the deadline. Furthermore, assignments will not be accepted after the due date.

## **Examination**

There are two in-class multiple-choice examinations. Questions will be pulled from the Data Visualization textbook and from the Excel and Access materials.

## **COURSE POLICIES:**

### **Student Feedback/Communication**

The easiest way to get me is through email at [gudo@utep.edu](mailto:gudo@utep.edu). I will try my best to respond within 24 hours.

### **Attendance/Involvement**

You, whether present or absent, are responsible for all material presented or assigned for a class meeting, and will be held accountable for such materials in the determination of course grades

### **Need for Assistance:**

If you have any condition, such as a physical or learning disability, which will make it difficult for you to carry out the work as I have outlined, or which will require academic accommodations, please notify me as soon as possible.

### **Academic Dishonesty**

I expect all students to conduct themselves with the highest level of integrity. You have the opportunity throughout your business career to demonstrate your own level of integrity. Similarly, in this class, you will have an opportunity to demonstrate academic integrity. The two are inextricably linked. And let's not be naïve: issues of integrity are rarely black and white – they are invariably some shades of gray. I encourage you to think about the standard you set for business integrity in your career and to implement that standard with respect to your academic integrity in this class. In so doing, you might want to keep the following quote from Samuel Johnson in mind: "The chains of habit are too weak to be felt until they are too strong to be broken".

Academic dishonesty in any form will not be tolerated. For a definition of academic dishonesty and its consequences, see your student handbook.

For the purposes of this course, academic dishonesty includes, but is not limited to,

- Copying another student’s solution or allowing another student to copy your solution
- Removing or copying pages or problems from exams or quizzes, including those posted on the World Wide Web
- Any other activity that jeopardizes the integrity of this course.

**\*\*\* SAM has introduced new measures to detect cheating (TRULY – this is NOT an idle comment). What I mean by this is that if someone copies someone else’s work, it will be detected (I will talk more about this in the first class). If that is the case, you will receive ZERO credit for the submission (and the person who gave you their work will also have their submission reduced in grade (TRULY!!))**

**Evaluation:**

Grades are not given; they are **EARNED**. You must work for it. Your grade will be based on results rather than on effort — your performance is an indicator of your ability to master the topic. Decide to work **NOW** for the grade you want. Students who keep up with the materials, do all of the assignments and participate in the learning experiences typically do well.

Your grade will be based on the total number of points that you earn for each assignment group. Your grade will be calculated using the following scale:

Assignment Group	Weight
<b>SAM Projects (Excel &amp; Access)</b>	60%
<b>Exam I and Exam II</b>	20%
<b>Data Visualization Assignments</b>	10%
<b>Other Assignments</b>	10%
<b>Total</b>	<b>100%</b>

Grade	Level of Work	Percentage Range
A	Excellent, distinguished	90 – 100%
B	Very good, above average	80 – 89%
C	Average, Normal	70 – 79%
D	Below Average	60 - 69%
F	Failing	< 60%

A grade of **"I" (Incomplete)** will be assigned only in circumstances in agreement with the current UTEP Graduate Catalog.

If you are taking this course under the S/U option, you must earn a "B" or better to receive a grade of "S."

**Class Schedule:**

The calendar and the assignments are all found in the SAM program.

**I reserve the right to change any assignment if circumstances dictate. Students will be notified of such changes through an announcement. It is the student’s responsibility to be aware of such change.**

## ACCESS INSTRUCTIONS

MindTap on Blackboard Registration and Login

<https://play.vidyard.com/yUAP2eFUunPkCeXniVjqcY>

How to buy your Course Materials

Step 1: Sign into Blackboard and click on your CIS3315 course

Step 2: Click on the Cengage link: MindTap eBook and Assignments and then open “Click this link to access MindTap for CIS 3315”. (There are two links for CIS 3315, MindTap for Data Visualization and MindTap for Excel and Access.)

Step 3: Create or sign into your Cengage account to access or purchase the materials for this course. You will have a 14-day grace period and you should purchase a subscription to Cengage Unlimited as the best value.

Need help? Visit [startstrong.cengage.com](http://startstrong.cengage.com) for step-by-step registration instructions and videos.

If you are taking additional courses that use Cengage materials, you can save by purchasing a Cengage Unlimited plan, which gives you access to all Cengage etextbooks and online homework platforms for one price. Visit [cengage.com/unlimited](http://cengage.com/unlimited) or your campus bookstore to learn more.

Beware of sites that are selling discounted codes. These sources are likely unauthorized sellers who have acquired access codes illegally, and transactions with such sources may pose a risk to your personal information.

Each Chapter has the training and a project, Only the projects count toward your grade. The training is to help you with the projects and exams. Although there are many ways to accomplish the same task in Excel and Access, only the method that is illustrated in the training will be accepted. There are three attempts for each project and three attempts for each exam.

### COURSE RESOURCES:

UTEP provides a variety of student services and support:

#### Technology Resources

Help Desk: Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.

#### **Blackboard**

You must have access to BLACKBOARD for this course. You can log in to BLACKBOARD at <http://my.UTEP.edu>. Our ‘virtual classroom’ in BLACKBOARD will include items such as:

- The course syllabus, schedule, and assignments
- Final project description
- Announcements
- Grades
- -ALL- Communication, such as Instant Messenger, Video Lectures, Virtual Office hours, and Course Messages.

We will spend some time during the first class session reviewing the organization and content of our course online.

## **Computer**

A computer with access to the Internet and a printer are required. Exams are taken online via Blackboard, and all assignments must be uploaded and/or completed in Blackboard in order to receive credit. This course is Blackboard-assisted, and many activities, such as file distribution, emails, assignment submission, and announcements between classes, are taking place exclusively through Blackboard. Therefore, students are expected to have access to a computer, Internet, and Microsoft Office in this course. If you do not have your own, computers are available to all UTEP students in the labs across the campus.

## Academic Resources

UTEP Library: Access a wide range of resources including online full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.

University Writing Center (UWC): Submit papers here for assistance with writing style and formatting, ask a tutor for help, and explore other writing resources.

Math Tutoring Center (MaRCS): Ask a tutor for help and explore other available math resources.

History Tutoring Center (HTC): Receive assistance with writing history papers, get help from a tutor, and explore other history resources.

RefWorks: A bibliographic citation tool; check out the RefWorks tutorial Fact Sheet and Quick-Start Guide.

The Miner Learning Center: Join peer-led study sessions in person or online to review content and discover study strategies in core curriculum courses.

UTEP Edge: UTEP's cross-campus framework for student success and empowerment – develops students' assets through high-impact experiences made possible by the expertise and dedication of faculty, staff, alumni, and community partners.

## Individual Resources

Student Success Help Desk (SSHD): Students experiencing challenges or obstacles to academic success including registration, financial, food, housing, and transposition resources may submit a ticket request assistance to [studentsuccess@utep.edu](mailto:studentsuccess@utep.edu)

Military Student Success Center: Assists personnel in any branch of service to reach their educational goals.

Center for Accommodations and Support Services: Assists students with ADA-related accommodations for coursework, housing, and internships.

Counseling and Psychological Services: Provides a variety of counseling services including individual, couples, and group sessions as well as career and disability assessments.

UTEP Food Pantry: Non-perishable food items are available to students who are currently enrolled in classes. Bring a Miner Gold Card to Memorial Gym, Room 105, Monday through Friday, 10 a.m. to 2 p.m.

## Course Schedule and Due Dates

Weeks	SAM Models	Data Visualization	Due Dates – 11:59 PM
WK 1: 08/28	1, 2 – Basic Tasks: Formula, Formatting, Functions, Color Scheme, etc.	1 – Intro to Analytics, DV	09/04
WK 2: 09/04	3, 4 – Worksheet Design, Nesting Functions, VLOOKUP, Measures of Central Tendency, Charts Design	1 – DV in Practice	09/11
WK 3: 09/11	5 – 3-D References, Working with Multiple Worksheets, Named Ranges, External Links and References	2 – Selecting the Right Chart Type	09/18
WK 4: 09/18	6 – Managing Data with Data Tools, Drilling Down, Using Panes to View Data, Data Dashboards	2 – Selecting the Right Chart Type	09/25
WK 5: 09/25	7 – PivotTables, PivotCharts,	3 – DV Design, Preattentive Attributes	10/02
WK 6: 10/02	8 – Data Tables and What-If Analysis, Optimal Solutions with Solver,	3 – DV Design, Preattentive Attributes	10/09
WK 7: 10/09	9 – Exploring Financial Tools and Functions, Projecting Future Income and Expenses, Auditing a Worksheet	7- Explaining Visually to Influence with Data	10/16
WK 8: 10/16	<b>Exam I</b>  10 – Analyzing Data with Business Intelligence Tools	5 – Visualizing Variability using Box & Whisker plots, Frequency Polygon, etc	10/18  10/23
WK 9: 10/23	11 – PivotTable Design, Grouping PivotTable Fields, Retrieving PivotTable Data with GETPIVOTDATA	8 – Data Dashboards Design and Implementation	10/30
WK 10: 10/30	Access 1 – Creating Database Tables, Managing a Database	8 – Data Dashboards Design and Implementation	11/06
WK 11: 11/06	Access 2 – Building DB & Defining Relationships, Adding Fields and Data to a Table	Data Dashboards with Power BI	11/13

WK 12: 11/13	Access 3 – Maintaining and Querying Database	Power BI Continued	11/20
WK 13: 11/20	Access 4 – Creating Forms and Reports	Data Dashboards with Tableau	11/27
WK 14: 11/27	Access 5 – Advanced Queries and Enhancing Table Design	Tableau Continued <b>THANKSGIVING</b>	12/04
WK 15: 12/04	<b>Exam II</b>		12/04