

CST285 Spreadsheet Applications and Data Analysis for Decision Making (3 credit hours) Course Syllabus

Course Description

This course focuses on tools for applying spreadsheet techniques on a working model for data analysis in decision making. Included are topics such as importing data, structured design, management of worksheets, and using the advance spreadsheet techniques for data analytics on a spreadsheet model. Organizational uses in the areas of accounting, finance, marketing, human resources and many areas of management are discussed.

Course Learning Outcomes

By the end of this course, you will be able to:

1. Examine basic concepts of spreadsheets (Currently Excel)
2. Demonstrate concepts of spreadsheets to build a model for data analysis
3. Understand the concept of exporting datasets from other software and importing the datasets into spreadsheets
4. Apply advanced concepts of spreadsheets and construct examples such as tables, PivotTables, advanced functions, macros, what-if analysis, and various spreadsheet add-ins for data analytics in a spreadsheet model
5. Illustrate data analysis results in the decision making progress.

Required Textbook(s) and Resources

A digital version of your book is included automatically in your course. Use the DragonACCESS tool in Moodle to view your book.

Poatsy, M.A., Mulbery, K., & Davidson, J., (2022). *Exploring Microsoft Office 365 Excel 2021*. 1st ed. Pearson Education, Inc.

Be sure to also review the weekly **Explore** sections for additional library or web resources. For access to databases, research help, and writing tips, visit the [Tiffin University Library](#).

Time Commitment

Effective time management is possibly the single most critical element to your academic success. To do well in this online class you should plan your time wisely to maximize your learning through the completion of readings, discussions, and assignments. Because of our accelerated, seven-week term, TU online courses are designed with the expectation that you dedicate a little over **six (6)** hours per credit hour to course activities and preparation **each week**. For example, for successful completion of a three-credit, seven-week online course you should reserve roughly **twenty (20) hours per week**.

To help plan your time and keep on track toward successful course completion, note the distinctive rhythm of assignment due dates:

1. All times assume Eastern Time (GMT-4).
2. Weeks begin at 12:00 a.m. ET on Monday and end at 11:55 p.m. ET on Sunday.
3. Unless otherwise noted, initial assignments or discussion posts are due by **11:55 p.m. ET on Wednesdays**.
4. Additional assignments or follow-up discussion posts are due by **11:55 p.m. ET on Saturdays, and**
5. Major assignments and reflections are typically due by **11:55 p.m. ET on Sundays**.

Learning Activities

Throughout this course you will be demonstrating gained knowledge and skills through assignments using the productivity software. Discussion boards and reflection papers will allow you to reflect on applying software knowledge and skills to apply data analytics in real world business situations. A final capstone project will be an opportunity for you to showcase your understanding of the productivity software. All of these activities will increase your knowledge and give you insight into spreadsheet software and IT utilization in the world of business.

Grading

The chart below identifies the individual contributions from each type of activity per week.

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Forums Activity 1.1 (n/a)	Forums Activity 2.1 (30)	Forums Activity 3.1 (30)		Forums Activity 5.1 (30)	Forums Activity 6.1 (30)	Forums Activity 7.1 (30)	150
Assignments Activity 1.2	Assignments Activity 2.2	Assignments Activity 3.2	Assignments Activity 4.1	Assignments Activity 5.2	Assignments Activity 6.2	Assignments Activity 7.2	850

(55) Activity 1.3 (70)	(50) Activity 2.3 (50)	(50) Activity 3.23 (50)	(50) Activity 4.2 (50) Activity 4.3 (50)	(50) Activity 5.3 (50)	(50) Activity 6.3 (50)	(55) Activity 7.3 (70) Activity 7.4 (50)	
125	130	130	150	130	130	205	1000

Grading Scale

A: 90-100% | B: 80-89% | C: 70-79% | D: 60-69% | F: <60%

Course Schedule and Weekly Checklist

Start Here

- ☐ MON: Activity 1.1: Meet Your Classmates! – Initial Post

Week 1 – Spreadsheet Review, Introduction to Data Analytics

- ☐ WED: Activity 1.1: Meet Your Classmates! – Follow-up Post
- ☐ SUN: Activity 1.2: Data Analytics Ideology Paper
- ☐ SUN: Activity 1.3: MyLab IT: Capstone Project Chapters 1-4

Week 2 – Pivot Tables and Pivot Charts; Summarizing and Analyzing Data

- ☐ WED: Activity 2.1: Online Analytical Processing
- ☐ SUN: Activity 2.2: MyLab IT: Chapter 5 Project 1
- ☐ SUN: Activity 2.3: MyLab IT: Chapter 5 Project 2

Week 3 – What-If Analysis

- ☐ WED: Activity 3.1: What-If Analysis
- ☐ SUN: Activity 3.2: MyLab IT: Chapter 6 Project 1
- ☐ SUN: Activity 3.3: MyLab IT: Chapter 6 Project 2

Week 4 – Specialized Functions and Statistical Functions in Spreadsheets

- ☐ WED: Activity 4.1: Database Management Systems Paper
- ☐ SUN: Activity 4.2: MyLab IT: Chapter 7 Project 1
- ☐ SUN: Activity 4.3: MyLab IT: Chapter 8 Project 1

Week 5 – 3-D and External Models; Data Export

- ☐ WED: Activity 5.1: Importing and Exporting Data
- ☐ SUN: Activity 5.2: MyLab IT: Chapter 9 Project 1

- ☐ SUN: Activity 5.3: MyLab IT: Chapter 10 Project 1

Week 6 – Data Governance; Standardizing and Collaborating

- ☐ WED: Activity 6.1: Data Governance
- ☐ SUN: Activity 6.2: MyLab IT: Chapter 11 Project 1
- ☐ SUN: Activity 6.3: MyLab IT: Chapter 12 Project 1

Week 7 – Analyzing Unstructured Data; Decision Trees; Review and Conclusions

- ☐ WED: Activity 7.1: Unstructured Data Analytics
- ☐ SAT: Activity 7.2: Written Assignment: Decision Trees
- ☐ SUN: Activity 7.3: MyLab IT: Capstone Project
- ☐ SUN: Activity 7.4: Course Reflection

Tips for Success

Online learning requires self-discipline and self-direction. As seekers of the truth, we should be willing to challenge one another's academic work in a spirit of respectful comradery. Your course is a place for you to grow as you benefit from the expertise, experience, and diverse perspectives of your instructor and peers. Constructive feedback will challenge you to stretch your own thinking, thereby expanding your knowledge and understanding.

To get the most out of your learning experience, you should actively engage (participate) in **ALL** course activities. Course elements are arranged chronologically. To complete a week, simply work your way "down the page" through all of the course materials and activities.

For More Information:

Be sure to review the [Support, Policies, and Procedures](#) addendum.