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. The course does not just concentrate on completing specific tasks within the software but also applying the concepts to business areas such as accounting, finance, marketing, human resources and many areas of management.

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.

Prerequisites/Corequisites

CST 111 & MAT 181/185.

Required Textbook(s) and Resources

For this course you will need to purchase the following materials:

Poatsy, M.A., Mulbery, K., & Davidson, J., (2019). Exploring Microsoft Office 365 Excel 2019: Comprehensive. Pearson Education, Inc. ISBN13: 9780135452752 (print).

The course technology fee includes student access to Pearson MyIT Lab and an ebook version of your textbook. The fee will be charged to your account during registration.

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. You might consider registering for one of the library's many webinars on library research, source evaluation, copyright, and other topics, at the Library Events - Upcoming Events web page. For further assistance email a librarian, at: library@tiffin.edu.

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.

Activity	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Discussion	-	40	40	-	40	40	40	**200**
Written Assignment	60	-	-	40	-	-	60	**160**
Spreadsheet Project 1 MyLab	70	50	50	50	50	50	70	**390**
Spreadsheet Project 2 MyLab	-	50	50	50	50	50	-	**250**
Total	**130**	**140**	**140**	**140**	**140**	**140**	**170**	**1000**

Grading Scale

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

Please see the Academic Bulletin for grade appeal information.

Course Schedule and Weekly Checklist

Topic	**Learning Activities** (Due by 11:55 p.m. ET on day designated)
Week 1: Data Analytics Ideology and Basic Spreadsheet Review	❑ WED: Activity 1.1 (Forum): Meet Your Classmates! – Initial Post ❑ SUN: Activity 1.2: Written Assignment: Data Analytics Ideology ❑ SUN: Activity 1.3: MyITLab: Capstone Project Chapters 1-4
Week 2: Pivot Tables and Pivot Charts; Summarizing and Analyzing Data	❑ WED: Activity 2.1 (Forum): Online Analytical Processing – Initial Post ❑ SAT: Activity 2.1 (Forum): Online Analytical Processing – Response Posts ❑ SUN: Activity 2.2: MyITLab: Chapter 5 Project 1 ❑ SUN: Activity 2.3: MyITLab Chapter 5 Project 2
Week 3: What-If Analysis	❑ WED: Activity 3.1 (Forum): What-If Analysis – Initial Post ❑ SAT: Activity 3.1 (Forum): What-If Analysis – Response Posts ❑ SUN: Activity 3.2: MyITLab Chapter 6 Project 1 ❑ SUN: Activity 3.3: MyITLab Chapter 6 Project 2
Week 4: Specialized Functions and Statistical Functions in Spreadsheets	❑ SUN: Activity 4.1: Written Assignment: Database Management Systems ❑ SUN: Activity 4.2: MyITLab Chapter 7 Project 1 ❑ SUN: Activity 4.3: MyITLab Chapter 8 Project 1
Week 5: 3-D and External Models; Data Export	❑ WED: Activity 5.1 (Forum): Importing and Exporting Data – Initial Post ❑ SAT: Activity 5.1 (Forum): Importing and Exporting Data – Response Posts ❑ SUN: Activity 5.2: MyITLab Chapter 9 Project 1 ❑ SUN: Activity 5.3: MyITLab Chapter 10 Project 1

Topic	**Learning Activities** (Due by 11:55 p.m. ET on day designated)
Week 6: Data Governance; Standardizing and Collaborating	❑ WED: Activity 6.1 (Forum): Data Governance – Initial Post ❑ SAT: Activity 6.1 (Forum): Data Governance – Response Posts ❑ SUN: Activity 6.2: MyITLab Chapter 11 Project 1 ❑ SUN: Activity 6.3: MyITLab Chapter 12 Project 1
Week 7: Analyzing Unstructured Data; Decision Trees; Review and Conclusions	❑ WED: Activity 7.1 (Forum): Unstructured Data Analytics – Initial Post ❑ THU: Activity 7.2: Written Assignment: Decision Trees ❑ SAT: Activity 7.1 (Forum): Unstructured Data Analytics – Response Posts ❑ SUN: Activity 7.3: MyITLab Capstone Project

Tips for Success

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

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.

Your Instructor Will Expect You to:

- Thoroughly review orientation materials (Start Here) within the first 48 hours of the term.
- Monitor your TU email account **daily** for important updates and announcements.
- Take ownership of your learning experience and act in a proactive, self-directed manner. That means:
    - Fully participate in all learning activities.
    - Complete assignments as described in rubrics or other instructions.
    - Submit all work on time and in the specified format (e.g. APA format for citations).
    - Utilize and incorporate instructor provided feedback to improve your work.

- Ask questions so you can better understand course material or assignments.
- Use the highest standards of intellectual honesty and integrity. For more information, see the TU Library guide: Digital Literacy: Netiquette and Internet Safety.
- Treat others respectfully and demonstrate "netiquette" (online politeness and respectfulness) at all times. TU celebrates cultural uniqueness and expects all students to be considerate and thoughtful throughout their learning experiences.

You Should Expect Your Instructors to:

- Post an introductory announcement/email at the beginning of each week to provide updates and help you prepare for the week's activities.
- Maintain an active and engaged presence in all course activities and throughout the course.
- Respond to your emailed questions within 48 hours, if not sooner.
- Clearly communicate any absences or expected non-participation due to extenuating circumstances. For example, "I will be traveling to attend a funeral this week and may not be able to respond to questions or participate in forums for a couple of days."
- When grading your work:
  - clearly indicate their grading approach (what they like to see in submitted work as well as what types of errors they tend to penalize more harshly),
  - thoroughly review and evaluate your submissions in a timely manner (in less than 5 days for most assignments), and
  - provide constructive feedback that indicates the strengths and weaknesses of your work and provides suggestions on how you can improve your performance on future assignments.
- Advocate for your success as a learner and help guide you toward successful completion of the course activities and most importantly, attainment of the course learning outcomes.

Accommodations

The **Office for Disability Services** supports the institutional commitment to diversity by providing educational opportunities for qualified individuals with disabilities through accessible programs and services in compliance with Section 504 of the Rehabilitation Act of 1973 and Title III of the Americans with Disabilities Act (ADA) of 1990.

If you need reasonable accommodations due to a documented disability, contact the Office for Equity, Access, & Opportunity 419.448.3021 or via email at disabilityservices@tiffin.edu.

Additional Resources & Support

For technical support, either email moodlesupport@tiffin.edu or call the 24/7 Technical Support Call Center at 855-664-1200.

If you need to consult an academic advisor refer to TU's Meet the Team page.

For information about TU's peer tutoring program see the Murphy Center's Tutoring Policies and Procedures page. Veterans and active military can seek assistance from TU's Veteran and Military Services Web Page.

Comments or Concerns

TU's online programs are designed to be student *driven*: to empower you with a voice and stake in your learning. Our courses feature multiple and varied ways that you can share feedback, and we invite you to become an active voice and help drive our improvement efforts. In addition to providing in-course feedback, we encourage you to submit questions or comments directly to the online team at online@tiffin.edu.