FRESNO PACIFIC
U N I V E R S I T Y

TEC-921: Excel: The Ultimate Information Tool

Independent Study Online Course Syllabus

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Course Description

We live in what is being described as the Information Age. As we are bombarded with data from all sides, each of us needs special tools to help make sense of all this information. Excel is a spreadsheet program that provides just those tools. Excel can be used to perform calculations using built-in formulas, everything from Standard Deviation to calculating your car payment. Excel can be used to calculate grades, chart data that would otherwise be overwhelming, or manage your next candy sale. If you are using a calculator, you need Excel. Excel even has text handling tools that you might find useful in the classroom as well as school-wide planning templates.

The focus of this course is how Excel can be used to increase student understanding and achievement. The hands-on exercises are tied to actual classroom and administrative activities including formulas and calculations, charting, Hyperlinks, linking, database functions, macros, and publishing on the web.

ISTE (International Society for Technology in Education) Standards are addressed throughout this course as teachers apply skills and techniques learned from the course experiences to the current classroom assignment and the lessons they prepare for their students. In addition, these skills and techniques are then applied to content standards in the other subject areas. In addition, Journal entries and Forum discussions are provided to provide pedagogical relevance to the course content as well as changes that are happening in education as we create a new 21st Century classroom.

Note: There is no required book for this course.

Required Texts and Course Materials

No book or manual is required for this course. All materials and activities are provided online either through Moodle or related links.

Online Resources: Relevant online resources that support the course content and encourage further investigation will be available throughout the course assignments. Active hyperlinks are utilized throughout the course and will link to the appropriate information when clicked. These include text, videos, activities, journal entries as well as Forum posts.

Moodle: Moodle is a web-based learning management system used to support flexible teaching and learning in both face-to-face and distance courses (e-learning).
https://moodle.org // https://moodle.org/demo // https://docs.moodle.org

Course Dates

Self-paced; students may enroll at any time and take up to one year, from the date of registration, to complete assignments. Students may complete assignments in no less than three weeks for a 3-unit course (one week per unit).

National Standards Addressed in This Course

ISTE Technology Standards for Educators
1) **Learner** - Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning.
2) **Leader** - Educators seek out opportunities for leadership to support student empowerment and success and to improve teaching and learning.
3) **Citizen** - Educators inspire students to positively contribute to and responsibly participate in the digital world.
4) **Collaborator** - Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems.
5) **Designer** - Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability.
6) **Facilitator** - Educators facilitate learning with technology to support student achievement of the ISTE Standards for Students.
7) **Analyst** - Educators understand and use data to drive their instruction and support students in achieving their learning goals.

Continuing Education Student Learning Outcomes (CE-SLO)

CE-SLO 1	Demonstrate proficient written communication by articulating a clear focus, synthesizing arguments, and utilizing standard formats in order to inform and persuade others, and present information applicable to targeted use.
CE-SLO 2	Demonstrate comprehension of content-specific knowledge and the ability to apply it in theoretical, personal, professional, or societal contexts.
CE-SLO 3	Reflect on their personal and professional growth and provide evidence of how such reflection is utilized to manage personal and professional improvement.
CE-SLO 4	Apply critical thinking competencies by generating probing questions, recognizing underlying assumptions, interpreting and evaluating relevant information, and applying their understandings to the professional setting.
CE-SLO 5	Reflect on values that inspire high standards of professional and ethical behavior as they pursue excellence in applying new learning to their chosen field.

CE-SLO 6	Identify information needed in order to fully understand a topic or task, organize that information, identify the best sources of information for a given enquiry, locate and critically evaluate sources, and accurately and effectively share that information.

Course Student Learning Outcomes (C-SLO)

Student Learning Outcomes for This Course By the end of this course student will be able to:		National Standards Addressed*	CE-SLO Addressed**
C-SLO 1	Configure and Navigate an Excel Screen	1, 6	1
C-SLO 2	Enter, Edit, and Delete data in Excel	1, 2, 6	1
C-SLO 3	Enter and Format Text and Values in Cells	1, 2, 6	1, 2
C-SLO 4	Format Cells including Alignment, Size, Adding/Deleting	1, 2, 6	1
C-SLO 5	Perform Calculations using Cell Reference	1, 2, 6	2
C-SLO 6	Enter Basic Formulas using correct Syntax	1, 2, 6	1, 2, 4, 6
C-SLO 7	Create, Name and Rearrange Worksheets	1, 2, 6	
C-SLO 8	Print all or selected portions of Worksheets and Workbooks	1, 2, 6	
C-SLO 9	Create Range Names and Borders	1, 2, 6, 7	2
C-SLO 10	Copy and Move data using Drag and Drop	1, 2, 6	
C-SLO 11	Merge Cells and create Headers and Footers	1, 2, 6	
C-SLO 12	Use built-in Functions to create complex calculations	1, 2, 5, 6, 7	2, 6
C-SLO 13	Use Charting tools to graph data	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 6
C-SLO 14	Add Graphic Objects and Rearrange using Layering	1, 2, 5, 6	1, 3
C-SLO 15	Protect Cells to protect Spreadsheets	1, 2, 3, 4, 5, 6	
C-SLO 16	Use Excel as a Database to Sort, Filter, and Print	1, 2, 5, 6, 7	4, 6
C-SLO 17	Use Templates, Themes and Styles for continuity and collaboration	1, 2, 4, 5, 6, 7	1, 2
C-SLO 18	Use Advanced Functions included Embedded Formulas	1, 2, 5, 6, 7	
C-SLO 19	Use Visualization tools to better understand the data	1, 2, 4, 5, 6, 7	1, 2, 6
C-SLO 20	Use Mail Merge to increase efficiency and productivity	1, 6	
C-SLO 21	Use Text Functions to manipulate text	1, 2, 4, 5, 6, 7	1, 2, 4, 6
C-SLO 22	Understand how Excel can be a powerful tool in the classroom	1, 2, 3, 4, 5, 6, 7	2, 3, 4, 6

* Please refer to the section on **National Standards Addressed in This Course**
** Please refer to the section on **Continuing Education Student Learning Outcomes**

Topics, Assignments, and Activities

Module Title	Module Assignments and Activities	Points Possible for Each Assignment
Welcome Module	• Welcome Video • Course Syllabus • Introduce Yourself Forum	

Module 1-3 – Introduction to Excel AND Calculations, Formulas, Fill, and Printing AND Project	• **Introduction & The Excel Screen** (4 texts, 4 videos, 4 activities)
	   ○ Components, Navigation, Entering, Editing, Deleting
	• **Text and Values** (5 text, 5 videos, 4 activities, 1 Forum)
	   ○ Formatting, Wrapping, Orientation, Values
	• **Cells** (5 texts, 7 videos, 4 activities, 1 Forum)
	   ○ Adding & Deleting Rows and Columns, Adjusting Cell Size, Fill Color/Pattern, Alignment, Sorting
	• **Calculations** (1 text, 4 videos, 1 activity, 1 journal)
	   ○ Operands, Cell Reference, Order of Operations
	• **Formula Basics** (2 texts, 4 videos, 1 journal, 1 Forum)
	   ○ Syntax, AutoSum, Functions, Copying Formulas
	• **Using Fill** (4 texts, 6 videos, 3 activities)
	   ○ Fill Series & Date, Relative/Absolute Reference, Fill Handle, Custom Lists
	• **Worksheets** (1 text, 1 video, 1 activity, 1 Forum)
	   ○ Adding, Naming, Deleting
	• **Print Basics** (1 text, 1 video, 1 Journal)
	• **Project and Forum** (1 project, 2 forums)
		1220
		
		840
		
		340

Module 4-6 – Names, Borders, and Managing Data AND Shortcuts, Functions, Charts, and Graphs AND Project	• **Names and Borders** (2 texts, 2 videos, 2 activities)
	   ○ Named Ranges, Borders
	• **Managing Data** (2 texts, 2 videos, 2 activities)
	   ○ Drag and Drop
	• **Features** (4 texts, 4 videos, 4 activities, 1 journal)
	   ○ Merge Cells, Paste Options, Excel Options, Header & Footer
	• **Shortcuts, Comments & Linking** (4 texts, 3 videos, 3 activities, 2 journals)
	   ○ Shortcuts, Comments, Quick Access Bar, Linking
	• **Functions, Sorting & Charting** (4 texts, 4 videos, 4 activities, 1 journal, 1 Forum)
	   ○ Syntax, AutoSum, Functions, Copying Formulas
	• **Graphics and Objects** (3 texts, 3 videos, 3 activities)
	   ○ Fill Series & Date, Relative/Absolute Reference, Fill Handle, Custom Lists
	• **Protecting Cells** (1 text, 1 video, 1 activity, 1 journal)
	   ○ Protecting Cells and Worksheets
	• **Project and Forum** (1 project, 2 forums)
		820
		
		1140
		
		340

Module 7-8 – Database, Features, and Collaboration AND Visualization, Mail Merge, and Pivot Table	• **Excel as a Database** (3 texts, 3 videos, 3 activities, 1 journal)
	   ○ Database, Sorting, Filtering
	• **Features** (4 texts, 4 videos, 4 activities)
	   ○ Templates, Format Painter, Themes & Styles, Lookup & Reference
	• **Collaboration** (3 texts, 3 videos, 2 activities, 1 journal, 1 Forum)
		1040

Module Title	Module Assignments and Activities	Points Possible for Each Assignment

	○ Exporting & Importing Files, Text Files
	• **Advanced Functions** (<u>1 text, 1 video, 1 activity, 1 journal</u>)
	  ○ Functions, Embedding Functions
	• **Visualizing Data** (<u>6 texts, 6 videos, 5 activities</u>)
	  ○ Trace Precedent, Sparklines, Data Bars, Color Scales, Icon Sets
	• **Advanced Features** (<u>5 texts, 5 videos, 3 activities</u>)
	  ○ Charting, Mail Merge, Text Functions, Pivot Table
	• **Printing** (<u>1 text, 1 video</u>)
	• **Excel in Education** (<u>1 text, 1 journal</u>)
		820

Module 9 - Final Project and Reflections	• **Final Project** • **Forum Reflections**	340
Course Wrap-up – Grading and Evaluation	• Final Reflection Forum • Course Evaluation • Course Completion Checklist • Grade Request / Transcript Request	
	TOTAL POINTS	**6,900 pts**

Grading Policies, Rubrics, and Requirements for Assignments

Grading Policies
- Assignments will be graded per criteria presented in the course rubrics.
- A = 90-100% and B = 80-89%, (anything below 80% will not receive credit.)
- The discernment between an A or a B letter grade is at the discretion of the instructor based on the quality of work submitted (see course rubrics).
- Coursework falling below a B grade will be returned with further instructions.
- All assignments must be completed to receive a grade and are expected to reflect the quality that teacher-training institutions require of professional educators. If completed assignments do not meet this standard, students will be notified with further instructions from the instructor.

Grading Rubrics
Grade	Percent	Description	Rubric
A	90-100%	Excellent	Meets all course / assignment requirements with significant evidence of subject mastery and demonstration of excellent graduate level professional development scholarship.
B	80-89%	Very Good	Adequately meets criteria for all course/assignment requirements - demonstrates subject competency with very good graduate level professional development scholarship.
NC	Below 80%	Unacceptable	Does not meet the minimum criteria for all course/assignment requirements and demonstrated little, if any, evidence of acceptable graduate level professional development scholarship.

Writing Requirements
- **Superior:** Writing is clear, succinct, and reflects graduate level expectations. Clearly addresses all parts of the writing task. Maintains a consistent point of view and organizational structure. Includes relevant facts, details, and explanations.
- **Standard:** Writing is acceptable with very few mistakes in grammar and spelling. Addresses most parts of the writing task. Maintains a mostly consistent point of view and organizational structure. Includes mostly relevant facts, details, and explanations.
- **Sub-standard:** Writing contains noticeable mistakes in grammar and spelling. Does not address all parts of the writing task. Lacks a consistent point of view and organizational structure. May include marginally relevant facts, details, and explanations.

Lesson Plan Requirements
- **Superior:** Instructional goals and objectives clearly stated. Instructional strategies appropriate for learning outcome(s). Method for assessing student learning and evaluating instruction is clearly delineated and authentic. All materials necessary for student and teacher to complete lesson clearly listed.
- **Standard:** Instructional goals and objectives are stated but are not easy to understand. Some instructional strategies are appropriate for learning outcome(s). Method for assessing student learning and evaluating instruction is present. Most materials necessary for student and teacher to complete lesson are listed.
- **Sub-standard:** Instructional goals and objectives are not stated. Learners cannot tell what is expected of them. Instructional strategies are missing or strategies used are inappropriate. Method for assessing student learning and evaluating instruction is missing. Materials necessary for student and teacher to complete lesson are missing.

Instructor/Student Contact Information

Throughout the course participants will be communicating with the instructor and their classmates on a regular basis using asynchronous discussion forums. Students are provided with instructor contact information in the event they want to make email or phone contact. In addition, students are encouraged to email or phone the instructor at any time. Students will also receive feedback on the required assignments as they are submitted.

Forums

Participation is an important expectation of this course and all online courses. Online discussions promote reflection and analysis while allowing students to appreciate and evaluate positions that others express. While students may not be engaging with the same students throughout this course, they will be expected to offer comments, questions, and replies to the discussion question whenever possible. The faculty role in the discussion forum is that of an observer and facilitator.

Coursework Hours

Based on the Carnegie Unit standard, a unit of graduate credit measures academic credit based on the number of hours the student is engaged in learning. This includes all time spent on the course: reading the textbook, watching videos, listening to audio lessons, researching topics, writing papers, creating projects, developing lesson plans, posting to discussion boards, etc. Coursework offered for FPU Continuing Education graduate credit adheres to 45 hours per semester unit for the 900-level courses. Therefore, a student will spend approximately 135 hours on a typical 3-unit course.

Services for Students with Disabilities

Students with disabilities are eligible for reasonable accommodations in their academic work in all classes. In order to receive assistance, the student with a disability must provide the Academic Support Center with documentation, which describes the specific disability. The documentation must be from a qualified professional in the area of the disability (i.e. psychologist, physician or educational diagnostician). Students with disabilities should contact the Academic Support Center to discuss academic and other needs as soon as they are diagnosed with a disability. Once documentation is on file, arrangements for reasonable accommodations can be made. For more information and for downloadable forms, please go to https://www.fresno.edu/students/academic-support/services-students-disabilities.

Plagiarism and Academic Honesty

All people participating in the educational process at Fresno Pacific University are expected to pursue honesty and integrity in all aspects of their academic work. Academic dishonesty, including plagiarism, will be handled per the procedures set forth in the Fresno Pacific University Catalogue - https://www.fresno.edu/students/registrars-office/academic-catalogs

Technology Requirements

To successfully complete the course requirements, course participants will need Internet access, can send and receive email, know how to manage simple files in a word processing program, and have a basic understanding of the Internet. Please remember that the instructor is not able to offer technical support. If you need technical support, please contact your Internet Service Provider.

Moodle: This course will be delivered totally online. Moodle is a learning management system that provides students access to online resources, documents, graded assignments, quizzes, discussion forums, etc. Moodle is easy to learn and has a friendly user interface. To learn more about Moodle, go to https://docs.moodle.org/33/en/Student_FAQ. There are also some student tutorials on the Center for Online Learning website at Fresno Pacific University - https://col.fresno.edu/student.

Moodle Site Login and Passwords: Students will need to have internet access to log onto https://ce-connect.fresno.edu. The username and password numbers for Moodle access will be sent to you by the university using the email address you submitted at the time of registration. The instructor will then contact you with a welcome communication. If you need help with your username and password recovery, please contact the Continuing Education office at (800) 372-5505 or (559) 453-2000 during regular office hours - Mon-Fri 8:00 am to 5:00 pm. or email them at prof.dev@fresno.edu.

Getting Help with Moodle: If you need help with Moodle, please contact the Center for Online Learning (COL), by telephone or the website. Help by phone (559) 453-3460 is available Mon-Thurs 8:00 am to 8:00 pm and on Fridays from 8:00 am to 5:00 pm, or by filling out a "Request Services" form at https://col.fresno.edu/contact/request-services. Please identify that you are with the "School = Continuing Education".

Final Course Grade and Transcripts

When all work for the course has been completed, students will need to logon to the Continuing Education website (https://ce.fresno.edu/my-account) and "Request Final Grade". Once the

instructor receives the requests and submits the grade online, students may log back in to view their Final Grade Report or order transcripts online. Please allow at least two weeks for the final grade to be posted. For more information, see the Continuing Education Policies and Procedures at https://ce.fresno.edu/ce-policies-and-procedures.

University Policies and Procedures

Students are responsible for becoming familiar with the information presented in the Academic Catalog and for knowing and observing all policies and procedures related to their participation in the university community. A summary of university policies may be found on the university website at https://www.fresno.edu/students/registrars-office/academic-catalogs.

Fresno Pacific University Student Learning Outcomes (FPU-SLO)

FPU-SLO 1	**Student Learning Outcomes Oral Communication:** Students will *exhibit* clear, engaging, and confident oral communication – in both individual and group settings – and will critically *evaluate* content and delivery components.
FPU-SLO 2	**Written Communication:** Students will *demonstrate* proficient written communication by *articulating* a clear focus, *synthesizing* arguments, and utilizing standard formats in order to *inform* and *persuade* others.
FPU-SLO 3	**Content Knowledge:** Students will *demonstrate* comprehension of content-specific knowledge and the ability to apply it in theoretical, personal, professional, or societal contexts.
FPU-SLO 4	**Reflection**: Students will *reflect* on their personal and professional growth and *provide evidence* of how such reflection is utilized to manage personal and vocational improvement.
FPU-SLO 5	**Critical Thinking:** Students will *apply* critical thinking competencies by *generating* probing questions, *recognizing* underlying assumptions, *interpreting* and *evaluating* relevant information, and *applying* their understandings to new situations.
FPU-SLO 6	**Moral Reasoning:** Students will *identify* and *apply* moral reasoning and ethical decision-making skills, and *articulate* the norms and principles underlying a Christian worldview.
FPU-SLO 7	**Service**: Students will *demonstrate* service and reconciliation as a way of leadership.
FPU-SLO 8	**Cultural and Global Perspective:** Students will *identify* personal, cultural, and global perspectives and will employ these perspectives to *evaluate* complex systems.
FPU-SLO 9	**Quantitative Reasoning**: Students will accurately *compute* calculations and symbolic operations and *explain* their use in a field of study.
FPU-SLO 10	**Information Literacy:** Students will *identify* information needed in order to fully understand a topic or task, *explain* how that information is organized, *identify* the best sources of information for a given enquiry, *locate* and critically *evaluate* sources, and accurately and effectively *share* that information.