



## **Course Syllabus**

### **ITSW 1404 – Introduction to Spreadsheets**

*Revision Date: August 22, 2016*

**Catalog Description:** Instruction in the concepts, procedures, and application of electronic spreadsheets.

**Lecture hours = 3, Lab hours = 3**

**Prerequisites:** None

**Semester Credit Hours:** 4

**Lecture Hours per Week:** 3

**Lab Hours per Week:** 3

**Contact Hours per Semester:** 96

**State Approval Code:** 5204070000

**Instructional Goals and Purposes:** The purpose of this course is to teach students to identify spreadsheet terminology and concepts; create formulas and functions; use formatting features; and generate charts, graphs, and reports.

#### **Learning Outcomes:**

1. Launch Excel and navigate the worksheet.
2. Enter and edit data in a worksheet.
3. Build worksheets.
4. Enhance worksheets.
5. Preview and print worksheets and workbooks.
6. Create charts and share information.
7. Link worksheets and workbooks.
8. Create, sort, and filter lists.
9. Increase productivity with macros, templates, and custom toolbars and menus.
10. Use problem-solving tools.
11. Use auditing tools.
12. Summarize data with data analysis, PivotTables, and PivotCharts.
13. Work with charts and the drawing tools.
14. Import and export data from other applications.
15. Share workbooks with others.
16. Integrate Excel with the Internet or an Intranet.

#### **Specific Course Objectives (includes SCANS):**

After studying the material presented in the text and online, the student should be able to complete all behavioral/learning objectives listed below with a minimum competency of 70% on assignments and exams.

1. **Launch Excel and navigate the worksheet.** (1a-i, 1c-iv, 2c-i, 2c-ii, 2c-iv, 2e-ii)
  - a. Launch Excel.
  - b. Identify the components of the Excel window.
  - c. Locate and open an existing workbook.

- d. Navigate a worksheet.
  - e. Select cells, columns, and rows.
  - f. Insert, reposition, and delete worksheets.
  - g. Save a workbook.
  - h. Preview and print a worksheet.
  - i. Close a workbook.
  - j. Create a new workbook from a template.
  - k. Exit Excel.
2. **Enter and edit data in a worksheet.** (1a-i, 1a-iii, 1b-iii, 2c-ii, 2c-iv)
    - a. Create new workbooks.
    - b. Enter text and numbers in cells.
    - c. Edit cell contents.
    - d. Use Undo and Redo.
    - e. Change the Zoom setting.
    - f. Rename a sheet tab.
    - g. Change a sheet tab color.
  3. **Build worksheets.** (1a-i, 1b-vi, 2c-ii, 2c-iv)
    - a. Create and revise formulas.
    - b. Use cut, copy, and paste.
    - c. Copy formulas with relative, absolute, and mixed cell references.
    - d. Use basic functions.
    - e. Use the Insert Function dialog box.
    - f. Use 3-D references in formulas.
  4. **Enhance worksheets.** (1a-i, 1b-iv, 2c-iv)
    - a. Create worksheet and column titles.
    - b. Format cells, rows, and columns.
    - c. Use Paste Special.
    - d. Define and apply styles.
    - e. Manipulate rows, columns, and cells.
    - f. Filter lists using AutoFilter.
  5. **Preview and print worksheets and workbooks.** (1a-i, 1b-iii, 2c-i, 2c-ii, 2c-iii, 2c-iv)
    - a. Use Find and Replace.
    - b. Check spelling.
    - c. Set print options and print worksheets.
    - d. Print an entire workbook.
  6. **Create charts and share information.** (1a-i, 1a-ii, 1b-vi, 2c-i, 2c-ii, 2c-iii, 2c-iv)
    - a. Use the Chart Wizard to create a chart.
    - b. Format and modify a chart.
    - c. Insert, resize, and move a graphic.
    - d. Work with embedded charts.
    - e. Preview and print charts.
    - f. Use workgroup collaboration.
    - g. Use Go To.
  7. **Link worksheets and workbooks.** (1a-i, 1b-vi, 2c-ii, 2c-iii, 2c-iv)
    - a. Group worksheets to share data, formatting, and formulas.
    - b. Insert and format a documentation worksheet.
    - c. Use named ranges.
    - d. Consolidate data from multiple worksheets.
    - e. Create 3-D references and links between workbooks.
    - f. Work with multiple workbooks.
  8. **Create, sort, and filter lists.** (1a-i, 1a-iii, 1b-ii, 2c-ii, 2c-iv)
    - a. Identify basic terms and guidelines for creating lists.
    - b. Enter data in a list using data validation.
    - c. Use the data form.
    - d. Create custom filters.
    - e. Perform single and multilevel sorts.

- f. Use grouping and outlines to create subtotals.
- 9. **Increase productivity with macros, templates, and custom toolbars and menus.** (1a-i, 2-c-ii, 2-c-iv)
  - a. Use macros to automate repetitive tasks.
  - b. Edit a macro.
  - c. Use workbooks containing macros.
  - d. Create and edit templates.
  - e. Customize toolbars and menus.
- 10. **Use problem-solving tools.** (1a-i, 1a-iii, 1b-vi, 2c-i, 2c-ii, 2c-iii, 2c-iv)
  - a. Create data tables.
  - b. Use Goal Seek and Solver.
  - c. Create scenarios.
  - d. Create a trendline.
- 11. **Use auditing tools.** (1-a-i, 1-b-vi, 2-c-iii)
  - a. Use Range Finder to check and review data.
  - b. Identify relationships between precedent and dependent cells.
  - c. Use error checking.
  - d. Identify invalid data.
- 12. **Summarize data with data analysis, PivotTables, and PivotCharts.** (1a-i, 1b-ii, 2c-i, 2c-ii, 2c-iii, 2c-iv)
  - a. Use data analysis.
  - b. Create PivotTable reports.
  - c. Modify a PivotTable report.
  - d. Format a PivotTable report.
  - e. Create PivotChart reports.
- 13. **Work with charts and the drawing tools.** (1a-i, 2c-ii, 2c-iii, 2c-iv)
  - a. Create special charts.
  - b. Modify charts.
  - c. Use the drawing tools.
  - d. Create and edit a conceptual diagram.
- 14. **Import and export data from other applications.** (1-a-i, 2-c-i, 2-c-ii, 2-c-iii, 2-c-iv)
  - a. Integrate Excel data with Word and PowerPoint.
  - b. Integrate Excel with Access.
  - c. Import data from text files.
- 15. **Share workbooks with others.** (1a-i, 2c-i, 2c-ii, 2c-iii, 2c-iv)
  - a. Create and apply custom number and conditional formats.
  - b. Use lookup and reference functions.
  - c. Use workgroup features.
- 16. **Integrate Excel with the Internet or an Intranet.** (1a-i, 1b-vi, 2c-i, 2c-ii, 2c-iii, 2c-iv)
  - a. Import data from the Internet.
  - b. Work with XML.
  - c. Publish worksheets and workbooks to the web.
  - d. Send a workbook via e-mail.

### **Course Content:**

A general description of lecture/discussion topics included in this course are listed in the Learning Outcomes/Specific Course Objectives sections of this syllabus.

Students in all sections of Spreadsheets will be required to do the following:

1. Students will submit an assignment each week. Each assignment stresses features and functions common to spreadsheet applications including creating formulas, formatting worksheets, working with multiple worksheets, creating charts, sorting and filtering lists, etc.
2. Students will assemble a portfolio of work to be submitted at the end of the semester.
3. Students will complete three hands-on, application exams using a spreadsheets program in the presence of a testing proctor.

**Methods of Instruction/Course Format/Delivery:**

Students in both the traditional class and in the Internet class will have access to this course via Canvas. Students in the traditional class will meet regularly for lecture over the material. Students in the Internet class will only be required to meet with the instructor for testing; however, Internet students are always welcome to attend the traditional class (especially for exam reviews).

All assignments will be submitted through Canvas. After the assignment has been graded, the student will be able to view his or her grade by returning to the assignment or by clicking the Grades link in the left banner. All exams will be hands-on application tests and students will not be able to view the answers to the exams online; however, they will be able to see their grade in Grades and drop by the office to review their exams. Work is generally graded and posted within two days following the deadline.

Students in both the traditional and Internet classes should use email within Canvas to communicate with the instructor. Using Canvas email gives you access to the instructor and other classmates without having to remember or type email addresses—you just select a name from the list. If you are not able to contact your instructor using email in Canvas, you may use his or her Panola College email address. Panola College instructors attempt to respond to all email within 24 hours.

**Major Assignments/Assessments:**

The following items will be assigned and assessed during the semester and used to calculate the student's final grade:

- **Assignments**

Students will work through 11 projects in your textbook. At the end of each project, there will be an assignment that will be graded—either Apply Your Knowledge or In the Lab exercises. Generally, only one or two exercises will be assigned at the end of a chapter—you are only responsible for completing the exercises assigned. Always check the Assignments link to make sure which exercises are required. These documents will be submitted through the assignment itself and will be graded and returned to you in the same manner. Homework is due as assigned and 10 points will be deducted for each day work is late. Late work will not be accepted after homework has been graded and returned to the class. Remember: If you are having trouble with your computer or Canvas, there are other ways to turn your documents in on time—even if you have to deliver it in person. Submission of someone else's work will receive a zero.

- **Portfolio**

Each project contains step-by-step instructions for learning specific Excel functions. Within each chapter, you may be asked to print a hard copy of your work—you will be asked to place these printouts in your portfolio and submit it at the end of the semester for a grade. Check the Assignments link to verify which pages of each project are being assigned. The portfolio itself should be a lightweight notebook--no three-ring binders please. The documents should be bound and assembled in the order they were printed. It is your responsibility to keep up with these documents throughout the semester. A list of items that must be in your portfolio and a due date can be found by clicking the Assignments link. The portfolio must be submitted in person or by mail before the due date listed on the assignment. Portfolios are due by the scheduled deadline and 10 points will be deducted for each day work is late.

- **Exams**

Exams 1-3 covering Projects 1-11 will be application tests where you demonstrate what you have learned using a computer in one of Panola College's labs. Internet students will need to make an appointment with the appropriate testing center to take the exams on the Carthage, Marshall, or Shelby College campuses. Students taking this course through the Virtual College of Texas (VCT) will need to make testing arrangements with the testing center at their colleges before each exam. The Calendar will list the times testing will be available. If you are unable to take a test when it is scheduled, you must schedule the test with the instructor prior to the testing date. An excused absence and makeup test may be granted for sudden illness or unforeseen circumstances. Deductions on assignments and tests will occur for minor and major formatting errors, as well as, typographical errors. All three exam grades will be used to calculate your final grade. Each exam is worth 16.7% of your final grade.

**Course Grade:**

The grading scale for this course is as follows:

- Assignments – 30%
- Portfolio – 20%
- Exams – 50%

All of your grades including a mid-semester and final grade will be posted to Grades in Canvas.

*Cheating* is defined as unauthorized help on an examination or assigned course material. A student must not submit another student's work as his or her own. A student must not receive from any other student or give to any other student any information, answers, or help during an exam. A student must not "steal" the answers from an unsuspecting student during an exam. A student must not use any sources for answers during an exam (including but not limited to notes, books, or electronic devices) without prior authorization from the professor. A student must not obtain exam questions illegally, tamper with the exam questions, nor change the results of an exam after it has been graded. **All cheating infractions will result in a grade of "0" for the assignment.**

*Plagiarism* is defined as the taking of a person's ideas, words, or information and claiming those properties as one's own. The use of all ideas, words, or information from any source must be properly referenced and due credit must be given to its author. All written assignments must be submitted through Canvas which uses turnitin.com to calculate percent originality of the submission. For compositions, a student's work must show 0% plagiarism. For research assignments, properly quoting and citing information from other sources is usually required in the assignment; however, since the integrity of the assignment is based upon the originality of the student's work, no student may turn in a paper which exceeds a 30% score in properly quoted and cited material. The instructor reserves the right to employ other means outside of turnitin.com to check the "originality" of a student's work. **Any submission that contains copied material (other than cited material in a research paper) will automatically receive a grade of "0" for the assignment.**

**A student will fail the class upon his or her second cheating and/or plagiarism offense.** These policies shall be adhered to unless mitigating circumstances should prove a lesser penalty should apply. Students shall have the right to contest a cheating or plagiarism claim; the appeals process is specifically defined in the student handbook.

**Attendance:**

Students in the face-to-face class are expected to arrive on time and remain in class until the class is over as random movement into, out of, or around the classroom is disruptive and disrespectful. Students are highly encouraged to participate in class by asking questions and engaging in discussions. Disruptive class behavior will result in dismissal from the classroom and an absent mark on the attendance record. Persistent, disruptive behavior may ultimately result in dismissal from the course, a failing grade, and further disciplinary actions in accordance with college policy.

Make up assignments/exams will only be granted in accord with the excused absence policy.

A student that chooses to NOT finish the course must complete the withdrawal procedure in the Student Success office in order to receive a "W." Otherwise, the student will receive a grade at the end of the semester commensurate with the work completed.

Students needing special classroom or testing accommodations because of physical or learning disabilities must contact the Student Success office before these services will be made available in the classroom.

**Texts, Materials, and Supplies:**

- *Microsoft Excel 2016: Comprehensive*, Freund, Starks, and Schmieder, Cengage Learning, 2017, ISBN: 9781305870727.
- Access to a computer and the Internet.
- Access to Microsoft Office 2016 (Word, Excel, Access, PowerPoint).

- Flash drive (if you want to save to an external drive).
- Student data files that must be downloaded from the publisher's site or obtained from instructor.

**Required Readings:**

- Projects 1-11, *Microsoft Excel 2016 Comprehensive*.

**Recommended Readings:**

- None

**Other:**

- For current texts and materials, use the following link to access bookstore listings: <http://www.panolacollegestore.com>.
- For testing services, use the following link: <http://www.panola.edu/elearning/testing.html>.
- If any student in this class has special classroom or testing needs because of a physical learning or emotional condition, please contact the ADA Student Coordinator in Support Services located in the Administration Building or go to <http://www.panola.edu/student-success/disability-support-services/> for more information.
- Withdrawing from a course is the student's responsibility. Students who do not attend class and who do not withdraw will receive the grade earned for the course.
- Student Handbook, *The Pathfinder*: <http://www.panola.edu/student-success/documents/pathfinder.pdf>

## SCANS CRITERIA

- 1) **Foundation skills are defined in three areas: basic skills, thinking skills, and personal qualities.**
  - a) **Basic Skills:** A worker must read, write, perform arithmetic and mathematical operations, listen, and speak effectively. These skills include:
    - i) Reading: locate, understand, and interpret written information in prose and in documents such as manuals, graphs, and schedules.
    - ii) Writing: communicate thoughts, ideas, information, and messages in writing, and create documents such as letters, directions, manuals, reports, graphs, and flow charts.
    - iii) Arithmetic and Mathematical Operations: perform basic computations and approach practical problems by choosing appropriately from a variety of mathematical techniques.
    - iv) Listening: receive, attend to, interpret, and respond to verbal messages and other cues.
    - v) Speaking: Organize ideas and communicate orally.
  - b) **Thinking Skills:** A worker must think creatively, make decisions, solve problems, visualize, know how to learn, and reason effectively. These skills include:
    - i) Creative Thinking: generate new ideas.
    - ii) Decision Making: specify goals and constraints, generate alternatives, consider risks, and evaluate and choose the best alternative.
    - iii) Problem Solving: recognize problems and devise and implement plan of action.
    - iv) Visualize ("Seeing Things in the Mind's Eye"): organize and process symbols, pictures, graphs, objects, and other information.
    - v) Knowing How to Learn: use efficient learning techniques to acquire and apply new knowledge and skills.
    - vi) Reasoning: discover a rule or principle underlying the relationship between two or more objects and apply it when solving a problem.
  - c) **Personal Qualities:** A worker must display responsibility, self-esteem, sociability, self-management, integrity, and honesty.
    - i) Responsibility: exert a high level of effort and persevere toward goal attainment.
    - ii) Self-Esteem: believe in one's own self-worth and maintain a positive view of oneself.
    - iii) Sociability: demonstrate understanding, friendliness, adaptability, empathy, and politeness in group settings.
    - iv) Self-Management: assess oneself accurately, set personal goals, monitor progress, and exhibit self-control.
    - v) Integrity and Honesty: choose ethical courses of action.
- 2) **Workplace competencies are defined in five areas: resources, interpersonal skills, information, systems, and technology.**
  - a) **Resources:** A worker must identify, organize, plan, and allocate resources effectively.
    - i) Time: select goal-relevant activities, rank them, allocate time, and prepare and follow schedules.
    - ii) Money: Use or prepare budgets, make forecasts, keep records, and make adjustments to meet objectives.
    - iii) Material and Facilities: Acquire, store, allocate, and use materials or space efficiently. Examples: construct a decision time line chart; use computer software to plan a project; prepare a budget; conduct a cost/benefits analysis; design an RFP process; write a job description; develop a staffing plan.
  - b) **Interpersonal Skills:** A worker must work with others effectively.
    - i) Participate as a Member of a Team: contribute to group effort.
    - ii) Teach Others New Skills.
    - iii) Serve Clients/Customers: work to satisfy customer's expectations.

- iv) **Exercise Leadership:** communicate ideas to justify position, persuade and convince others, responsibly challenge existing procedures and policies.
- v) **Negotiate:** work toward agreements involving exchange of resources, resolve divergent interests.
- vi) **Work with Diversity:** work well with men and women from diverse backgrounds.

Examples: collaborate with a group member to solve a problem; work through a group conflict situation, train a colleague; deal with a dissatisfied customer in person; select and use appropriate leadership styles; use effective delegation techniques; conduct an individual or team negotiation; demonstrate an understanding of how people from different cultural backgrounds might behave in various situations.

c) **Information:** A worker must be able to acquire and use information.

- i) **Acquire and Evaluate Information.**
- ii) **Organize and Maintain Information.**
- iii) **Interpret and Communicate Information.**
- iv) **Use Computers to Process Information.**

Examples: research and collect data from various sources; develop a form to collect data; develop an inventory record-keeping system; produce a report using graphics; make an oral presentation using various media; use on-line computer data bases to research a report; use a computer spreadsheet to develop a budget.

d) **Systems:** A worker must understand complex interrelationships.

- i) **Understand Systems:** know how social, organizational, and technological systems work and operate effectively with them.
- ii) **Monitor and Correct Performance:** distinguish trends, predict impacts on system operations, diagnose deviations in systems' performance and correct malfunctions.
- iii) **Improve or Design Systems:** suggest modifications to existing systems and develop new or alternative systems to improve performance.

Examples: draw and interpret an organizational chart; develop a monitoring process; choose a situation needing improvement, break it down, examine it, propose an improvement, and implement it.

e) **Technology:** A worker must be able to work with a variety of technologies.

- i) **Select Technology:** choose procedures, tools or equipment including computers and related technologies.
- ii) **Apply Technologies to Task:** understand overall intent and proper procedures for setup and operation of equipment.
- iii) **Maintain and Troubleshoot Equipment:** Prevent, identify, or solve problems with equipment, including computers and other technologies.

Examples: read equipment descriptions and technical specifications to select equipment to meet needs; set up and assemble appropriate equipment from instructions; read and follow directions for troubleshooting and repairing equipment.