

**TEED 589: MICROSOFT EXCEL FOR CLASSROOM TEACHERS --
INTERMEDIATE**

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COURSE CREDIT: 1 graduate credit

DATES, TIMES, NUMBER OF SESSIONS: Asynchronous, On-line & Email
November 1 – December 7, 2007 OR
January 7 – February 15, 2008
February 1 – March 15, 2008
March 1 –April 15, 2008
6 lessons (one/week), 2.5 hrs/lesson

COURSE DESCRIPTION: This on-line course is designed to build on teachers' basic understanding of the Microsoft Excel spreadsheet software application and its power for classroom teachers. Teachers will learn to work with additional functions, arguments, Auto-features, enhanced graphics, professional charts, multiple spreadsheets, as well as enhanced data collection and analysis techniques. They will develop a variety of documents relevant to their teaching situation, such as grade sheets and seating charts. This course is targeted for K-12 classroom teachers and other educators.

COURSE OBJECTIVES: Upon completion of this course, teachers will

- Learn the following: additional work with functions (e.g. IF, COUNTIF, ANDIF), arguments, inserting comments, AutoFormat and Format Painter, header footer, additional chart features and lines, AutoComplete, Auto Insert, style shortcuts, row/column conversions, outlining a worksheet, additional options with graphics, creating and formatting professional looking charts, calculating and analyzing data, working with multiple worksheets, finding sorting and filtering data, advanced formatting, working with text boxes and WordArt, etc.
- Learn to create additional spreadsheets relevant for your grade level (elementary, middle level or senior high), incorporating pictograms, clipart, photos, diagrams, budgets and other samples for classroom usage, such as a rubric to guide the development of and evaluation of student-created spreadsheets and charts.
- Learn a variety of spreadsheet activities that you can have your students create as part of your core instruction
- Learn strategies for helping you get your students

- to predict the impact of additional data being added into a spreadsheet,
- to develop appropriate data collection and analysis techniques
- to learn how to ask the right questions to elicit useful information from the data
- Be able to create charts that will help capture and communicate the key relevant information contained in the data
- Reflect on how they might be able to apply the various features in their role as a classroom teacher

LESSONS:

- Additional work with functions and arguments
- Auto- features; row/column conversion
- Enhanced Formatting, text boxes and WordArt
- Professional Charts
- Enhanced data collection and spreadsheet analysis
- Spreadsheet activities for students

TEXTS, READINGS, INSTRUCTIONAL RESOURCES:

Required Lessons:

Dunlap, Stan (2007). *Microsoft Excel for the Classroom Teacher – Intermediate Course*. (Durango, CO: Fresh Perspectives)

Supplemental Reading:

Microsoft Office On-line Help Center

Optional Reading:

Lewis, Pamela (2006). *Spreadsheet Magic (2nd Ed.)*.
(Eugene, OR: International Society for Technology in Education)

COURSE REQUIREMENTS:

1. Class participation: Teachers are expected to read assigned lessons, complete and submit all practice documents and assignments in a timely fashion.
2. Electronic Portfolio: Teachers will be required to create an electronic portfolio that includes
 - a. practice spreadsheets, charts, and assignments
 - b. reflections
3. Submissions: Each student will post required practice documents, assignments, and reflections to the appropriate website in a timely manner

STANDARDS:

This course targets the following NETS-T (National Education Technology Standards) for Teachers: http://cnets.iste.org/teachers/t_stands.html

1) **TECHNOLOGY OPERATIONS AND CONCEPTS.**

Teachers demonstrate a sound understanding of technology operations and concepts. Teachers:

- > demonstrate introductory knowledge, skills, and understanding of concepts related to technology, e.g. creating charts and graphs using a spreadsheet, calculating grades using a spreadsheet,
- > demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies

2) **PLANNING AND DESIGNING LEARNING ENVIRONMENTS AND EXPERIENCES.**

Teachers plan and design effective learning environments and experiences supported by technology. .

Teachers:

- > design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners
- > plan for the management of technology resources within the context of learning activities
- > plan strategies to manage student learning in a technology-enhanced environment.

3) **TEACHING, LEARNING, AND THE CURRICULUM.**

Teachers implement curriculum plans that include methods and strategies for applying technology to maximize student learning. Teachers:

- > facilitate technology-enhanced experiences that address content standards and student technology standards.
- > use technology to support learner-centered strategies that address the diverse needs of students.
- > apply technology to develop students' higher order skills and creativity.
- > manage student learning activities in a technology-enhanced environment.

4) **ASSESSMENT AND EVALUATION.**

Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies.

Teachers:

- > use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.

5) **PRODUCTIVITY AND PROFESSIONAL PRACTICE.**

Teachers use technology to enhance their productivity and professional practice. Teachers:

- > use technology resources to engage in ongoing professional development and lifelong learning.
- > apply technology to increase productivity

6) **SOCIAL, ETHICAL, LEGAL, AND HUMAN ISSUES.**

Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice. Teachers:

- > model and teach legal and ethical practice related to technology use.

Enhancing your skills as a teacher using technology will enhance your ability to model effective technology use and to help your students meet the following newly refreshed NETS for Students:



http://cnets.iste.org/students/s_stands_07.html

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

b. create original works as a means of personal or group expression.

4. Critical thinking, Problem-Solving & Decision-Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students

c. collect and analyze data to identify solutions or complete a project

6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems and operations

GRADE DISTRIBUTION AND SCALE:

Summary of points

Practice documents	30%
Mid Term assignment	20%
Reflections	20%
Final assignment	30%

Grade structure Pass / Fail

80% minimum to Pass