Concurrent Enrollment Course Outline-CAPS 121/Computer Applications

High School Name: Computer Applications

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Instructor: Lori Tankalavage
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TC3 Course #: CAPS 121

TC3 Course Title: Introduction to Spreadsheets

Credit Hours: 1

Student Audience/Grade Levels: 9-12

Semester(s) Offered: Full Year (September-June)

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Course Description: An introduction to the operation and uses of a spreadsheet program that covers topics related to the objectives used for the Microsoft Office User Specialist (MOUS) Core Exam in Excel. Topics include working with cells and cell data, managing workbooks, formatting and printing worksheets, modifying workbooks, creating and revising formulas, creating and modifying graphics, and workgroup collaboration.

Course Prerequisites: There is no pre-requisite for this course.

Minimal Basic Skills Needed to Complete Course Successfully: Keyboarding: Students in Computer Applications will have already completed instruction in keyboarding (OFFC 101-College Keyboarding and Document Processing). Students will also typically have also taken the portion of the course dedicated to Microsoft Word.

Overall Course Goals: By successfully completing this course, the student will:
1. Learn the basic uses of an electronic spreadsheet and become familiar with the basic functions.
2. Be able to launch a spreadsheet application, create a spreadsheet that incorporates basic spreadsheet functions and formulas and create charts from entered or calculated data.

Course Objectives:
- Insert, delete, and move cells
- Enter and edit cell data including text, numbers, and formulas
- Check spelling
- Find and replace cell data and formats
- Work with a subset of data by filtering lists
- Manage workbook files and folders
- Create workbooks using templates
- Save workbooks using different names and file formats
- Apply and modify cell formats
- Modify row and column settings
- Modify row and column formats
- Apply styles
- Use automated tools to format worksheet
- Modify page setup options for worksheets
- Preview and print worksheets and workbooks
- Create and revise formulas
- Use statistical, date and time, financial, and logical functions in formulas
- Create modify, position, print charts
- Create, modify and position graphics

- Convert worksheets into webpages

Social/Global Awareness Outcomes:
- Students will understand that their actions have social, economic and environmental consequences.

The course will address these outcomes via sharing of electronic information, sharing of electronic documents/confidentiality, production costs, and environmental waste.

<u>**Required Texts and Materials/Optional Materials as Appropriate**</u>: Microsoft Office Excel 2010, Illustrated Series (Introductory) by Elizabeth Eisner Reding & Lynn Wermers. © 2011 Course Technology, Cengage Learning. Each student needs access to a computer with Microsoft Excel 2010 software, Jing software, and internet access.

Other Equipment or Materials: None

<u>**Class Modalities/Alternative Learning Strategies**</u>: This class is designed to be taught over the course of about 10 weeks, 42 minutes per day. There will be some lecture, but most of the time will be spent hands-on, working on assignments (either teacher-designed or from the text) and projects. The instructor will be available and will interact with the students and assist them with problems they may encounter in completing the assignments.

Methods of Assessment/Evaluation:

Method	% of Course Grade
Classwork/Daily Participation	40%
Assignments/Projects	60%

<u>**Required Readings, Presentations, Written Assignments, etc.**</u>:

Assignment/Project	Expectations	Duration
Unit A in textbook	Understand spreadsheet software, tour the Excel 2010 window, understand formulas, enter labels and values and use the sum button, edit cell entries, enter and edit a simple formula, switch worksheet views, and choose print options. Concept Review and Skills Review will also be completed.	4 days
Creating a Sales Chart	There will be instruction on a basic sales chart: how to calculate total sales, total cost, revenue per item, and profit per item when given how many items were sold, item cost, and item selling price. The students create a sales chart for an imaginary store they own that has at least 5 items in stock. They will complete all calculations above and also total profit for 3 months of sales.	4 days
Unit D in textbook	Plan a chart, create a chart, move and resize a chart, change the chart design, change the chart layout, format a chart, annotate and draw on a chart, create a pie chart. Concept Review and Skills Review will also be completed.	3 days
M&M Activity	Students will each be given a "scoop" of M&Ms candies. They will separate the candies by color and count how many of each color they have. The data will then be entered into a spreadsheet that the student creates. From that data, the students will create both a pie chart and a column chart showing the comparison between how many of each color they have. Each chart must have proper titles, labeling, and color coded according to the color of the candies.	2 days
Unit B in textbook	Create a complex formula, insert a function, type a function, copy and move cell entries, understand relative and absolute cell references, copy formulas, round a value with a function.	4 days
Basketball Points Percentages	Students will be given data from an imaginary basketball game with player's names and how many points were scored by each player. Students will input the data, use auto sum to calculate the total number of points scored, and then include a column that calculates each player's percentage of points. The formula	3 days

	will reflect the use of an absolute cell reference as the formula should be autofilled down the column. A labeled pie chart with then be created from the data.	
Calculating Loan Payments	Students will be instructed on how to calculate loan payments given loan terms and amount borrowed. Students will have the opportunity to practice calculating the monthly payment as well as how much will have been paid over the life of the loan, and how much interest will be paid. There will be many varying examples to practice on. Students will then get to research a couple of vehicles they would like to "purchase." They will create the spreadsheet themselves and calculate all necessary items. Mortgage payments will also be covered in this unit with both monthly and biweekly payments, and varying loan terms. There will be practice items and again, the students will be able to choose their dream homes and make all necessary calculations.	8 days
Unit E in textbook	Format data using text functions, sum a data range based on conditions, consolidate data using a formula, check formulas for errors, construct formulas using named ranges, build a logical formula with the IF function, build a logical formula with the AND function, calculate payment with the PMT function.	4 days
Personal Database	Students will be instructed on sorting and filtering. Students will create a personal database that lists at least 25 unique items that are categories by two criteria. (ie, cd titles, categorized by genre and artist). Students will sort all items alphabetically by the item names. They will then filter by a criteria in one of the category columns and save that list. Restore entire list and repeat for the other category criteria. All three files will be emailed to instructor.	4 day
Trip Around the World	Students will use excel to keep track of expenses incurred on an imaginary trip around the world to 3 locations and returning back home. Students will keeps track of costs with plane tickets, hotel per night, car rental per day, sightseeing and food. Students also need to keep track of dates of travel, companies used, and totals incurred for each location. Location totals will be linked using formulas to a grand totals page.	5 days
Tutorial using Jing Software	Students will review various tutorials on YouTube. They will then decide on a skill/task they would like to teach in a tutorial. They will write a script and plan their movements in the program. When ready, the students will record their tutorial using a microphone and Jing software. Students will present their tutorials to the rest of the class for review.	5 days
Various days	Extra days will be left in the schedule for assemblies, fire drills, emergency days, and extra days that may be needed to complete projects.	4 days

Statement of Academic Integrity: Students will adhere to the guidelines set for the in the Cincinnatus Central Student Handbook as well as the District's Internet Acceptable Use Policy.

Any written work submitted by a student must be his or her own. If the student uses the words or ideas of someone else, he or she must cite the source by such means as a footnote or bibliography. Our guiding principle is that any honest evaluation of a student's performance must be based on that student's work. Any action taken by a student that would result in misrepresentation of someone else's work or actions as the student's own—such as cheating on a test, submitting for credit a paper/project written by another person, or forging and advisor's signature—is intellectually dishonest and deserving of censure.

Tompkins Cortland Community College's Statement of Academic Integrity: Every student at Tompkins Cortland Community College is expected to act in an academically honest fashion in all aspects of his or her academic work: in

writing papers and reports, in taking examinations, in performing laboratory experiments and reporting the results, in clinical and cooperative learning experiences, and in attending to paper such as registration forms.

Make-up Policy/Late Work: Due to absences from class, late work will be accepted without penalty, 1 day late for each day of absence. Otherwise, there will be 5-10 points deducted, depending on the project, for each day the work is late.
Attendance Policy: Forty percent of the student's grade is classwork/participation. Each day of class is worth 20 points. If the student is not present, they cannot receive points for that day. Points may be made up outside of class time during study halls, lunches, before and after school.

Course Content Presented in Units or Segments: (Provide a listing by either week or class session of the respective topic(s) that will be covered during that time frame. If there are particular readings or homework assignments required each week, please list those also.)

Evaluation/Grading System: (Provide a summary of how the final grade will be determined. This would include a list of the course requirements and their respective weighing in the course. Either a point or a percentage system is typically utilized.   The TC3 master course syllabus may specify the grading criteria that must be followed by all instructors of an individual course.)

Statement of Academic Integrity: (Provide your students with your school's policies and procedures and delineate clearly how you address first-time and subsequent academic infractions within your course (including, but not limited to, reduction in grade, elimination of grade, failure for the course). For reference, please refer to TC3's statement of academic integrity below.)

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Make-Up Policy/Late Work: (Provide your policy for submission of any late work and whether you provide make-up examinations.)

Attendance Policy: (Provide your schools policy on attendance and include that to maintain good grades, regular attendance in class is necessary.)

Student Responsibilities: (Your expectations about the involvement of students in the learning experience should be positively and specifically stated here.)