Course Discipline and Number: CAPS 123   **Year: 2024-2025**
Course Title: Advanced Spreadsheets   **Credit Hours: 1**

Attendance Policy: To maintain good grades, regular attendance in class is necessary. Absence from class is considered a serious matter and absence never excuses a student from class work. It is the responsibility of all instructors to distribute reasonable attendance policies in writing during the first week of class. Students are required to comply with the attendance policy set by each of their instructors. Students are not penalized if they are unable to attend classes or participate in exams on particular days because of religious beliefs, in accordance with Chapter 161, Section 224-a of the Education Law of the State of New York. Students who plan to be absent from classroom activity for religious reasons should discuss the absence in advance with their instructors. See college catalog for more information.

Services for Students with Disabilities: It is the College's policy to provide, on an individual basis, appropriate academic adjustments for students with disabilities, which may affect their ability to fully participate in program or course activities or to meet course requirements. Students with disabilities should contact the Coordinator of Access and Equity Services, to discuss their particular need for accommodations. All course materials are available in alternate formats upon request.

Course Description

Advanced topics in Microsoft Excel that fulfill most of the objectives for the Microsoft Office Specialist (MOS) Expert Exam in Excel. Topics include planning, recording, running and editing macros, creating VBA procedures, enhancing charts, adding sparklines, identifying data trends, using what-if-analysis (scenario manager, goal seek, data tables), analyzing data, creating PivotTables and PivotCharts, exchanging data with other programs such as Microsoft Word, PowerPoint and Access, sharing, customizing and maintaining workbooks, importing and exporting data and auditing worksheets. Students taking this course in an online format should have access to a computer with Excel. Prerequisites: CAPS 121; RDNG 116 if required by placement testing; ENGL 099 or prior completion or concurrent enrollment in ESL 120, 121, and 122 (or prior completion of ESL 103) if required by placement testing; prior completion or concurrent enrollment in MATH 090 if required by placement testing. 1 Cr. (2 Lec., 2 Lab. for 5 weeks) Fall and spring semesters.

Course Context/Audience

This is an advanced course in the use of the electronic spreadsheet and can be used to satisfy a CAPS elective requirement; it is also a required course in the Computer Information Systems degree program (CIS). CAPS elective course are required in most degree programs and should be accepted for transfer as a computer literacy elective.

Basic Skills/Entry Level Expectations

Writing: W2   Student should have completed ENGL 099 (if needed). The course requires short written responses and/or short papers without documentation, particularly personal reflection or narrative.

Math: M1   If required, the student must be concurrently enrolled in MATH 090. Very basic mathematical skills are required.

Reading: R4   Before taking this course, students must satisfactorily complete RDNG 116 or have assessment indicating that no reading course was required.

Course Goals

By successfully completing CAPS 123, the student should be able to effectively:

1) Utilize advanced spreadsheet features such as macros and what-if-analysis.

2) Exchange, analyze and summarize different types of data using import features, PivotTables, charting tools, functions and advanced calculations.

3) Enhance charts, embed or link workbooks to other programs and incorporate Web information.

4) Share Excel files with multiple users, track workbook changes and manage passwords.

5) Audit workbooks, use worksheet grouping and customize Excel.

Revised Spr14

Course Objectives/Topics

Objective/Topic	% Course
Automate worksheet tasks usng macros. Learn to plan, enable, record, run and edit macros.	14%
Enhance charts by changing the data source, data labels, layouts, rotation and formatting. Add worksheet sparklines and trendlines.	12%
Use what-if-analysis including features such as scenario manager, data tables and goal seek. Examine a complex what-if-analysis with solver.	14%
Analyze Data with PivotTables. Change the structure and format of PivotTables, create reports, filter and sort PivotTable data.	12%
Exchange Data with other programs, import text files and database tables. Insert graphics and embed or link workbooks to a Word document. Link Excel charts to a PowerPoint Slide.	12%
Share Excel files with multiple users, track revisions and use password protection. Incorporate Web Information. Work with XML and HTML data.	12%
Customize Excel and use auditing, comments and templates. Group worksheet data and control worksheet calculations. Utilize advanced worksheet management.	12%
View, edit and write VBA code. Create and run procedures.	12%

General Education Goals - Critical Thinking & Social/Global Awareness

CRITICAL THINKING OUTCOMES	HOW DOES THE COURSE ADDRESS THE OUTCOMES (Include required or recommended instructional resources, strategies, learning activities, assignments, etc., that must or could be used to address the goal/outcomes)
Students will be able to ➤ develop meaningful questions to address problems or issues. ➤ gather, interpret, and evaluate relevant sources of information. ➤ reach informed conclusions and solutions. ➤ consider analytically the viewpoints of self and others.	Students are required to use problem solving techniques to debug spreadsheet errors. Students interpret data using various software features such as charts and data tables. Students identify trends based on numeric or graphical data and develop conclusions. Information from the Web is used to develop spreadsheets. Different types of Web data are analyzed and summarized. Lab exercises and in-class assignments are provided for students to practice problem solving skills. Lab exercises emulate spreadsheet solutions used by businesses and other organizations.
SOCIAL/GLOBAL AWARENESS OUTCOMES	HOW DOES THE COURSE ADDRESS THE OUTCOMES (Include required or recommended instructional resources, strategies, learning activities, assignments, etc., that must or could be used to address the goal/outcomes)

➢ Students will begin to understand how their lives are shaped by the complex world in which they live. ➢ Students will understand that their actions have social, economic and environmental consequences.	Students are given examples of real-world business problems and develop simple to complex spreadsheet solutions. Students examine alternatives for completing spreadsheet tasks and explore ways to increase productivity. Class discussion and student exercises demonstrate the time saving features of spreadsheet software and the potential economic benefit.

Instructional Methods

The class is designed to be taught in a lecture/lab format with approximately 2 hours per week of lecture and 2 hours of lab. The instructor should interact with student and assist them with problems they might have in completing the assignments. Web-based sections require that the instructor is available for questions and student interaction. Instructors should post and maintain regular office hours each week when they can respond to student questions.

Methods of Assessment/Evaluation

Method	% Course Grade
Lab Problems/Exercises	40 - 60%
Final Exam	40 - 50%
Quizzes (optional)	< = 20%

Text(s)

Microsoft Excel 2010 Advanced, Elizabeth Eisner Reding and Lynn Wermers, © 2011 Course Technology Cengage Learning.

Learning Resources

Audiovisual In-class sections utilize audiovisual equipment to display spreadsheets, presentations and Internet resources.
Electronic Students access electronic spreadsheet software. Student files from the text book are located on TC3 servers and are saved on a variety of devices including student USB drives and lab computers.
Other A learning management system such as Angel or Blackboard may be used for course materials, quizzes and/or submitting assignments.