



Course Description

CGS2108 | Advanced Desktop Applications | 4.00 credits

This is an advanced level course for major and non-major students who have completed CGS 1060, Introduction to Microcomputer Usage. Students will learn advanced computer skills using software applications, such as word processing, spreadsheets, database, presentation graphics, and communications and scheduling software. Students will also learn advanced file management techniques, deal with security issues, and troubleshoot hardware and software. Prerequisite: CGS1060C.

Course Competencies:

Competency 1: The student will demonstrate the ability to perform advanced word processing functions by:

1. Creating a document from an existing template
2. Applying a theme and creating a new template from an existing document
3. Applying and modifying existing styles and creating new styles
4. Inserting and formatting a chart
5. Inserting section breaks and applying different formats
6. Creating a letter and completing a mail merge
7. Working with a document outline.
8. Using the Review ribbon functions to track changes in a document, insert comments in a document, compare and combine documents
9. Creating a newsletter using desktop publishing functions
10. Integrating objects from other Microsoft Office applications into a Word document, e.g., charts, data, graphics, etc
11. Protecting documents
12. Creating a table of contents
13. Adding internal and external hyperlinks and bookmarks to a document

Competency 2: The student will demonstrate the ability to perform advanced spreadsheet operations by:

1. Building spreadsheets that use financial functions such as loan payment calculations, future value, and present value
2. Creating and analyzing a loan amortization schedule with several scenarios, including different terms and different interest rates
3. Using cell names (range names) to mark spots within a workbook and using these names in formulas.
4. Protecting cells, worksheets, and workbooks
5. Using functions such as What-if Analysis, Goal Seek, Conditional Formatting, and Pivot Tables to make informed decisions
6. Creating, sorting, querying tables, and validating data on tables
7. Adding computational fields to tables
8. Adding Lookup tables
9. Displaying subtotals in a table Querying tables with AutoFilters
10. Extracting records from a table
11. Working with multiple worksheets and workbooks
12. Creating, formatting, and editing templates
13. Creating a workbook from a template
14. Consolidating data by linking workbooks
15. Importing and exporting to other applications
16. Linking a worksheet and a chart to a Word document

17. Importing text from a Word document
18. Exporting a chart to a PowerPoint presentation

Competency 3: The student will demonstrate the ability to perform advanced database operations by:

1. Designing a relational database with multiple tables
2. Creating and editing relationships
3. Creating indexes
4. Creating reports and forms, including sub-reports and forms with subforms
5. Building and adding controls to a form in the design view
6. Structuring and validating data input through a form
7. Using queries to locate information and create reports
8. Using Expression Builder to create calculated fields
9. Using SQL to perform functions such as queries, inserts, deletes, and joins
10. Importing data from an Excel workbook

Competency 4: The student will demonstrate the ability to create advanced presentations by:

1. Modifying the master and title slides
2. Downloading and modifying themes and templates
3. Incorporating and editing objects such as:
 - a. Scanned images and text
4. Recorded sound files, video clips, background music, and sounds
5. Captured images from Web sites
6. Internal links to other slides, action (navigation) buttons, and external hyperlinks to Web pages Smart Art graphics
7. Adding narrations and animations to slides and applying rehearsed timings to a presentation
8. Importing text from a Microsoft Word document into the outline tab
9. Delivering an eye-catching and effective presentation

Competency 5: The student will demonstrate the ability to utilize personal productivity communications and scheduling applications, e.g., Outlook by:

1. Managing email and contact lists, including opening, closing, replying, printing, deleting, and organizing saved emails into folders, and handling junk mail
2. Creating and managing contact and distribution lists
3. Managing calendars, creating multiple calendars, entering and editing appointments and scheduling meetings
4. Starting an Instant Messaging session, adding contacts, sending an instant message, and attaching files to an instant message
5. Archiving items, customizing Auto Archive, and changing the settings for Auto Archive

Competency 6: The student will demonstrate how to learn to perform previously untaught tasks by independently:

1. Protecting data and files by using passwords, restricting access, locking cells, etc
2. Discussing privacy and security issues related to using a web browser, e.g., copyright, complex passwords, parental controls software, etc
3. Troubleshooting, identifying, and correcting errors using best practices
4. Working in groups and as individuals to solve problems
5. Locating and using online documentation resources
6. Managing files and folders by creating, copying, moving, deleting, and renaming

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Use quantitative analytical skills to evaluate and process numerical data

Updated: Fall 2025

- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Use computer and emerging technologies effectively