COURSE OUTLINE: CSA103 - BUSINESS APPLIC I

Prepared: D. Kachur
Approved: Martha Irwin, Dean, Business and Information Technology

Course Code: Title	CSA103: BUSINESS APPLICATIONS I
Program Number: Name	2095: COMPUTER PROGRAMMING
Department:	COMPUTER STUDIES
Academic Year:	2024-2025
Course Description:	Information technology professionals must be comfortable using the tools that support day-to-day operations in their workplaces. In this course, learners work with document and presentation editors, communication and project management tools, spreadsheets, databases, data mining / modelling software, and geographic information systems. Learners integrate, customize, and automate these software systems for the purposes of communication, documentation, and data analysis. Technologies used in this course may include the Microsoft Office Suite, Power BI, MS SQL Server, ArcGIS, Docker, Jupyter Notebooks, and other similar or related software.
Total Credits:	4
Hours/Week:	4
Total Hours:	56
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
Substitutes:	CSA102
Vocational Learning Outcomes (VLO's) addressed in this course: **Please refer to program web page for a complete listing of program outcomes where applicable.**	**2095 - COMPUTER PROGRAMMING** VLO 5 Communicate and collaborate with team members and stakeholders to ensure effective working relationships. VLO 6 Select and apply strategies for personal and professional development to enhance work performance.
Essential Employability Skills (EES) addressed in this course:	EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. EES 3 Execute mathematical operations accurately. EES 6 Locate, select, organize, and document information using appropriate technology and information systems. EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals. EES 10 Manage the use of time and other resources to complete projects.
Course Evaluation:	Passing Grade: 50%, D

	A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.
Other Course Evaluation & Assessment Requirements:	A+ = 90-100% A = 80-89% B = 70-79% C = 60-69% D = 50-59% F < 50% Students are expected to be present to write all tests in class, unless otherwise specified. If a student is unable to write a test due to illness or a legitimate emergency, that student must contact the professor prior to class and provide reasoning. Should the student fail to contact the professor, the student shall receive a grade of zero on the test. If a student is not present 10 minutes after the test begins, the student will be considered absent and will not be given the privilege of writing the test. Students exhibiting academic dishonesty during a test will receive an automatic zero. Please refer to the College Academic Dishonesty Policy for further information. In order to qualify to write a missed test, the student shall have: a.) attended at least 75% of the classes to-date. b.) provide the professor an acceptable explanation for his/her absence. c.) be granted permission by the professor. NOTE: The missed test that has met the above criteria will be an end-of-semester test. Labs / assignments are due on the due date indicated by the professor. Notice by the professor will be written on the labs / assignments and verbally announced in advance, during class. Labs and assignments that are deemed late will have a 10% reduction per academic day to a maximum of 5 academic days at 50% (excluding weekends and holidays). Example: 1 day late - 10% reduction, 2 days late, 20%, up to 50%. After 5 academic days, no late assignments and labs will be accepted. If you are going to miss a lab / assignment deadline due to circumstances beyond your control and seek an extension of time beyond the due date, you must contact your professor in advance of the deadline with a legitimate reason that is acceptable. It is the responsibility of the student who has missed a class to contact the professor immediately to obtain the lab / assignment. Students are responsible for doing their own work. Labs / assignments that are handed in and are deemed identical or near identical in content may constitute academic dishonesty and result in a zero grade. Students are expected to be present to write in-classroom quizzes. There are no make-up options for missed in-class quizzes. Students have the right to learn in an environment that is distraction-free, therefore, everyone is expected to arrive on-time in class. Should lectures become distracted due to students walking in late, the professor may deny entry until the 1st break period, which can be up to 50 minutes after class starts or until that component of the lecture is complete.
Course Outcomes and Learning Objectives:	

Course Outcome 1	Learning Objectives for Course Outcome 1
1. Communicate effectively using email, chat, and	1.1 Identify and use appropriate levels of formality in specific communication contexts

presentation tools	1.2 Discuss when to communicate in-person versus via call, chat, or email 1.3 Explain the difference between Reply, Reply-All, and Forward in email communication 1.4 Attach documents to email and chat messages 1.5 Format email and chat messages using bold/italic/underline, lists, and code blocks 1.6 Find past conversations using search and filter tools 1.7 Organize messages using folders and rules 1.8 Apply techniques for effective presentations 1.9 Present information using PowerPoint (or similar)
Course Outcome 2	**Learning Objectives for Course Outcome 2**
2. Use project management tools	2.1 Navigate the user interface of a project management tool to retrieve project information 2.2 Describe the components of typical work management visualizations (kanban, Gantt, issue tracking, etc.) 2.3 Create and assign tasks to individual contributors 2.4 Mark tasks as complete with accompanying documentation 2.5 Create project reports
Course Outcome 3	**Learning Objectives for Course Outcome 3**
3. Use spreadsheets to record and analyze data	3.1 Define important terms such as worksheet, row, column, cell, etc. 3.2 Record labels and values for data in a spreadsheet 3.3 Import and export data in common formats such as CSV 3.4 Navigate, manipulate, and format spreadsheet content effectively 3.5 Apply and copy formulas into cells using both absolute and relative addressing 3.6 Use a variety of common functions in formulas 3.7 Apply sorting, filtering, and conditional formatting to spreadsheet data 3.8 Apply data constraints and other integrity/security measures 3.9 Use pivot-tables to analyze data 3.10 Perform what-if analysis 3.11 Use macros to automate complex tasks
Course Outcome 4	**Learning Objectives for Course Outcome 4**
4. Use databases to record and analyze data	4.1 Identify when databases are preferable to spreadsheets and vice versa 4.2 Create tables with primary keys and other fields of various datatypes 4.3 Establish relationships between tables using foreign keys 4.4 Create data entry forms 4.5 Employ techniques for effective form layout, presentation, and user experience 4.6 Use SQL to generate reports based on data in a database 4.7 Use graphical reporting tools to generate reports based on data in a database
Course Outcome 5	**Learning Objectives for Course Outcome 5**

5. Design charts to visualize data	5.1 Discuss different kinds of charts (line, bar, pie, histogram, scatterplot, Gantt, etc.) and their typical use cases 5.2 Identify chart design features that communicate information effectively 5.3 Link charts dynamically to data from a spreadsheet or database 5.4 Create charts using a variety of software packages (PowerPoint, Excel, Power BI, or similar)
Course Outcome 6	**Learning Objectives for Course Outcome 6**
6. Analyze geospatial data using Geographic Information Systems	6.1 Explain geospatial coordinates 6.2 Create detailed geospatial data using a spreadsheet and/or CSV file 6.3 Import geospatial data into a GIS tool such as ArcGIS 6.4 Format geospatial data to produce accurate numerical representation 6.5 Visualize geospatial data in various ways 6.6 Publish geospatial applications using a GIS tool such as ArcGIS

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Databases and Data Mining Test	30%
Lab Assignments	40%
Spreadsheets and GIS Test	30%

Date: June 16, 2024

Addendum: Please refer to the course outline addendum on the Learning Management System for further information.