GeorgiaStandards.Org
GATEWAY TO EDUCATION & PROFESSIONAL RESOURCES
One Stop Shop For Teachers

PROGRAM CONCENTRATION: **Business & Computer Science**
CAREER PATHWAY: **Administrative Information/Support**
COURSE TITLE: **Computer Applications II**

Prerequisite: Computer Applications I

The goal of this course is to provide students with opportunities to enhance their computer technology, decision-making, productivity, communications, and problem-solving skills. Areas of instruction include advanced computer applications and integration of word processing, desktop publishing, spreadsheet, database, and presentation software, as well as the use of emerging technologies.

In this course, high school students can acquire advanced skills required to create, edit, and publish industry appropriate documents. Areas of study will also include oral and written communications and information research for reporting purposes. Competencies for the co-curricular student organization, Future Business Leaders of America (FBLA), are integral components of both the core employability skills standards and technical skill standards.

PRODUCTIVITY
Students will increase productivity by the use of a variety of input technologies. Students will use word processing and/or desktop publishing, spreadsheet, database, and presentation software to create, edit, and publish industry appropriate documents.

BCS-CA2-1. Students will use technology as a tool to increase productivity in completing a variety of input technologies to create, edit, and publish industry appropriate documents.

a. Integrate a variety of input technology tools, e.g. digital camera, scanner, speech recognition, hand-writing recognition, keying.
b. Demonstrate appropriate handling and use of supplies and equipment.
c. Apply appropriate use of editing tools, e.g. spell check, thesaurus, find and replace, grammar, and hyphenation.
d. Demonstrate the use, movement, and display of a variety of icons, toolbars, and the task pane.
e. Demonstrate effective time-management to complete tasks in allotted time.
f. Utilize print options.

Academic Standard:
ELA11W2 The student demonstrates competence in a variety of genres.

BCS-CA2-2. Students will use word processing and/or desktop publishing software through a variety of input technologies to create, edit, and publish industry appropriate documents.

a. Troubleshoot software problems using help screens and/or online manuals.
b. Create a variety of business and technical documents using wizards, templates, or composition, e.g. newsletters with mastheads, multi-column documents/ brochures, multi-page books, style sheets, tables of content, indexes and forms.
c. Create special business documents including agendas, minutes, multi-level outlines, itineraries, news releases, purchase orders, and invoices.
d. Apply special features and tools such as protecting a document, tracking changes, templates, auto text, and auto correct.
e. Create tables, including calculations and special features.
f. Sort data in ascending and descending order and in multiple fields.
g. Use merge features to create specialized documents, e.g. mailing labels, form letters, and envelopes.
h. Create, edit, and run macros.
i. Create a template to assemble a document.
j. Create and complete on-screen forms.
k. Define and use desktop publishing terminology/concepts.
l. Determine appropriate desktop publishing software to use based upon the purpose of the publication, intended audience, output format, and time/cost constraints.
m. Manipulate graphics by resizing, cropping, scaling, rotating, positioning, and shading.
n. Apply graphic object skills such as watermarks, editing clipart, 3-D, shadowing, grouping/ungrouping, resizing, cropping, scaling, rotating, positioning, and shading.
o. Import and link charts, tables, images, pictures, graphics, and text from various applications.

Academic Standards:

ELA11W1 The student produces writing that establishes an appropriate organizational structure, sets a context and engages the reader, maintains a coherent focus throughout, and signals a satisfying closure.

ELA11W3 The student uses research and technology to support writing.

BCS-CA2-3. Students will use spreadsheet software to create, edit, and publish industry appropriate files.

a. Create, edit, and apply templates.
b. Apply editing and enhancement features to cell contents.
c. Create, name, copy, clear, and move ranges, and add group and outline criteria to ranges.
d. Analyze and select formatting features such as conditional formatting, filtering, and protection.
e. Copy, move, and verify accuracy of formulas.
f. Apply relative, absolute, and mixed cell references in formulas.
g. Apply and edit functions including: IF, PMT, NOW, FV, and PV.

h. Create an effective chart or graph which represents relevant data.
i. Edit and label chart components such as axis, legends, titles, and data tables.
j. Create pivot tables and charts.
k. Create, edit, and run command buttons, macros, and macros with buttons.
l. Utilize database functions, e.g. filtering, extracting.
m. Import and export data to and from spreadsheet.
n. Link and merge worksheets/workbooks.
o. Establish viewing and printing parameters for worksheets and workbooks.
p. Incorporate headers and footers in business spreadsheets.
q. Create, view, edit, and remove comments.

Academic Standards:
MM2P1 Students will solve problems (using appropriate technology).

MM2P3 Students will communicate mathematically.

MM3P4 Students will make connections among mathematical ideas and to other disciplines.

MM3A4 Students will perform basic operations with matrices.

MM3A7 Students will understand and apply matrix representations of vertex-edge graphs.

MM3P5 Students will represent mathematics in multiple ways.

BCS-CA2-4. Students will use database software to create, edit, and publish industry appropriate files.

a. Plan, create, and modify multiple database tables in different views.
b. Utilize advanced property features such as input mask and lookup.
c. Import/export data to a new table or database or other software.
d. Compact, repair, and encrypt/decrypt database.
e. Design, create, and modify data forms utilizing advanced features, i.e. sub-forms.
f. Utilize Toolbox features when creating forms, e.g. combo boxes, radio buttons, dropdown boxes, yes/no boxes.
g. Create and use macros and switchboards.
h. Use and understand database splitter.
i. Demonstrate report creation that involves summary options, calculated controls, and sub reports.
j. Create and use queries to specify criteria such as calculated fields, group data, action queries, parameter queries, pivot tables, pivot charts, and aggregate functions.
k. Create a database using multiple tables to establish relationship(s) between tables while maintaining referential integrity.

Academic Standard:
MM3P3 Students will communicate mathematically.

BCS-CA2-5. Students will use presentation software to create, edit, and publish industry appropriate files.

a. Use views appropriately to create and manipulate presentations.
b. Analyze situations and create a customized handout.
c. Create a presentation with video, embedded objects, specialized features, e.g. action buttons, links, hyperlinks, record narration, on-line broadcast.
d. Import relevant data from word processing, spreadsheet, database, and presentation files.
e. Create a summary slide.
f. Create a stand-alone version of a presentation.
g. Create, modify, and design templates including master slide, master title slide, master notes, and header/footer.
h. Utilize grids and guides in the placement of objects.
i. Demonstrate presentation skills and proper public speaking techniques by creating well-organized, audience-appropriate presentations such as informative, entertaining, and instructional.
j. Demonstrate an understanding of how to put a presentation on the web.

Academic Standard:
ELA11LSV2 The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

COMMUNICATIONS
Students will use appropriate technology to communicate effectively with peers, teachers, experts, and other audiences.

BCS-CA2-6: Students will utilize appropriate methods to collaborate, publish, and interact with peers, teachers, experts, and other audiences.

a. Use appropriate technology to plan, develop, edit, and present material to different types of audiences, e.g. paper, web page, multimedia presentation, publications, speech, and hyperrmedia.
b. Use technology to enhance the effectiveness of communication by identifying appropriate and non-biased resources.

Academic Standards:
SCSh6 Students will communicate scientific investigations and information clearly.

ELA11LSV1 The student participates in student-to-teacher, student-to-student, and group verbal interactions.

ELA11LSV2 The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

ELA11W2 The student demonstrates competence in a variety of genres.

INFORMATION RESEARCH
Students will use technology to access, review, evaluate, and select information from multiple resources to report on pertinent laws and trends related to increased computer use in society.

BCS-CA2-7. Students will use technology to access, review, evaluate, and select information from multiple resources for reporting purposes.

a. Explain key principles in the Electronic Users' Bill of Rights, e.g. safety, security, ownership, and privacy.
b. Identify copyright and patent laws pertaining to scanned images and documents, electronic clip art, scanned photography, trademarks, and information downloaded from the Internet.
c. Identify licensing agreements associated with word processing and desktop publishing software.
d. Predict and assess emerging trends in computers, communication, and business.

Academic Standards:
ELA11W2 The student demonstrates competence in a variety of genres.

ELA11W3 The student uses research and technology to support writing.

PROBLEM SOLVING
Students will be able to solve real-world and/or business-related problems by developing problem-solving strategies.

BCS-CA2-8. Students will develop strategies for solving problems.

a. Identify, prevent, or solve problems using technical or electronic equipment.
b. Identify, evaluate, and use resources such as hardware, software, and online support for problem identification and solution.
c. Work in a team to solve problems and share knowledge.
d. Integrate software suite products and files to complete business, industry, and professional tasks.

Academic Standards:
MM3P1 Students will solve problems (using appropriate technology).

SCSh3 Students will identify and investigate problems scientifically.

ELA12LSV1 The student participates in student-to-teacher, student-to-student, and group verbal interactions.

Reading Across the Curriculum

Reading Standard Comment
After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal learning. Students encounter a variety of informational as well as fictional texts, and they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in *context*.

Beginning with the middle grades years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

CTAE-RC-1 Students will enhance reading in all curriculum areas by:
Reading in All Curriculum Areas
> -Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
> -Read both informational and fictional texts in a variety of genres and modes of discourse.
> -Read technical texts related to various subject areas.

Discussing Books
> -Discuss messages and themes from books in all subject areas.
> -Respond to a variety of texts in multiple modes of discourse.

-Relate messages and themes from one subject area to messages and themes in another area.
-Evaluate the merit of texts in every subject discipline.
-Examine author's purpose in writing.
-Recognize the features of disciplinary texts.

Building Vocabulary Knowledge
-Demonstrate an understanding of contextual vocabulary in various subjects.
-Use content vocabulary in writing and speaking.
-Explore understanding of new words found in subject area texts.

Establishing Context
-Explore life experiences related to subject area content.
-Discuss in both writing and speaking how certain words are subject area related.
-Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and post secondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

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CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.