

Finance





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The purpose of this document is to communicate the required Career and Technical Education (CTE) academic standards for the Finance Program of Study. The academic standards in this document are theoretical and performance-based. The standards contain content from Colorado, Maryland, Tennessee, and Texas and were validated by D.C. business and industry partners. All content is used with permission.

In addition to academic standards, OSSE has incorporated into this document Labor Market Information (LMI) definitions and explanations for the Program of Study; program aligned Industry Recognized Credentials; Work-Based Learning resources and requirements by course level; and a recommended equipment and supply list. This document is intended for use by educational administrators and practitioners. A similar document is available for each state-approved CTE Program of Study.



Finance Program of Study

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Course Descriptions: Finance		
Course Level	Course Information	Description
Level I	Principles of Business, Marketing, and Finance OSSEID: 5060201 Grades: 9-12 Prerequisite: None Credit: 1	<p>In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.</p>
Level II	Private and Public Finance OSSEID: 5060202 Grades: 10-12 Prerequisite: Principles of Business, Marketing, and Finance Credit: 1	<p>In Private and Public Finance, students will investigate money management from a personal and professional financial perspective. Students will apply critical-thinking skills to analyze financial options based on current and projected economic factors. Students will examine various methods of achieving short-term and long-term financial goals through various methods such as saving, investing, tax planning, asset allocating, risk management, retirement planning, and estate planning.</p>
Level III	Accounting I OSSEID: 5060203 Grades: 11-12 Prerequisite: Private and Public Finance Credit: 1	<p>In Accounting I, students will investigate the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information. Students will formulate and interpret financial information for use in management decision-making.</p>
Level III	A.P. Macroeconomics (.5) OSSEID: 5060204 AND AP Microeconomics (.5) OSSEID: 5060205 Grades: 11-12 Prerequisite: Private and Public Finance Credit: 1	<p>A.P. Macroeconomics is an introductory college-level macroeconomics course. Students cultivate their understanding of the principles that apply to an economic system as a whole by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like economic measurements, markets, macroeconomic models, and macroeconomic policies.</p> <p>A.P. Microeconomics is an introductory college-level microeconomics course. Students cultivate their understanding of the principles that apply to the functions of individual economic decision-makers by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like scarcity and markets; costs, benefits, and marginal analysis;</p>



		production choices and behavior; and market inefficiency and public policy.
Level III	Banking and Financial Services OSSEID: 5060206 Grades: 11-12 Prerequisite: Private and Public Finance Credit: 1	In Banking and Financial Services, students will develop knowledge and skills in the economic, financial, technological, international, social, and ethical aspects of banking to become competent employees and entrepreneurs. Students will incorporate a broad base of knowledge that includes the operations, sales, and management of banking institutions to gain a complete understanding of how banks function within society.
Level III	Securities and Investments OSSEID: 5060207 Grades: 11-12 Prerequisite: Private and Public Finance Credit: 1	In Securities and Investments, students will understand the laws and regulations to manage business operations and transactions in the securities industry.
Level III	Statistics and Business Decision Making OSSEID: 506020 Grades: 11-12 Prerequisite: Private and Public Finance Credit: 1	Statistics and Business Decision Making is an introduction to statistics and the application of statistics to business decision-making. Students will use statistics to make business decisions. Students will determine the appropriateness of methods used to collect data to ensure conclusions are valid.
Level IV	Practicum in Finance: Finance OSSEID: 5060209 Grades: 12 Prerequisite: Accounting I OR AP Macroeconomics AND AP Microeconomics OR Banking and Financial Services OR Securities and Investments OR Statistics and Business Decision Making Credit: 1	Practicum in Finance is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences occur in a paid or unpaid arrangement and a variety of locations appropriate to the nature and level of experience. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economic, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate decisions.



Industry Certifications

Intuit QuickBooks Certified User (QBCU)
 Microsoft Office Expert (MOS Expert) Excel

Work-Based Learning Examples and Resources

Level I Course	Level II Course	Level III Course	Level IV Course
Career Exploration Industry Visits Guest Speakers Participate in a CTSO	Career Awareness <i>All of Level I, plus:</i> Postsecondary Visits Program- Specific Site Tours Mock Interviews	Career Preparation <i>All of Level I and II, plus:</i> Job Shadow Paid/Unpaid Internships	Career Preparation Paid/Unpaid Internships Apprenticeships

Several resources are available to help instructors meet the Level I and Level II WBL requirements, including:

Career Coach DC (<http://careercoachdc.emsicc.com>). Online site designed to help students find and connect to a career pathway by providing the most current local data on wages, employment, job postings, and associated education and training. The resource includes a Career Assessment for students.

Nepris (<https://dc.nepris.com/>). Connects educators and learners with a network of industry professionals virtually, bringing real-world relevance and career exposure to all students. Nepris also provides a skills-based volunteering platform for business and industry professionals to extend their educational outreach.

Virtual Job Shadow (<https://virtualjobshadow.com>). Provides interactive tools which empower students to discover, plan, and pursue their dreams. Rich video library presents a “day in the life of” view for thousands of occupations.

Labor Market Information Definitions and Data

Career and Technical Education programs of study in the District of Columbia must meet at least one of the High Wage, High Skill, and In-Demand definitions below to be considered appropriate for our students and the regional labor market. These definitions were created in collaboration with Career and Technical Education leaders from District of Columbia LEA’s, the University of the District of Columbia Community College, and national guidance from Research Triangle International (RTI) and Education Northwest. Additionally, previous work was consulted from researchers at MIT’s Labor Wage Index Project and the DC CTE Task Force’s 2012 Strategic Plan for the District of Columbia.



Indicator	Definition	Data for the Finance Program of Study (source: EMSI, August 2021)
High Wage	<p>Those occupations that have a 25th percentile wage equal to or greater than the most recent MIT Living Wage Index for one adult in the District of Columbia, and/or leads to a position that pays at least the median hourly or annual wage for the Washington, DC, metropolitan statistical area.</p> <p><i>A 25th percentile hourly wage of \$20.49 or greater is required to meet this definition.</i></p>	<p>Standard Occupational Code (SOC): 13-2051.00 Financial Analyst 11-3031.00 Financial Managers 19-3011.00 Economists 13-2099.00 Financial Specialists, Other 15-2041.00 Statisticians</p> <p>Hourly Wages 25th Percentile: \$37.06 50th Percentile: \$48.51 75th Percentile: \$62.46</p>
High Skill	<p>Those occupations located within the Washington, DC, metropolitan statistical area with the following education or training requirements: completion of an apprenticeship program; completion of an industry-recognized certification or credential; associate's degree, or higher.</p>	<p>Typical Entry-Level Education: Bachelor's Degree</p>
In-Demand	<p>Those occupations in the Washington, DC, metropolitan statistical area having more than the median number of total (<i>growth plus replacement</i>) annual openings over a five-year period.</p> <p><i>Note: An occupation is required to have an annual growth plus replacement rate of 105 openings, or greater, between 2020-25 to meet this definition.</i></p>	<p>Annual Openings: 1,498</p>



Model Six-Year Plan: Finance

College: University of the District of Columbia Community College

Entity: Office of the State Superintendent of Education

Program/CIP: Accounting Technology (52.0302)

Career Cluster: Finance

Plan: Computer Accounting Technology A.A.S. Program

Program of Study: Finance

Subject	High School				College			
	9 th Grade	10 th Grade	11 th Grade	12 th Grade	Semester I	Semester II	Semester III	Semester IV
English (4)	English I	English II	English III	English IV				
Math (4)	Algebra I	Geometry	Algebra II	Math				
Science (4)	Biology	Lab Science	Lab Science	Science				
Social Studies (4)	World History and Geography I: MiddleAges	World History and Geography II: ModernWorld	U.S. History	U.S. Government (.5) and D.C History(.5)				
Health (.5) and Physical Ed (1)	Health (.5) Physical Ed (.5)	Physical Ed (.5)						
World Languages (2)			World Language I	World Language II				
Art (.5)		Art (.5)						
Music (.5)		Music (.5)						
Elective/Major Courses	Principles of Business, Marketing, and Finance	Private and Public Finance	Accounting I; or A.P. Macroeconomics and A.P. Microeconomics; or Banking and Financial Services; or Securities and Investments; or Statistics and Business Decision Making	Practicum in Finance: Finance				

Total possible college credits completed in high school: XX

Credit hours required to complete the AAS program: 62



Course Standards

Principles of Business, Marketing, and Finance

1. **General requirements.** This course is recommended for students in Grades 9-12. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.**
 - A. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - B. The Business Management and Administration Career Cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.
 - C. In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.
 - D. Students will participate in at least two Career Exploration Work-Based Learning experiences in this course, which might include guest speakers and workplace tours relevant to the program of study.
 - E. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
3. **Knowledge and skills.**
 - A. **The student demonstrates professional standards/employability skills required by business and industry. The student is expected to:**
 1. communicate effectively with others using oral and written skills;
 2. demonstrate collaboration skills through teamwork;
 3. demonstrate professionalism by conducting oneself in a manner appropriate for the profession and workplace;
 4. demonstrate a positive, productive work ethic by performing assigned tasks as directed;
 5. comply with all applicable rules, laws, and regulations; and
 6. demonstrate time-management skills by prioritizing tasks, following schedules, and tending to goal-relevant activities in a way that uses time wisely and optimizes efficiency and results.
 - B. **The student describes the characteristics of a business. The student is expected to:**
 1. explain the principles of supply and demand;
 2. differentiate between goods and services;
 3. identify the types of business;
 4. compare the different forms of ownership;



5. examine the organizational structure and functions of business;
 6. interpret the nature of balance sheets and income statements; and
 7. identify business cycles.
- C. **The student defines ethics in business. The student is expected to:**
1. distinguish between ethical and unethical business practices; and
 2. contrast ethical, moral, and legal choices that relate to the decision-making process in business situations.
- D. **The student differentiates between the types of economic systems with an emphasis on the private enterprise system and the U.S. economy. The student is expected to:**
1. compare and contrast the types of economic systems, including traditional, centrally planned, market, and mixed economies;
 2. summarize the characteristics of the private enterprise system; and
 3. identify factors affecting business profits, revenues, and expenses.
- E. **The student relates to the impact of international business on the U.S. economy. The student is expected to:**
1. explain the role of business in a global society;
 2. compare domestic and world trade; and
 3. explain the impact of imports and exports on the U.S. economy.
- F. **The student identifies the role and impact of government, the legal system, and organized labor in business. The student is expected to:**
1. differentiate among the roles of government in business;
 2. describe types of activities performed by governments in business;
 3. ascertain the role of the legal system in business; and
 4. explain the role of organized labor in society.
- G. **The student classifies types of businesses that market goods and services. The student is expected to:**
1. explain the importance of different marketing strategies for goods versus services;
 2. define business and industry terms such as producers, raw-goods producers, manufacturers, builders, trade industries, retailers, wholesalers, and service businesses;
 3. identify types of retailers;
 4. explain the role of retailers in a private enterprise system;
 5. identify examples of wholesalers; and
 6. describe the role of wholesalers in a private enterprise system.
- H. **The student analyzes cost and profit relationships in finance. The student is expected to:**
1. explain the concept of productivity;
 2. analyze the impact of specialization and division of labor on productivity; and
 3. explain the concept of organized labor and business.
- I. **The student understands the fundamental principles of money. The student is expected to:**
1. evaluate forms of financial exchange, including cash, credit, debit, and electronic funds transfer;
 2. identify types of currency, including paper money, coins, banknotes, government bonds, and treasury notes;
 3. list functions of money such as medium of exchange, unit of measure, and store of value;
 4. summarize the purposes and importance of credit; and



5. explain legal responsibilities associated with financial exchanges.
- J. **The student demonstrates an understanding of personal financial management. The student is expected to:**
1. explain the importance of providing accurate information;
 2. calculate gross and net pay;
 3. simulate opening and maintaining various types of bank accounts;
 4. reconcile bank statements;
 5. compare the advantages and disadvantages of different types of banking services;
 6. examine investment growth by developing a personal investment plan; and
 7. prepare an individual income tax return.
- K. **The student explains the importance of marketing as well as the functions of marketing. The student is expected to:**
1. define marketing;
 2. understand how marketing is related to other functions of business;
 3. explain the marketing concept; and
 4. describe marketing functions and its related activities.
- L. **The student understands the scope of market identification. The student is expected to:**
1. explain the concept of market and market identification;
 2. identify market segments;
 3. explain the difference between market segmentation and mass marketing;
 4. define and explain the importance of target markets; and
 5. identify a target market for a product or service using market segmentation.
- M. **The student understands the importance of an effective marketing mix. The student is expected to:**
1. explain the concept of marketing strategies;
 2. define each component of the marketing mix;
 3. identify examples of an effective marketing mix;
 4. create an effective marketing mix for a product or service; and
 5. explain the role of participation as a key element of marketing.
- N. **The student identifies career opportunities within the Business Management and Administration career cluster, the Finance career cluster, and the Marketing career cluster and formulates a career plan. The student is expected to:**
1. analyze individual goals and interests;
 2. determine individual talents, abilities, and skills; and
 3. develop an individual career plan.
- O. **The student develops technology skills. The student is expected to:**
1. use technology as a tool to research, organize, evaluate, and communicate information.
 2. use digital technologies (computers, PDAs, media players, GPSs, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy.
 3. demonstrate utilizing current and new technologies specific to the program of study, course, and/or industry; and



4. apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.



Private and Public Finance

1. **General requirements.** This course is recommended for students in Grades 10-12. Prerequisite: Principles of Business, Marketing, and Finance. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.**
 - A. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - B. The Finance Career Cluster focuses on planning, services for financial and investment planning, banking, insurance, and business financial management.
 - C. In Private and Public Finance, students will investigate money management from a personal and professional financial perspective. Students will apply critical-thinking skills to analyze financial options based on current and projected economic factors. Students will examine various methods of achieving short-term and long-term financial goals through various methods such as saving, investing, tax planning, asset allocating, risk management, retirement planning, and estate planning.
 - D. Students will participate in at least two Career Awareness Work-Based Learning experiences in this course, which might include informational interviews or job shadowing relevant to the program of study.
 - E. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
3. **Knowledge and skills.**
 - A. **The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:**
 1. demonstrate an understanding of appropriate communication with customers, employers, and coworkers through verbal, nonverbal, and digital means;
 2. demonstrate an understanding of the use of business etiquette;
 3. demonstrate an understanding of appropriate customer service such as building customer relationships and resolving customer complaints; and
 4. demonstrate an understanding of ethical and legal issues in business.
 - B. **The student uses career planning concepts, tools, and strategies to explore, obtain, and develop a financial plan. The student is expected to:**
 1. discuss the nature and benefits of financial planning; and
 2. discuss the role of ethics and personal responsibility in financial planning.
 - C. **The student demonstrates an understanding of a postsecondary plan. The student is expected to:**
 1. understand educational, military, and current job opportunities; and
 2. create a postsecondary plan that includes topics such as application requirements, testing requirements; certification requirements; associated deadlines; associated costs, including living expenses; job prospects and opportunities, beginning earnings; expected future earnings; and resumes and cover letters.



- D. The student demonstrates an understanding of the fundamental principles of money. The student is expected to:**
1. explain forms of financial exchange, including cash, credit cards, debit cards, and electronic funds transfer;
 2. compare and contrast various types of currency, including paper money, coins, banknotes, government bonds, and treasury notes;
 3. identify functions of money, including medium of exchange, unit of measure, and store of value;
 4. describe sources of income, including wages and salaries, interest, rent, dividends, capital gains, and transfer payments;
 5. explain the time value of money; and
 6. discuss the purposes and importance of credit.
- E. The student examines economic systems. The student is expected to:**
1. explain sole proprietorships, partnerships, and corporations;
 2. identify factors affecting profit, revenue, and expenses; and
 3. understand the rights and responsibilities of consumers within various economic systems.
- F. The student examines personal financial activities and the role of government. The student is expected to:**
1. analyze the importance and purpose of taxes;
 2. analyze monetary policy and fiscal policy;
 3. analyze the supply and demand for money; and
 4. analyze the role of the Federal Reserve System.
- G. The student discusses economic indicators impacting personal financial decision-making. The student is expected to:**
1. analyze the measure of consumer spending as an economic indicator;
 2. analyze the impact of a nation's unemployment rates;
 3. analyze the concept of Gross Domestic Product;
 4. analyze the economic impact of inflation on personal financial decision making;
 5. analyze unemployment and inflation tradeoffs;
 6. analyze the economic impact of interest rate fluctuations; and
 7. analyze the impact of business cycles on personal financial decision-making.
- H. The student analyzes the impact of international activities on personal financial decision-making. The student is expected to:**
1. examine current international events as related to personal financial decision making;
 2. examine currency exchange rates; and
 3. examine domestic and international labor issues as related to personal financial decision-making.
- I. The student examines how personal financial decisions are used to achieve financial goals. The student is expected to:**
1. develop a budget based on personal financial goals;
 2. explain the benefits of saving and investing;
 3. examine tax liabilities, including as they relate to the completion of a W-4;
 4. analyze a pay stub;
 5. interpret and reconcile bank statements;
 6. maintain financial records;



7. evaluate credit scores;
 8. use identity theft protection measures; and
 9. prepare personal income tax forms by completing a 1040EZ with a W-2 form and using current tax tables.
- J. The student understands the purposes of financial service providers. The student is expected to:**
1. describe types of financial service providers, including banks and credit unions;
 2. evaluate financial service providers based on selection criteria such as location, interest rates, and benefits;
 3. analyze financing needed for long-term personal assets, including home purchases and payments and auto purchases, leases, and payments;
 4. explain loan evaluation criteria used by lending institutions;
 5. summarize the components of a loan application package;
 6. calculate a home loan payment schedule;
 7. calculate an automobile loan payment schedule; and
 8. understand the risks of using a payday loan and title loan.
- K. The student identifies various investment strategies. The student is expected to:**
1. evaluate different types of investments such as stocks, bonds, and property;
 2. evaluate investment goals and objectives as they relate to risk tolerance;
 3. investigate the opportunities and costs of postsecondary education;
 4. investigate long-term needs and financial goals, including retirement; and
 5. investigate the factors that affect the value of investments.
- L. The student identifies methods to manage personal risk. The student is expected to:**
1. understand the concept of insurance;
 2. explore the reasons for obtaining personal insurance, including health, disability, life, cancer, and long-term care insurance;
 3. explore the reasons for obtaining property insurance coverage, including homeowner's, personal liability, renter's, flood, earthquake, and auto insurance; and
 4. understand the insurance claim settlement process.
- M. The student develops technology skills. The student is expected to:**
1. use technology as a tool to research, organize, evaluate, and communicate information.
 2. use digital technologies (computers, PDAs, media players, GPSs, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy.
 3. demonstrate utilizing current and new technologies specific to the program of study, course, and/or industry; and
 4. apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.



Accounting I

1. **General requirements.** This course is recommended for students in Grades 10-12. Prerequisite: Principles of Business, Marketing, and Finance (Accounting POS) or Private and Public Finance (Finance POS). Students shall be awarded one credit for successful completion of this course.
2. **Introduction.**
 - A. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - B. The Finance Career Cluster focuses on planning, services for financial and investment planning, banking, insurance, and business financial management.
 - C. In Accounting I, students will investigate the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information. Students will formulate and interpret financial information for use in management decision-making.
 - D. If taken as a Level II Course, students will participate in at least two Career Awareness Work-Based Learning experiences in this course, which might include informational interviews or job shadowing relevant to the program of study. If taken as a Level III Course, Students will participate in a Career Preparation Work-Based Learning experience in this course, which might include paid or unpaid internship experiences relevant to the program of study.
 - E. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
3. **Knowledge and skills.**
 - A. **The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:**
 1. demonstrate effective oral and written communication skills;
 2. perform numerical and arithmetic applications;
 3. demonstrate an understanding of integrity and strong work ethic;
 4. demonstrate attention to detail in completed assignments; and
 5. demonstrate effective problem-solving.
 - B. **The student communicates an understanding of the accounting industry. The student is expected to:**
 1. describe the purpose of accounting and financial reporting;
 2. discuss its impact on industry; and
 3. describe Generally Accepted Accounting Principles (GAAP).



- C. **The student uses career planning concepts, tools, and strategies to explore accounting careers. The student is expected to:**
1. discuss the significance of responsibility in accounting, such as ethical and social responsibility;
 2. explore careers in accounting, including education requirements, roles, and responsibilities of certified public accountants, general ledger accountants, management accountants, auditors, government accountants, international accountants, forensic accountants, and senior management in accounting; and
 3. identify accounting licensing and certification programs, including professional designations for accountants such as certified public accountants and certified management accountants.
- D. **The student uses equations, graphical representations, accounting tools, strategies, and automated systems in real-world situations to maintain, monitor, control, and plan the use of financial resources. The student will complete an accounting cycle for a service business. The student is expected to:**
1. illustrate the accounting cycle;
 2. analyze the effects of transactions on the accounting equation and use T accounts to analyze transactions;
 3. prepare a chart of accounts;
 4. journalize transactions in a general journal;
 5. post journal entries to general ledger accounts;
 6. prepare worksheets;
 7. prepare a trial balance;
 8. journalize and post adjusting and closing entries;
 9. prepare a post-closing trial balance; and
 10. prepare financial statements, including income statements, balance sheets, statements of stockholders' equity, and changes in owners' equity.
- E. **The student analyzes cash controls. The student is expected to:**
1. explain cash control procedures such as bank account access, dual control, timely account reconciliations, and security of check stock;
 2. prove cash and reconcile bank statements;
 3. journalize and post entries to establish and replenish petty cash;
 4. journalize and post entries related to banking activities; and
 5. explain the benefits of electronic funds transfer.
- F. **The student performs accounting functions for a merchandising business. The student is expected to explain the nature of special journals and recording transactions in special journals.**
- G. **The student performs accounts payable functions. The student is expected to:**
1. maintain a vendor file;
 2. analyze purchase transactions;
 3. post to an accounts payable subsidiary ledger;
 4. process invoices for payment;
 5. prepare a schedule of accounts payable; and
 6. analyze the impact of accounts payable on the balance sheet and cash flow statements.
- H. **The student performs accounts receivable functions. The student is expected to:**
1. explain the nature of accounts receivable;
 2. maintain a customer file for accounts receivable;



3. analyze sales transactions;
 4. post to an accounts receivable subsidiary ledger;
 5. process sales orders, returns, and allowances;
 6. process customer payments;
 7. process uncollectible accounts;
 8. prepare a schedule of accounts receivable;
 9. determine uncollectible accounts receivable; and
 10. analyze the impact of accounts receivable on the balance sheet and cash flow statements.
- I. **The student investigates merchandise inventory to determine the impact on a company's financial position. The student is expected to:**
1. discuss the importance of merchandise inventory to a corporation, including the benefits of determining the most efficient inventory levels;
 2. explain the difference between periodic and perpetual methods of calculating inventory quantities, including the use of inventory records, stock records, and point-of-sale terminals;
 3. calculate the cost of inventory, including the First In, First Out (FIFO) method, Last In, First Out (LIFO) method, weighted average method, and the Gross Profit method of estimating inventory; and
 4. analyze the results of valuing inventory under the FIFO method, LIFO method, weighted average method, and the Gross Profit method of estimating inventory to determine the effect on Net Income and Gross Profit.
- J. **The student completes payroll procedures to calculate, record, and distribute payroll earnings and analyzes the impact of these expenses on a company's financial position. The student is expected to:**
1. interpret time cards to calculate hours worked;
 2. maintain employee earnings records and registers;
 3. calculate employee earnings, including gross earnings, withholdings, and net pay;
 4. journalize salary expenses;
 5. calculate employer payroll taxes;
 6. journalize payroll tax expenses;
 7. discuss payroll tax expense forms and reports; and
 8. analyze the impact of salary expenses and payroll tax expense on total expenses and net income.
- K. **The student performs specialized accounting functions for a corporation and completes an accounting cycle. The student is expected to:**
1. analyze the articles of incorporation needed to start a corporation;
 2. journalize the issuance of stock;
 3. compute dividends payable on stock;
 4. complete a worksheet for a corporation, including calculating adjustments for depreciation, merchandise inventory, and federal taxes;
 5. prepare financial statements for a corporation, including a balance sheet, an income statement, a statement of stockholders' equity, and a statement of changes in retained earnings;
 6. understand that internal accounting controls exist to ensure the proper recording of financial transactions; and
 7. identify and perform tax accounting functions such as recordkeeping procedures and the nature of corporate tax accounting.



- L. **The student describes laws and regulations in order to manage business operations and transactions in accounting. The student is expected to:**
1. describe the regulation of accounting;
 2. identify and analyze historical events that led to the regulation of accounting, such as the fall of Enron; WorldCom; Tyco International, Ltd.; Adelphia Communications; and Arthur Andersen;
 3. describe the impact of the Sarbanes-Oxley Act of 2002 on internal controls and financial reporting;
 4. describe the role of the Securities and Exchange Commission in regulating the accounting industry;
 5. discuss state regulation of the accounting industry; and
 6. identify and research a case study involving historically significant compliance or regulatory issue that led to the formation of regulatory agencies or laws, including:
 - a. formulating questions to analyze the issue;
 - b. gathering relevant sources;
 - c. evaluating the validity and reliability of those sources; and
 - d. determining which laws and regulations apply.
- M. **The student accesses, processes, maintains, evaluates, and disseminates financial information to assist business decision-making. The student is expected to:**
1. use accounting technology, including discussing the use of data mining and integrating technology into accounting;
 2. engage in an accounting simulation covering an accounting cycle; and
 3. create a clear and coherent oral presentation that analyzes the results of an accounting simulation covering an accounting cycle and includes the use of correct grammar, spelling, punctuation, and citation of resource materials.
- N. **The student develops technology skills. The student is expected to:**
1. use technology as a tool to research, organize, evaluate, and communicate information.
 2. use digital technologies (computers, PDAs, media players, GPSs, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy.
 3. demonstrate utilizing current and new technologies specific to the program of study, course, and/or industry; and
 4. apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.



Advanced Placement (A.P.) Macroeconomics

1. **General requirements.** This course is recommended for students in Grades 11-12. Recommended prerequisite: Private and Public Finance. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.** A.P. Macroeconomics is an introductory college-level macroeconomics course. Students cultivate their understanding of the principles that apply to an economic system as a whole by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like economic measurements, markets, macroeconomic models, and macroeconomic policies.
3. **Knowledge and Skills.** Content requirements. Content requirements for Advanced Placement (A.P.) Macroeconomics are prescribed in the College Board Publication Advanced Placement Course in Macroeconomics published by The College Board.

Advanced Placement (A.P.) Microeconomics

1. **General requirements.** This course is recommended for students in Grades 11-12. Recommended prerequisite: Private and Public Finance. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.** A.P. Microeconomics is an introductory college-level microeconomics course. Students cultivate their understanding of the principles that apply to the functions of individual economic decision-makers by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like scarcity and markets; costs, benefits, and marginal analysis; production choices and behavior; and market inefficiency and public policy.
3. **Knowledge and Skills.** Content requirements. Content requirements for Advanced Placement (A.P.) Microeconomics are prescribed in the College Board Publication Advanced Placement Course in Macroeconomics published by The College Board.



Banking and Financial Services

1. **General requirements.** This course is recommended for students in Grades 11-12. Prerequisite: Private and Public Finance. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.**
 - A. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - B. The Finance Career Cluster focuses on planning, services for financial and investment planning, banking, insurance, and business financial management.
 - C. Banking services are primarily concerned with accepting deposits, lending funds, and extending credit. Banking services include cash management, short-term investments, mortgages and other loans, credit cards, and bill payments. Banking services are delivered via a number of different institutions, from commercial banks (the largest group) and other traditional means (savings and loans associations, credit unions, and local banks) to newer ventures through insurance companies, brokerage houses, and the Internet.
 - D. In Banking and Financial Services, students will develop knowledge and skills in the economic, financial, technological, international, social, and ethical aspects of banking to become competent employees and entrepreneurs. Students will incorporate a broad base of knowledge that includes the operations, sales, and management of banking institutions to gain a complete understanding of how banks function within society.
 - E. Students will participate in a Career Preparation Work-Based Learning experience in this course, which might include paid or unpaid internship experiences relevant to the program of study.
 - F. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
3. **Knowledge and skills.**
 - A. **The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:**
 1. demonstrate effective oral and written communication skills;
 2. perform numerical and arithmetic applications;
 3. demonstrate an understanding of integrity and strong work ethic;
 4. demonstrate attention to detail in completed assignments; and
 5. demonstrate effective problem-solving.
 - B. **The student evaluates the role of banking in the modern economy. The student is expected to:**
 1. outline the evolution of money and banking in the U.S. economy;
 2. explain the operation of the Federal Reserve Bank and its role in the economy;
 3. outline and analyze the history and the impact of the use of the gold or silver standard in monetary policy;
 4. compare and contrast the types of financial institutions such as commercial banks, savings and loan associations, credit unions, investment banks, financial services companies, and mortgage companies;



5. discuss the role of the World Bank Group in international financial assistance; and
 6. explain the nature of government agencies that provide financing to businesses, such as the Export-Import Bank of the United States and the Small Business Administration.
- C. The student acquires knowledge of banking processes and services. The student is expected to:**
1. describe the nature of banking processes;
 2. describe the types of banking services;
 3. discuss retail bank products and services;
 4. explain business bank products and services;
 5. describe basic teller performance standards;
 6. discuss the nature of loan products; and
 7. discuss trust services available to customers.
- D. The student describes the roles and responsibilities in banking services, including educational requirements. The student is expected to:**
1. explain the role and responsibilities of administrative careers in banking services; and
 2. describe the role and responsibilities of executive and managerial careers in banking services.
- E. The student determines client needs and wants and responds through planned, personalized communication to influence purchase decisions and enhance future business opportunities in banking services. The student is expected to:**
1. describe the importance of selling in the banking industry, including cross-selling and relationship selling;
 2. explain the process of opening a new account; and
 3. describe loan terms for a client.
- F. The student simulates the day-to-day activities within a banking organization in order to ensure secure operations. The student is expected to:**
1. describe bank loss prevention measures such as procedures for the secure handling of cash and checks; detecting and reporting counterfeit currency; developing business continuity plans; and preventing crimes to which a bank could fall victims such as fraud, robbery, and phishing;
 2. discuss the role of the Federal Reserve System in banking operations and cash-handling procedures;
 3. simulate daily cash processing activities such as processing damaged and mutilated currency and coin, ordering and depositing currency, depositing checks, handling differences in cash received and deposited, and transporting cash;
 4. analyze the underwriting of loan applications to determine credit worthiness of customers, including credit analysis and factors affecting loan pricing and structuring; and
 5. discuss the nature of problem loan management.
- G. The student describes laws and regulations used to manage business operations and transactions in the banking services industry. The student is expected to:**
1. explain the elements of a compliance program;
 2. discuss functional areas of a compliance audit;
 3. analyze a compliance plan;
 4. discuss federal regulations of lending and operations functions in banking services, including the ethical and social aspects of those regulations;
 5. discuss e-compliance issues in banking services; and



6. discuss the responsibilities of regulatory agencies that oversee the banking industry.
- H. **The student investigates ways to create and maintain positive, ongoing relationships with banking customers in order to enhance the organization's image. The student is expected to:**
1. explain ways to cultivate positive relationships with customers to enhance company image;
 2. discuss the importance of meeting and exceeding customer expectations; and
 3. describe the relationships that institutions providing banking services have with their communities.
- I. **The student maintains, monitors, controls, and plans the use of financial resources to enhance banking performance. The student is expected to:**
1. describe the manner in which banks generate profit and explain measures they take to ensure profitability; and
 2. use financial formulas commonly used in banking to aid in the growth and stability of banking services, including key ratios and banking calculations such as interest and annual percentage rate, capital adequacy, asset quality, management administration, earnings, liquidity, and sensitivity to market risk.
- J. **The student develops technology skills. The student is expected to:**
1. use technology as a tool to research, organize, evaluate, and communicate information.
 2. use digital technologies (computers, PDAs, media players, GPSs, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy.
 3. demonstrate utilizing current and new technologies specific to the program of study, course, and/or industry; and
 4. apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.



Securities and Investments

1. **General requirements.** This course is recommended for students in Grades 11-12. Prerequisite: Private and Public Finance. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.**
 - A. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - B. The Finance Career Cluster focuses on planning, services for financial and investment planning, banking, insurance, and business financial management.
 - C. In Securities and Investments, students will understand the laws and regulations to manage business operations and transactions in the securities industry.
 - D. Students will participate in a Career Preparation Work-Based Learning experience in this course, which might include paid or unpaid internship experiences relevant to the program of study.
 - E. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
3. **Knowledge and skills.**
 - A. **The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:**
 1. demonstrate an understanding of appropriate communication with customers, employers, and coworkers through verbal, nonverbal, and digital means;
 2. demonstrate an understanding of the use of business etiquette;
 3. demonstrate an understanding of appropriate customer service such as building customer relationships and resolving customer complaints; and
 4. demonstrate an understanding of ethical and legal issues in business.
 - B. **The student describes laws and regulations in order to manage personal and business operations and transactions in the securities and investments industry. The student is expected to:**
 1. explain the regulation of the securities and investments industry, including the role of the Securities and Exchange Commission;
 2. understand the legal and ethical considerations in buying and selling securities; and
 3. understand the state regulation of the securities and investments industry.
 - C. **The student describes investment analysis and selection processes. The student is expected to:**
 1. describe types of investment objectives;
 2. consider the nature of investment risk;
 3. analyze diversification strategies;
 4. understand factors to consider when selecting investments;
 5. analyze information that can be obtained from financial statements and annual reports;



6. examine a mutual fund prospectus;
7. interpret analysis used in making investment decisions;
8. discuss strategies for selecting investments;
9. identify performance measurements for venture capital; and
10. describe investment analysis and selection theory such as the Modern Portfolio Theory, the Capital Asset Pricing Model, and the Arbitrage Pricing Theory.

D. The student identifies investments. The student is expected to:

1. interpret financial ratios significant to investors, including price-earnings ratio;
2. calculate stock-related values such as the value of a constant growth stock, the expected value of future dividends, and the expected rate of return;
3. calculate bond-related values such as the price of a bond given its yield to maturity, the coupon interest payment for a bond, and the effects of interest rates on the price of a bond;
4. calculate bond present value and future value; and
5. select investments based on financial analysis such as financial ratios.

E. The student understands security and investment operations. The student is expected to:

1. examine security and investment operational activities;
2. discuss the operations of a securities and investment office;
3. examine the buy and sell functions of a brokerage firm; and
4. discuss and calculate commissions.

F. The student explores security and investment licensing and certification programs. The student is expected to:

1. explore educational requirements;
2. compare and contrast the Series 6 and Series 7 licensing exams required to sell securities and other financial products; and
3. explain professional designations in the securities and investments industry such as Certified Fund Specialist, Chartered Financial Analyst, Board Certified in Asset Allocation, Board Certified in Securities, Certified Senior Consultant, and Certified Financial Planner.

G. The student understands investments and their relationships to the economy. The student is expected to:

1. evaluate the environments in which security and investment services are offered, including securities sales agents, securities and investments firms, and securities markets;
2. evaluate causes of stock price fluctuations;
3. evaluate the relationship between bond prices and yields;
4. evaluate the role of investment banking in the primary marketplace; and
5. evaluate margin accounts, short sales, market timing, and international strategies.

H. The student demonstrates an understanding of securities and investments products. The student is expected to evaluate securities and investments products such as stocks, dividends, stock splits, options strategies, hedge funds, futures, bonds, mutual funds, venture capital, real estate, retirement investment plans, and education savings and the advantages and disadvantages from an issuer and investor perspective.



- I. **The student demonstrates an understanding of a postsecondary plan. The student is expected to:**
 1. understand educational, military, and current job opportunities; and
 2. create a postsecondary plan that includes topics such as application requirements, testing requirements, certification requirements, associated deadlines, associated costs, including living expenses, job prospects, and opportunities, beginning earnings, expected future earnings, and resumes and cover letters.

- J. **The student develops technology skills. The student is expected to:**
 1. use technology as a tool to research, organize, evaluate, and communicate information.
 2. use digital technologies (computers, PDAs, media players, GPSs, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy.
 3. demonstrate utilizing current and new technologies specific to the program of study, course, and/or industry; and
 4. apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.



Statistics and Business Decision Making

1. **General requirements.** This course is recommended for students in Grades 11 and 12. Prerequisite: Private and Public Finance. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.**
 - A. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - B. The Finance Career Cluster focuses on planning, services for financial and investment planning, banking, insurance, and business financial management.
 - C. Statistics and Business Decision Making is an introduction to statistics and the application of statistics to business decision-making. Students will use statistics to make business decisions. Students will determine the appropriateness of methods used to collect data to ensure conclusions are valid.
 - D. Students will participate in a Career Preparation Work-Based Learning experience in this course, which might include paid or unpaid internship experiences relevant to the program of study.
 - E. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
3. **Knowledge and skills.**
 - A. **The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:**
 1. demonstrate an understanding of appropriate communication with customers, employers, and coworkers through verbal, nonverbal, or digital means;
 2. demonstrate an understanding of the use of business etiquette;
 3. demonstrate an understanding of appropriate customer service such as building customer relationships and resolving customer complaints; and
 4. demonstrate an understanding of ethical and legal issues in business.
 - B. **The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:**
 1. apply mathematics to problems arising in everyday life, society, and the workplace;
 2. use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;
 3. select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
 4. communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;
 5. create and use representations to organize, record, and communicate mathematical ideas;
 6. analyze mathematical relationships to connect and communicate mathematical ideas; and



7. display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.
- C. **The student uses career planning concepts, tools, and strategies to explore a career in the area of risk management. The student is expected to:**
1. compare and contrast the fundamentals of risk management, including the reasons for and benefits of risk management;
 2. discuss the role of ethics and responsibility in risk management; and
 3. compare and contrast roles, responsibilities, licensing, and certification programs of careers related to managing and analyzing personal and corporate financial portfolios such as financial planners, financial managers, financial analysts, controllers, risk managers, cash managers, treasurers, and chief financial officers.
- D. **The student understands and demonstrates the use of statistics in business areas, including accounting, economics, finance, management, and marketing. The student is expected to:**
1. evaluate the use of statistics in accounting such as forecasting consumption, earnings, cash flows, book value, and allowance for doubtful accounts;
 2. evaluate how statistics are used in economics such as reports for the labor market, trade balance, Gross Domestic Product, unemployment, and consumer spending;
 3. evaluate how statistics are used in finance, such as the use by financial intermediaries or in the evaluation of investments, securities, derivatives, futures, or options;
 4. evaluate how statistics are used in management, such as in the evaluation of production efficiency, production quantity, quality control, workforce trends, staffing issues, and employee satisfaction; and
 5. evaluate how statistics are used in marketing, such as reports for projected market share, advertising effectiveness, sales effectiveness, brand loyalty, spending habits, and customer satisfaction.
- E. **The student understands and demonstrates the ethical and responsible use of statistics in business. The student is expected to evaluate how statistics are used in accounting, economics, finance, management, and marketing.**
- F. **The student evaluates risk-management strategies and techniques in corporate finance to maximize profit and minimize loss. The student is expected to:**
1. manage risk to protect business stability;
 2. analyze the relationship between risk management and operations; and
 3. evaluate various risk-management strategies and techniques, including the use of insurance, stock, derivatives, and options.
- G. **The student evaluates financial information using statistical analysis to assist business decision-making using appropriate software. The student is expected to:**
1. communicate the value of statistical information in a variety of business disciplines and environments;
 2. assess statistical information portrayed in areas such as advertising, investments and securities, human resource management, and economics;
 3. generate a spreadsheet to collect, collate, organize, and analyze quantitative data; and
 4. use spreadsheets and graphical techniques to present data in a manner that is understood by and meaningful to colleagues and clients.



- H. **The student understands and demonstrates the defining and collecting of data. The student is expected to:**
1. define the types of variables and the measurement scales of variables;
 2. understand the collecting of data and its source;
 3. understand populations and samples;
 4. understand sampling methods; and
 5. understand and define survey error types.
- I. **The student will understand and demonstrate the organization and visualization of data. The student is expected to organize and visualize categorical data and numerical data.**
- J. **The student understands and demonstrates the use of descriptive measures. The student is expected to:**
1. understand and calculate the central tendency of the data set using mean, median, and mode;
 2. understand and determine the variation of the data set using range, sample variance, sample standard deviation, population variance, population standard deviation, coefficient of the variation, and Z score; and
 3. understand and demonstrate the measuring the shape of the data set using skewness, symmetry, and kurtosis.
- K. **The student understands and demonstrates the use of probability. The student is expected to:**
1. define event, compound event, complement of an event, sample space, marginal probability, conditional probability, independence, multiplication rule, multiplication rule for independent events, probability of an event, impendence, and Bayes' Theorem; and
 2. define and calculate simple probability, compound probability, marginal probability, general addition rule, marginal probability using the multiplication rule, and probability with Bayes' Theorem.
- L. **The student understands and demonstrates the use of probability distribution for discrete variables. The student is expected to understand and demonstrate the use of the uniform distribution, the binomial distribution, and the Poisson distribution.**
- M. **The student understands and demonstrates the use of probability distribution for continuous variables. The student is expected to understand and demonstrate the use of the normal distribution, uniform distribution, and exponential distribution.**
- N. **The student understands and demonstrates the use of sampling distribution, sampling distribution of the mean, and the central limit theorem. The student is expected to:**
1. calculate the population mean and population standard deviation;
 2. calculate standard error of the mean; and
 3. calculate the Z- and X-bar for the sampling distribution of the mean.
- O. **The student understands and demonstrates the use and construction of confidence intervals. The student is expected to:**
1. construct a confidence interval for the mean for a known and unknown population standard deviation; and
 2. evaluate ethical issues associated with confidence intervals.



- P. **The student understands and demonstrates hypothesis testing for one sample tests and two-sample tests. The student is expected to:**
1. understand and demonstrate the use of hypothesis testing, null hypothesis, and alternative hypothesis;
 2. create a null hypothesis and alternative hypothesis;
 3. understand and demonstrate the use of Type I error and Type II error;
 4. calculate the level of significance and calculate beta risk;
 5. understand and demonstrate the use of the complements of Type I error and Type II error by calculating the confidence coefficient and the power of a statistical test;
 6. understand and calculate Z-test for the mean;
 7. understand and demonstrate a one-tail test hypothesis and its associated critical values and p-value; and
 8. understand and demonstrate a two-tail test hypothesis and its associated critical values and p-value.
- Q. **The student understands analysis of variance. The student is expected to understand and demonstrate the analysis of more than two populations.**
- R. **The student understands and demonstrates the use of the chi-square test. The student is expected to use a chi-square test.**
- S. **The student understands and demonstrates the use of nonparametric test. The student is expected to use nonparametric tests such as the Wilcoxon Sum test.**
- T. **The student understands simple linear regression. The student is expected to:**
1. understand and demonstrate the use of various types of regression models;
 2. create the regression equation; and
 3. make predictions based on regression models.
- U. **The student understands an introduction to multivariable regression: The student is expected to use a multivariable regression model.**
- V. **The student understands time series analysis and forecasting. The student is expected to:**
1. understand times series models;
 2. understand trend component;
 3. understand seasonal component; and
 4. understand cyclical components.
- W. **The student demonstrates an understanding of a postsecondary plan. The student is expected to:**
1. understand educational, military, and current job opportunities; and
 2. create a postsecondary plan that includes topics such as application requirements, testing requirements, certification requirements, associated deadlines, associated costs, including living expenses, job prospects, and opportunities; beginning earnings; expected future earnings, and resumes and cover letters.
- X. **The student develops technology skills. The student is expected to:**
1. use technology as a tool to research, organize, evaluate, and communicate information.
 2. use digital technologies (computers, PDAs, media players, GPSs, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy.



3. demonstrate utilizing current and new technologies specific to the program of study, course, and/or industry; and
4. apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.



Practicum in Finance: Finance

1. **General requirements.** This course is recommended for students in Grade 12. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Finance Career Cluster. Prerequisite: Accounting I; AP Microeconomics and AP Macroeconomics; Banking and Financial Services; Securities and Investments; or Statistics and Business Decision Making. Students shall be awarded one credit for successful completion of this course.
2. **Introduction.**
 - A. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
 - B. The Finance Career Cluster focuses on careers in planning, organizing, directing, and evaluating financial functions essential to efficient and productive business operations.
 - C. Practicum in Finance is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences occur in a paid or unpaid arrangement and a variety of locations appropriate to the nature and level of experience. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economic, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate decisions.
 - D. Students will participate in a Career Preparation Work-Based Learning experience in this course, which includes paid or unpaid internship, pre-apprenticeship, or apprenticeship experiences relevant to the program of study.
 - E. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
3. **Knowledge and skills.**
 - A. **The student demonstrates professional standards/employability skills required by business and industry. The student is expected to:**
 1. communicate effectively with others using oral and written skills;
 2. demonstrate collaboration skills through teamwork;
 3. demonstrate professionalism by conducting oneself in a manner appropriate for the profession and workplace;
 4. demonstrate a positive, productive work ethic by performing assigned tasks as directed;
 5. comply with all applicable rules, laws, and regulations; and
 6. demonstrate time-management skills by prioritizing tasks, following schedules, and tending to goal-relevant activities in a way that uses time wisely and optimizes efficiency and results.



- B. The student identifies and implements employability skills to gain a position in a company. The student is expected to:**
1. assess personal marketability;
 2. practice job-search strategies, including:
 - a. write a letter of application;
 - b. prepare a resume;
 - c. use networking techniques to identify employment opportunities; and
 - d. complete a job application;
 3. demonstrate proper interview techniques and professional dress and appearance;
 4. interview for a job, performing proper interview techniques and modeling professional dress and appearance;
 5. practice appropriate follow-up etiquette procedures, including:
 - a. write a thank you note; and
 - b. write a follow-up letter after a job interview;
 6. identify skills and attributes necessary for professional advancement;
 7. evaluate and compare employment options such as salaries, benefits, and prerequisites;
 8. identify and rank tangible and intangible rewards of work; and
 9. identify employment opportunities and complete job search procedures such as job applications and W-4.
- C. The student demonstrates professional standards as required by business and industry. The student is expected to:**
1. adhere to policies and procedures;
 2. demonstrate positive work behaviors and attitudes, including punctuality, time-management, initiative, and cooperation;
 3. apply ethical reasoning to a variety of situations in order to make ethical decisions; and
 4. complete tasks with the highest standards to ensure quality products and services.
- D. The student develops and demonstrates skills for success in the workplace. The student is expected to:**
1. explain the importance of and model appropriate dress, hygiene, and demeanor for the work assignment;
 2. exhibit productive work habits and attitudes, including accepting constructive criticism; and
 3. prioritize work to fulfill responsibilities, meet deadlines, and complete tasks with the highest standards to ensure quality products and services.
- E. The student applies principles of effective interpersonal skills. The student is expected to:**
1. demonstrate professional qualities, including positive attitude, loyalty, and diplomacy;
 2. identify and demonstrate skills needed to maintain effective work relations with relevant parties such as colleagues and customers;
 3. demonstrate a respect for different workplace cultures and individuals from different cultures, genders, and backgrounds;
 4. understand rights and responsibilities concerning sexual harassment in the workplace;
 5. apply tact in handling criticism and disagreement or disappointment, accept constructive criticism, and revise personal views when valid evidence warrants;
 6. explain the concepts of integrity and confidentiality as related to the office environment; and
 7. demonstrate methods for implementing and improving customer satisfaction.



- F. The student demonstrates leadership and teamwork skills in collaborating with others to accomplish goals and objectives. The student is expected to:**
1. analyze leadership in relation to trust, positive attitude, integrity, and willingness to accept key responsibilities in a work situation;
 2. demonstrate teamwork skills through working cooperatively with others to achieve goals;
 3. demonstrate teamwork processes that promote team building, consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability, and conflict resolution;
 4. demonstrate responsibility for shared group and individual work tasks; and
 5. establish and maintain effective working relationships by:
 - a. demonstrating interpersonal skills;
 - b. using positive interpersonal skills to work cooperatively with others;
 - c. negotiating effectively to arrive at decisions; and
 - d. demonstrating sensitivity to and value for diversity.
- G. The student facilitates internal and external office communications to support work activities. The student is expected to:**
1. record messages accurately, legibly, and completely;
 2. deliver messages to the appropriate person or department;
 3. coordinate arrangements for participants;
 4. follow calling and login procedures; and
 5. troubleshoot any problems.
- H. The student abides by risk-management policies and procedures for technology to minimize loss. The student is expected to:**
1. adhere to technology safety and security policies such as acceptable use policy and web page policies;
 2. apply ergonomic techniques to technology tasks;
 3. adhere to laws pertaining to computer crime, fraud, and abuse;
 4. follow procedures used to restart and recover from situations such as system failure and virus infection;
 5. follow policies to prevent loss of data integrity; and
 6. adhere to the organization's policies for technology use.
- I. The student uses information technology tools to manage and perform work responsibilities. The student is expected to:**
1. demonstrate advanced web search skills;
 2. demonstrate advanced word-processing skills by:
 - a. identifying customary styles of business documents such as memoranda, letters, emails, and reports;
 - b. inputting data using the touch system;
 - c. demonstrating basic writing techniques such as correct memorandum format, informal or formal style, and direct or indirect layout;
 - d. applying correct grammar, spelling, punctuation, and other English mechanics; and
 - e. using references and preparing notations;
 3. apply advanced presentation applications;
 4. demonstrate advanced spreadsheet applications by:
 - a. entering labels and values into spreadsheet cells;
 - b. formatting labels and values;
 - c. preparing tables, graphs, infographics and graphics;



- d. developing formulas and entering appropriate functions; and
 - e. verifying formulas and functions with sample values;
5. construct advanced database applications;
 6. perform scheduling functions electronically to facilitate on-time, prompt completion of work activities by:
 - a. creating a calendar or schedule;
 - b. maintaining an appointment calendar;
 - c. verifying appointments;
 - d. coordinating travel arrangements;
 - e. setting up meeting arrangements; and
 - f. disseminating meeting information to appropriate persons; and
 7. enter data without error.
- J. The student manages personal finances to achieve financial goals. The student is expected to:**
1. develop a budget based on personal financial goals;
 2. interpret a pay stub;
 3. read and reconcile bank statements;
 4. maintain financial records;
 5. demonstrate the wise use of credit;
 6. validate a credit history;
 7. protect against identity theft; and
 8. prepare personal income tax forms, including the 1040E.
- K. The student establishes procedures to maintain equipment and supplies. The student is expected to:**
1. determine equipment needed;
 2. determine supplies needed;
 3. establish equipment and supplies maintenance systems;
 4. schedule equipment maintenance; and
 5. use equipment and supplies maintenance procedures.
- L. The student applies concepts of critical thinking and problem solving. The student is expected to:**
1. analyze elements of a problem to develop creative and innovative solutions;
 2. critically analyze information to determine value to the problem-solving task;
 3. compare and contrast alternatives using a variety of problem-solving and critical-thinking skills; and
 4. conduct technical research to gather information necessary for decision making.
- M. The student develops technology skills. The student is expected to:**
1. use technology as a tool to research, organize, evaluate, and communicate information.
 2. use digital technologies (computers, PDAs, media players, GPSs, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy.
 3. demonstrate utilizing current and new technologies specific to the program of study, course, and/or industry; and
 4. apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.