

BUSINESS MANAGEMENT & ADMINISTRATION CAREER CLUSTER DESIGN

Business Entrepreneurship & Management Pathway – CIP Code 52.0799

Approved Pathway:

- 1) Includes minimum of three secondary-level credits.
- 2) Includes a work-based element.
- 3) Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
- 4) Supporting documentation includes Articulation Agreement(s), Certification, Program Improvement Plan, and a Program of Study.
- 5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

INTRODUCTORY LEVEL

*Business Essentials 12050 .5 credit

TECHNICAL LEVEL

*Business Economics	✓	12105	.5 credit	*Business Management	12052	.5 credit
*Entrepreneurship		12053	.5 credit			
Supportive Courses (Optional; Limited to 2 credits)						
Accounting		12104	1 credit	Internet Marketing	12162	1 credit
Business Communications		12009	.5 credit	Production Welding Processes I	39207	1 credit
Business Law		12054	.5 credit	Remodel & Building Maintenance	17009	.5 credit
Marketing		12152	1 credit	Web Page Design	10201	1 credit
Woodworking Principles		17007	1 credit	Residential Carpentry I	17002	1 credit
Drafting/CAD		21107	1 credit	Culinary Essentials	16052	.5 credit
Ag Welding I		18404	1 credit	Found. Early Childhood Develop.	19052	1 credit
IB Business & Management		12059	1 credit			

APPLICATION LEVEL

*Applied Business Development 32200 1 credit

*Required for pathway approval

✓Course is Eligible for Regents Qualified Admissions – Social Science

Name _____ ID _____

Instructor _____ School Year _____

Enrollment Date _____ Completion Date _____ Credits Completed _____

I certify that the student received the training in the area indicated.

Student Signature : _____ Date _____

Instructor Signature: _____ Date _____

Competencies reflect standards from National Career Clusters, National Business Education Association and The Council for Economic Education.

Technical-level course for Business Management and Administration, Hospitality and Tourism course for Finance, and Marketing Career Clusters (Funded)

Business Economics course integrate economic principles (such as free market economy, consumerism, and the role of American government within the economic system) with entrepreneurship/business concepts (such as marketing principles, business law, and risk).

RATING SCALE:3: Skilled, works independently; 2: Competent, may need assistance; 1: Received instruction, skill undeveloped; 0: No exposure, instruction or training. Measured competencies listed should be seen as minimums.

Topic	1	Academic and Systems Foundations		Achieve additional academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within a career cluster.				
Benchmark	1.01	The student will demonstrate an operational understanding of fundamental terms and concepts to describe what societies can do improve people's lives individually and collectively.						
		Competencies	Sample Indicators					
	01.01.01	Describe relative scarcity exists in all societies.	Research why less developed economies have many starving due to lack of resources while affluent societies still have nearly boundless wants.	3	2	1	0	
	01.01.02	Give real-world examples of each type of scarce resource (e.g., Natural resources, labor, capital, entrepreneurs).	Explain how a hammer might be a scarce resource for a construction company.	3	2	1	0	
			Describe the value of water to a lumber mill business.					
	01.01.03	Identify examples of virtually unlimited wants.	Explain why families may have more than one vehicle or computer	3	2	1	0	
			Describe the reasoning that besides having several shoes and jeans, a consumer still purchases more clothing.					
	01.01.04	Explain the most valuable thing a person gives up is his or her opportunity cost.	Describe the impact of going to a movie over the student doing his or her homework	3	2	1	0	
			Discuss the tradeoffs in calling in sick and going into work					
			Determine the impact of selling a product below its market value.					
	01.01.05	Demonstrate an understanding of costs and benefits analysis by giving real-world examples which properly evaluate alternatives.	Justify why entrepreneur may consider leaving a successful career to begin a new business	3	2	1	0	
			Objectively evaluate how a wage relates to a worker's time					
			Explain how layoffs may be beneficial to a company					
	01.01.06	Establish a clear distinction between absolute and comparative advantage.	Explain how individuals, regions, and countries specialize based on low opportunity costs & trade	3	2	1	0	
			Demonstrate how each trading partner typically gains by trade.					
	01.01.07	Illustrate examples of specialization, recognizing the interdependence it creates.	Discuss why a restaurant decides to sell only barbeque, removing pizza from their menu	3	2	1	0	
			Explain the impact a delayed shipment of customized hardware may have to a business who specializes in computer manufacturing					
			Describe why a jogger may only run in one brand of athletic footwear over an entire career.					
01.01.08	List some advantages and disadvantages of market-oriented economies as well as more directed economies.	Convey how economic systems use elements of markets and government direction in providing goods and services	3	2	1	0		

Topic	2	Technical Skills	Use the technical knowledge and skills required to pursue the targeted careers for all pathways in the career cluster, including knowledge of design, operation, and maintenance of technological systems critical to the career cluster.							
Benchmark	2.01	Students will develop an understanding of how markets allocate scarce resources and goods and services they produce.								
		Competencies	Sample Indicators							
	2.01.01	Explain the role of price and other determinants of demand (e.g., income, expectations, price of related goods,...)	Illustrate demand curves that conform to the law of demand and explain the inverse relationship between the price and quantity demanded	3	2	1	0			
	2.01.02	Define the role of price in influencing the quantity supplied.	Explain how the supply curves that conform to the law of supply and explain the positive relationship between the price and quantity supplied	3	2	1	0			
	2.01.03	Demonstrate an understanding how markets can be effective in allocating scarcity.	Depict both demand and supply curves to convey equilibrium.	3	2	1	0			
	2.01.04	Illustrate and explain the pressures on a market price to increase or decrease	Explain the direction of expected price changes as the result of a surplus or shortage.	3	2	1	0			
	2.01.05	Explain the role markets play in continuing to respond in a dynamic economy.	Correctly shift the demand curve in response to a change in a non-price determinant of demand (e.g., tastes and preferences, income, prices of related goods, number of consumers,...).	3	2	1	0			
	2.01.06	Change non-price determinants of supply to illustrate shifts in a supply curve	Correctly shift a supply curve in response to a change in a non-price determinant of supply (e.g., costs, technology, taxes, number of producers,...).	3	2	1	0			
Benchmark	2.02	Explain the analytical process of economic decisions, involving profit maximization and loss minimization.								
		Competencies	Sample Indicators							
	2.02.01	Evaluate relationship between inputs and outputs.	Understand marginal product (i.e., the extra output from an extra input)	3	2	1	0			
			Review performance reports to locate areas that indicate the need to change organizational process or performance.							
	2.02.02	Use expenditures (explicit costs) along with implicit costs (e.g., opportunity cost) in making profit maximizing decisions.	Distinguishing between sunk costs (e.g., rent) and key factors like marginal costs (i.e., the extra cost from an extra unit of output)	3	2	1	0			
	2.02.03	Explain revenues (e.g., total revenue and marginal revenue's) role in making profit maximizing decisions.	Demonstrate an understanding that marginal revenue is the extra revenue from an extra unit of output	3	2	1	0			
	2.02.04	Determine the price and output in profit maximizing analysis.	Give examples how profits are maximized, or losses are minimized	3	2	1	0			
			Explain equilibrium price and its purpose in economic decisions							
Benchmark	2.03	Demonstrate and experience the value and role of marketplace competition and labor economics								
		Competencies	Sample Indicators							
	2.03.01	Explain the difference in pure competition and imperfect competition.	Contrast competition and monopoly in the expected price and output	3	2	1	0			
	2.03.02	Illustrate the role labor and other resource markets have on the demand for the good or service.	Select a business organization and determine the number of workers to hire, justifying wage rates	3	2	1	0			

Topic		3	Ethics and Legal Responsibilities	Know and understand the importance of professional ethics and legal responsibilities.					
Benchmark		3.01	Understand ethical and legal responsibilities to maintain high quality standards in product and service industries.						
			Competencies	Sample Indicators					
	3.01.01	Illustrate the role of self-interest in economic decisions by both consumers and producers.		Evaluate if society is well served by those who act based on self interest		3	2	1	0
				Explain if a farmer (or another example of a purely competitive type of firm) damages society when acting as a profit maximize					
	3.01.02	Explain the role of government in directing, controlling and regulating market economies.		Explain why public goods (e.g., flood control) would not provide optimal amounts through markets.		3	2	1	0
				Discuss why external diseconomies (i.e., spillover costs) such as pollution are not typically controlled through markets without some government direction, control, or regulation.					
Topic		4	Problem Solving and Critical Thinking	Using both personal and other financial lessons, explain how individuals and organizations make many financial decisions that have economic implications.					
Benchmark		4.01	Demonstrate an understand that personal spending, saving, and credit decisions have significant implications for the future.						
			Competencies	Sample Indicators					
	4.01.01	Explain the role and impact saving has on building wealth.		Develop and implement sample financial/budgeting plans		3	2	1	0
				Give examples of how financial decision making relates with living below one's means					
	4.01.02	Define money, explain the role of banks and contrasting them with security exchanges		Explain how banks and other depository institutions create money when they lend. Identify a security and how it might fit in a financial system (e.g., a stock, bond,...)		3	2	1	0
				Define the role of financial institutions (e.g., Federal Reserve, banks, capital markets, etc.)					
	4.01.03	Explain the role and utilization of credit in a market economy.		Give examples of different types of credit		3	2	1	0
				Explain how credit systems operate and function Identify potential costs and benefits of using credit					
Benchmark		4.02	Explain how nations grow and prosper depending on many factors, including resources, technology, and consumers.						
			Competencies	Sample Indicators					
	4.02.01	Define Gross Domestic Product (GDP)		Understand the market value of an economy's output produced in a year		3	2	1	0
	4.02.02	Define inflation		Explain a sustained rise in the general level of prices.		3	2	1	0
	4.02.03	Define Unemployment		Workers who are not currently employed who are actively seeking employment		3	2	1	0
	4.02.04	Explain the role and function of public finance.		Explain how government budgets include selling government securities to finance a deficit and the resulting impact on debt such as the national debt of the United States		3	2	1	0
Topic		5	Employability and Career Development	Know and understand the importance of employability skills. Explore, plan, and effectively manage careers. Know and understand the importance of entrepreneurship skills.					
Benchmark		5.01	Explore, obtain, and develop strategies for ensuring a successful career.						
			Competencies	Sample Indicators					
	5.01.01	Incorporate economic decision skills in identifying a career path.		Using economic decision tools, identify potential careers that will be in high demand, and relatively low supply, over the next ten years; evaluate the direction of change in these wage rates. Will they likely be requiring high skills and earning a high wage? Explain.		3	2	1	0

Name _____ ID _____		<div>Technical-level course for Business Management and Administration, Hospitality and Tourism, Marketing and Finance Career Clusters (Funded)</div> <div>Entrepreneurship courses acquaint students with the knowledge and skills necessary to own and operate their own businesses. Topics from several fields typically form the course content: economics, marketing principles, human relations and psychology, business and labor law, legal rights and responsibilities of ownership, business and financial planning, finance and accounting, and communication.</div> <div>RATING SCALE:3: Skilled, works independently; 2: Competent, may need assistance; 1: Received instruction, skill undeveloped; 0: No exposure, instruction or training. Measured competencies listed should be seen as minimums.</div>					
Instructor _____ School Year _____							
Enrollment Date _____ Completion Date _____ Credits Completed _____							
I certify that the student received the training in the area indicated.							
Student Signature : _____ Date _____							
Instructor Signature: _____ Date _____							
Competencies reflect standards from National Career Clusters, National Content Standards for Entrepreneurship Education, National Business Education Association and The Council for Economic Education.							
Topic		1 Academic Foundations		Achieve additional academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within a career cluster			
Benchmark		1.01 Solve mathematical problems and use the information as it relates with entrepreneurship/small business ownership.					
		Competencies	Sample Indicators				
	1.01.01	Solve mathematical problems using numbers and operations.	Recognize relationships among numbers	3	2	1	0
			Employ mathematical operations				
			Perform computations successfully				
			Predict reasonable estimations				
	1.01.02	Incorporate algebraic skills to make business decisions.	Recognize patterns and mathematical relations	3	2	1	0
			Use algebraic symbols to represent, solve, and analyze mathematical problems				
			Create mathematical models from real-life situations				
			Represent changes in quantities mathematically				
			Determine rate of change mathematically				
		Interpret graphical and numerical data					
Benchmark		1.02 Examine and employ business and economic principles and concepts in making informed business decisions to continue business operations.					
		Competencies	Sample Indicators				
	1.02.01	Demonstrate an understanding of how basic economic concepts are utilized by an entrepreneur/small business owner.	Explain the principles of supply and demand	3	2	1	0
			Explain the factors of production				
			Explain the concept of scarcity				
			Explain the concept of opportunity costs				

	1.02.02	Explain and describe cost/benefit analysis as it explains cost-profit relationships.	Describe cost/benefit analysis	3	2	1	0
			Analyze the impact of specialization/division of labor on productivity				
			Explain the concept of organized labor and business				
			Explain the law of diminishing returns				
			Describe the concept of economies of scale				
Topic	2	Communications	Use oral and written communication skills in creating, expressing and interpreting information and ideas including technical terminology and information				
Benchmark	2.01	Demonstrate use of the concepts, strategies, and systems for obtaining and conveying ideas and information to enhance communication in the workplace.					
		Competencies	Sample Indicators				
	2.01.01	Explain and demonstrate the nature of effective communications	Apply effective listening skills	3	2	1	0
			Explain the nature of effective verbal communications				
			Make oral presentations				
			Prepare simple written reports (e.g. cover letters, memorandums, resumes)				
			Use appropriate etiquette in written communications				
		Use proper grammar and vocabulary					
2.01.02	Describe methods in dealing with conflict as it relates with entrepreneurship/small business ownership.	Explain negotiation skills	3	2	1	0	
		Describe techniques and importance of handling difficult customers/clients					
Topic	3	Ethics & Legal Responsibilities	Know and understand the importance of professional ethics and legal responsibilities in maintaining responsible citizenry				
Benchmark	3.01	Describe an entrepreneur's responsibility to know and abide by laws and regulations that affect all individuals involved in the business operations.					
		Competencies	Sample Indicators				
	3.01.01	Describe the relationship between principled entrepreneurship versus personal responsibility	Understand the civil foundations of the legal environment of business	3	2	1	0
			Explain the difference and similarities between business and consumer rights to operate in a free market system				
	3.01.02	Describe the relationship between government and business	Describe the nature of legal procedures in business	3	2	1	0
			Explain how an entrepreneur can protect its intellectual property rights (i.e., patents, trademarks, copyrights)				
	3.01.03	Identify types of business ownership	Explain types of business ownership	3	2	1	0
	3.01.04	Demonstrate understanding of managerial and business ethics	Discuss ethics, responsibility, honest, integrity, and work habits	3	2	1	0

Topic		4	Entrepreneurial Processes and Characteristics		Understand concepts, processes and characteristics associated with successful entrepreneurial performance				
Benchmark		4.01	Assess entrepreneurship/small-business management-career information to enhance opportunities for career success.						
			Competencies		Sample Indicators				
	4.01.01	Analyze and define entrepreneurship.		Define entrepreneurship and entrepreneurs	3	2	1	0	
				Contrast the different types of entrepreneurs (e.g., classic, change agent, intrapreneur), identifying their value and role					
	4.01.02	Expound on the importance of entrepreneurship on market economies		Describe the need for entrepreneurial discovery	3	2	1	0	
				Analyze the importance of entrepreneurship to US/global economy					
	4.01.03	Explain characteristics of an entrepreneur as it relates to personal assessment and management		Analyze desired lifestyle and that associated with entrepreneurship	3	2	1	0	
				Discern between desired benefits and those associated with entrepreneurship					
				Examine similarities and differences between personal educational goals and educational requirements for entrepreneurship					
Topic		5	Critical and Innovative Thinking		Developing and recognizing a successful business venture opportunity through entrepreneurial discovery, concept development, resourcing, actualization and harvesting				
Benchmark		5.01	Examine and describe the entrepreneurial business creation process						
			Competencies		Sample Indicators				
	5.01.01	Identify successful methods in developing and assessing innovative business ideas.		Utilize techniques for idea creation	3	2	1	0	
				Incorporate innovative thinking methods to meet consumer demands					
				Identify methods in which technology creates innovation					
				Use creativity in business activities/decisions					
	5.01.02	Give explanation on how entrepreneurs recognize marketplace opportunities.		Assess global trends and opportunities for business ventures	3	2	1	0	
				Observe trends in the marketplace					
	5.01.03	Explain tools used by entrepreneurs for venture planning		Assess start-up requirements	3	2	1	0	
				Assess risks associated with venture					
			Describe external resources useful to entrepreneurs during concept development						
			Use components of a business plan to define venture idea						

Benchmark 5.02 Student will identify and define the importance of managing risks in developing a business venture.								
		Competencies	Sample Indicators					
	5.02.01	Explain proper methods in assessing and calculating risk in developing a business venture.	Select an existing business and identify its initial business risks	3	2	1	0	
			Using financial and economic tools (e.g., Break-even, ROI, cost-benefit analysis, etc.) determine a venture's risk threshold (i.e., investing in a new business versus an established franchise)					
			Explain the complexity of business operations					
			Explain the need for business systems and procedures					
			Explain methods/processes for organizing work flow					
			Identify processes for ongoing opportunity recognition					
		Understand the need for changes in a business environment						
5.02.02	Describe the need for continuation planning as it relates with entrepreneurship/small business ownership.	Describe methods of venture harvesting	3	2	1	0		
		Evaluate options for continued venture involvement						
		Develop exit strategies						
Topic 6 Information Technology Application Understands concepts and procedures needed for basic computer operations								
Benchmark 6.01 Maintain, monitor, plan, and control the use of financial resources to protect an entrepreneur and business's fiscal well-being.								
		Competencies	Sample Indicators					
	6.01.01	The student demonstrates an understanding of information management concepts and how they support effective business operations.	Explain the role of and justification for information management	3	2	1	0	
			Describe the nature of business records					
			Explain the business and legal benefits of a records management/retention system					
			Explain how a records management program is established					
			Describe the steps in planning and implementing a records management system					
	6.01.02	Describe the impact of the Internet on entrepreneurship/small business ownership	Explain the nature of e-commerce	3	2	1	0	
			Develop basic website					
			Communicate by computer					
			Demonstrate basic search skills on the Web					
Evaluate credibility of Internet resources								

Cluster Topic 7 Marketing			Understands the concepts, processes, and systems needed to determine and satisfy customer needs/wants/expectations, meet business goals/objectives, and create new product/service ideas				
Benchmark 7.01 Manage marketing activities to facilitate business development and growth.							
		Competencies	Sample Indicators				
	7.01.01	Understand marketing's role and function in business to facilitate economic exchanges with customers	Determine services to provide customers	3	2	1	0
			Explain the role of customer service in positioning/image				
	7.01.02	Analyze the role of marketing research in constructing a small business management model.	Identify the reasons for conducting research	3	2	1	0
			Explain the methods of market research, including an evaluation of the main research techniques Acquire foundational knowledge of customer, client, and business behavior to understand what motivates decision-making				
	7.01.04	Describe marketing functions and related activities	Identify elements of the marketing mix	3	2	1	0
Topic 8 Technical Skills			Use the technical knowledge and skills required to pursue the targeted careers for all pathways in the career cluster, including knowledge of design, operation, and maintenance of technological systems critical to the career cluster				
Benchmark 8.01 The student conducts a needs assessment for a business.							
		Competencies	Sample Indicators				
	8.01.01	Describe the components and purpose of a business plan.	Write a business venture executive summary	3	2	1	0
			Describe the business venture in a company overview				
			Determine the company mission statement, goals and objectives				
			Describe the business environment and competition				
			Describe the company description and marketing strategy				
			Identify financial considerations				
	8.01.02	Examine and explain the components and purpose of a financial plan for a business.	Estimate expenses for a start-up business	3	2	1	0
			Identify break-even point				
			Set profit goals				
			Identify sources of capital				
	8.01.03	Identify and evaluate a local entrepreneurial venture/business.	Evaluate all functions of the business	3	2	1	0

Benchmark 8.02 Understand organizational and financial tools used in making business decisions as it relates to entrepreneurship/small business ownership.									
		Competencies	Sample Indicators						
	8.02.01	Develop organizational skills to improve efficiency.	Apply time management principles	3	2	1	0		
			Develop a project plan						
			Describe the way technology affects operations management						
	8.02.02	Identify and explain expense control strategies to enhance the financial well being of a business.	Explain the nature of overhead/operating costs	3	2	1	0		
			Define expense control plans						
	8.02.03	Give explanation on how entrepreneurs incorporate accounting in making business decisions.	Explain accounting standards (GAAP)	3	2	1	0		
			Prepare estimated/projected income statement						
			Estimate cash-flow needs						
			Prepare estimated/projected balance sheet						
		Calculate financial ratios							
	8.02.04	Understand the need for proper financial and money management as it relates to an entrepreneur/small business owner.	Explain the purposes and importance of obtaining business credit	3	2	1	0		
			Describe use of credit bureaus						
			Explain the nature of overhead/operating expenses						
			Determine financing needed to start a business						
			Determine risks associated with obtaining business credit						
			Explain sources of financial assistance						
			Explain loan evaluation criteria used by lending institutions						
			Identify sources of business loans						
			Determine business's value						
			Explain the importance of having financial goals and objectives						
			Define how to build and monitor a budget						
			Explain the nature of capital investment						
Topic 9 Employability and Career Development			Know and understand the importance of employability skills. Explore, plan, and effectively manage careers. Know and understand the importance of entrepreneurship skills.						
Benchmark 9.01 Obtain and develop strategies for ensuring a successful career in entrepreneurship/small business ownership.									
		Competencies	Sample Indicators						
	9.01.01	Develop personal traits and behaviors to foster career advancement.	Discuss appropriate personal appearance	3	2	1	0		
			Set personal goals						
		Use time-management skills							

Business Management (12052) .5 credit

Technical Level

Competencies with Suggested Outcomes

1 ACADEMIC FOUNDATIONS: Achieve additional academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within a career cluster.			
1.01 Identify, analyze, and process business data and information to make business decisions and enhance business management duties.			
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
1	1.01.01	Solve mathematical managerial problems using numbers and operational resources.	Recognize relationships among numbers
			Employ mathematical operations
			Perform computations successfully
			Predict reasonable estimations
2	1.01.02	Perform data analysis to make business decisions.	Formulate questions effectively
			Collect relevant data
			Organize useful data
			Answer questions appropriately
			Employ appropriate statistical methods in data analysis
			Develop and evaluate inferences and predictions
			Apply basic concepts of probability
3	1.01.03	Evaluate the accuracy of mathematical responses using problem-solving techniques.	Identify problem-solving techniques
			Apply a variety of problem-solving strategies
			Adjust problem-solving strategies, when needed
1.02 Examine and employ business and economic principles and concepts in making informed business decisions to continue business operations.			
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
4	1.02.01	Recognize how economic systems influence environments in which businesses function.	Identify factors affecting a business's profit
			Determine factors affecting business risk
			Explain the concept of competition
			Describe market structures
			Distinguish between economic goods and services
			Describe the concepts of economics and economic activities
			Determine economic utilities created by business activities
5	1.02.02	Use knowledge regarding the impact government has on businesses to make informed economic decisions.	Determine the relationship between government and business
			Discuss the supply and demand for money
6	1.02.03	Describe global trade's impact on business activities.	Discuss the impact of globalization on business
			Explain cultural considerations that impact global business relations
			Describe the impact of electronic communication tools (e.g., Internet, video- and computer-conferencing, webcasts, email) on global business activities
			Discuss the potential impact of emerging economies on business activities
7	1.02.04	Use economic indicators to detect economic trends and conditions.	Describe the concept of price stability as an economic measure
			Discuss the measure of consumer spending as an economic indicator
			Determine the impact of business cycles on business activities
2 COMMUNICATIONS: Use oral and written communication skills in creating, expressing and interpreting information and ideas including technical terminology and information.			
2.01 Obtain and convey ideas and information to impact business decisions and report on organizational activities.			
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
8	2.01.01	Demonstrate use of content, technical concepts and vocabulary when analyzing information and following directions.	Explore and prepare written professional documents (e.g. business memorandums, financial statements, production reports, etc.)
9	2.01.02	Employ verbal skills when obtaining and conveying information.	Explain managerial techniques in communicating with various personnel
			Describe methods to effectively verbally communicate as a manager within various environments.

Business Management (12052) .5 credit

Technical Level

Competencies with Suggested Outcomes

2.02 Evaluate and use information resources to accomplish specific occupational tasks.			
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
10	2.02.01	Use informational texts, Internet web sites, and/or technical materials to review and apply information sources for occupational tasks.	Investigate the impact of new technology on the workforce
2.03 Develop and deliver formal and informal presentations using appropriate media to engage and inform audiences.			
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
11	2.03.01	Prepare oral presentations to provide information for specific purposes and audiences.	Demonstrate effective communication skills (e.g., verbal, nonverbal, and technological communications and effective listening skills)
3 PROBLEM-SOLVING AND CRITICAL THINKING: Solve problems using critical thinking skills (analyze, synthesize, and evaluate) independently and in teams. Solve problems using creativity and innovation.			
3.01 Employ critical thinking skills independently and in teams to solve problems and make decisions (e.g., analyze, synthesize and evaluate).			
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
12	3.01.01	Identify common tasks that require employees to use problem-solving skills.	Explain the importance on why managers need to build strong relationship within the business environment (i.e. employees, vendors, investors, consumers, etc.)
13	3.01.02	Describe the value of using problem-solving and critical thinking skills to improve a situation or process.	
3.02 Employ critical thinking and interpersonal skills to resolve conflicts with staff and/or customers.			
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
14	3.02.01	Analyze situations and behaviors that affect conflict management.	Review the methods a manager may use to resolve various conflicts
15	3.02.02	Determine best options/outcomes for conflict resolution using critical thinking skills.	
16	3.02.03	Identify with others' feelings, needs, and concerns.	
3.03 Identify, write and monitor workplace performance goals to guide progress in assigned areas of responsibility and accountability.			
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
18	3.03.01	Write goals that meet appropriate criteria: Specific, Measurable, Achievable, Realistic, Time bound	
4 SYSTEMS: Understand roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. Identify how key organizational systems affect organizational performance and the quality of products and services. Understand global context of industries and careers.			
4.01 Analyze accounting systems' contribution to the fiscal stability of a business.			
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
19	4.01.01	Develop a foundational knowledge of accounting to understand its nature and scope.	Explain the concept of accounting
			Explain the need for accounting standards (GAAP)
			Discuss the role of ethics in accounting
			Explain the use of technology in accounting
			Explain legal considerations for accounting
4.02 Understand the methods that businesses use to recruit, train and develop human resources.			
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
20	4.02.01	Describe the role and function of human resources management.	Discuss the nature of human resources management
			Explain the role of ethics in human resources management
			Describe the use of technology in human resources management
21	4.02.02	Manage business risks to protect a business's financial well-being.	Identify, assess and evaluate a business's risks

Business Management (12052) .5 credit

Technical Level

Competencies with Suggested Outcomes

5		SAFETY, HEALTH AND ENVIRONMENTAL: <i>Understand the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. Follow organizational policies and procedures and contribute to continuous improvement in performance and compliance.</i>	
5.01		Assess and implement safety, health, and environmental controls to enhance business productivity.	
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
22	5.01.01	Assess needed safety policies/procedures to ensure protection of employees.	Identify potential safety issues
			Establish safety policies and procedures
6		LEADERSHIP AND TEAMWORK: <i>Use leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.</i>	
6.01		Employ leadership skills to accomplish organizational goals and objectives.	
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
23	6.01.01	Analyze and exhibit leadership traits and their various roles within organizations (e.g. contribute ideas; share in building an organization; act as role models to employees by adhering to company policies, procedures, and standards; promote the organization’s vision; and mentor others).	Illustrate the difference between leading and managing
24	6.01.02	Consider issues related to self, team, community, diversity, environment, and global awareness when leading others.	Explain the importance on why managers need to build strong relationship within the business environment (i.e. employees, vendors, investors, consumers, etc.)
6.02		Employ and explore organizational and staff development skills to foster positive working relationships and accomplish organizational goals.	
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
25	6.02.01	Describe how staff growth and development to increase productivity and employee satisfaction.	Identify and explain motivational theories and strategies in managing employees
26	6.02.02	Explain and identify best practices for successful team functioning.	Discuss and demonstrate the importance of vision, mission, and goal setting within the context of the business environment
7		ETHICS AND LEGAL RESPONSIBILITIES: <i>Know and understand the importance of professional ethics and legal responsibilities.</i>	
7.01		Describe business's responsibility to know and abide by laws and regulations that affect business operations.	
	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
27	7.01.01	Demonstrate, manage, obtain and protect information through ethical behavior in a business setting to foster positive internal and external interactions.	Respect the privacy of others
			Explain ethical considerations in providing information
			Protect confidential information
			Determine information appropriate to obtain from a client or another employee
			Explain the nature of business ethics
			Demonstrate responsible ethical work behavior (e.g. honesty and integrity)
			Describe ethics in human resources issues
28	7.01.02	Describe the nature and scope of business laws and regulations.	Discuss the nature of law and sources of law in the United States
			Describe the US Judicial system hierarchy for legal appeals
			Describe legal issues affecting businesses and binding contracts

Business Management (12052) .5 credit

Technical Level

Competencies with Suggested Outcomes

8

EMPLOYABILITY AND CAREER DEVELOPMENT: *Know and understand the importance of employability skills. Explore, plan, and effectively manage careers. Know and understand the importance of entrepreneurship skills.*

8.01

Explore, obtain, and develop strategies for ensuring a successful business career.

	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
29	8.01.01	Utilize career-advancement activities to enhance professional development.	Describe techniques for obtaining work experience (e.g., volunteer activities, internships)
			Explain the need for ongoing education as a worker
			Explain possible advancement patterns for jobs
			Identify skills needed to enhance career progression
			Utilize resources that can contribute to professional development (e.g., trade journals/periodicals, professional/trade associations, classes/seminars, trade shows, and mentors)

9

TECHNICAL SKILLS: *Use the technical knowledge and skills required to pursue the targeted careers for all pathways in the career cluster, including knowledge of design, operation, and maintenance of technological systems critical to the career cluster.*

9.01

Access, process, maintain, evaluate, and disseminate information to assist in business decision-making.

	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
30	9.01.01	Use information literacy skills to increase workplace efficiency and effectiveness.	Assess information needs
			Obtain needed information efficiently
			Evaluate quality and source of information
			Apply information to accomplish a task
			Store information for future use
31	9.01.02	Acquire a foundational knowledge of information management to understand its nature and scope.	Discuss the nature of information management
			Explain the role of ethics in information management
			Explain legal issues associated with information management
32	9.01.03	Maintain business records to facilitate business operations.	Describe the nature of business records
			Maintain customer records
33	9.01.04	Acquire information to guide business decision-making.	Describe current business trends
			Monitor internal records for business information
			Conduct an environmental scan to obtain business information
			Interpret statistical findings
34	9.01.05	Manage financial resources to maintain business solvency.	Describe the nature of budgets
			Explain the nature of operating budgets
			Describe the nature of cost/benefit analysis
			Determine relationships among total revenue, marginal revenue, output, and profit
			Develop company's/department's budget
			Forecast sales
			Calculate financial ratios
			Interpret financial statements

9.02

Employ and explore tools and strategies to influence, plan, control, and organize an organization/department.

	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
35	9.02.01	Explain the role that business management has in contributing to business success.	Explain the concept of management
			Explain the nature of managerial ethics

Business Management (12052) .5 credit

Technical Level

Competencies with Suggested Outcomes

9.03 Plan, monitor, and control day-to-day business functions to ensure continued business operations.

	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
36	9.03.01	Manage purchasing activities to obtain the best service/product at the least cost.	Discuss the importance of maintaining vendor/supplier relationships
			Negotiate terms with vendors
			Simulate techniques in establishing and securing bid specifications
37	9.03.02	Manage quality-control processes to minimize errors and to expedite workflow.	Explain the nature of quality management
			Discuss the need for continuous improvement of the quality process
			Develop continuous-improvement strategies
			Develop a plan/program for quality achievement

9.04 Examine-risk management strategies and techniques in order to minimize potential business loss.

	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
38	9.04.01	Explain the nature and scope of risk management practices within a business.	Explain the role of ethics in risk management
			Describe the use of technology in risk management
			Discuss legal considerations affecting risk management

9.05 Plan, organize, and control an organization/department to optimize overall business success.

	Expected Tenth and Eleventh Grades Competencies		Suggested Tenth and Eleventh Grades Learner Outcomes
39	9.05.01	Plan organization's/department's activities to guide and support decisions and to ensure that staff focus on current and future operational priorities.	Describe the strategic planning process within an organization
			Develop strategies for achieving company vision
			Determine alternative actions to take when goals are not being met
40	9.05.02	Develop business plans to meet company needs.	Develop company vision
			Determine business's overall global strategy
			Develop company's management plan

Name _____ ID _____					
Instructor _____ School Year _____					
Enrollment Date ____/____/____		Completion Date ____/____/____		Credits Completed _____	
<u>I certify that the student received the training in the area indicated.</u>					
Student Signature : _____ Date _____					
Instructor Signature: _____ Date _____					
<i>RATING SCALE: 3: Skilled, works independently; 2: Competent, may need assistance; 1: Received instruction, skill undeveloped; 0: No exposure, instruction or training Measured Competencies listed should be seen as minimums (you can add)</i>					
1		ACADEMIC FOUNDATIONS			
1.01		Identify, analyze, and process business data and information to make business decisions and enhance business management duties.			
1	1.01.01	Solve mathematical managerial problems using numbers and operational resources.	3	2	1 0
2	1.01.02	Perform data analysis to make business decisions.	3	2	1 0
3	1.01.03	Evaluate the accuracy of mathematical responses using problem-solving techniques.	3	2	1 0
1.02		Examine and employ business and economic principles and concepts in making informed business decisions to continue business operations.			
4	1.02.01	Recognize how economic systems influence environments in which businesses function.	3	2	1 0
5	1.02.02	Use knowledge regarding the impact government has on businesses to make informed economic decisions.	3	2	1 0
6	1.02.03	Describe global trade's impact on business activities.	3	2	1 0
7	1.02.04	Use economic indicators to detect economic trends and conditions.	3	2	1 0
2		COMMUNICATIONS			
2.01		Obtain and convey ideas and information to impact business decisions and report on organizational activities.			
8	2.01.01	Demonstrate use of content, technical concepts and vocabulary when analyzing information and following directions.	3	2	1 0
9	2.01.02	Employ verbal skills when obtaining and conveying information.	3	2	1 0
2.02		Evaluate and use information resources to accomplish specific occupational tasks.			
10	2.02.01	Use informational texts, Internet web sites, and/or technical materials to review and apply information sources for occupational tasks.	3	2	1 0
2.03		Develop and deliver formal and informal presentations using appropriate media to engage and inform audiences.			
11	2.03.01	Prepare oral presentations to provide information for specific purposes and audiences.	3	2	1 0
3		PROBLEM-SOLVING AND CRITICAL THINKING			
3.01		Employ critical thinking skills independently and in teams to solve problems and make decisions (e.g., analyze, synthesize and evaluate).			
12	3.01.01	Identify common tasks that require employees to use problem-solving skills.	3	2	1 0
13	3.01.02	Describe the value of using problem-solving and critical thinking skills to improve a situation or process.	3	2	1 0
3.02		Employ critical thinking and interpersonal skills to resolve conflicts with staff and/or customers.			
14	3.02.01	Analyze situations and behaviors that affect conflict management.	3	2	1 0
15	3.02.02	Determine best options/outcomes for conflict resolution using critical thinking skills.	3	2	1 0
16	3.02.03	Identify with others' feelings, needs, and concerns.	3	2	1 0
3.03		Identify, write and monitor workplace performance goals to guide progress in assigned areas of responsibility and accountability.			
18	3.03.01	Write goals that meet appropriate criteria: Specific, Measurable, Achievable, Realistic, Time bound	3	2	1 0

4		SYSTEMS				
4.01		Analyze accounting systems' contribution to the fiscal stability of a business.				
19	4.01.01	Develop a foundational knowledge of accounting to understand its nature and scope.	3	2	1	0
4.02		Understand the methods that businesses use to recruit, train and develop human resources.				
20	4.02.01	Describe the role and function of human resources management.	3	2	1	0
21	4.02.02	Manage business risks to protect a business's financial well-being.	3	2	1	0
5		SAFETY, HEALTH AND ENVIRONMENTAL				
5.01		Assess and implement safety, health, and environmental controls to enhance business productivity.				
22	5.01.01	Assess needed safety policies/procedures to ensure protection of employees.	3	2	1	0
6		LEADERSHIP AND TEAMWORK				
6.01		Employ leadership skills to accomplish organizational goals and objectives.				
23	6.01.01	Analyze and exhibit leadership traits and their various roles within organizations	3	2	1	0
24	6.01.02	Consider issues related to self, team, community, diversity, environment, and global awareness when leading others.	3	2	1	0
6.02		Employ and explore organizational and staff development skills to foster positive working relationships and accomplish organizational goals.				
25	6.02.01	Describe how staff growth and development to increase productivity and employee satisfaction.	3	2	1	0
26	6.02.02	Explain and identify best practices for successful team functioning.	3	2	1	0
7		ETHICS AND LEGAL RESPONSIBILITIES				
7.01		Describe business's responsibility to know and abide by laws and regulations that affect business operations.				
27	7.01.01	Demonstrate, manage, obtain and protect information through ethical behavior in a business setting to foster positive internal and external interactions.	3	2	1	0
28	7.01.02	Describe the nature and scope of business laws and regulations.	3	2	1	0
8		EMPLOYABILITY AND CAREER DEVELOPMENT				
8.01		Explore, obtain, and develop strategies for ensuring a successful business career.				
29	8.01.01	Utilize career-advancement activities to enhance professional development.	3	2	1	0
9		TECHNICAL SKILLS				
9.01		Access, process, maintain, evaluate, and disseminate information to assist in business decision-making.				
30	9.01.01	Use information literacy skills to increase workplace efficiency and effectiveness.	3	2	1	0
31	9.01.02	Acquire a foundational knowledge of information management to understand its nature and scope.	3	2	1	0
32	9.01.03	Maintain business records to facilitate business operations.	3	2	1	0
33	9.01.04	Acquire information to guide business decision-making.	3	2	1	0
34	9.01.05	Manage financial resources to maintain business solvency.	3	2	1	0
9.02		Employ and explore tools and strategies to influence, plan, control, and organize an organization/department.				
35	9.02.01	Explain the role that business management has in contributing to business success.	3	2	1	0
9.03		Plan, monitor, and control day-to-day business functions to ensure continued business operations.				
36	9.03.01	Manage purchasing activities to obtain the best service/product at the least cost.	3	2	1	0
37	9.03.02	Manage quality-control processes to minimize errors and to expedite workflow.	3	2	1	0
9.04		Examine-risk management strategies and techniques in order to minimize potential business loss.				
38	9.04.01	Explain the nature and scope of risk management practices within a business.	3	2	1	0
9.05		Plan, organize, and control an organization/department to optimize overall business success.				
39	9.05.01	Plan organization's/department's activities to guide and support decisions and to ensure that staff focus on current and future operational priorities.	3	2	1	0
40	9.05.02	Develop business plans to meet company needs.	3	2	1	0

Accounting (A)

1 Semester / .5 Credit (Minimum)

SCED: 12104

Technical-level course for Finance Career Cluster

Accounting courses introduce and expand upon the fundamental accounting principles and procedures used in businesses. Course content typically includes the full accounting cycle, payroll, taxes, debts, depreciation, ledger and journal techniques, and periodic adjustments. Students may learn how to apply standard auditing principles and to prepare budgets and final reports. Calculators, electronic spreadsheets, or other automated tools are usually used. Advanced topics may include elementary principles of partnership and corporate accounting and the managerial uses of control systems and the accounting process.

Utilize accounting tools-strategies-and systems to maintain-monitor-control-and plan the use of financial resources

Classify-record-and summarize financial data

Discuss the nature of the accounting cycle

Demonstrate the effects of transactions on the accounting equation

Prepare a chart of accounts

Use T accounts

Record transactions in a general journal

Post journal entries to general ledger accounts

Prepare a trial balance

Journalize and post adjusting entries

Journalize and post closing entries

Prepare a post-closing trial balance

Prepare work sheets

Discuss the nature of annual reports

Discuss the use of financial ratios in accounting

Determine business liquidity

Calculate business profitability

Prepare income statements

Prepare balance sheets

Maintain cash controls.

Explain cash control procedures--e.g. signature cards-deposit slips- internal/external controls-cash clearing-etc

Prove cash

Journalize/post entries to establish and replenish petty cash

Journalize/post entries related to banking activities

Explain the benefits of electronic funds transfer

Prepare bank deposits

Prepare purchase requisitions

Prepare purchase orders

Prepare sales slips

Prepare invoices

Perform accounting functions specific to a merchandising business.

Explain the nature of special journals

Record transactions in special journals

Perform accounts payable functions to a merchandising business

Explain the nature of accounts payable

Maintain a vendor file

Analyze purchase transactions

Post to an accounts payable subsidiary ledger

Prepare a credit memorandum for returned goods

Process invoices for payment

Process accounts payable checks

Prepare an accounts payable schedule

Perform accounts receivable functions to a merchandising business

Explain the nature of accounts receivable

Maintain a customer file for accounts receivable

Analyze sales transactions

Post to an accounts receivable subsidiary ledger

Process sales orders and invoices

Process sales returns and allowances

Process customer payments

Prepare customer statements

Process uncollectible accounts

Prepare an accounts receivable schedule

Determine uncollectible accounts receivable

Maintain inventory records to track the location-quantity and value of current assets

Record inventory usage

Process invoice of inventory

Process results of inventory

Process inventory adjustments

Determine the cost of inventory

Complete payroll procedures to calculate-record-and distribute payroll earnings

Calculate time cards

Maintain employee earnings records

Calculate employee earnings - e.g. gross earnings - net pay

Calculate employee-paid withholdings

Prepare a payroll register

Record the payroll in the general journal

Complete payroll tax expense forms

Prepare federal-state-and local payroll tax reports

Accounting (B)

1 Semester / .5 Credit (Minimum)

SCED: 12104

Technical-level course for Finance Career Cluster

Accounting courses introduce and expand upon the fundamental accounting principles and procedures used in businesses. Course content typically includes the full accounting cycle, payroll, taxes, debts, depreciation, ledger and journal techniques, and periodic adjustments. Students may learn how to apply standard auditing principles and to prepare budgets and final reports. Calculators, electronic spreadsheets, or other automated tools are usually used. Advanced topics may include elementary principles of partnership and corporate accounting and the managerial uses of control systems and the accounting process.

Perform accounting functions specific to a partnership

Analyze a partnership agreement

Allocate profits and losses to the partners

Prepare a statement of partners' equities

Prepare a balance sheet for a partnership

Perform accounting functions specific to a partnership

Explain the nature of special journals

Record transactions in special journals

Perform accounts payable functions to a partnership

Explain the nature of accounts payable

Maintain a vendor file

Analyze purchase transactions

Post to an accounts payable subsidiary ledger

Prepare a credit memorandum for returned goods

Process invoices for payment

Process accounts payable checks

Prepare an accounts payable schedule

Perform accounts receivable functions to a partnership

Explain the nature of accounts receivable

Maintain a customer file for accounts receivable

Analyze sales transactions
Post to an accounts receivable subsidiary ledger
Process sales orders and invoices
Process sales returns and allowances
Process customer payments
Prepare customer statements
Process uncollectible accounts
Prepare an accounts receivable schedule
Determine uncollectible accounts receivable

Determine suitable internal accounting controls to ensure the proper recording of financial transactions

Explain the purpose of internal accounting controls
Determine the components of internal accounting control procedures
Maintain internal accounting controls

Access- process- maintain- evaluate- and disseminate financial information to assist business decision-making

Utilize accounting technology
Integrate technology into accounting

Utilize career planning concepts- tools- and strategies to explore- obtain- and develop in an accounting career

Describe careers in accounting
Explore accounting licensing and certification programs
Discuss the significance of responsibility in accounting
Describe Generally Accepted Accounting Principles -- GAAP

Business Communications

1 Semester / .5 Credit (Minimum)

SCED: 12009

Supporting Course for the Marketing Cluster

Business Communications courses help students to develop an understanding and appreciation for effective communication in business situations and environments. Emphasis is placed on all phases of communication: speaking, listening, thinking, responding, reading, writing, communicating non-verbally, and utilizing technology for communication. Business communication functions, processes, and applications in the context of business may be practiced through problem-based projects and real-world applications.

Vocabulary Skills

Define, spell, pronounce, and syllabicate frequently used and business-related words
Apply rules for plurals, possessives, prefixes, and word endings
Demonstrate proficiency in the use of a dictionary

Written Business Communications

Demonstrate good sentence structure
Demonstrate proficiency in the use of punctuation
Demonstrate proficiency in using reference materials
Demonstrate proficiency in using software and hardware instruction manuals
Use appropriate words, grammar, sentence construction, and punctuation in written communications with customers, coworkers, and supervisors
Interpret, analyze, and confirm written instructions or procedures
Operate communications equipment
Compose and key error-free electronic mail messages
Use dictionary and/or other reference materials to produce error-free documents
Demonstrate proper error correction techniques

Sample Written Communications

Write a letter requesting admission and scholarship information
Request a room reservation or reply to such a request
Ask for material to be sent or grant or deny such a request
Ask for credit, grant it, or deny it

Compose goodwill letters - granting a request, congratulations, etc.

Request a speaker for a convention or meeting

Sell a service/product through the mail

Write or answer a letter of complaint

Prepare interoffice memorandums

Perform Business Operations

Identify the communications needs of various types of businesses such as retailing, manufacturing, financial, service, government, wholesaling, and distribution,²

Use appropriate technologies to create identified business correspondence

Key documents from longhand or edited rough draft

Proofread documents

Meet the standard of mailability for all production work

Verbal Communication

Prepare and deliver an oral presentation

Practice customer contact skills

Interpret, analyze, and confirm verbal instructions

Utilize listening skills

Human Relations Skills

Perform a self-evaluation to determine strengths and weaknesses

Develop grooming and personal hygiene habits

Develop a healthy self-esteem

Describe the importance of the following personal qualities: honesty, loyalty, courtesy, cooperation, alertness, ambition, punctuality, interest, involvement, patience, tact, confidence, sense of humor, dependability/reliability, flexibility, and initiative

Describe acceptable conduct in the following professional relationships: employee-employer, employee-coworker, and employee-public

Job Seeking Skills

Research and report on various business careers

Prepare a résumé

Compose and type employment-related letters such as application, thank you, resignation, etc.

Complete an application form

Demonstrate the techniques of a good job interview

Computer Technology

Prepare a computerized spreadsheet to analyze and present data

Prepare graphic presentations of data by computer

Incorporate graphic presentation of data in a printed document

Name _____ ID _____

Instructor _____ School Year _____

Enrollment Date _____ Completion Date _____ Credits Completed _____

I certify that the student received the training in the area indicated.

Student Signature : _____ Date _____

Instructor Signature: _____ Date _____

Business Law (12054) Technical Level .5 Credit

This course identifies and promotes the skills needed in law and law associated professions. Topic include the origins, ethics, structures, and institutions of law. In concentrates on several types of law including criminal, civil, consumer, contract, property, agency, employment, family and environmental law. The intent of the class is to allow areas of concentration once all of the competencies are met.

RATING SCALE:3: Skilled, works independently; 2: Competent, may need assistance; 1: Received instruction, skill undeveloped; 0: No exposure, instruction or training. Measured competencies listed should be seen as minimums.

Competencies reflect standards from National Career Clusters Kansas Standards for History and Government; Economics and Geography

Topic		1	Basics of Law			
Benchmark		1.01	The student will demonstrate his understanding of the sources of law.			
	01.01.01	Discuss the responsibility for obeying the law	3	2	1	0
	01.01.02	Describe the role of ethics and values in personal and legal systems	3	2	1	0
	01.01.03	Compare various ethical systems, and discuss how they may conflict.	3	2	1	0
Benchmark		1.02	The student will demonstrate his understanding of the structure and processes in the U.S. legal system.			
	01.02.01	Discuss the Constitution and the Bill of Rights	3	2	1	0
	01.02.02	Discuss the structure of Federal, State, and Municipal legal systems	3	2	1	0
	01.02.03	Understand the various processes, procedures, and precedents of the various courts.	3	2	1	0
Topic		2	Types of Law			
Benchmark		2.01	The student will demonstrate the ability to identify and discuss Criminal law			
	02.01.01	Recognize the differences between various levels of crime (i.e. felonies, misdemeanors, infractions)	3	2	1	0
	02.01.02	Identify and recognize potential defense strategies (i.e. insanity, self-defense etc.)	3	2	1	0
Benchmark		2.02	The student will demonstrate the ability to identify issues and discuss Civil law			
	02.02.01	Discuss and classify different types of tort claims	3	2	1	0
	02.02.02	Discuss the challenges faced and remedies of tort cases	3	2	1	0

Benchmark		2.03	The student will demonstrate the ability to identify issues and discuss Contract law			
	02.03.01	Demonstrate an understanding of the nature of contractual relationships, and a list of elements required in a valid contract.	3	2	1	0
	02.03.02	Demonstrate an understanding of the variety of different types of contracts.	3	2	1	0
	02.03.03	Explain a minor's right to avoid a contract and identify people who lack contractual capacity	3	2	1	0
	02.03.04	Discuss the several ways contracts may be invalidated or violated.	3	2	1	0
Benchmark		2.04	The student will demonstrate the ability to identify issues and discuss Property law			
	02.04.01	Recognize and discuss the various types of property cases (i.e. real, personal, intellectual)	3	2	1	0
Benchmark		2.05	The student will demonstrate the ability to identify issues and discuss Consumer law			
	02.05.01	Demonstrate and understanding of the Uniform Consumer Code, various enforcement agencies (i.e., Federal Trade Commission) and consumer protection laws.	3	2	1	0
	02.05.03	Identify legislation which regulates consumer credit (e.g., Fair Credit Reporting Act, Equal Credit Opportunity Act, etc).				
	02.05.02	Define common unfair practices (i.e. bait and switch, usury, identity theft, misrepresentation fly by night companies)	3	2	1	0
Benchmark		2.06	The student will demonstrate the ability to identify issues and discuss Agency and Employment law			
	02.06.01	Discuss and define an agency's code of ethics involving relationships, duties, obligations, and liabilities	3	2	1	0
	02.06.02	Discuss and explain the nature of employer and employee relationships	3	2	1	0
	02.06.03	Demonstrate an understanding of discrimination both justified and unjustified.	3	2	1	0
	02.06.04	Identify and discuss employment regulation (Child/youth labor, minimum wage, collective bargaining)	3	2	1	0
Benchmark		2.07	The student will demonstrate the ability to identify issues and discuss Family law			
	2.07.01	Demonstrate an understanding of marriage, dissolution of marriage, and parental custody issues	3	2	1	0
	02.07.02	Demonstrate an understanding of wills trusts, probate and estate planning.	3	2	1	0
Benchmark		2.08	The student will demonstrate the ability to identify issues and discuss Environmental law			
	2.08.01	Demonstrate an understanding of environmental regulation, energy regulation and pollution controls.	3	2	1	0
	2.08.02	Demonstrate and understanding of the relationship between law and the use of pollution taxes and emissions credit trading.	3	2	1	0
	2.08.03	Demonstrate an understanding of environmental documents, laws, rules etc. and analyze and interpret complex events	3	2	1	0

Topic		3	Business Organizations			
Benchmark		3.01	The student will demonstrate the ability to identify issues and discuss Sole Proprietorship and Partnerships			
	3.01.01	Outline the legal procedures for forming and running a sole proprietorship and partnership	3	2	1	0
	3.01.02	Identify how the partnerships may be dissolved	3	2	1	0
	3.01.03	Distinguish and explain a limited partnership from a general partnership	3	2	1	0
Benchmark		3.02	The student will demonstrate the ability to identify issues and discuss C Corporations, S Corporations and Limited Liability Corporations			
	03.02.01	Explain the steps in forming a corporation	3	2	1	0
	03.02.02	Identify rights and responsibilities of board of directors, officers of a corporation and shareholders	3	2	1	0
	03.02.03	Explain the advantages and disadvantages of a corporation	3	2	1	0
	03.02.04	Distinguish and explain a limited liability corporation from a C corporation and S corporation.	3	2	1	0
Topic		4	Bankruptcy			
Benchmark		4.01	The student will demonstrate the ability to identify issues and discuss Bankruptcy.			
	4.01.01	Describe and discuss the various aspects of bankruptcy (i.e., Chapter 7, Chapter 11 and Chapter 13).	3	2	1	0

Marketing (A)

1 Semester / .5 Credit (Minimum)

SCED: 12152

Technical-level course for Marketing Strands

Marketing—Comprehensive courses focus on the wide range of factors that influence the flow of goods and services from the producer to the consumer. Topics may include (but are not limited to) market research, the purchasing process, distribution systems, warehouse and inventory control, salesmanship, sales promotions, shoplifting and theft control, business management, and entrepreneurship. Human relations, computers, and economics are often covered as well.

Channel Management

Explain the nature of channels of distribution

Select channels of distribution

Marketing-Information Management

Acquire foundational knowledge of marketing-information management to understand its nature and scope

Describe the need for marketing information

Explain the role of ethics in marketing-information management

Describe the use of technology in the marketing-information management function

Understand marketing-research activities to show command of their nature and scope

Explain the nature of marketing research

Explain types of primary marketing research

Explain the nature and scope of the marketing information management function

Identify sources of primary and secondary data

Product/Service Management

Acquire a foundational knowledge of product/service management to understand its nature and scope

Identify the impact of product life cycles on marketing decisions

Generate product ideas to contribute to ongoing business success

Identify product opportunities

Identify methods/techniques to generate a product idea

Understand opportunity recognition

Apply quality assurances to enhance product/service offerings

Explain warranties and guarantees

Identify consumer protection provisions of appropriate agencies
Evaluate customer experience
Employ product-mix strategies to meet customer expectations.
Explain the concept of product mix.
Describe the nature of product bundling
Identify product to fill customer need
Plan product mix
Determine services to provide customers
Position products/services to acquire desired business image
Explain the nature of product/service branding
Develop strategies to position products/services
Build product/service brand

Promotion

Acquire a foundational knowledge of promotion to understand its nature and scope
Explain the role of promotion as a marketing function
Explain the types of promotion
Identify the elements of the promotional mix
Describe the use of business ethics in promotion
Describe the use of technology in the promotion function
Describe the regulation of promotion
Understand promotional channels used to communicate with targeted audiences
Explain types of advertising media
Describe word-of-mouth channels used to communicate with targeted audiences
Explain the nature of direct marketing channels
Identify communications channels used in sales promotion
Explain communications channels used in public-relations activities
Understand the use of an advertisement's components to communicate with targeted audiences
Explain the components of advertisements
Explain the importance of coordinating elements in advertisements
Understand the use of public-relations activities to communicate with targeted audiences
Identify types of public-relations activities

Discuss internal and external audiences for public-relations activities

Understand the use of trade shows/expositions to communicate with targeted audiences

Explain how businesses can use trade-show/exposition participation to communicate with targeted audiences

Explain considerations used to evaluate whether to participate in trade shows/expositions

Manage promotional activities to maximize return on promotional efforts

Explain the nature of promotional plan

Coordinate activities in the promotional mix

Marketing (B)

1 Semester / .5 Credit (Minimum)

SCED: 12152

Technical-level course for Marketing Strands

Marketing—Comprehensive courses focus on the wide range of factors that influence the flow of goods and services from the producer to the consumer. Topics may include (but are not limited to) market research, the purchasing process, distribution systems, warehouse and inventory control, salesmanship, sales promotions, shoplifting and theft control, business management, and entrepreneurship. Human relations, computers, and economics are often covered as well.

Market Planning

- Employ marketing-information to develop a marketing plan
- Explain the concept of marketing strategies
- Identify considerations in implementing global marketing strategies
- Explain the concept of market and market identification
- Identify market segments
- Select target market
- Explain the nature of market planning
- Explain the nature of marketing plans
- Explain the role of situational analysis in the marketing planning process
- Conduct market analysis
- Conduct SWOT analysis for use in the marketing planning process
- Identify marketing goals and objectives
- Explain market budget
- Understanding elements of marketing plan

Pricing

- Develop a foundational knowledge of pricing to understand its role in marketing
- Explain the nature and scope of the pricing function
- Describe the role of business ethics in pricing
- Explain factors affecting pricing decisions

Selling

Acquire a foundational knowledge of selling to understand its nature and scope

Explain the nature and scope of the selling function

Explain the role of customer service as a component of selling relationships

Explain key factors in building a clientele

Explain company selling policies

Explain business ethics in selling

Describe the use of technology in the selling function

Describe the nature of selling regulations

Acquire product knowledge to communicate product benefits and to ensure appropriateness of product for the customer

Acquire product information for use in selling

Identify product information to identify product features and benefits

Understand sales processes and techniques to enhance customer relationships and to increase the likelihood of making sales

Explain the selling process

Discuss motivational theories that impact buying behavior

ARCHITECTURE AND CONSTRUCTION CLUSTER

CIP 46.0000 - CONSTRUCTION & DESIGN PATHWAY

COMMON COURSE CODES AND COURSE DESCRIPTIONS:

COMMON COURSE CODE	IDENTIFYING TITLE	COURSE DESCRIPTION	PREREQUISITE(S)	COURSE LEVEL
38001- (.5 Credit)	INTRODUCTION TO INDUSTRIAL TECHNOLOGY	An introductory level course designed to instruct students in the basic skills necessary to all occupations in the Construction, Manufacturing & Transportation areas.	Required for Pathway approval	Introductory
21102-(.5 credit)	DRAFTING (Architectural & Mechanical)	An introductory course designed to expose students to both architectural and mechanical (technical) drafting skills.		Introductory
CONSTRUCTION STRAND				
17002- (1 Credit)	CARPENTRY	A comprehensive course designed to instruct students in the basic knowledge and skills required for construction of residential structures.		Technical
17007-(1 Credit)	WOODWORKING PRINCIPLES	A comprehensive course designed to instruct students in the basic knowledge and skills required for cabinetmaking and furniture design.		Technical
17062-(.5 Credit)	SKILLED MECHANICAL CRAFTS	An introductory level course designed to instruct students in the basic skills necessary for occupations in skilled mechanical crafts.		Technical
38002-(1 Credit)	CARPENTRY II	An advanced comprehensive course designed to instruct students in skills pertaining to rough construction and finish work.	Carpentry	Application

Effective for the 2015-16 School Year

COMMON COURSE CODE	IDENTIFYING TITLE	COURSE DESCRIPTION	PREREQUISITE(S)	COURSE LEVEL
17005-(1 Credit)	RESEARCH & DESIGN IN BUILDING TRADES	An advanced research and application course covering specific topics in building construction to include management and “green building” skills.	Carpentry OR Carpentry II	Application
17113-(.5 Credit)	ELECTRICAL & SECURITY SYSTEMS	A course designed to instruct students in the basic skills required for installation of electrical and security systems.	Carpentry	Application
17009-(.5 Credit)	REMODEL & BUILDING MAINTENANCE	A course designed to instruct students in the skills required for residential remodeling and maintenance.	Carpentry OR Woodworking Principles	Application
38007-(1 Credit)	FURNITURE & CABINETS FABRICATION	An advanced level application course designed to provide students with experience in constructing cases, cabinets, counters, furniture and interior woodwork	Woodworking Principles	Application
17056-(.5 Credit)	HVAC TECHNOLOGY	A course designed to provide students with exposure to and training in the theories, equipment and skills needed to install and maintain HVAC systems.	Carpentry	Application
13205-(.5 Credit)	SHEET METAL TECHNOLOGY	A course designed to provide students with exposure to and training in the theories, equipment and skills needed to perform sheet metal techniques.	Carpentry	Application
38012 – (1 Credit)	SHEET METAL & HVACR	A course designed to provide students with exposure to and training in the theories, equipment, and skills needed to perform sheet metal techniques, and to install and maintain HVAC and refrigeration systems.	Carpentry	Application

Effective for the 2015-16 School Year

COMMON COURSE CODE	IDENTIFYING TITLE	COURSE DESCRIPTION	PREREQUISITE(S)	COURSE LEVEL
17058–(.5 Credit)	PLUMBING TECHNOLOGY	A course designed to provide students with exposure to and training in the theories, equipment and skills needed to install and maintain plumbing systems.	Carpentry	Application
17061–(1 Credit)	PIPEFITTING TECHNOLOGY	A course designed to provide students with exposure to and training in the theories, equipment and skills needed to perform pipefitting techniques.	Carpentry	Application
38010	ADVANCED MATERIALS TECHNOLOGY	A progressive application level course furthering the study of CNC equipment, composite panel products, and veneering, and the processes involved with fabricating goods with these technologies.	Woodworking Principles AND Furniture & Cabinetry Fabrication	Application
DESIGN STRAND				
21107–(1 Credit)	DRAFTING/CAD	A comprehensive course designed to instruct students in the use of CAD design and software.		Technical
21103–(1 Credit)	ARCHITECTURAL DESIGN	A comprehensive course designed to instruct students in the basic skills of architectural design with a particular emphasis on residential and light commercial applications.		Technical
21109–(1 Credit)	RESEARCH & DESIGN FOR PRE- CONSTRUCTION	An advanced research and application course covering specific topics in design and pre-construction to include management and “green design” skills.	Drafting/CAD OR Architectural Design	Application

Effective for the 2015-16 School Year

COMMON COURSE CODE	IDENTIFYING TITLE	COURSE DESCRIPTION	PREREQUISITE(S)	COURSE LEVEL
22212- (.5 Credit)	RESIDENTIAL INTERIOR DESIGN	An application level course designed to instruct students in the skills necessary to design interior spaces that apply design elements and principles to spaces for residential and special needs (e.g. single family homes, multi-family structures, homes for special needs, child care centers, retirement homes, etc.). Topics will include meeting client's needs, legislated codes, historic considerations, current and future trends, and public policy.	Drafting/CAD OR Architectural Design	Application
38212- (.5 Credit)	COMMERCIAL & INDUSTRIAL INTERIOR DESIGN	An application level course designed to instruct students in the skills necessary to design interior spaces that acknowledge client needs, legislated codes, historic, current and future trends, and public policy for commercial and industrial buildings (e.g. office buildings, warehouses and manufacturing sites, etc.).	Drafting/CAD OR Architectural Design	Application
38050- (.5 Credit)	ADVANCED STUDIES IN ARCHITECTURAL DESIGN	An advanced level application course covering specific research-based topics in architectural design.	Drafting/CAD OR Architectural Design	Application

Effective for the 2015-16 School Year

Kansas Agriculture Education

Name _____ SSN ____-____-_____

Instructor _____ School Year _____

RATING SCALE:
3: Skilled, works independently
2: Competent, may need assistance
1: Received instruction, skill undeveloped
0: No exposure, instruction or training

INTEGRATION:
(M) Math (S) Science
(E) Language Arts (L) Lab Activity
(C) Career Development Skill
(EB) Experienced Based
(LK) Life Knowledge

I. Welding Industry and Careers

- 3 2 1 0 1. Describe 10 careers in the field of ag welding(E)
- 3 2 1 0 2. Explain the importance of welding and construction in the local economy (E)
- 3 2 1 0 3. Identify local businesses that require ag welding skills
- 3 2 1 0 4. List the causes of accidents in the workplace
- 3 2 1 0 5. Write a 1 and ½ page paper over two agriculture careers of interest (E)
- 3 2 1 0 6. Select an agriculture career, research, and write a ½ page report over the education needed

II. Supervised Agriculture Experience (SAE) & Record Keeping

- 3 2 1 0 1. Identify and maintain the SAE (C)
 - 3 2 1 0 2. Construct a personal budget (M)
 - 3 2 1 0 3. Utilize the Kansas FFA SAE Record book to monitor the SAE (C)
 - 3 2 1 0 4. Complete a local and district proficiency award applications (E)
 - 3 2 1 0 5. Complete chapter and/or State FFA Degree applications (E)
 - 3 2 1 0 6. Use Quicken to track income and expense in cash, checking, and savings (C)
 - 3 2 1 0 7. Track SAE skills developed, hours worked as well as FFA, school, and community activities using the Ag Ed record book (C)
 - 3 2 1 0 8. Set appropriate SAE long and short term goals (E)
- A. Lab Activities (L)(EB)**
- 3 2 1 0 1. Prepare income and expense records (C, M)
 - 3 2 1 0 2. Prepare monthly cash flow statements (C, M)
 - 3 2 1 0 3. Record personal and business inventories, assets, and liabilities (C, M)

III. The National FFA Organization and Leadership

- 3 2 1 0 1. Participate in Student Development activities established by the local POA

- 3 2 1 0 2. Participate in Chapter Development activities established by the local POA
- 3 2 1 0 3. Participate in Community Development activities established by the local POA
- 3 2 1 0 4. Participate in the Welding and/or Ag Mechanics FFA Career Development Events (E)

IV. SMAW (Arc) Welding

- 3 2 1 0 1. Explain the physical processes of arc welding (S)
 - 3 2 1 0 2. List the proper arc welding safety guidelines (S)
 - 3 2 1 0 3. Identify arc welding safety hazards (S)
 - 3 2 1 0 4. Identify pieces of arc welding equipment
 - 3 2 1 0 5. Differentiate between AC and DC welding (S)
- A. Lab Activities (L)(EB)**
- 3 2 1 0 1. Demonstrate a 6011 series arc welds:
flat – stringer, pad, butt, T, lap
horizontal- stringer, butt, lap
vertical – stringer, butt, T, lap
 - 3 2 1 0 2. Demonstrate a 6013 series arc welds:
flat – stringer, pad, butt, T, lap
horizontal- stringer, butt, lap
vertical – stringer, butt, T, lap
 - 3 2 1 0 3. Demonstrate 7018 pipe-on-pipe butt in flat position
 - 3 2 1 0 4. Demonstrate 7018 pipe-on-plate T-weld in flat position

V. GMAW (MIG) Welding

- 3 2 1 0 1. List the proper MIG welding safety guidelines (S)
 - 3 2 1 0 2. Identify MIG welding safety hazards (S)
 - 3 2 1 0 3. Identify pieces of MIG welding equipment
 - 3 2 1 0 4. Explain the physical processes of MIG welding (S)
- A. Lab Activities (L)(EB)**
- 3 2 1 0 1. Demonstrate a MIG series welds:
flat – stringer, pad, butt, T, lap
horizontal- stringer, butt, lap
vertical – stringer, butt, T, lap
 - 3 2 1 0 2. Demonstrate MIG pipe-on-pipe butt in flat position
 - 3 2 1 0 3. Demonstrate MIG pipe-on-plate T-weld in flat position

Agricultural Welding - 18404

Enrollment Date _____ Completion Date _____ Hours completed _____

_____/_____/_____/_____/_____/_____

I certify that the student received the training in the area indicated.

Student Signature _____ Date _____

Instructor Signature _____ Date _____

Competencies completed ____/118

VI. Oxy-Acetylene Welding and Cutting

- 3 2 1 0 1. List the oxy-acetylene welding and brazing safety guidelines (E)
 - 3 2 1 0 2. List the oxy-acetylene cutting safety guidelines (E)
 - 3 2 1 0 3. Identify oxy-acetylene cutting, welding, and brazing equipment
 - 3 2 1 0 4. Explain the physical processes of oxy-acetylene welding, cutting, and brazing (E)
- A. Lab Activities (L)(EB)**
- 3 2 1 0 1. Demonstrate an oxy-acetylene filler bead weld
 - 3 2 1 0 2. Demonstrate an oxy-acetylene filler butt weld
 - 3 2 1 0 3. Demonstrate an oxy-acetylene bead weld
 - 3 2 1 0 4. Demonstrate a braze butt weld
 - 3 2 1 0 5. Demonstrate a braze lap weld
 - 3 2 1 0 6. Demonstrate oxy-acetylene cutting techniques:
straight – freehand, guided
round/circle – freehand, guided

VII. Plasma Cutting

- 3 2 1 0 1. List the plasma cutting safety guidelines (E)
 - 3 2 1 0 2. Identify plasma cutting equipment
 - 3 2 1 0 3. Explain the processes of plasma cutting and proper the techniques involved.
- A. Lab Activities (L)(EB)**
- 3 2 1 0 1. Demonstrate plasma cutting techniques:
straight – freehand, guided
round/circle – freehand, guided
 - 3 2 1 0 2. Demonstrate proper setups and adjustments for different metal thicknesses

VIII. General Shop Safety/Machine Use

- 3 2 1 0 1. Explain the use and function of the bench grinder (E)
- 3 2 1 0 2. Explain the use and function of the hand grinder (E)
- 3 2 1 0 3. Explain the use and function of the chop saw (E)
- 3 2 1 0 4. Explain the use and function of the hot saw (E)
- 3 2 1 0 5. Explain the use and function of the floor shear (E)

- 3 2 1 0 6. Explain the use and function of the drill press (E)
- 3 2 1 0 7. Explain the use and function of power hand drills (E)
- 3 2 1 0 8. Explain the use and function of pneumatic tools (E)
- 3 2 1 0 9. List the proper bench grinder safety guidelines
- 3 2 1 0 10. List the proper hand grinder safety guidelines
- 3 2 1 0 11. List the proper chop saw safety guidelines
- 3 2 1 0 12. List the proper hot saw safety guidelines
- 3 2 1 0 13. List the proper floor sheer safety guidelines
- 3 2 1 0 14. List the proper drill press safety guidelines
- 3 2 1 0 15. List the proper power hand tools safety guidelines
- 3 2 1 0 16. List the proper pneumatic tools safety guidelines

A. Lab Activities (L)

- 3 2 1 0 1. Demonstrate the proper bench grinder safety guidelines
- 3 2 1 0 2. Demonstrate the proper hand grinder safety guidelines
- 3 2 1 0 3. Demonstrate the proper chop saw safety guidelines
- 3 2 1 0 4. Demonstrate the proper hot saw safety guidelines
- 3 2 1 0 5. Demonstrate the proper floor sheer safety guidelines
- 3 2 1 0 6. Demonstrate the proper drill press safety guidelines
- 3 2 1 0 7. Demonstrate the proper power hand tools safety guidelines
- 3 2 1 0 8. Demonstrate the proper pneumatic tools safety guidelines

IX. Layout and Setup of Projects

- 3 2 1 0 1. Read blueprints and follow detail plans for project construction
- 3 2 1 0 2. Make and read a working drawing (E)
- 3 2 1 0 3. Estimate materials needed for a project
- 3 2 1 0 4. Calculate project costs (M)
- 3 2 1 0 5. Prepare a bill of materials
- 3 2 1 0 6. Identify types of metal (E)
- 3 2 1 0 7. Construct group projects
- 3 2 1 0 8. Construct individual projects
- 3 2 1 0 9. Make a project drawing on the computer (E)

X. Safety / Lab Orientation

- 3 2 1 0 1. Identify and demonstrate proper methods of shop/lab clean-up
- 3 2 1 0 2. Identify various tool storage locations
- 3 2 1 0 3. Learn the components of the fire triangle
- 3 2 1 0 4. Explain the proper use of a fire extinguisher
- 3 2 1 0 5. Explain proper shop safety color coding

A. Lab Activities (L)

- 3 2 1 0 1. Complete a shop/lab safety test with 100% accuracy

XI. Project Construction

- 3 2 1 0 1. _____

XII. Mathematics Career Development Skills (C)

- 3 2 1 0 1. Estimate, apply, and solve problems involving fractions, decimals, and percentages (M)
- 3 2 1 0 2. Translate written and verbal statements into math expressions (M)
- 3 2 1 0 3. Convert common units of measurement within and/or across measurement systems (M)
- 3 2 1 0 4. Apply concepts of measurement such as distance, direction, rate, and time (M)
- 3 2 1 0 5. Construct or interpret tables, charts, maps, and/or graphs (M)
- 3 2 1 0 6. Decide whether a problem is best solved with a computer, calculator, paper, and pencil, or mental arithmetic techniques (M)

XIII. Communications Career Development Skills (C)

- 3 2 1 0 1. Follow oral instructions (E)
- 3 2 1 0 2. Participate in group communication activities (E)
- 3 2 1 0 3. Give oral directions (E)
- 3 2 1 0 4. Use language and format appropriate to the subject matter, purpose, and audience (E)

XIV. Other Career Development Skills (C)

- 3 2 1 0 1. Set priorities that several tasks will be accomplished (C)
- 3 2 1 0 2. Utilize time management to reduce conflicts (C)
- 3 2 1 0 3. Apply rules including punctuality, attendance, and work ethic (C)
- 3 2 1 0 4. Access and use information to develop educational and career options (C)
- 3 2 1 0 5. Demonstrate stress management skills (C)

XV. Computer Literacy (C)

- 3 2 1 0 1. Define, understand, and use common computer technology terms (C)
- 3 2 1 0 2. Compose, organize, and edit information using a computer (C)
- 3 2 1 0 3. Use presentation software to design and create a presentation (C)
- 3 2 1 0 4. Use agricultural related software/websites (C)
- 3 2 1 0 5. Access, navigate, and use on-line services (C)
- 3 2 1 0 6. Send and receive email messages with enclosures (C)
- 3 2 1 0 7. Use Quicken to manage personal finance (C)
- 3 2 1 0 8. Use Microsoft Office (Word, Excel, Powerpoint, and Internet Explorer) to complete projects (C)

XVI. Life Knowledge Lessons

- 3 2 1 0 1. Professional ethics and personal character (HS 35)
- 3 2 1 0 2. Conduct a job search (HS 36)
- 3 2 1 0 3. Developing a resume (HS 37)
- 3 2 1 0 4. Interviewing techniques (HS 38)

Name _____ ID _____

Instructor _____ School Year _____

Enrollment Date _____ Completion Date _____ Credits Completed _____

I certify that the student received the training in the area indicated.

Student Signature : _____ Date _____

Instructor Signature: _____ Date _____

Technical-level course for Business Management and Administration Career Clusters (Funded)

IB Business and Management courses prepare students to take the International Baccalaureate Business and Management exam at either the Subsidiary or Higher level. In keeping with Individual and Society courses, IB Business and Management promotes problem-solving by identifying the problem, selecting and interpreting data, applying appropriate analytical tools, and recommending solutions by evaluating their quantitative and qualitative implications. These courses also equip students with knowledge and understanding of business terminology, concepts and principles.

RATING SCALE: 3: Skilled, works independently; 2: Competent, may need assistance; 1: Received instruction, skill undeveloped; 0: No exposure, instruction or training Measured Competencies listed should be seen as minimums (you can add)

1 Introduction to Organizations

	01 Analyze local organizations of different types and identify their main features.	3	2	1	0
	02 Explain the advantages and disadvantages of each type of organization identified.	3	2	1	0
	03 Relate each type of ownership to the degree of control.	3	2	1	0
	04 Distinguish between organizations in the private and public sectors.	3	2	1	0
	05 Analyze the reasons for forming global conglomerates and networks.	3	2	1	0
	06 Analyze the role of subsidiaries, joint ventures/strategic alliances, multinational companies and holding companies.	3	2	1	0
	07 Explain the importance of objectives in managing an organization.	3	2	1	0
	08 Use SWOT analysis to assess an organization's position, and to define and refine its objectives.	3	2	1	0
	09 Explain the interests of stakeholders and the likelihood of conflict between them.	3	2	1	0
	10 Use PEST/STEP analysis to investigate how external factors impact on organizations.	3	2	1	0

2 Accounting and Finance

	01 Assess the advantages and disadvantages of each form of finance and be able to comment on the appropriateness of the sources of finance in relation to the specific needs of an organization.	3	2	1	0
	02 Calculate and draw conclusions from changes in gearing.	3	2	1	0
	03 Calculate the payback period for an investment.	3	2	1	0
	04 Prepare a cash flow forecast from given information.	3	2	1	0
	05 Analyze the effects of changes in price or cost on the break-even quantity, profit, and margin of safety, using graphical and quantitative methods.	3	2	1	0
	06 Construct and amend accounts from information given.	3	2	1	0
	07 Calculate and use ratios to interpret financial statements.	3	2	1	0

3 Academic Competencies--Language Arts

	01 Organizes business correspondence, instructions, descriptions, summarizes and reports in a logical and effective sequence to meet the readers' informational needs. {W:1.3.7}	3	2	1	0
	02 Writes with an awareness of purpose and audience (e.g. letters, complex reports, directions, graphics, brochures, electronic presentations, newsletters, memos, job searches, fliers, e-mails, Web pages, pictorials). {W:1.3.10}	3	2	1	0
	03 Determines meaning of marketing words or phrases using context clues. (R:1.3.2)	3	2	1	0
	04 Uses paraphrasing and organizational skills to summarize information. (R:1.4.10)	3	2	1	0

4 Academic Competencies--Math

	01 Solves multi-step real-world problems with real numbers using computational procedures. [M:1.4.1A]	3	2	1	0
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5 Academic Competencies--Science and Technology

	01 Explain how the advancement of technology enhanced the way telecommunications have affected our lives	3	2	1	0
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6 Career Development Skills					
	01 Participate in group discussions. (CO:025)	3	2	1	0
	02 Make oral presentations. (CO:025)	3	2	1	0
	03 Prepare simple written reports. (CO:094)	3	2	1	0
7 Student Leadership Skills					
	01 Identify desirable 21st Century skills important to business. (EI:018)	3	2	1	0

Name _____ ID _____

Enrollment Date
____/____/____Completion Date
____/____/____Credits Completed

Instructor _____ School Year _____

I certify that the student received the training in the area indicated.

RATING SCALE:

3: Skilled, works independently
 2: Competent, may need assistance
 1: Received instruction, skill undeveloped
 0: No exposure, instruction or training

Measured Competencies listed should be seen as minimums (you can add)

Student Signature _____ Date _____

Instructor Signature _____ Date _____

Competencies ____/52

I. Internet Marketing

- 3 2 1 0 1.** Demonstrate knowledge of cultural implications on design and deployment of digital communication products.
- 3 2 1 0 2.** Demonstrate knowledge of Web Accessibility Initiative priorities.
- 3 2 1 0 3.** Engage in user testing throughout the design and development process.
- 3 2 1 0 4.** Identify optimal strategies for successful interactions with clients and team members.
- 3 2 1 0 5.** Determine client needs and expected outcomes.
- 3 2 1 0 6.** Determine clients privacy policy and expectations.
- 3 2 1 0 7.** Determine the digital communication elements to be used.
- 3 2 1 0 8.** Determine the purpose of the digital communication project.
- 3 2 1 0 9.** Determine the target audience.
- 3 2 1 0 10.** Evaluate requirements data that has been collected from customers and competing web sites.
- 3 2 1 0 11.** Identify and evaluate risks.
- 3 2 1 0 12.** Identify and obtain tools and resources to create a project plan.
- 3 2 1 0 13.** Identify interdependencies.
- 3 2 1 0 14.** Collect and analyze usage statistics.
- 3 2 1 0 15.** Explain the importance of ethical behaviors and legal issues.
- 3 2 1 0 16.** Assess product effectiveness.
- 3 2 1 0 17.** Perform usability tests.

- 3 2 1 0 18.** Define scope of work to achieve individual and group goals.

- 3 2 1 0 19.** Use available reference tools as appropriate.

Foundation & 21st Century Competencies
 (lowercase letters are indicators to be considered)

II. Pathway Foundation
 Problem Solving and Critical Thinking

- 3 2 1 0 1. Demonstrate knowledge of the process required to evaluate and verify the nature of a problem.**
- Demonstrate knowledge of the underlying concepts of the information systems discipline.
 - Demonstrate knowledge of methods for achieving productivity in knowledge work.
 - Apply general systems theory to the analysis and development of an information system.
 - Identify procedures for formal problem- solving.
 - Demonstrate knowledge of the fundamental concept of information theory and organizational system processes.
 - Identify the essential properties of information systems.
- 3 2 1 0 2. Demonstrate knowledge of the process required to solve a problem.**
- Demonstrate knowledge of problem-solving steps and techniques.
 - Summarize application planning, development, and risk management for information system.
 - Identify potential problems in system implementation.
 - Demonstrate knowledge of the information analysis process.
 - Demonstrate knowledge of information technology solutions.

III. Cluster Foundation**Employability and Career Development**

- 3 2 1 0 1. Demonstrate ability to evaluate and compare employment opportunities and accept employment.**

- Identify job advantages and disadvantages.
- Compare job benefits to individual needs.
- Compare job opportunities and responsibilities to career plan.
- Make decision to accept or reject employment.
- Write acceptance or rejection letter without error.
- Complete employment forms upon acceptance.

- 3 2 1 0 2. Demonstrate ability to seek and apply for employment.**

- Identify resources for finding employment.
- Analyze resources to determine those that are most appropriate for desired career.
- Compare job requirements with personal qualifications, interests, and aptitudes.
- Select job that matches personal qualifications, interests, and aptitudes.
- Identify prospective employer's submission requirements.
- Gather information and prepare rough draft of resume.
- Put resume in proper format.
- Write letter of application for specific job opening in correct format, without error.
- Gather information for application.
- Complete all questions on application with appropriate and honest answers.
- Sign and date application.
- Attach any supporting material required or requested.
- Submit full application package to employers.
- Dress appropriately for interview.
- Exhibit professional conduct before, during and after interview.
- Explain your qualifications and interests clearly and concisely.
- Answer all questions honestly and concisely.
- Write follow-up letter after the interview.

- 3 2 1 0 3. Demonstrate knowledge of career development/progression patterns in the IT industry.**

Kansas Information Technology Career Cluster

- a. Identify education and training requirements for IT career pathways.
- b. Identify professional organizations in the area of information technology.
- c. Identify benefits derived from membership in specific professional organizations.

3 2 1 0 4. Demonstrate knowledge of the relationship between lifelong learning and IT career development.

- a. Identify present and future IT employment opportunities.
- b. Demonstrate knowledge of the potential impact of IT on future society.
- c. Identify the importance of lifelong learning in the IT field.
- d. Identify certification and/or degree requirements.
- e. Identify required knowledge and skills for career ladder.
- f. Research educational and training opportunities.
- g. Identify present and future IT education and training opportunities.
- h. Design a lifelong learning plan that ties in with career advancement plan.

3 2 1 0 5. Develop a personal career plan to meet career goals and objectives.

- a. Identify career that matches individual interests and aptitudes.
- b. Develop career goal with time frame.
- c. Identify goals and objectives for reaching and advancing in career.
- d. Write a list of strategies for achieving educational requirements.
- e. Identify strategies for obtaining employment experiences.
- f. Write a time line for achieving career goals and objectives.
- g. List alternatives and potential changes.

3 2 1 0 6. Explain written organizational policies, rules and procedures to help employees perform their jobs.

- a. Identify the contents of various organizational publications.
- b. Determine the appropriate document(s) for specific job responsibilities and work assignments.
- c. Locate and identify specific organizational policy, rule or procedure to assist with a given situation.
- d. Articulate how a specific organizational policy, rule or procedure will improve a given situation.

3 2 1 0 7. Identify and demonstrate positive work behaviors and personal qualities.

- a. Demonstrate regular attendance.
- b. Follow company dress and appearance standards.
- c. Exhibit pride in work.
- d. Demonstrate leadership and teamwork.
- e. Exhibit ability to handle stress.
- f. Display initiative and open-mindedness.
- g. Participate in company orientation and training programs with enthusiasm.
- h. Identify progressive strategies that will impact efficiency of

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- job.
- i. Follow established rules, regulations and policies.
- j. Explain employer/management responsibilities.
- k. Demonstrate cost effectiveness.
- l. Demonstrate time management.
- m. Complete all tasks thoroughly.

3 2 1 0 8. Identify and explore career opportunities in one or more career pathways.

- a. Locate and interpret career information for at least one career cluster.
- b. Identify job requirements for three career pathways.
- c. Identify educational and credentialing requirements for three careers.
- d. Identify personal interests and aptitudes.
- e. Identify job requirements and characteristics of selected careers.
- f. Compare personal interests and aptitudes with job requirements and characteristics.
- g. Modify career goals based on results of personal interests and aptitudes with career requirements and characteristics.

3 2 1 0 9. Provide examples of how IT is transforming business in various industries.

- a. Demonstrate knowledge of how both PCs and larger computer systems impact people and are used in business/industry/government and other institutions.
- b. Demonstrate knowledge of the impact of computers on career pathways in business/industry (e.g., how computers have eliminated and created jobs).
- c. Demonstrate knowledge of the impact of computers on access to information and information exchange worldwide.
- d. Demonstrate knowledge of ethical issues that have surfaced in the information age.

Ethics and Legal Responsibilities

3 2 1 0 1. Demonstrate appropriate knowledge and behaviors of legal responsibilities and of positive cyber-citizenship.

- a. Demonstrate knowledge of the legal issues that face information technology professionals.
- b. Identify issues and trends affecting computers and information privacy.

3 2 1 0 2. Demonstrate knowledge of social, ethical, and legal issues in the information technology field.

- a. Analyze the social implications of decisions made and actions taken as an information technology professional.
- b. Demonstrate knowledge of the ethical issues that face information technology professionals.
- c. Determine the practical implications of lawsuits in terms of good will, client relations, the bottom line, diversion of company resources, cash flow and accounts receivable.

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- d. Demonstrate knowledge of basic business law concepts.

3 2 1 0 3. Demonstrate knowledge of the rights and responsibilities of IT workers.

- a. Identify generally accepted business ethics.
- b. Demonstrate knowledge of federal laws governing discrimination and harassment.
- c. Demonstrate knowledge of key concepts related to employment discrimination.
- d. Demonstrate sensitivity to diversity, including differences in gender, culture, race, language, physical and mental challenges, and family structures.
- e. Establish procedures for maintaining the confidentiality of client information.

Leadership and Teamwork

3 2 1 0 1. Build interpersonal skills with individuals and other team members.

- a. Analyze the interdependence of empathetic listening, synergy, and consensus building.
- b. Define roles within the group decision-making process.
- c. Demonstrate knowledge of how to apply team methods to empower coworkers.
- d. Apply knowledge of group dynamics.
- e. Promote teamwork, leadership, and empowerment.
- f. Identify strategies for fostering creativity.

3 2 1 0 2. Demonstrate knowledge of the skills needed for leadership in the IT environment.

- a. Demonstrate knowledge of how to apply team methods to empower coworkers.
- b. Establish goals and objectives for IS.
- c. Define mission and critical success factors.
- d. Identify desired group and team behavior in an IS context.

Safety, Health, and Environmental

3 2 1 0 1. Maintain a safe working environment.

- a. Demonstrate knowledge of the relationship between health, safety, and productivity.
- b. Identify health and safety standards established by government agencies.
- c. Access needed safety information using company and manufacturers' references (e.g., procedural manuals, documentation, standards,
- d. and flowcharts).
- e. Ensure maintenance of a clean work area.
- f. Solve safety problems using problem-solving, decision-making, and critical thinking strategies.
- g. Demonstrate knowledge of ergonomics and repetitive strain injury.

Systems

3 2 1 0 1. Demonstrate knowledge of the nature of IT in business.

- a. Determine how business activities interface with data

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processing functions.

- b. Differentiate between the role of information systems within a company and their role in a global environment.
- c. Measure increases in productivity realized by the implementation of information systems.

3 2 1 0 2. Demonstrate knowledge of the operation of cross-functional teams in achieving project goals.

- a. Consider the benefits of using a cross-functional team in policy and procedure development.
- b. Identify desired group and team behavior in an IS context.

3 2 1 0 3. Explain/discuss general strategies for maximizing organizational learning and productivity in a high tech environment.

- a. Assess the importance of new technologies to future developments and to the future knowledge worker productivity.
- b. Demonstrate knowledge of methods for achieving productivity in knowledge work.
- c. Create/maintain an environment supportive of productivity.

IV. Academic Foundations

Language Arts Courses

3 2 1 0 1. Demonstrate language arts knowledge and skills required to pursue the full-range of career and post-secondary education opportunities within the IT career cluster.

- a. Listen actively.
- b. Adapt language (diction/structure, style) for audience, purpose, situation.
- c. Collect/organize oral and written information.
- d. Compose/edit (agenda, audio-visuals, bibliographies, drafts, forms/documents, notes, oral presentations, reports, technical terminology).
- e. Comprehend oral and written information (cause/effect, comparisons/contrasts, conclusions, context, purpose, charts/tables/graphs, evaluation/critiques, mood, persuasive text, sequence, summaries, technical matter).
- f. Evaluate oral and written information (accuracy, adequacy/sufficiency, appropriateness, clarity, conclusions/solutions, fact/opinion, propaganda, relevancy, validity, relationship of ideas).
- g. Identify oral and written assumptions, purpose, outcomes/solutions, and propaganda techniques.
- h. Predict outcomes/solutions from oral and written information trends.
- i. Present formal and informal speech for the purposes of discussion, supplying/requesting information, interpretation, and persuasion.
- j. Use library, text and Internet resources.

Communications Courses

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3 2 1 0 2. Apply active listening skills to obtain and clarify information.

- a. Determine familiarity of discussion.
- b. Respond accordingly using appropriate verbal and nonverbal language.
- c. Explain the message given in your own words.
- d. Ask questions to seek or confirm understanding.
- e. Paraphrase and/or repeat information.
- f. Record and summarize information in written notes.
- g. Follow directions and/or respond in a positive way with clear, concise comments.

3 2 1 0 2. Build customer relations.

- a. Identify organizations' products and services (including own strengths as a sales agent).
- b. Recognize the importance of all customers to the business.
- c. Determine customers' individual needs.
- d. Project a professional business image (e.g., appearance, voice, grammar, word usage, enunciation, nonverbal communication).
- e. Interact with customers and colleagues in a professional (e.g., prompt, friendly, courteous, respectful, helpful, knowledgeable, and understandable) manner.
- f. Comply with established business protocols and company policies.
- g. Communicate company policies to customers.
- h. Handle merchandise returns in accordance with customer service policy.
- i. Handle customer complaints in accordance with customer service policy.
- j. Facilitate customer service through the maintenance of key information systems.
- k. Follow through on commitments made to customers (e.g., special orders, delivery specifications, new items).

3 2 1 0 3. Comprehend and use reading strategies to learn meaning, technical concepts, vocabulary, and follow instructions.

- a. Use reading strategy to achieve intended purpose.
- b. Identify purpose of text.
- c. Identify complexity of text.
- d. Explain purpose of text.
- e. Determine relevance, accuracy and appropriateness to purpose.
- f. Identify complexities and discrepancies in information.
- g. Analyze information presented in a variety of formats, such as tables, lists, figures.
- h. Identify key technical concepts and vocabulary.
- i. Follow all instructions as specifically given.
- j. Explain meaning of new terms, vocabulary and concepts.
- k. Interpret technical materials used.
- l. Summarize overall meaning of text.
- m. Write specific steps for applying information to task or new situation.
- n. Write set of directions for others sharing information learned

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and applying that to task or new situation.

3 2 1 0 4. Conduct meetings.

- a. Plan meeting.
- b. Set agenda.
- c. Schedule meeting.
- d. Reserve meeting room.
- e. Invite appropriate personnel.
- f. Identify need for outside speakers.
- g. Assign someone to take minutes.
- h. Make introductions.
- i. Invite questions, comments, and group participation.
- j. Determine appropriate action, time frame, and person accountable for identified tasks.
- k. Monitor time.
- l. Publish minutes in timely manner.

3 2 1 0 5. Demonstrate sensitivity in communicating with a diverse workforce.

- a. Identify factors (e.g., culture, ethnicity, equity, special/exceptional needs) that impact communication.
- b. Identify strategies for successful communication with a diverse workforce.
- c. Determine communication style appropriate for listener(s).
- d. Bridge communication styles.
- e. Establish guidelines for dealing with conflict.

3 2 1 0 6. Develop and deliver formal and informal presentations using appropriate media to engage and inform audiences.

- a. Know subject matter well enough to be independent of written aids.
- b. Identify characteristics of the audience and adjust to their ability to understand.
- c. Use technical terms and concepts correctly.
- d. Use proper organization and structure to achieve coherence of major points.
- e. Identify media and visual aids appropriate to understanding of topic.
- f. Prepare visual aids and support materials for easy viewing and without error.
- g. Smoothly and efficiently operate any equipment used with support.
- h. Deliver presentation without grammatical error.
- i. Speak clearly with appropriate volume, rate and gestures while making and maintaining appropriate eye contact.
- j. Use support materials in the presentation that enhance the understanding of the topic and the interest level of the audience.
- k. Stay within presentation time parameters.
- l. Evaluate listeners' interest and receptiveness.
- m. Use verbal and nonverbal feedback strategies to engage discussion and adjust message and delivery.
- n. Respond to questions and comments.

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3 2 1 0 7. Interpret and use tables, charts, and figures to support written and oral communications.

- Compile facts and arrange in an organized manner for a table, chart or figure.
- Document sources of data.
- Determine most appropriate way to display data for effective coherence.
- Prepare table, chart, graph or figure for inclusion in publication or presentation.
- Evaluate reference or source of data for authenticity and reliability.
- Explain information presented in tables, charts and figures.
- Prepare written summary of findings expressed in tables, charts and figures.

3 2 1 0 8. Interpret verbal and nonverbal behaviors to enhance communication with co-workers and clients/participants.

- Identify verbal cues.
- Observe voice speed, voice quality and tone.
- Explain message conveyed by verbal behaviors.
- Identify nonverbal cues.
- Observe eye contact, facial expressions, posture, gestures and other body language.
- Explain message conveyed by nonverbal behaviors.

3 2 1 0 9. Locate, organize and reference written information from various sources to communicate with co-workers and clients/participants.

- Identify topic.
- Conduct search of information using card catalog, keywords, and/or search engines.
- Locate variety of resources such as books, journals, and magazines.
- Locate information from electronic forms including the Internet.
- Organize resources to use key information.
- Read and take notes from selected resources.
- Prepare outline that emphasizes major points with supporting data.
- Present information in organized, easy-to-follow manner.
- Prepare working bibliography according to MLA, APA, CBE, or Chicago, depending on the warranted language style.
- Prepare a bibliography according to MLA, APA, CBE, or Chicago, depending on the warranted language style.
- Use parenthetical, footnotes and endnotes text citations accurately.
- Follow plagiarism and copyright rules and regulations.

3 2 1 0 10. Use correct grammar, punctuation and terminology to write and edit documents.

- Organize and arrange information for effective coherence.
- Report relevant information in order of occurrence.
- Interpret information, data, and observations correctly.
- Present main ideas and supporting facts.

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- Use technical terms and concepts.
- Incorporate and use references effectively and accurately.
- Report objective and/or subjective information.
- Use correct grammar and sentence structure.
- Use correct spelling.
- Use correct punctuation and capitalization.
- Use word processing software to develop text, charts, graphs or figures correctly.
- Use presentation software to prepare visual support materials.
- Format written documents with correct font and layout for easy reading.

Mathematics Courses

3 2 1 0 1. Demonstrate mathematics knowledge and skills required to pursue the full range of career and post-secondary education opportunities within the IT career cluster.

- Identify whole numbers, decimals, fractions, complex numbers, polynomials, and geometrical figures.
- Apply basic arithmetic (addition, subtraction, multiplication, and division) operations.
- Apply relational (equal, not equal, greater than, less than, etc.) and logical operators in a logical expression.
- Understand the relationship of data and measurements to the problem.
- Produce mathematical formulae, expressions, and/or sequence of solution steps from problem statements.
- Analyze problem statements for missing/irrelevant data, estimate/exact values, inconsistent parameters.
- Construct charts/tables/graphs from functions and data.
- Describe problem-solving techniques (e.g., successive approximation, trial and error).

Science Courses

3 2 1 0 1. Demonstrate science knowledge and skills required to pursue the full range of career and post-secondary education opportunities within the IT career cluster.

- Analyze/evaluate conclusions, conflicting data, controls, data, inferences, limitations, questions, sources of errors, and variables.
- Use computers for information processing, mathematical applications and problem-solving.
- Apply/use scientific methods in qualitative and quantitative analysis, data gathering, direct and indirect observation, predictions, and problem identification.

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MANUFACTURING CLUSTER

PRODUCTION PATHWAY

COURSE CODES, DESCRIPTIONS & PRE-REQUISITES

Common Course Code	Working Title	Course Description	Pre-Requisite(s)	Course Level
38001 (.5 credit)	Intro. To Industrial Technology	An introductory level course designed to instruct students in the basic skills necessary to all occupations in the Construction, Manufacturing & Transportation areas.	None	Introductory
21108 (.5 credit)	Production Blueprint Reading	Provides students with the knowledge and ability to interpret the lines, symbols, and conventions of blueprints from a variety of industrial applications.	None	Introductory
13207	Intro to Welding	An introductory level course designed to instruct students in the basic skills of welding.		Introductory
13002 (1 credit)	Manufacturing Processes	Comprehensive course to teach students the various methods used to process and transform materials. Includes skills common to all manufacturing occupations such as blueprint reading, safety, hand & power tools, bonding, casting, forming, computer automations, LEAN manufacturing, soldering & metallurgy.	Recommend Intro to Industrial Technology OR Production Blueprint Reading	Technical
39108 (.5 credit)	Advanced Production Blueprint Reading	Provides students with the knowledge and skills to interpret the variety of drawings used in production occupations including multi-view drawings, computer models and dimensioning	Recommend Intro to Industrial Technology OR Production Blueprint Reading & Must be followed by an additional Technical Level Course	Technical
21107 (1 credit)	Drafting/CAD	Provides students with the knowledge and skills needed to utilize CAD design and software.	Recommend Intro to Industrial Technology OR Production Blueprint Reading	Technical

13203 (1 credit)	Machine Tool Technology 1	A comprehensive course designed to instruct students in the basic theories, equipment and skills needed to perform machining activities.	Recommend Intro to Industrial Technology OR Production Blueprint Reading	Technical
13052 (1 credit)	Mass Production	A comprehensive course designed to instruct students in the knowledge and skills required for fabricating products using a variety of materials (wood, plastic, metal &/or composites).	Recommend Intro to Industrial Technology OR Production Blueprint Reading	Technical
13204G1.0011 (1 credit)	CAM (Computer Aided Machining)	Provides students with the knowledge and skills needed to perform Computer Aided Machining activities.	Recommend Intro to Industrial Technology OR Production Blueprint Reading	Technical
39207 (1 credit)	Production Welding Processes I	A comprehensive course designed to provide students with knowledge and skills in basic welding theories and terminology, to perform Oxy-fuel and Arc Welding activities in the F & H positions, and to perform Non-destructive testing activities.		Technical
21150 (1 credit)	Advanced Drafting/CAD	An advanced level course that provides students with the knowledge and skills needed to utilize CAD design and software.	Drafting/CAD	Application
39204 (1 credit)	Machine Tool Technology II	An application level course designed to provide students with advanced machining skills and further opportunities to apply those skills.	Machine Tool Technology I	Application
39052 (1 credit)	Mass Production II	An application level course designed to instruct students in the knowledge and skills required for fabricating products using a variety of materials (wood, plastic, metal &/or composites).	Mass Production	Application
39208 (1 credit)	Production Welding Processes II	An application level course designed to instruct students in the knowledge and	Production Welding Processes I	Application

		skills needed for solving fabrication problems, to weld joints in the V & OH positions, and perform Plasma cutting.		
39010 (.5 credit)	Automated Systems	Provides students with the knowledge and skills needed to program and operate robotic equipment in manufacturing occupations.	Mass Production or Production Welding Processes	Application
13998 (1 credit)	Research & Design for Manufacturing	An advanced level course that provides students with work-based experience, supported by classroom attendance and discussion, within their area of interest/study.	A minimum of one additional Application Level Course.	Application

KANSAS STATE CAREER CLUSTER COMPETENCY PROFILE

MAINTENANCE PATHWAY (C.I.P. 47.0000)

STUDENT _____

Rating Scale:

- 4 - Exemplary Achievement
- 3 - Proficient Achievement
- 2 - Limited Achievement
- 1 - Inadequate Achievement
- 0 - No Exposure

38001-INTRODUCTION TO INDUSTRIAL TECHNOLOGY (.5 Credit) An introductory level course designed to instruct students in the basic skills necessary to all occupations in the Construction, Manufacturing & Transportation areas.

4 3 2 1 0 1. Basic Safety

- Identify causes of accidents and the impact of accident costs.
- Follow safe behavior procedures on and around ladders, scaffolds and stairs.
- Follow safe behavior procedures around electrical hazards.
- Demonstrate the use, care and inspection of appropriate personal protective equipment (PPE)
- Explain the importance of hazard communications (HazCom) and material safety data sheets (MSDSs).
- Respond to hazardous-materials and hazardous-waste emergency situations in accordance with regulatory requirements.
- Follow safety procedures required for lifting heavy objects.
- Demonstrate a working knowledge of safety education, environment, and enforcement for life and work.

- Apply safe practices while using tools and equipment.
- Apply safe practices for housekeeping, dress, fire, chemicals & personal protection while working in a shop.
- Describe fire prevention and firefighting techniques.
- Explain the purpose of OSHA and how it promotes safety on the job.

4 3 2 1 0 2. Industrial Math

- Add, subtract, multiply, and divide whole numbers, fractions, decimals and percentages.
- Use a standard ruler, a metric ruler, and a measuring tape to measure.
- Demonstrate conversion skills for decimals and fractions.
- Recognize and perform calculations using metric units of length, weight, volume and temperature.

4 3 2 1 0 3. Hand Tools

- Recognize and identify some of the basic hand tools and their proper uses in industrial trades.
- Demonstrate the safe use of common hand tools.

4 3 2 1 0 4. Power Tools

MANUFACTURING CLUSTER

Graduation Date _____
I certify that the student has received training in the areas indicated.

Instructor Signature _____

Instructor Signature _____

Instructor Signature _____

Instructor Signature _____

- Recognize and identify some of the basic power tools and their proper uses in the industrial trades.
- Demonstrate the safe use of common power tools.
- Perform preventive maintenance on basic power tools used in the industrial trades.

4 3 2 1 0 5. Blueprint Reading

- Perform the drafting principles needed to draw the basic geometric shapes.
- Develop a pictorial sketch of an object.
- Develop a multi-view drawing.
- Identify basic symbols used in blueprints.
- Identify various types of blueprint views used in Architecture, Construction, Manufacturing and Engineering.

4 3 2 1 0 6. Communication Skills

- Interpret information and follow instructions presented in both verbal and written form.
- Communicate effectively in on-the-job situations using verbal and written skills in various delivery modes (face-to-face, paper, & electronic).

-Create and complete various written documents used in industrial trades.
 -Demonstrate knowledge and use of computer systems and word processing software in effective communication.

4 3 2 1 0 7. **Employability Skills**

-Create and utilize employment documents including a resume and portfolio.
 -Demonstrate job seeking and interview skills.
 -Understand and respond to performance reviews.

4 3 2 1 0 8. **21st Century/Foundation Skills**

-Demonstrate critical thinking skills and the ability to solve problems using those skills.
 -Define effective relationship skills.
 -Demonstrate a working knowledge of workplace issues such as sexual harassment, stress, and substance abuse.
 -Demonstrate the ability to achieve common goals through team work

4 3 2 1 0 8. **Materials Handling**

-Verify that health, safety, environmental and government regulations are met.
 -Recognize hazards and follow safety procedures required for materials handling.
 -Demonstrate ability to load and unload materials properly and safely.

21108- PRODUCTION BLUEPRINT

READING (.5 Credit) An introductory level course to introduce students to the various types of blueprints utilized in the manufacturing industry.

4 3 2 1 0 1. Identify symbols associated with blueprints

4 3 2 1 0 2. Interpret work from multiview drawings

4 3 2 1 0 3. Interpret size and location of features

4 3 2 1 0 4. Visualizing shapes and objects in multiple views

4 3 2 1 0 5. Ability to convert fractions and decimals proficiently

4 3 2 1 0 6. Interpret inch and metric drawings

4 3 2 1 0 7. Demonstrate legend and note reading skills

4 3 2 1 0 8. Interpret basic geometric dimensioning and tolerancing terminology

4 3 2 1 0 9. Identify different views utilized in blueprint reading

4 3 2 1 0 10. Identify orthographic projection such as lines and symbols for electrical, piping, mechanical, architectural, welding, and machining prints

39109- MAINTENANCE BLUEPRINT

READING (.5 Credit) A technical level course designed to provide students with the knowledge and skills to interpret the variety of drawings used in maintenance occupations including: blueprints, schematics, flow diagrams, and other trade prints. (Cannot be the only technical level course taught in the pathway.)

4 3 2 1 0 1. Identify and describe types of prints and drawings used for maintenance applications in manufacturing to include engineering (mechanical and civil), architectural, and schematic representations.

4 3 2 1 0 2. Identify and interpret symbology specific to a variety of trade prints such as electrical, plumbing and pipefitting, mechanical and electrical control, power distribution, process and instrumentation, and process flow diagrams.

4 3 2 1 0 3. Read and interpret various drawings used in manufacturing, commercial, and industrial maintenance, to include Mechanical drawings using orthographic projection, electrical schematics, plumbing/piping ISOs, piping

and instrumentation diagrams, architectural and civil.

4 3 2 1 0 4. Select appropriate prints necessary to complete a maintenance operation or diagnostic application.

39203- MACHINE TOOL TECHNOLOGY Ia (.5 Credit) A comprehensive, technical level course designed to provide students with the basic theories, equipment usage and skills needed to perform machining tasks.

4 3 2 1 0 1. Perform Bench work and Layout Operations

4 3 2 1 0 2. Demonstrate Precision Measuring

4 3 2 1 0 3. Perform Layout Operations

4 3 2 1 0 4. Operate Drilling Machines

4 3 2 1 0 5. Operate Manual Lathes

4 3 2 1 0 6. Operate Manual Milling Machines

4 3 2 1 0 7. Operate Grinding tools and Equipment

4 3 2 1 0 8. Interpret Blueprint Drawing

4 3 2 1 0 9. Use Metric and English standards of Measurement

4 3 2 1 0 10. Demonstrate the Use of Hand tools.

4 3 2 1 0 11. Cut threads with taps and dies

4 3 2 1 0 12. Identify Tap Drill sizes

13208- MAINTENANCE WELDING

PROCESSES (1 Credit) A technical level course designed to provide students with the knowledge and skills to perform maintenance welding procedures including braze and torch welding and common pipe joint welding.

4 3 2 1 0 1. Identify safe practices and safety and health issues and procedures

4 3 2 1 0 2. Describe metallurgy and identify metals

4 3 2 1 0 3. Demonstrate proper use of personal protective equipment and safe work habits

4 3 2 1 0 4. Make welds using the oxyfuel process

4 3 2 1 0 5. Braze weld carbon steel

4 3 2 1 0 6. Braze weld cast iron

- 4 3 2 1 0 7. Perform torch soldering operations on a variety of materials
- 4 3 2 1 0 8. Manually operate an oxyfuel torch to cut carbon steel structural materials of varying thicknesses
- 4 3 2 1 0 9. Plasma cut materials in shapes, bevels, and straight lines
- 4 3 2 1 0 10. Demonstrate safe set up of welding equipment
- 4 3 2 1 0 11. Weld joints in the F and H positions using a fast freeze electrode
- 4 3 2 1 0 12. Weld joints in the F and H positions using a low hydrogen electrode
- 4 3 2 1 0 13. Weld joints in the F and H positions using GMAW carbon steel
- 4 3 2 1 0 14. Weld joints in the F and H positions using GTAW carbon steel
- 4 3 2 1 0 15. Weld common pipe joints using SMAW, GMAW, and GTAW processes
- 4 3 2 1 0 16. Layout and weld a project from a print

13205 – SHEET METAL TECHNOLOGY (.5 Credit) A technical level course designed to provide students with the knowledge and skills to layout and fabricate items created from sheet metal components.

- 4 3 2 1 0 1. Safely utilize and maintain tools common to the sheet metal trade.
- 4 3 2 1 0 2. Demonstrate blueprint reading skills including the interpretation of plans, elevations, schedules, and details.
- 4 3 2 1 0 3. Identify the three basic types of layout: parallel line, radial line, and triangulation.
- 4 3 2 1 0 4. Layout and fabricate a basic joint of ductwork, including seams and transverse joints.
- 4 3 2 1 0 5. Utilize a tape measure to obtain correct measurements for a ductwork detail.
- 4 3 2 1 0 6. Describe types and thicknesses of sheet metal.

- 4 3 2 1 0 7. Layout and fabricate basic sheet metal fittings.
- 4 3 2 1 0 8. Describe the different seams commonly used for ductwork and explain the advantages of each.

17052– REFRIGERATION TECHNOLOGY (.5 Credit) A technical level course designed to provide students with training in the theories, equipment and skills needed to install and maintain refrigeration systems.

- 4 3 2 1 0 1. Demonstrate proper use of hand and power tools used in the refrigeration trade.
- 4 3 2 1 0 2. Demonstrate proper safety procedures within the refrigeration trade.
- 4 3 2 1 0 3. Correctly measure, cut, ream, and join copper and/or plastic pipe and tubing.
- 4 3 2 1 0 4. Identify the different types of copper tubing and characteristics of each type.
- 4 3 2 1 0 5. Explain the basic principles of a refrigeration system.
- 4 3 2 1 0 6. Identify and describe the major components of a refrigeration system and the roles they take in the refrigeration process.
- 4 3 2 1 0 7. Demonstrate how to read a basic schematic drawing and the basic symbols.
- 4 3 2 1 0 8. Compare and contrast different types of refrigeration systems.

17009- REMODEL & BUILDING MAINTENANCE (.5 Credit) A technical level course designed to provide students with knowledge & skills needed to perform remodeling & maintenance procedures for wall, floor, window, door, electrical, HVAC, and plumbing, applications.

- 4 3 2 1 0 1. Apply needed caulking and/or paint to interior and exterior finishes.

- 4 3 2 1 0 2. Demonstrate ability to repair/replace damaged wallboard, wood trim and cabinetry.
- 4 3 2 1 0 3. Utilize knowledge of bearing walls when reconfiguring room design and/or constructing building additions.
- 4 3 2 1 0 4. Repair/replace floor coverings.
- 4 3 2 1 0 5. Troubleshoot and repair problems with HVAC systems.
- 4 3 2 1 0 6. Troubleshoot and repair water supply, water heater, and water drainage problems.
- 4 3 2 1 0 7. Troubleshoot and repair problems in lighting fixtures, including ballast replacement.
- 4 3 2 1 0 8. Utilize appropriate meters/tools to locate electrical circuit problems.
- 4 3 2 1 0 9. Replace breakers, plugs, switches and light fixtures.
- 4 3 2 1 0 10. Repair/Replace windows, storm windows, doors and storm doors.
- 4 3 2 1 0 11. Install and perform maintenance procedures on electric motors.
- 4 3 2 1 0 12. Evaluate and assess the extent and condition of remodeling/maintenance problems.
- 4 3 2 1 0 13. Develop a checklist to track preventative maintenance.
- 4 3 2 1 0 14.

13302- MECHANICAL POWER TRANSMISSION AND CONVEYOR SYSTEMS (.5 credit) A technical level course designed to provide students with knowledge and skills needed to adjust, maintain, and repair parts of machinery and equipment. Includes hydraulics, pneumatics, gears, belt & chain drives, motors and bearings.

- 4 3 2 1 0 1. Demonstrate working knowledge of gears and gear drives
- 4 3 2 1 0 2. Calculate gear ratios
- 4 3 2 1 0 3. Apply working knowledge of hydraulic and pneumatic power

- 4 3 2 1 0 4. Calculate pressures and forces associated with hydraulic and pneumatic power
- 4 3 2 1 0 5. Incorporate application knowledge of linear motion concepts
- 4 3 2 1 0 6. Apply working knowledge of belt and belt drives
- 4 3 2 1 0 7. Utilize knowledge of ratings of motors
- 4 3 2 1 0 8. Identify and size for replacement various types of bearings and bushings
- 4 3 2 1 0 9. Apply working knowledge of chain and chain drives
- 4 3 2 1 0 10. Demonstrate application knowledge of adjustable variable speed drives
- 4 3 2 1 0 11. Troubleshoot various controls
- 4 3 2 1 0 12. Demonstrate working knowledge of couplings and U Joints
- 4 3 2 1 0 13. Demonstrate conceptual knowledge of the following predictive maintenance technologies: vibration analysis, infrared thermography, oil analysis, ultrasonic thickness measurement, passive ultrasonic leak detection
- 4 3 2 1 0 14. Describe common applications for the following predictive maintenance technologies: vibration analysis, infrared thermography, oil analysis, ultrasonic thickness measurement, passive ultrasonic leak detection

17056 – HVAC TECHNOLOGY (.5 Credit)
(Recommend this course be taught following the 13205 Sheet Metal &/or the 17052 Refrigeration course) An application level course designed to provide students with training in the theories, equipment and skills needed to install, troubleshoot and maintain HVAC systems.

- 4 3 2 1 0 1. Safely utilize and maintain tools common to the mechanical trades industry.
- 4 3 2 1 0 2. Describe the heating and cooling process.
- 4 3 2 1 0 3. Demonstrate the use of a duct calculator and the formulas used to calculate heat loads.
- 4 3 2 1 0 4. Apply layout to HVAC projects.
- 4 3 2 1 0 5. Describe various types of heating and cooling systems, including the pros, cons and applications of each.
- 4 3 2 1 0 6. Demonstrate basic electrical knowledge of how electrical circuits work and how they are used within the industry.
- 4 3 2 1 0 7. Install basic and programmable heat/cool thermostats.
- 4 3 2 1 0 8. Describe thermostat wire and identify what each color should be used for.
- 4 3 2 1 0 9. Research future trends in “green technology” for the HVAC industry.
- 4 3 2 1 0 10. Troubleshoot and repair problems with HVAC systems.
- 4 3 2 1 0 11. Correctly measure, cut and join piping/tubing.
- 4 3 2 1 0 12. Demonstrate proper soldering techniques.
- 4 3 2 1 0 13. Demonstrate ability to maintain appropriate maintenance documentation.

17058– PLUMBING TECHNOLOGY (.5 Credit)
(Recommend this course be taught following the 17009 Remodeling & Building Maintenance course.) An application level course designed to provide students with training in the theories, equipment and skills needed to install, troubleshoot and maintain plumbing systems.

- 4 3 2 1 0 1. Demonstrate proper use of basic hand and power tools used in the plumbing trade.

- 4 3 2 1 0 2. Correctly measure, cut and join plastic, carbon steel and/or stainless steel piping/tubing.
- 4 3 2 1 0 3. Identify and install the most common types of sinks and toilets.
- 4 3 2 1 0 4. Identify and describe the functions of the major components of a water distribution system.
- 4 3 2 1 0 5. Identify and install pipe hangers and supports.
- 4 3 2 1 0 6. Identify the types of schedules and drawings used within the plumbing trade.
- 4 3 2 1 0 7. Demonstrate proper soldering techniques.
- 4 3 2 1 0 8. Identify different types of plumbing systems and their components.
- 4 3 2 1 0 9. Demonstrate proper safety procedures within the plumbing trade.
- 4 3 2 1 0 10. Troubleshoot and repair water supply, water heater, and water drainage problems.

17113- ELECTRICAL & SECURITY SYSTEMS (.5 Credit) An application level course designed to provide students with the knowledge and skills needed to install, troubleshoot and maintain electrical and security systems. **(Recommend students take 17009 prior to this course.)**

- 4 3 2 1 0 1. Cut, ream, thread and bend conduit.
- 4 3 2 1 0 2. Compute branch circuit loads and explain installation requirements.
- 4 3 2 1 0 3. Demonstrate the procedure for safely using a clamp-on ammeter and a voltage tester.
- 4 3 2 1 0 4. Demonstrate procedures for installing raceways and boxes.
- 4 3 2 1 0 5. Demonstrate ability to correctly pull wire through conduit.
- 4 3 2 1 0 6. Select and install appropriate service entrance equipment according to codes.

- 4 3 2 1 0 7. Demonstrate the ability to properly ground electrical circuits according to codes.
- 4 3 2 1 0 8. Install breakers, plugs and switches.
- 4 3 2 1 0 9. Explain basic characteristics of series and parallel circuits.
- 4 3 2 1 0 10. Recognize and install various types of lighting fixtures.
- 4 3 2 1 0 11. Describe characteristics and functions of various fire alarm systems.
- 4 3 2 1 0 12. Describe characteristics and functions of various security and burglar alarm systems.
- 4 3 2 1 0 13. Describe the uses, characteristics and theory of low voltage systems.
- 4 3 2 1 0 14. Demonstrate knowledge of the uses and installation process for Closed Circuit TV.
- 4 3 2 1 0 15. Describe the components of and uses for electric lock hardware.
- 4 3 2 1 0 16. Demonstrate safe use of electric hand and power tools.
- 4 3 2 1 0 17. Understand and interact with LAN systems as a part of an overall security installation.
- 4 3 2 1 0 18. Demonstrate ability to install a lightning protection system.
- 4 3 2 1 0 19. Troubleshoot and repair problems in lighting fixtures, including ballast replacement.

39302- HYDRAULICS & PNEUMATICS (.5 credit) (Recommend students to take 13302 Mechanical Power Transmission & Conveyor Systems prior to this course) An application level course designed to provide students with advanced knowledge and skills in operating, maintaining and troubleshooting hydraulic & pneumatic systems.

- 4 3 2 1 0 1. Compare & contrast the principles of hydraulics & pneumatics.

- 4 3 2 1 0 2. Demonstrate a working knowledge of hydraulics & pneumatics terminology.
- 4 3 2 1 0 3. Identify basic hydraulic and pneumatic symbols.
- 4 3 2 1 0 4. Read and understand Schematic Diagrams
- 4 3 2 1 0 5. Design and construct basic hydraulic and pneumatic circuits
- 4 3 2 1 0 6. Demonstrate proper use of pneumatic and hydraulic-operated Tools
- 4 3 2 1 0 7. Explain the operation of air compressors and vacuum pumps
- 4 3 2 1 0 8. Perform diagnostic procedures on hydraulic and pneumatic systems
- 4 3 2 1 0 9. Compare & contrast the use of synthetic and petroleum-based lubricants in hydraulic systems
- 4 3 2 1 0 10. Create a comprehensive maintenance schedule for hydraulic & pneumatic systems
- 4 3 2 1 0 11. Identify components in a fluid power/pneumatic circuit

13348- WORK-BASED MAINTENANCE EXPERIENCE (.5Credit) Senior level application course that incorporates experienced-based learning including OJT, or Internships. (Must be preceded by at least one credit of technical level courses)

- 4 3 2 1 0 1. Work with a client to develop a client-driven product or perform maintenance tasks.
- 4 3 2 1 0 2. Demonstrate ability to access and utilize industry resources
- 4 3 2 1 0 3. Use appropriate grammar and word usage in the creation and implementation of a formal graphic presentation using current standards and technology
- 4 3 2 1 0 4. Utilize effective time management techniques to organize work flow

- 4 3 2 1 0 5. Research new technologies to meet future client needs
- 4 3 2 1 0 6. Demonstrate abilities in problem solving in manufacturing maintenance.
- 4 3 2 1 0 7. Demonstrate an awareness of current maintenance standards & methodologies
- 4 3 2 1 0 8. Demonstrate ability to incorporate industry specific codes in maintenance operations.
- 4 3 2 1 0 9. Demonstrate ability to set and work within defined budget
- 4 3 2 1 0 10. Manipulate materials and processes to meet client needs
- 4 3 2 1 0 11. Demonstrate ability to manage and set project goals and timelines
- 4 3 2 1 0 12. Utilize job seeking skills including resume writing and interviewing skills.
- 4 3 2 1 0 13. Apply maintenance skills to work situations.

THE FOLLOWING ARE NOT STAND-ALONE COURSES. THEY ARE SKILLS TO BE EMBEDDED IN ALL COURSES.

WORKPLACE SAFETY SKILLS (Embedded in all Core CTE Courses)

- 4 3 2 1 0 1. Demonstrate a working knowledge of safety education, environment, and enforcement for life and work.
- 4 3 2 1 0 2. Apply safe practices while using tools and equipment to construct a project.
- 4 3 2 1 0 3. Apply safe practices for housekeeping, dress, fire, chemicals & personal protection while working in a shop.
- 4 3 2 1 0 4. Demonstrate the use and care of appropriate personal protective equipment (PPE).
- 4 3 2 1 0 5. Explain the importance of Hazard Communications (HazCom) and Material Safety Data Sheets (MSDS)

- 4 3 2 1 0 6. Describe fire prevention and firefighting techniques.
- 4 3 2 1 0 7. Follow safety procedures required for lifting heavy objects.
- 4 3 2 1 0 8. Follow safe behavior procedures on and around ladders and scaffolds.
- 4 3 2 1 0 9. Explain the purpose of OSHA and how it promotes safety on the job.
- 4 3 2 1 0 10. Respond to hazardous-materials and hazardous-waste emergency situations in accordance with regulatory requirements.

**LEADERSHIP/21ST CENTURY SKILLS
(Embedded in all Core CTE Courses)**

- 4 3 2 1 0 1. Demonstrates speaking skills
- 4 3 2 1 0 2. Utilizes listening skills
- 4 3 2 1 0 3. Uses writing skills to produce and compile documents
- 4 3 2 1 0 4. Uses decision making / problem solving skills
- 4 3 2 1 0 5. Participates as team member to achieve common goals
- 4 3 2 1 0 6. Demonstrates time management
- 4 3 2 1 0 7. Takes responsibility and displays work ethics
- 4 3 2 1 0 8. Establishes positive relations with others

- 4 3 2 1 0 9. Demonstrate a working knowledge of workplace issues such as sexual harassment, stress, and substance abuse.

**CAREER DEVELOPMENT SKILLS
(Embedded in all Core CTE Courses)**

- 4 3 2 1 0 1. Utilizes effective job seeking skills
- 4 3 2 1 0 2. Created and utilizes an occupationally specific resume
- 4 3 2 1 0 3. Created and utilizes a portfolio
- 4 3 2 1 0 4. Understands proper interview techniques
- 4 3 2 1 0 5. Understands performance reviews
- 4 3 2 1 0 6. Explain the manufacturing industry, the role of companies within the industry, and the role of individual professionals in the industry.
- 4 3 2 1 0 7. Demonstrate the value of computers in the manufacturing industry through use of email, databases, Internet and billing/inventory software.

ACADEMIC SKILLS (Embedded in all Core CTE Courses)

- 4 3 2 1 0 1. Apply the four basic math functions to whole numbers, decimals, percentages and fractions.
- 4 3 2 1 0 2. Use a standard ruler and a metric ruler to measure.
- 4 3 2 1 0 3. Explain the importance of the metric system in the construction trade and utilize metric units of length, weight, volume and temperature.
- 4 3 2 1 0 4. Recognize the basic shapes used in the construction industry, and apply basic geometry to measure them.
- 4 3 2 1 0 5. Demonstrate the ability to interpret information and instructions in both written and verbal form.
- 4 3 2 1 0 6. Demonstrate the ability to communicate effectively in on-the-job situations using verbal and written skills.
- 4 3 2 1 0 7. Perform physics skills to work with materials and load applications.

OCCUPATIONAL PROFILE RATING SCALE RUBRIC

Rating Scale (Occupational Profile)

- | | |
|--------------------------------|---|
| 4 - Exemplary Achievement: | Student possesses outstanding knowledge, skills or professional attitude. Works Independently. |
| 3 - Proficient Achievement: | Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision. |
| 2 - Limited Achievement: | Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision. |
| 1 - Inadequate Achievement: | Student lacks knowledge, skills or professional attitude. |
| 0 - No Instruction / Training: | Student has not received instruction or training in this area. |

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Name _____ ID _____

Enrollment Date
____/____/____

Completion Date
____/____/____

Credits Completed

Instructor _____ School Year _____

I certify that the student received the training in the area indicated.

RATING SCALE:

3: Skilled, works independently

2: Competent, may need assistance

1: Received instruction, skill undeveloped

0: No exposure, instruction or training

Measured Competencies listed should be seen as minimums (you can add)

Student Signature _____ Date _____

Instructor Signature _____ Date _____

Competencies ____/60

I. Web Page Design

- 3 2 1 0 1. Develop flowchart, navigational blueprints and schema.
- 3 2 1 0 2. Create sample design showing placement of buttons/navigational graphics and suggested color scheme.
- 3 2 1 0 3. Develop storyboards.
- 3 2 1 0 4. Demonstrate knowledge of available graphics, video, motion graphics, web software programs.
- 3 2 1 0 5. Identify how different user agents (browsers, devices) affect the digital communication product.
- 3 2 1 0 6. Create and produce content.
- 3 2 1 0 7. Create and refine design concepts.
- 3 2 1 0 8. Identify, utilize and create reusable components.
- 3 2 1 0 9. Apply color theory to select appropriate colors.
- 3 2 1 0 10. Apply knowledge of typography.
- 3 2 1 0 11. Apply principles and elements of design.
- 3 2 1 0 12. Evaluate visual appeal.
- 3 2 1 0 13. Demonstrate knowledge of basic web application security.
- 3 2 1 0 14. Demonstrate knowledge of HTML, XHTML, and CSS.
- 3 2 1 0 15. Explain importance of web standards.
- 3 2 1 0 16. Demonstrate knowledge of Web 2.0.
- 3 2 1 0 17. Explain the importance of ethical behaviors and legal

issues.

- 3 2 1 0 18. Demonstrate knowledge of how to use a scripting language to program a site.
- 3 2 1 0 19. Describe the function of a non-disclosure agreement (NDA).
- 3 2 1 0 20. Differentiate between copyright and trademarks.
- 3 2 1 0 21. Explain the concept of intellectual property.
- 3 2 1 0 22. Define scope of work to achieve individual and group goals.
- 3 2 1 0 23. Use available reference tools as appropriate.
- 3 2 1 0 24. Explain the features and functions of Web browsing software.
- 3 2 1 0 25. Explain the features and functions of Web page design software.
- 3 2 1 0 26. Compare and contrast clients and servers.
- 3 2 1 0 27. Describe how bandwidth affects data transmission and on-screen image.

Foundation & 21st Century Competencies (lowercase letters are indicators to be considered)

II. Pathway Foundation Problem Solving and Critical Thinking

- 3 2 1 0 1. Demonstrate knowledge of the process required to evaluate and verify the nature of a problem.
 - a. Demonstrate knowledge of the underlying concepts of the information systems discipline.
 - b. Demonstrate knowledge of methods for achieving productivity in knowledge work.

- c. Apply general systems theory to the analysis and development of an information system.
- d. Identify procedures for formal problem-solving.
- e. Demonstrate knowledge of the fundamental concept of information theory and organizational system processes.
- f. Identify the essential properties of information systems.

- 3 2 1 0 2. Demonstrate knowledge of the process required to solve a problem.
 - a. Demonstrate knowledge of problem-solving steps and techniques.
 - b. Summarize application planning, development, and risk management for information system.
 - c. Identify potential problems in system implementation.
 - d. Demonstrate knowledge of the information analysis process.
 - e. Demonstrate knowledge of information technology solutions.

III. Cluster Foundation Employability and Career Development

- 3 2 1 0 1. Demonstrate ability to evaluate and compare employment opportunities and accept employment.
 - a. Identify job advantages and disadvantages.
 - b. Compare job benefits to individual needs.
 - c. Compare job opportunities and responsibilities to career plan.
 - d. Make decision to accept or reject employment.
 - e. Write acceptance or rejection letter without error.
 - f. Complete employment forms upon acceptance.
- 3 2 1 0 2. Demonstrate ability to seek and apply for employment.
 - a. Identify resources for finding employment.
 - b. Analyze resources to determine those that are most appropriate for desired career.
 - c. Compare job requirements with personal qualifications, interests, and aptitudes.
 - d. Select job that matches personal qualifications, interests, and

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aptitudes.

- e. Identify prospective employer's submission requirements.
- f. Gather information and prepare rough draft of resume.
- g. Put resume in proper format.
- h. Write letter of application for specific job opening in correct format, without error.
- i. Gather information for application.
- j. Complete all questions on application with appropriate and honest answers.
- k. Sign and date application.
- l. Attach any supporting material required or requested.
- m. Submit full application package to employers.
- n. Dress appropriately for interview.
- o. Exhibit professional conduct before, during and after interview.
- p. Explain your qualifications and interests clearly and concisely.
- q. Answer all questions honestly and concisely.
- r. Write follow-up letter after the interview.

3 2 1 0 3. Demonstrate knowledge of career

development/progression patterns in the IT industry.

- a. Identify education and training requirements for IT career pathways.
- b. Identify professional organizations in the area of information technology.
- c. Identify benefits derived from membership in specific professional organizations.

3 2 1 0 4. Demonstrate knowledge of the relationship between lifelong learning and IT career development.

- a. Identify present and future IT employment opportunities.
- b. Demonstrate knowledge of the potential impact of IT on future society.
- c. Identify the importance of lifelong learning in the IT field.
- d. Identify certification and/or degree requirements.
- e. Identify required knowledge and skills for career ladder.
- f. Research educational and training opportunities.
- g. Identify present and future IT education and training opportunities.
- h. Design a lifelong learning plan that ties in with career advancement plan.

3 2 1 0 5. Develop a personal career plan to meet career goals and objectives.

- a. Identify career that matches individual interests and aptitudes.
- b. Develop career goal with time frame.
- c. Identify goals and objectives for reaching and advancing in career.
- d. Write a list of strategies for achieving educational requirements.
- e. Identify strategies for obtaining employment experiences.
- f. Write a time line for achieving career goals and objectives.
- g. List alternatives and potential changes.

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3 2 1 0 6. Explain written organizational policies, rules and procedures to help employees perform their jobs.

- a. Identify the contents of various organizational publications.
- b. Determine the appropriate document(s) for specific job responsibilities and work assignments.
- c. Locate and identify specific organizational policy, rule or procedure to assist with a given situation.
- d. Articulate how a specific organizational policy, rule or procedure will improve a given situation.

3 2 1 0 7. Identify and demonstrate positive work behaviors and personal qualities.

- a. Demonstrate regular attendance.
- b. Follow company dress and appearance standards.
- c. Exhibit pride in work.
- d. Demonstrate leadership and teamwork.
- e. Exhibit ability to handle stress.
- f. Display initiative and open-mindedness.
- g. Participate in company orientation and training programs with enthusiasm.
- h. Identify progressive strategies that will impact efficiency of job.
- i. Follow established rules, regulations and policies.
- j. Explain employer/management responsibilities.
- k. Demonstrate cost effectiveness.
- l. Demonstrate time management.
- m. Complete all tasks thoroughly.

3 2 1 0 8. Identify and explore career opportunities in one or more career pathways.

- a. Locate and interpret career information for at least one career cluster.
- b. Identify job requirements for three career pathways.
- c. Identify educational and credentialing requirements for three careers.
- d. Identify personal interests and aptitudes.
- e. Identify job requirements and characteristics of selected careers.
- f. Compare personal interests and aptitudes with job requirements and characteristics.
- g. Modify career goals based on results of personal interests and aptitudes with career requirements and characteristics.

3 2 1 0 9. Provide examples of how IT is transforming business in various industries.

- a. Demonstrate knowledge of how both PCs and larger computer systems impact people and are used in business/industry/government and other institutions.
- b. Demonstrate knowledge of the impact of computers on career pathways in business/industry (e.g., how computers have eliminated and created jobs).
- c. Demonstrate knowledge of the impact of computers on access to information and information exchange

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worldwide.

- d. Demonstrate knowledge of ethical issues that have surfaced in the information age.

Ethics and Legal Responsibilities

3 2 1 0 1. Demonstrate appropriate knowledge and behaviors of legal responsibilities and of positive cyber-citizenry.

- a. Demonstrate knowledge of the legal issues that face information technology professionals.
- b. Identify issues and trends affecting computers and information privacy.

3 2 1 0 2. Demonstrate knowledge of social, ethical, and legal issues in the information technology field.

- a. Analyze the social implications of decisions made and actions taken as an information technology professional.
- b. Demonstrate knowledge of the ethical issues that face information technology professionals.
- c. Determine the practical implications of lawsuits in terms of good will, client relations, the bottom line, diversion of company resources, cash flow and accounts receivable.
- d. Demonstrate knowledge of basic business law concepts.

3 2 1 0 3. Demonstrate knowledge of the rights and responsibilities of IT workers.

- a. Identify generally accepted business ethics.
- b. Demonstrate knowledge of federal laws governing discrimination and harassment.
- c. Demonstrate knowledge of key concepts related to employment discrimination.
- d. Demonstrate sensitivity to diversity, including differences in gender, culture, race, language, physical and mental challenges, and family structures.
- e. Establish procedures for maintaining the confidentiality of client information.

Leadership and Teamwork

3 2 1 0 1. Build interpersonal skills with individuals and other team members.

- a. Analyze the interdependence of empathetic listening, synergy, and consensus building.
- b. Define roles within the group decision-making process.
- c. Demonstrate knowledge of how to apply team methods to empower coworkers.
- d. Apply knowledge of group dynamics.
- e. Promote teamwork, leadership, and empowerment.
- f. Identify strategies for fostering creativity.

3 2 1 0 2. Demonstrate knowledge of the skills needed for leadership in the IT environment.

- a. Demonstrate knowledge of how to apply team methods to empower coworkers.
- b. Establish goals and objectives for IS.
- c. Define mission and critical success factors.

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- d. Identify desired group and team behavior in an IS context.

Safety, Health, and Environmental

3 2 1 0 1. Maintain a safe working environment.

- a. Demonstrate knowledge of the relationship between health, safety, and productivity.
- b. Identify health and safety standards established by government agencies.
- c. Access needed safety information using company and manufacturers' references (e.g., procedural manuals, documentation, standards, and flowcharts).
- d. Ensure maintenance of a clean work area.
- e. Solve safety problems using problem-solving, decision-making, and critical thinking strategies.
- f. Demonstrate knowledge of ergonomics and repetitive strain injury.

Systems

3 2 1 0 1. Demonstrate knowledge of the nature of IT in business.

- a. Determine how business activities interface with data processing functions.
- b. Differentiate between the role of information systems within a company and their role in a global environment.
- c. Measure increases in productivity realized by the implementation of information systems.

3 2 1 0 2. Demonstrate knowledge of the operation of cross-functional teams in achieving project goals.

- a. Consider the benefits of using a cross-functional team in policy and procedure development.
- b. Identify desired group and team behavior in an IS context.

3 2 1 0 3. Explain/discuss general strategies for maximizing organizational learning and productivity in a high tech environment.

- a. Assess the importance of new technologies to future developments and to the future knowledge worker productivity.
- b. Demonstrate knowledge of methods for achieving productivity in knowledge work.
- c. Create/maintain an environment supportive of productivity.

IV. Academic Foundations

Language Arts Courses

3 2 1 0 1. Demonstrate language arts knowledge and skills required to pursue the full-range of career and post-secondary education opportunities within the IT career cluster.

- a. Listen actively.
- b. Adapt language (diction/structure, style) for audience, purpose, situation.

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- c. Collect/organize oral and written information.
- d. Compose/edit (agenda, audio-visuals, bibliographies, drafts, forms/documents, notes, oral presentations, reports, technical terminology).
- e. Comprehend oral and written information (cause/effect, comparisons/contrasts, conclusions, context, purpose, charts/tables/graphs, evaluation/critiques, mood, persuasive text, sequence, summaries, technical matter).
- f. Evaluate oral and written information (accuracy, adequacy/sufficiency, appropriateness, clarity, conclusions/solutions, fact/opinion, propaganda, relevancy, validity, relationship of ideas).
- g. Identify oral and written assumptions, purpose, outcomes/solutions, and propaganda techniques.
- h. Predict outcomes/solutions from oral and written information trends.
- i. Present formal and informal speech for the purposes of discussion, supplying/requesting information, interpretation, and persuasion.
- j. Use library, text and Internet resources.

Communications Courses

3 2 1 0 2. Apply active listening skills to obtain and clarify information.

- a. Determine familiarity of discussion.
- b. Respond accordingly using appropriate verbal and nonverbal language.
- c. Explain the message given in your own words.
- d. Ask questions to seek or confirm understanding.
- e. Paraphrase and/or repeat information.
- f. Record and summarize information in written notes.
- g. Follow directions and/or respond in a positive way with clear, concise comments.

3 2 1 0 2. Build customer relations.

- a. Identify organizations' products and services (including own strengths as a sales agent).
- b. Recognize the importance of all customers to the business.
- c. Determine customers' individual needs.
- d. Project a professional business image (e.g., appearance, voice, grammar, word usage, enunciation, nonverbal communication).
- e. Interact with customers and colleagues in a professional (e.g., prompt, friendly, courteous, respectful, helpful, knowledgeable, and understandable) manner.
- f. Comply with established business protocols and company policies.
- g. Communicate company policies to customers.
- h. Handle merchandise returns in accordance with customer service policy.
- i. Handle customer complaints in accordance with customer service policy.
- j. Facilitate customer service through the maintenance of key information systems.

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- k. Follow through on commitments made to customers (e.g., special orders, delivery specifications, new items).

3 2 1 0 3. Comprehend and use reading strategies to learn meaning, technical concepts, vocabulary, and follow instructions.

- a. Use reading strategy to achieve intended purpose.
- b. Identify purpose of text.
- c. Identify complexity of text.
- d. Explain purpose of text.
- e. Determine relevance, accuracy and appropriateness to purpose.
- f. Identify complexities and discrepancies in information.
- g. Analyze information presented in a variety of formats, such as tables, lists, figures.
- h. Identify key technical concepts and vocabulary.
- i. Follow all instructions as specifically given.
- j. Explain meaning of new terms, vocabulary and concepts.
- k. Interpret technical materials used.
- l. Summarize overall meaning of text.
- m. Write specific steps for applying information to task or new situation.
- n. Write set of directions for others sharing information learned and applying that to task or new situation.

3 2 1 0 4. Conduct meetings.

- a. Plan meeting.
- b. Set agenda.
- c. Schedule meeting.
- d. Reserve meeting room.
- e. Invite appropriate personnel.
- f. Identify need for outside speakers.
- g. Assign someone to take minutes.
- h. Make introductions.
- i. Invite questions, comments, and group participation.
- j. Determine appropriate action, time frame, and person accountable for identified tasks.
- k. Monitor time.
- l. Publish minutes in timely manner.

3 2 1 0 5. Demonstrate sensitivity in communicating with a diverse workforce.

- a. Identify factors (e.g., culture, ethnicity, equity, special/exceptional needs) that impact communication.
- b. Identify strategies for successful communication with a diverse workforce.
- c. Determine communication style appropriate for listener(s).
- d. Bridge communication styles.
- e. Establish guidelines for dealing with conflict.

3 2 1 0 6. Develop and deliver formal and informal presentations using appropriate media to engage and inform audiences.

- a. Know subject matter well enough to be independent of written aids.

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- b. Identify characteristics of the audience and adjust to their ability to understand.
- c. Use technical terms and concepts correctly.
- d. Use proper organization and structure to achieve coherence of major points.
- e. Identify media and visual aids appropriate to understanding of topic.
- f. Prepare visual aids and support materials for easy viewing and without error.
- g. Smoothly and efficiently operate any equipment used with support.
- h. Deliver presentation without grammatical error.
- i. Speak clearly with appropriate volume, rate and gestures while making and maintaining appropriate eye contact.
- j. Use support materials in the presentation that enhance the understanding of the topic and the interest level of the audience.
- k. Stay within presentation time parameters.
- l. Evaluate listeners' interest and receptiveness.
- m. Use verbal and nonverbal feedback strategies to engage discussion and adjust message and delivery.
- n. Respond to questions and comments.

3 2 1 0 7. Interpret and use tables, charts, and figures to support written and oral communications.

- a. Compile facts and arrange in an organized manner for a table, chart or figure.
- b. Document sources of data.
- c. Determine most appropriate way to display data for effective coherence.
- d. Prepare table, chart, graph or figure for inclusion in publication or presentation.
- e. Evaluate reference or source of data for authenticity and reliability.
- f. Explain information presented in tables, charts and figures.
- g. Prepare written summary of findings expressed in tables, charts and figures.

3 2 1 0 8. Interpret verbal and nonverbal behaviors to enhance communication with co-workers and clients/participants.

- a. Identify verbal cues.
- b. Observe voice speed, voice quality and tone.
- c. Explain message conveyed by verbal behaviors.
- d. Identify nonverbal cues.
- e. Observe eye contact, facial expressions, posture, gestures and other body language.
- f. Explain message conveyed by nonverbal behaviors.

3 2 1 0 9. Locate, organize and reference written information from various sources to communicate with co-workers and clients/participants.

- a. Identify topic.
- b. Conduct search of information using card catalog, keywords, and/or search engines.
- c. Locate variety of resources such as books, journals, and

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- magazines.
- d. Locate information from electronic forms including the Internet.
- e. Organize resources to use key information.
- f. Read and take notes from selected resources.
- g. Prepare outline that emphasizes major points with supporting data.
- h. Present information in organized, easy-to-follow manner.
- i. Prepare working bibliography according to MLA, APA, CBE, or Chicago, depending on the warranted language style.
- j. Prepare a bibliography according to MLA, APA, CBE, or Chicago, depending on the warranted language style.
- k. Use parenthetical, footnotes and endnotes text citations accurately.
- l. Follow plagiarism and copyright rules and regulations.

3 2 1 0 10. Use correct grammar, punctuation and terminology to write and edit documents.

- a. Organize and arrange information for effective coherence.
- b. Report relevant information in order of occurrence.
- c. Interpret information, data, and observations correctly.
- d. Present main ideas and supporting facts.
- e. Use technical terms and concepts.
- f. Incorporate and use references effectively and accurately.
- g. Report objective and/or subjective information.
- h. Use correct grammar and sentence structure.
- i. Use correct spelling.
- j. Use correct punctuation and capitalization.
- k. Use word processing software to develop text, charts, graphs or figures correctly.
- l. Use presentation software to prepare visual support materials.
- m. Format written documents with correct font and layout for easy reading.

Mathematics Courses

3 2 1 0 1. Demonstrate mathematics knowledge and skills required to pursue the full range of career and post-secondary education opportunities within the IT career cluster.

- a. Identify whole numbers, decimals, fractions, complex numbers, polynomials, and geometrical figures.
- b. Apply basic arithmetic (addition, subtraction, multiplication, and division) operations.
- c. Apply relational (equal, not equal, greater than, less than, etc.) and logical operators in a logical expression.
- d. Understand the relationship of data and measurements to the problem.
- e. Produce mathematical formulae, expressions, and/or sequence of solution steps from problem statements.
- f. Analyze problem statements for missing/irrelevant data, estimate/exact values, inconsistent parameters.
- g. Construct charts/tables/graphs from functions and data.
- h. Describe problem-solving techniques (e.g., successive

10201 Web Page Design

approximation, trial and error).

Science Courses

3 2 1 0 1. Demonstrate science knowledge and skills required to pursue the full range of career and post-secondary education opportunities within the IT career cluster.

- a. Analyze/evaluate conclusions, conflicting data, controls, data, inferences, limitations, questions, sources of errors, and variables.
- b. Use computers for information processing, mathematical applications and problem-solving.
- c. Apply/use scientific methods in qualitative and quantitative analysis, data gathering, direct and indirect observation, predictions, and problem identification.

ARCHITECTURE AND CONSTRUCTION CLUSTER

CIP 46.0000 - CONSTRUCTION & DESIGN PATHWAY

COMMON COURSE CODES AND COURSE DESCRIPTIONS:

COMMON COURSE CODE	IDENTIFYING TITLE	COURSE DESCRIPTION	PREREQUISITE(S)	COURSE LEVEL
38001- (.5 Credit)	INTRODUCTION TO INDUSTRIAL TECHNOLOGY	An introductory level course designed to instruct students in the basic skills necessary to all occupations in the Construction, Manufacturing & Transportation areas.	Required for Pathway approval	Introductory
21102-(.5 credit)	DRAFTING (Architectural & Mechanical)	An introductory course designed to expose students to both architectural and mechanical (technical) drafting skills.		Introductory
CONSTRUCTION STRAND				
17002- (1 Credit)	CARPENTRY	A comprehensive course designed to instruct students in the basic knowledge and skills required for construction of residential structures.		Technical
17007-(1 Credit)	WOODWORKING PRINCIPLES	A comprehensive course designed to instruct students in the basic knowledge and skills required for cabinetmaking and furniture design.		Technical
17062-(.5 Credit)	SKILLED MECHANICAL CRAFTS	An introductory level course designed to instruct students in the basic skills necessary for occupations in skilled mechanical crafts.		Technical
38002-(1 Credit)	CARPENTRY II	An advanced comprehensive course designed to instruct students in skills pertaining to rough construction and finish work.	Carpentry	Application

Effective for the 2015-16 School Year

COMMON COURSE CODE	IDENTIFYING TITLE	COURSE DESCRIPTION	PREREQUISITE(S)	COURSE LEVEL
17005-(1 Credit)	RESEARCH & DESIGN IN BUILDING TRADES	An advanced research and application course covering specific topics in building construction to include management and “green building” skills.	Carpentry OR Carpentry II	Application
17113-(.5 Credit)	ELECTRICAL & SECURITY SYSTEMS	A course designed to instruct students in the basic skills required for installation of electrical and security systems.	Carpentry	Application
17009-(.5 Credit)	REMODEL & BUILDING MAINTENANCE	A course designed to instruct students in the skills required for residential remodeling and maintenance.	Carpentry OR Woodworking Principles	Application
38007-(1 Credit)	FURNITURE & CABINETS FABRICATION	An advanced level application course designed to provide students with experience in constructing cases, cabinets, counters, furniture and interior woodwork	Woodworking Principles	Application
17056-(.5 Credit)	HVAC TECHNOLOGY	A course designed to provide students with exposure to and training in the theories, equipment and skills needed to install and maintain HVAC systems.	Carpentry	Application
13205-(.5 Credit)	SHEET METAL TECHNOLOGY	A course designed to provide students with exposure to and training in the theories, equipment and skills needed to perform sheet metal techniques.	Carpentry	Application
38012 – (1 Credit)	SHEET METAL & HVACR	A course designed to provide students with exposure to and training in the theories, equipment, and skills needed to perform sheet metal techniques, and to install and maintain HVAC and refrigeration systems.	Carpentry	Application

Effective for the 2015-16 School Year

COMMON COURSE CODE	IDENTIFYING TITLE	COURSE DESCRIPTION	PREREQUISITE(S)	COURSE LEVEL
17058–(.5 Credit)	PLUMBING TECHNOLOGY	A course designed to provide students with exposure to and training in the theories, equipment and skills needed to install and maintain plumbing systems.	Carpentry	Application
17061–(1 Credit)	PIPEFITTING TECHNOLOGY	A course designed to provide students with exposure to and training in the theories, equipment and skills needed to perform pipefitting techniques.	Carpentry	Application
38010	ADVANCED MATERIALS TECHNOLOGY	A progressive application level course furthering the study of CNC equipment, composite panel products, and veneering, and the processes involved with fabricating goods with these technologies.	Woodworking Principles AND Furniture & Cabinetry Fabrication	Application
DESIGN STRAND				
21107–(1 Credit)	DRAFTING/CAD	A comprehensive course designed to instruct students in the use of CAD design and software.		Technical
21103–(1 Credit)	ARCHITECTURAL DESIGN	A comprehensive course designed to instruct students in the basic skills of architectural design with a particular emphasis on residential and light commercial applications.		Technical
21109–(1 Credit)	RESEARCH & DESIGN FOR PRE- CONSTRUCTION	An advanced research and application course covering specific topics in design and pre-construction to include management and “green design” skills.	Drafting/CAD OR Architectural Design	Application

Effective for the 2015-16 School Year

COMMON COURSE CODE	IDENTIFYING TITLE	COURSE DESCRIPTION	PREREQUISITE(S)	COURSE LEVEL
22212- (.5 Credit)	RESIDENTIAL INTERIOR DESIGN	An application level course designed to instruct students in the skills necessary to design interior spaces that apply design elements and principles to spaces for residential and special needs (e.g. single family homes, multi-family structures, homes for special needs, child care centers, retirement homes, etc.). Topics will include meeting client's needs, legislated codes, historic considerations, current and future trends, and public policy.	Drafting/CAD OR Architectural Design	Application
38212- (.5 Credit)	COMMERCIAL & INDUSTRIAL INTERIOR DESIGN	An application level course designed to instruct students in the skills necessary to design interior spaces that acknowledge client needs, legislated codes, historic, current and future trends, and public policy for commercial and industrial buildings (e.g. office buildings, warehouses and manufacturing sites, etc.).	Drafting/CAD OR Architectural Design	Application
38050- (.5 Credit)	ADVANCED STUDIES IN ARCHITECTURAL DESIGN	An advanced level application course covering specific research-based topics in architectural design.	Drafting/CAD OR Architectural Design	Application

Effective for the 2015-16 School Year

Kansas Family and Consumer Sciences Education Hospitality and Tourism Career Cluster

Course: Culinary Essentials

Pathways (CIP Codes):

Restaurant and Event Management (12.0504)

Travel and Tourism (52.0901)

Course #16052

Rating Scale: 3 Skilled- Works Independently

2 Limited Skills- Requires Assistance

1 Skill Undeveloped

0 No exposure- No instruction or training

Directions: The following competencies are required for full approval of a course in a Family and Consumer Sciences Program. Check the appropriate number to indicate the level of competency reached for student evaluation.

Academic Foundations

Benchmark: 0.1 Achieve additional academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within a career cluster. (ESS 01)		3	2	1	0
0.1.1	Adapt language for audience, purpose, situation (i.e. diction/structure style). ESS01.02.02 (*1.2.3)				
0.1.2	Demonstrate knowledge of basic arithmetic operations such as addition, subtraction, multiplication and division. ESS01.03.02 \$				

Communications

Benchmark: 0.2 Use oral and written communication skills in creating, expressing and interpreting information and ideas including technical terminology and information. (ESS 02) (*13.3)		3	2	1	0
0.2.1	Interpret and communicate information, data, and observations to apply information learned to actual practice. ESS02.01.04 (*13.3.1)				
0.2.2	Model behaviors that demonstrate active listening. ESS01.02.01 (*13.3.2)				
0.2.3	Employ appropriate verbal communication skills when obtaining and conveying information. ESS02.02.01 (*1.2.3)				
0.2.4	Communicate with co-workers to clarify workplace objectives. ESS02.02.04 (*1.2.3)				
0.2.5	Communicate effectively with customers and co-workers to foster positive relationships. ESS02.02.05 (*13.1.1)				
0.2.6	Organize information to use in written and oral communications. ESS02.03.02 (*1.2.2)				
0.2.7	Use informational text, internet/ web sites and/or technical materials to review and apply information sources for occupational tasks. ESS02.04.01				
0.2.8	Use correct grammar, spelling, punctuation and capitalization when preparing written documents. ESS02.05.03				
0.2.9	Apply and/or interpret verbal and non-verbal communication to fully understand meaning. (*1.2.3, 13.3.2)				

Problem Solving and Critical Thinking

Cross-Walking Key: *National (2008) Family and Consumer Sciences Standards; (\$) National Standards for Financial Literacy; (▲) Assessed Indicator for Kansas Assessment Tests (R) Kansas Reading Curricular Standards; (MHS) Kansas Mathematics Curricular Standard—High School; (W) Kansas Writing Curricular Standards; (SC) Kansas School Counseling Standards; (H-G) Kansas History & Government; Economics & Geography Curricular Standards; (S) Kansas Science Curricular Standards; (ESS) Career Cluster Essential Knowledge and Skill or (HTCO) Hospitality and Tourism Cluster Knowledge and Skills (www.careerclusters.org)

Benchmark: 0.3 Solve problems using creativity, innovation and critical thinking skills independently and in teams. (ESS 03) (*1.2)		3	2	1	0
0.3.1	Resolve conflicts with staff or customers using conflict resolution skills. ESS 03.02.05				
0.3.2	Prioritize tasks to be completed. ESS10.02.02 (*1.2.2)				
0.3.3	Identify concerns, analyze solutions and apply critical thinking skills to solve problems. ESS 03.01.01 & ESS 03.01.02				
0.3.4	Develop and manage plans/ budgets to accomplish organizational goals and objectives. HTC005.01.01				

Information Technology Applications

Benchmark: 0.4 Use information technology tools specific to the career cluster to access, manage, integrate and create information. (ESS 04)		3	2	1	0
0.4.1	Use information technology tools to manage and perform work responsibilities. ESS 04.02.01 (*1.2.5)				
0.4.2	Evaluate internet resources for reliability and validity. ESS04.04.03 (21 st)				

Systems

Benchmark: 0.5 Understand roles within teams, work units, departments, organizations, inter-organizational systems and the larger environment. (ESS 05)		3	2	1	0
0.5.1	Explain the role of individual departments as they impact the business as a whole. ESS05.01.03				
0.5.2	Analyze workplace operations. HTC09.05.02				

Safety, Health and Environmental

Benchmark: 0.6 Understand the importance of health, safety and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. (ESS 06) (*5.5; 13.4)		3	2	1	0
0.6.1	Identify safety and health hazards to maintain a safe worksite. ESS06.01.04 (*1.2.7)				
0.6.2	Use equipment according to manufacturer guidelines and/or government regulations. ESS06.01.07				
0.6.3	Practice personal safety to avoid injury or accidents. HTC06.05.03 (*13.4.3) (21 st) (SC P/SD 3.1)				

Leadership and Teamwork

Benchmark: 0.7 Use leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives. (ESS 07) (*13.5)		3	2	1	0
0.7.1	Compare and contrast various roles of leaders within an organization. ESS07.01.01				
0.7.2	Apply teamwork skills to identify goals, develop objectives and achieve them in a timely manner. ESS07.02.05 & ESS07.03.01 (*1.2.4)				
0.7.3	Demonstrate commitment to and positive attitude toward team goals. ESS07.03.07 (*1.2.2)				
0.7.4	Manage personal work skills to accomplish tasks. ESS07.04.03 (*1.2.2)				
0.7.5	Treat people with respect. ESS07.04.04 (*13.3.5)				
0.7.6	Manage stress and control emotions. ESS07.04.07 (*13.1.6)				

Ethics and Legal Responsibilities

Cross-Walking Key: *National (2008) Family and Consumer Sciences Standards; (\$) National Standards for Financial Literacy; (▲) Assessed Indicator for Kansas Assessment Tests (R) Kansas Reading Curricular Standards; (MHS) Kansas Mathematics Curricular Standard—High School; (W) Kansas Writing Curricular Standards; (SC) Kansas School Counseling Standards; (H-G) Kansas History & Government; Economics & Geography Curricular Standards; (S) Kansas Science Curricular Standards; (ESS) Career Cluster Essential Knowledge and Skill or (HTCO) Hospitality and Tourism Cluster Knowledge and Skills (www.careerclusters.org)

Benchmark: 0.8 Know and understand the importance of professional ethics and legal responsibilities. (ESS 08)		3	2	1	0
0.8.1	Analyze personal and long-term workplace consequences of unethical and illegal behaviors. ESS08.01.03 (*1.2.8)				

Employability and Career Development

Benchmark: 0.9 Know and understand the importance of employability and career skills. (ESS 09) (*1.2)		3	2	1	0
0.9.1	Demonstrate self-discipline, self-worth, positive attitude and integrity in work situations. ESS09.01.01 (*1.2.2, 1.2.8, 13.3.5)				
0.9.2	Demonstrate flexibility and willingness to learn new knowledge and skills. ESS09.01.02 (*1.2.2)				
0.9.3	Exhibit commitment to the organization. ESS09.01.03 (*1.2.2)				
0.9.4	Develop strategies to reach career objectives. ESS09.02.02				
0.9.5	Identify positive work behaviors to retain employment. ESS09.06.05 (*1.2.2)				
0.9.6	Develop work goals and objectives. ESS10.02.01				
0.9.7	Develop time management knowledge and skills. ESS10.02.03 (*1.2.2)				
0.9.8	Analyze work roles and responsibilities and how to balance them with life responsibilities. ESS09.01.08 (*1.1.3, 1.1.4)				
0.9.9	Develop and/or organize a career portfolio (electronic or physical) to document knowledge, skills, and experience in a career field. (09.04.02)				

Technical Skills

COMPREHENSIVE STANDARD: 8.0 Integrate knowledge, skills, and practices required for careers in food production and services.

Benchmark: 8.1 Demonstrate food safety and sanitation procedures.		3	2	1	0
8.1.1	Identify chemical, physical and biological hazards and the impact they have on food.				
8.1.2	Identify sources, symptoms, and prevention measures for the five reportable food illnesses as identified in KS food code (i.e. Norovirus, Hep A, Shigella, E Coli, & Salmonella)				
8.1.3	Demonstrate an understanding of the importance of food safety and sanitation to include: how foods become unsafe, good personal hygiene, controlling time and temperature, preventing cross contamination, cleaning and sanitizing, shipping and receiving, and how to safely prepare food.				
8.1.4	Demonstrate personal hygiene and grooming standards.				
8.1.5	Demonstrate how to calibrate a thermometer, when and how to clean a thermometer, and the proper method to check the temperature of a variety of food products. (*8.5.4) (**8.3)				

Benchmark: 8.2 Demonstrate industry standards in selecting, using and maintaining food production areas and equipment.		3	2	1	0
8.2.1	Identify function of basic food equipment and tools used for producing and serving foods.				
8.2.2	Operate tools and equipment following safety procedures.				
8.2.3	Demonstrate proper procedures for cleaning, sanitizing, and the storage of equipment and food contact surfaces.				

Benchmark: 8.3 Apply measuring techniques in relation to a standardized recipe.		3	2	1	0
8.3.1	Explain the role that standardized recipes play in maintaining product consistency.				
8.3.2	Identify different measuring systems and the abbreviations.				
8.3.3	Distinguish between volume and liquid measurements.				
8.3.4	Utilize standard weights and measures to demonstrate proper measuring techniques.				
8.3.5	Convert recipes to yield smaller and larger quantities.				
8.3.6	Identify basic conversions of measurements (i.e. oz. in a gallon, etc.)				

Benchmark: 8.4 Examine the principles of food production management and service methods.		3	2	1	0
8.4.1	Apply effective <i>mise en place</i> practices.				
8.4.2	Demonstrate effective time management.				
8.4.3	Identify types of service styles and the roles/responsibilities service staff members have with each style.				
8.4.4	Identify the general rules of table settings and service (i.e. serve from the left & remove from the right)				

Benchmark: 8.5 Demonstrate common food production skills.		3	2	1	0
8.5.1	Identify types of knives used in the food production kitchen.				
8.5.2	Demonstrate proper knife safety, sanitation and maintenance.				
8.5.3	Demonstrate dry heat, moist heat and combination cooking methods, identifying the foods best suited for each method.				
8.5.4	Demonstrate food safety procedures during the food production process.				
8.5.5	Describe and demonstrate basic preparation of breakfast items.				
8.5.6	Compare quality, cost & consistency of convenience vs. from scratch products.				
8.5.7	Demonstrate basic hot and cold sandwiches and their components.				

Benchmark: 8.6 Apply the principles of nutrition to food preparation.		3	2	1	0
8.6.1	List and describe techniques for food preparation that preserve nutrients.				
8.6.2	Interpret information on a nutritional label.				
8.6.3	Identify common foods allergens and common symptoms. (Common allergens: milk/dairy, eggs/egg products, fish/shellfish, wheat/gluten, soy/soy products, and peanuts/tree nuts.)				

Kansas Human Services Cluster**Early Childhood Education & Services Pathway****Course: Foundations to Early Childhood Education (Technical)****CIP Code: 19.0709 Course Code #19052**

Rating Scale: 3 Skilled- Works Independently
 2 Limited Skills- Requires Assistance
 1 Skill Undeveloped
 0 No exposure- No instruction or training

Learner:		Grade:	
Teacher:		School:	
Enrolled Date:	Completion Date:	Graduation Date:	
Learner Signature		Teacher Signature	

Directions: The following competencies are required for full approval of a course in a Human Services Cluster. Check the appropriate number to indicate the level of competency reached for learner evaluation.

Academic Foundations

Benchmark: 0.1 Apply reading and writing, math, and science skills in personal, professional, and community situations. (CC K&S)		3	2	1	0
0.1.1	Writes effectively for a variety of audiences, purposes, and contexts. (narrative, expository, technical, persuasive) (W1.4▲)				
0.1.2	Use information to locate, comprehend, make inferences, and draw conclusions. (M) (R1.4.2▲)				
0.1.3	Generate and/or solve multi-step real-world problems with real numbers and mathematical concepts. (M1.4.A1a, b, d▲) (\$)				
0.1.4	Research, apply, and evaluate information to accomplish tasks. (CC K&S) (SC CD 2.1)				

Communications

Benchmark: 0.2 Demonstrate appropriate communication skills that contribute to positive relationships. (*13.3) (21 st)		3	2	1	0
0.2.1	Use appropriate communication strategies for most effective outcome. (*13.3.1) (CC K&S) (21 st) (SC P/SD 1.2) (S1.1.5)				
0.2.2	Demonstrate verbal, listening, and writing skills appropriately to communicate clearly. (*13.3.2) (*13.3.3) (CC K&S) (21 st)				

Problem Solving, Dilemma Solving, and Critical Thinking

Benchmark: 0.3 Apply thinking and problem-solving processes to personal, professional and community issues. (21 st) (SC AD 1.2)		3	2	1	0
0.3.1	Identify common tasks that require employers to use problem-solving skills. (CC K&S ESS03.01.01)				
0.3.2	Use problem-solving and critical thinking skills to improve a situation or process. (CC K&S ESS03.01.02)				
0.3.3	Create ideas, proposals, and solutions to a problem. (CC K&S ESS 03.01.04)				

Information Technology Applications

Benchmark: 0.4 Use technology to access, manage, integrate, and create information. (CC K&S)		3	2	1	0
0.4.1	Use information technology tools to manage and perform work (school) responsibilities. (CC K&S Essential Skill 04.02.01)(*2.4)				
0.4.2	Identify and use a variety of web-based tools for real world application involving global communication for collection and dissemination of information.				
0.4.3	Use technology to locate, analyze, manipulate, and interpret information in a knowledge economy. (CC K&S) (21 st) (S5 1.1▲) (*2.4.3)				

Safety, Health, and Environmental

Benchmark: 0.5 Evaluate potential hazardous situations to defuse them and determine intervention strategies. (CC K&S)		3	2	1	0
0.5.1	Manage the physical and social environment to reduce conflict and promote safety in settings (i.e. family, work, community, and cyberspace). (CC K&S) (21 st) (SC P/SD 3.1)				

Leadership, Teamwork, Ethics and Legal Responsibilities

Cross-walking Key: (*) National Family & Consumer Sciences Standards (2008) (\$) National Standards for Financial Literacy (▲) Assessed Indicator for Kansas Assessment Tests
 (CC K&S) Career Cluster Knowledge and Skills (www.careerclusters.org) (21st) 21st Century Learning Skills (www.21stcenturyskills.org) (R) Kansas Reading Curricular Standards
 (M) Kansas Mathematics Curricular Standards (Goals I-V) National CDA (W) Kansas Writing Curricular Standards (SC) Kansas School Counseling Standards
 (H-G) Kansas History & Government; Economics & Geography Curricular Standards (I-VIII) KS/MO Core Competencies (see guidance doc) (S) Kansas Science Curricular Standards

Benchmark: 0.6 Demonstrate leadership, citizenship, and teamwork skills required for success in the family, workplace, and community. (*13.5) (21 st)		3	2	1	0
0.6.1	Demonstrate quality of work and effective communication regardless of diversity and cultural differences. (21 st)				
0.6.2	Determine the most appropriate response to workplace (school) situations based on legal and ethical considerations. (CC K&S ESS 08.01.05)				

Career Development and Systems

Benchmark: 0.7 Analyze strategies to manage the multiple individual, family, career, and/or community roles and responsibilities. (*1.1) (CC K&S) (21 st)		3	2	1	0
0.7.1	Organize a career portfolio (electronic or physical) to document knowledge, skills, and experience in a career field. (CC K&S ESS 04.0.01) (*4.1.5)				
0.7.2	Recognize that individual career path has an impact on the national and global community.				

Technical Skills

COMPREHENSIVE STANDARD: 4.0 Integrate knowledge, skills, and practices required for careers in early childhood education, education, and human services. (*4.0)

Benchmark: 4.1 Examine career paths within early childhood education, education and related services. (*4.1)		3	2	1	0
4.1.1	Research career paths within early childhood development and services. (* 4.1.1)10.C				
4.1.2	Explore opportunities for employment and entrepreneurial endeavors. (* 4.1.2) 10.A				
4.1.3	Reflect on experiences with children to determine strengths and weaknesses of Professional Skills (VIII-OPG 1a & 1b) 6E				

Benchmark: 4.2 Apply developmentally appropriate practices in early childhood education. (*4.2)		3	2	1	0
4.2.1	Compare and contrast leading child development theories. (I-CGD3a) (*4.2.1)				
4.2.2	Analyze child development theories to determine how children learn (relate to ages and stages) (I-CGD1a & 2a) 7.C				
4.2.3	Identify risk factors, delays, or disabilities that may indicate a need for special services. (*4.2.4)(I-CGD2d)2.C				
4.2.4	Determine impact of stress, separation, and transition that affect children's social development. (*4.5.5)(II-PSD1c)				
4.2.5	Analyze assessment methods used to observe and interpret children's growth and development. (* 4.2.2)				
4.2.6	Identify cultural and environmental influences that impact children's development. (* 4.2.3)(I-CGD1d)				
4.2.7	Observe and summarize a children's developmental progress. (III-COA2b & 2c) (*4.2.2) 4.C				

Benchmark: 4.3 Analyze curriculum and instruction to meet children's development needs. (*4.3) (KPES#6)		3	2	1	0
4.3.1	Analyze strategies that promote age appropriate growth and development. (* 4.2.5) 6.E				
4.3.2	Identify activities (including art, music, nature/animal and food related) that promote intellectual, social, physical, emotional and moral development. (*4.3.5)(I-CGD3a)				
4.3.3	Explore the role of play in the development of children. (I-CGD1b)				
4.3.4	Determine age-appropriate activities for children (including those with special needs). (*4.2.5) (II-CLE2e)				
4.3.5	Develop an age-appropriate experience and teach it to childred (i.e. safety issue social issue, moral issue and/or emotional issue)(V-KR2c(*4.4.3)4.5				

Benchmark: 4.4 Develop skills needed to ensure a safe and healthy learning environment for children. (*4.4) (KPES#5)		3	2	1	0
4.4.1	Determine the impact of the family's role as the primary educator to child development. (*15.1.3)2.C				
4.4.2	Create opportunities for positive communication and relationships with families. (IV-RF1b)3.B				
4.4.3	Create a resource to share with families that lists community agencies that can provide assistance. (IV-UCR2a)4.C				
4.4.4	Demonstrates basic pediatric first aid and CPR. (V-KR1b)4.F				
4.4.5	Identify regulations regarding health and safety in child care facilities. (V-KR1c)(*4.6.3)4.F				
4.4.6	Analyze an indoor space to ensure safety of children. (V-ES2a)4.F				
4.4.7	Identify safe and appropriate outdoor play equipment. (V-ES2a)(*4.4.1)4.F				
4.4.8	Practice appropriate hand-washing techniques. (V-RH1a)(*4.4.6)4.F				

Cross-walking Key: (*) National Family & Consumer Sciences Standards (2008) (\$) National Standards for Financial Literacy (▲) Assessed Indicator for Kansas Assessment Tests
 (CC K&S) Career Cluster Knowledge and Skills (www.careerclusters.org) (21st) 21st Century Learning Skills (www.21stcenturyskills.org) (R) Kansas Reading Curricular Standards
 (M) Kansas Mathematics Curricular Standards (Goals I-V) National CDA (W) Kansas Writing Curricular Standards (SC) Kansas School Counseling Standards
 (H-G) Kansas History & Government; Economics & Geography Curricular Standards (I-VIII) KS/MO Core Competencies (see guidance doc) (S) Kansas Science Curricular Standards

4.4.9	Promote children practicing hand-washing techniques. (V-RH1b)(*4.4.3)4.F				
4.4.10	Identify appropriate procedures for meeting the needs of children (i.e. toileting, nutrition, injuries). (V-RH1c & 1e; V-N1c & 2a;)(*4.4.2)4.F				
4.4.11	Review regulations on reporting child abuse and neglect. (V-RH2f)(*4.4.5)4.C				
4.4.12	Analyze nutritional needs of children and methods of encouraging healthful eating. (V-N1c, 2a & 2d)(*4.4.3)6.B; 6.D				
4.4.13	Demonstrate ability to avoid health hazards at meal/snack time (choking, allergies, and age-appropriate foods). (V-N1d)				
Benchmark: 4.5 Evaluate techniques to promote positive collaborative relationships with children. (*4.5)		3	2	1	0
4.5.1	Explore common problem behaviors and situations and appropriate solutions. (VI-PIG1f)(*4.5.2)2.E				
4.5.2	Demonstrate interpersonal skills that promote positive relationships with children. (*4.5.3) (IV-RF1b)				
Benchmark: 4.6 Demonstrate professional practices and standards related to working with children. (*4.6)		3	2	1	0
4.6.1	Exhibit good hygiene and personal appearance and attire (clothing, shoes, accessories) for working with children.(*4.6.2) (VIII-DPP1b)7.A				
4.6.2	Explain the code of ethics of the early childhood field (i.e. confidentiality and impartiality). (*4.6.2; 4.6.4)(VIII-DPP1g; VIII-DPP2f) 4.F; 8.A				

Additional comments: _____

Name _____ ID _____

Instructor _____ School Year _____

Enrollment Date _____ Completion Date _____ Credits Completed _____
____/____/____

I certify that the student received the training in the area indicated.

Student Signature : _____ Date _____

Instructor Signature: _____ Date _____

RATING SCALE:3: Skilled, works independently; 2: Competent, may need assistance; 1: Received instruction, skill undeveloped; 0: No exposure, instruction or training Measured Competencies listed should be seen as minimums (you can add)

Application-level course for Business Management and Administration, Hospitality and Tourism, Career Clusters (Funded)

In this capstone course, Applied Business Development students will practice skills of planning, organizing, directing and controlling functions of operating a business while assuming the responsibilities and risks involved. Students will develop skills in enterprise development, market analysis and financial preparation. These courses includes classroom activities as well as involving further study of the field and discussion regarding real-world experiences and applications that students encounter in owning and managing a business.

Topic 1 Academic Foundations			Achieve additional academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within a career cluster.					
Benchmark	1.01	Understand consumer buying habits when faced with scarce resources and unlimited wants.						
		Competencies	Sample Indicators					
	01.01.01	Apply principled economics and marketing to optimizing business value and customer satisfaction.	Identify the effects of the economy on selected industry to plan products and services.	3	2	1	0	
			Identify future needs by using information about current trends.					
			Use principles of budgeting and forecasting to maximize profit and growth within the industry.					
			Research costs, pricing and market demands to promote profitability.					
			Utilize information from ethnic and geographical studies to guide customer service decisions.					
			Describe the functions of prices in markets					
	01.01.02	Use economic indicators to detect economic trends and conditions.	Describe the concept of price stability as an economic measure	3	2	1	0	
			Discuss the measure of consumer spending as an economic indicator					
			Discuss the impact of a nation's unemployment rates					
		Explain the concept of Gross Domestic Product						
		Describe the economic impact of inflation on business						
			Explain unemployment and inflation tradeoffs					
			Explain the economic impact of interest-rate fluctuations					
			Determine the impact of business cycles on business activities					

Topic 2 Communications			Use oral and written communication skills in creating, expressing and interpreting information and ideas including technical terminology and information.						
Benchmark	2.02	Assume appropriate roles to create, deliver, receive and manage business communications in the workplace.							
		Competencies	Sample Indicators						
	02.02.01	Identify audience and create communications support statistics for internal and external audiences.	Identify the audience and determine the type of communication to use for that audience.		3	2	1	0	
			Gather the data to be included in the communication for the specific external audience.						
			Prepare the communication in easy to understand format for intended audience.						
			Choose the appropriate mode of communication.						
	02.02.02	Assume the necessary role to perform the responsibilities of delivering and receiving a message.	Adopt the appropriate communicator role (trainer, presenter, counselor, etc.)		3	2	1	0	
			Listen to and value the response of the audience to determine the effectiveness of the communication and appropriate follow-up actions.						
			Perform any required follow-up actions (respond to questions, document the communication session, etc.)						
			Use appropriate visuals, media, body language, and handouts.						
			Document those verbal communications for which a record may be required.						
			Adopt the appropriate receiver role (listener, participant, observer, etc.)						
			Provide feedback on the communication received and communicate any questions, need for clarifications, or follow-up requests that you may have for the communicator.						
			Perform any required follow-up actions (perform assigned tasks, send notes of appreciation, etc.)						
	02.02.03	Manage the broad scope of business communications to process, document, and store information efficiently and appropriately.	Develop and implement documentation processes and procedures.		3	2	1	0	
			Make records of verbal and written communications in accord with your company's documentation processes and procedures.						
			Utilize a document management or information storage system (may require an individual to know how to interact with the manager of information systems).						
			Recall and utilize document records.						
		Store communication for future reference or input into database, as required.							
02.02.04	Prepare appropriate materials to reply to inquiries that required a considered response.	Understand and communicate the purpose of the reply.		3	2	1	0		
		Use the appropriate grammar, tone, style.							
		Perform any other required activities (amend the file record, interact with legal, etc.)							

Topic	3	Emotional Intelligence & Leadership	Supervising/ Directing and Motivating/ Leading							
Benchmark	3.01	Motivate and supervise personnel to achieve completion of projects and company goals.								
		Competencies	Sample Indicators							
	03.01.01	Exhibit behaviors and actions to effectively hire, motivate and lead people.	Identify and describe strategies that provide effective recruitment and performance incentives for employee retention.	3	2	1	0			
			Motivate and lead employees toward innovative ideas and/or critical thinking ability.							
			Motivate and lead employees toward continuous learning and/or professional development.							
	03.01.02	Exhibit behaviors and actions to effectively motivate and lead change.	Identify and describe reasons for macro- and micro-economic change (change in the community, industry, internal and external operations).	3	2	1	0			
			Motivate and lead employees toward macro- and micro-economic change (change in the community, industry, internal and external operations).							
	03.01.03	Exhibit behaviors and actions to effectively motivate and promote the use of teamwork in the workplace.	Describe the interrelationships, interactions, and communications required for teaming.	3	2	1	0			
			Develop and implement team operating procedures.							
			Describe and be able to adopt the tools/resources that facilitate working in teams.							
		Exhibit the ability to be flexible and allow for adaptations in work that team-tasking requires.								
	03.01.04	Manage stressful situations to minimize negative workplace interactions	Explain the nature of stress management	3	2	1	0			
Benchmark	3.02	Direct and supervise personnel to complete company goals and projects.								
		Competencies	Sample Indicators							
	03.02.01	Exhibit the actions and behaviors most effective for supervising and directing the financial resources.	Demonstrate the ability to supervise and direct assets and liabilities.	3	2	1	0			
			Identify changes between assets and liabilities that impact the company's equity.							
	03.02.02	Exhibit the actions and behaviors most effective for supervising and directing the human resources assigned to you for a company.	Establish and communicate workplace ethics and/or code(s) of conduct statements.	3	2	1	0			
			Establish and communicate corporate values.							
			Manage and mediate interpersonal conflict within the company organizational structure.							
			Demonstrate the ability to supervise and direct relationships with specific internal and external company constituents (employees, employee teams/work groups, upper management, board members and stockholders and other company-wide relationships.)							
			Identify and describe difficult personalities and describe strategies for dealing with those appropriately.							
			Identify and describe the impact of diversity in the workplace and demonstrate the ability to adopt strategies for promoting workplace harmony and company productivity.							
	03.02.03	Exhibit the actions and behaviors most effective for supervising and directing the external relationships in your area of responsibility.	Exhibit actions and behaviors to supervise and direct risk mitigation activities and other legal issues.	3	2	1	0			
			Demonstrate the ability to supervise and manage quality control issues.							
			Demonstrate the ability to motivate and lead specific external business constituents (clients, stockholders and board members, suppliers and service providers, government or regulatory associations, media, and the community.)							

Benchmark		3.04	Evaluate opportunities to determine potential company changes and implement strategies for catalyzing and guiding changes.						
			Competencies		Sample Indicators				
	03.04.01	Evaluate opportunities to determine potential company changes.	Identify performance standards within the company that impact bottom line and/or drive the need for change.		3	2	1	0	
			Review performance reports to locate areas that indicate the need to change organizational process or performance.						
			Compile areas needing attention and identify action to be taken.						
			Inform others of changes, purpose and their roles.						
			Evaluate actions to be taken and make decision to proceed or abandon idea.						
	03.04.02	Implement the improvement process to guide the change.	Document and evaluate input and outcomes throughout the process.		3	2	1	0	
		Roll out full-scale implementation of the change.							
		Evaluate the improvement process (cost/benefit analysis, impact analysis, etc.).							
Benchmark		3.05	Demonstrate and experience the value and role of marketplace competition						
			Competencies		Sample Indicators				
	03.05.01	Dramatize/Explain ways marketplace competition could both be beneficial and harmful to a(n) business/organization.	Participate in performance based competitive event		3	2	1	0	
			Participate in a business plan competition						
			Explain and identify the market-based competitions within the desired business field.						
Topic		4	Ethics and Legal Responsibilities		Know and understand the importance of professional ethics and legal responsibilities.				
Benchmark		4.01	Understand ethical and legal responsibilities to maintain high quality standards in product and service industries.						
			Competencies		Sample Indicators				
	04.01.01	Create a resource base of alternative plans containing proactive and reactive solutions to manage emergency situations.	Formulate methods of resolution and/or alternatives to eliminate potential safety hazards.		3	2	1	0	
			Identify sources of assistance to utilize in emergency situations for self, co-workers and customers/guests.						
	04.01.02	Establish procedures that educate customers about identified safety and security issues.	Disseminate information to customers addressing potential safety hazards and security issues.						3
	04.01.03	Apply knowledge of business ownership to establish and continue business operations	Select form of business ownership		3	2	1	0	

Topic		5	Technical Skills	Use the technical knowledge and skills required to pursue the targeted careers for all pathways in the career cluster, including knowledge of design, operation, and maintenance of technological systems critical to the career cluster.					
Benchmark	5.01	Develop and implement short and long-term strategic plans to manage growth, profit and goals within a specific market segment.							
		Competencies		Sample Indicators					
	5.01.01	Develop and implement annual performance-based operating plans to manage long-range company goals.		Create annual, semi-annual and quarterly operating plans.		3	2	1	0
				Develop technical management sections and work break-down structures; schedule types (Gantt charts, PERT charts, etc.) and priorities; and cost management sections and profit projections for annual operating plan.					
	5.01.02	Develop for implementation a business plan to meet market demands/opportunities.		Develop and implement financial/budgeting plans.		3	2	1	0
				Develop and implement legal/contractual and/or risk management plans. Develop and implement organizational charts and staffing/human resource plans. Develop and implement inventory control plans and/or quality control/quality assurance plans. Develop and implement project or workload management plans.					
Benchmark	5.02	Evaluate employee performance to provide timely and appropriate responses to personnel issues.							
		Competencies		Sample Indicators					
	5.02.01	Apply performance standards to evaluate employees.		Identify and communicate performance standards.		3	2	1	0
				Identify and communicate policies and procedures for reviewing performance. Track performance indicators and develop performance reports. Analyze performance reports for their impact upon your responsibility sets.					
	5.02.02	Develop timely responses to employee performance evaluations.		Provide feedback response on employee's performance.		3	2	1	0
				Implement performance improvement plans. Amend employee work plans to account for performance evaluation results. Provide strategies for rewarding employee performance.					
5.03		Organize the various business services to address all company components.							
		Competencies		Sample Indicators					
	5.03.01	Analyze the individual role and unit's responsibility to the business.		Identify the various departments' work group organization and individuals, as well as their interrelationships, within a company's organizational structure.		3	2	1	0
				Identify the various employees responsible for the management of company information (including their responsibilities). Demonstrate the ability to describe and adopt the appropriate organizational tools and systems for the unit and the unit's responsibility set.					
	5.03.02	Develop policies and procedures to provide support for the organization.		Review current policies and procedures.		3	2	1	0
				Identify areas where policies and procedures must be added or revised. Develop a company policy and procedures manual.					

	5.03.03	Organize business components to assure quality products/services are delivered on time.	Organize data/information/research.	3	2	1	0
			Organize people (human resources).				
			Organize all other resources.				
			Organize activities to meet time lines.				
			Organize production or delivery of products/services.				

5.04 Understand the importance and applications of various types of management

		Competencies	Sample Indicators				
	5.04.01	Utilize project-management skills to improve work-flow and minimize costs	Explain the nature of project management	3	2	1	0
			Explain the nature of a project life cycle				
			Explain standards project-management processes				
			Develop project plan				
			Coordinate schedules and activities				
			Apply project-management tools to monitor project progress				
			Track and evaluate project progress and results				
	5.04.02	Understand the role and function of quality management to obtain a foundational knowledge of its nature and scope.	Explain the nature of quality management	3	2	1	0
			Discuss the need for continuous improvement of the quality process				
	5.04.03	Recognize management's role to understand its contribution to business success	Explain the nature of managerial ethics	3	2	1	0
			Describe factors that influence management				
			Explain management theories and their applications				
	5.04.04	Utilize planning tools to guide organization's/department's activities	Explain the nature of business plans	3	2	1	0
			Explain the nature of SWOTs				
			Discuss the nature of sales forecasts				
			Explain external planning considerations				
			Evaluate business acquisition options				
	5.04.05	Acquire foundational knowledge of financial-information management to understand its scope and nature	Describe the need for financial information	3	2	1	0
	5.04.06	Understand human resource management models to demonstrate knowledge of their nature and scope.	Explain human resource management functions	3	2	1	0

Pathway Topic 6 Emotional Intelligence**Benchmark 6.01 Employ and manage techniques, strategies, and systems used by management to foster self-understanding and enhance business**

		Competencies	Sample Indicators				
	6.01.01	Demonstrate managerial and business ethics	Discuss ethics, responsibility, honesty, integrity, and work habits	3	2	1	0
	6.01.02	Manage internal and external inter-cultural business relationships.	Exhibit cultural sensitivity	3	2	1	0
			Implement teamwork techniques to accomplish goals				
			Explain the impact of business customs and practices on global trade				
	6.01.03	Develop personal traits and behaviors to foster career advancement.	Identify desirable personality traits important to business	3	2	1	0
			Exhibit a positive attitude				
			Exhibit self-confidence				
			Demonstrate interest and enthusiasm				
			Demonstrate initiative				
			Foster positive working relationships				
			Participate as a team member				
			Explain the nature of effective communications				

Topic		7	Entrepreneurship			
Benchmark		7.01	Develop personal traits and behaviors to foster career advancement.			
			Competencies	Sample Indicators		
	7.01.01	Develop concept for new business venture to evaluate its success potential.		Describe entrepreneurial planning considerations	3	2
				Explain tools used by entrepreneurs for venture planning	1	0
				Assess start-up requirements and other financial risks associated with venture		
				Use components of business plan to define venture ideas		
	7.01.02	Determine needed resources for a new business venture to contribute to its start-up viability		Describe process used to acquire financial resources for venture creation/start-up	3	2
Topic		8	Financial Analysis			
Benchmark		8.01	Maintain, monitor, plan, and control the use of financial resources to protect an entrepreneur and business's financial well-being.			
			Competencies	Sample Indicators		
	08.01.01	Identify potential business threats and opportunities to protect a business's financial well-being		Identify speculative business risks	3	2
				Explain the nature of risk management	1	0
				Identify a business's risks		
				Explain the time value of money		
				Explain the purposes and importance of credit		
	08.01.02	Implement accounting procedures to track money flow and to determine financial status through proper financial statement reporting		Describe the nature of budgets	3	2
				Monitor business's profitability	1	0
				Develop a monthly and annual business budget		
				Maintain financial records		
				Describe the nature of income and cash flow statements		
				Explain and interpret a balance sheet		

Topic 9 Marketing & Selling								
Benchmark	9.01	Manage marketing activities to facilitate business development and growth.						
		Competencies	Sample Indicators					
	09.01.01	Acquire foundational knowledge of customer/client/business behaviors to understand what motivates decision-making	Explaining customer/client/business buying behavior	3	2	1	0	
			Determine services to provide customers.					
			Explain the role of customer service in positioning/image.					
			Analyze factors that contribute to business success.					
			Develop strategies to position product/business.					
	09.01.03	Understand promotional channels used to communicate with targeted audiences	Explain types of advertising media	3	2	1	0	
			Explain the nature of direct marketing channels					
			Identify communications channels used in sales promotion					
			Explain communications channels used in public-relations activities					
	09.01.04	Employ marketing mix strategies to meet customer expectations, assuring business exchanges	Explain the concept and elements of the marketing mix	3	2	1	0	
			Explain the factors used to position products/services					
			Explain the nature and importance of branding					
	09.01.05	Employ sales processes and techniques to enhance customer relationships and to increase the likelihood of making sales	Establish relationship with client/customer	3	2	1	0	
			Determine customer/client needs					
			Recommend specific product					
			Calculate miscellaneous charges to complete the exchange					