

Livermore Valley Joint Unified School District

Course Title:	Business Design and Marketing
Grade Level(s):	10, 11, 12
Length of Course:	Two semesters or equivalent
Credit:	10 units
Prerequisite:	Introduction to Business (recommended)
Co-requisite:	Willingness to think “outside the box”, learn new skill sets and participate in a variety of cooperative activities

Course Overview:

Students will learn and apply entrepreneurial, organizational, and product development skills, while focusing on the principles of risk, revenue, and cost to create and manage a startup. Designing and maintaining their own budget and project management tools, students will establish timeline-based goals to bring original in-house developed products to market. Initially, student instruction focuses on diverse *Business, Design, and Marketing (BDM)* skill sets and concepts: entrepreneurship and project management; product ideation and sales opportunities; iterative design and manufacture of handmade, fused deposition modeling (FDM), or virtual online goods and services; marketing, advertising graphics, and creative product placement via social media. Students are tasked to apply their newfound *Business, Design, and Marketing* skills and strategies toward creative, iterative product development. Student success in this class depends on their ability to form partnerships, work hard, and bring a product to market for sale to students on campus.

Schools Offering:	Del Valle Continuation High School Granada High School Livermore High School Vineyard Alternative School
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Meets University of California

Entrance Requirements:	Seeking “g” - approval - Elective/Interdisciplinary
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CTE:	Business and Finance Sector Manufacturing and Product Development Sector Marketing, Sales, and Services Sector
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Board Approval:	<i>Pending Board Approval</i>
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Course Materials:	<i>Introduction to Entrepreneurship</i> Katherine Carpenter, University of Victoria 2021, Kwantlen Polytechnic University ISBN: 9781989864500
	<i>The Lean Product Playbook, 1<sup>st</sup> edition;</i> Olsen, Dan; Wiley, 2015; ISBN: 978-1118960875
Websites:	Money Instructor.com Stanford Design Thinking Bootleg Scans Workplace Competencies <a href="http://www.lean.org">http://www.lean.org</a>
Supplemental Materials:	PC Software: Inkscape: <a href="https://inkscape.org/">https://inkscape.org/</a> AutoCAD <a href="https://www.autodesk.com/education">https://www.autodesk.com/education</a> RepetierHost <a href="https://www.repetier.com/">https://www.repetier.com/</a> Gimp <a href="https://www.gimp.org/">https://www.gimp.org/</a> Blender <a href="https://www.blender.org/">https://www.blender.org/</a> or equivalent online web app tools Forms 'Register' to document business actions
Supplemental Websites:	Diffusion of Innovations SMART Goals Fundamental_Elements_of_Design Factors that Influence Product Development

## BUSINESS DESIGN AND MARKETING

### COURSE CONTENT:

#### **Unit 1: Skills Acquisition**

This unit is designed to introduce students to primary skills in the fields of business, design, and marketing. Students learn basic economic concepts: scarcity, supply/demand/equilibrium, how to write a check, deposit a check, and balance their checkbook accurately. Students learn and practice orthographic sketching and dimensioning to sketch the design of objects represented on paper, then learn and practice using a basic vector graphics editor, such as Inkscape, to trace or embellish well-known business logos. Students begin open-ended ideation, researching possible virtual, physical, and 3D printable designs suitable for their target market.

#### *Summary of Key Assignments and/or Activities*

Students will practice balancing a checkbook with a summative quiz assessing their ability to write two checks, a deposit slip, and a mathematically accurate checkbook register. Students fold a cube, draw in die dots, sketch it orthographically (top, front, side, iso views). Students ideate independently what they know, what they want to know, and what they have found through internet searching and peer research of potential products to sell on campus, then collectively share their insights on a shared document where everyone can share their ideas.

#### **Unit 2: Tools Acquisition**

This unit is designed for students to gain proficiency using fundamental business tools to maintain their finances, ideate potential products, and design various prototypes. Students practice graphing supply demand curves, discuss the ongoing quest for equilibrium, and create their own budget spreadsheet. Ideally, interested students are introduced to computer-aided design (CAD) and FDM 3D Printing tools as powerful ideation and product development tools.

#### *Summary of Key Assignments and/or Activities*

Students will CAD their dice from Unit 1 using simple online tools such as TinkerCAD or OnShape. Students continue to ideate and share their most promising ideas with the class, distinguishing between virtual, physical, and manufactured prototypes. Students create their own income and expense budget spreadsheet and fill it out to document their spending habits.

#### **Unit 3: Business Organizational Structures: Forming a Startup**

In this unit, SCANS workplace competencies are learned and shared. Students choose a primary focus of concentration- Business, Design, or Marketing, conduct interviews, and choose business partner co-employee(s) with whom to create sellable products. Students Charter a Startup with a name, two or more employees, and three or more product ideas. After instruction and discussion on how investing, capital, debt, and interest ‘works’, startups make and share an Income Expense Budget Spreadsheet, updating loans incurred for raw materials, tools, risks, and production costs.

#### *Summary of Key Assignments and/or Activities*

Students will choose and present a particular element of SCANS workplace competencies. Students will self-assess their proficiency and interest in business, design, or marketing, choose a focus for themselves, write three interview questions and three discussion questions, and conduct

interview discussions with at least three peers having proficiencies other than their own. Once students have chosen suitable business partners and formed startups, effort is taken to equally distribute workload amongst co-employees and quickly move rapid-prototypes into the product stage. Startups continue ideating to produce viable prototypes past this unit onward.

#### **Unit 4: Prototyping and Marketing Potential Products**

In this unit, students will propose, ideate, complete P.O. Requests to request a loan for raw materials, turn ideas into prototypes, and File Marketing Reports for any saleable product idea. Class time is set for startups to work collaboratively; the role of the teacher transitions from advisor facilitator, de facto government, seeding startups with capital, machinery, and the basic means of production, physical, virtual, or manufacturing, based on classroom resources and school-wide manufacturing infrastructure.

##### *Summary of Key Assignments and/or Activities*

Students share startup's product ideas and prototypes with the rest of the class, discuss possible business and marketing plans to create product market viability, identify barriers to success, and propose sales strategies. BDM bank provides loans to viable startups with great product ideas.

#### **Unit 5: Lean Business**

In this unit, students will support startups' efforts to reach economic viability by successfully marketing and selling products; success is measured in four types of transaction records: P.O. Requests, Billing, Deposit, and Repayment. adopting smart, measurable, achievable, relevant, and time-bound (SMART) timelines; reducing waste; and delivering optimized value to the customer (lean). Role of the teacher transitions to a government-like entity enforcing legal and ethical business practices, to enforce development of appropriate, legal, and reasonable products. Startups are encouraged to revisit Unit 4, to develop new products and marketing strategies, as they are welcome to revisit Unit 3 to reorganize, adopt new products, and reorganize for success.

##### *Summary of Key Assignments and/or Activities*

Students will carry out the business of marketing and sales, all while allowing for reorganization back to Unit 3, developing new products in Unit 4, and transitioning back here to Unit 5 for product sales, boom bust cycles, and new business plans to sell more products. Startup loans cover resources and means of production, to sell products through appropriate channels for cash money and, with profits, repay the BDM Bank for loans incurred.

#### **Unit 6: Formal Business Report (Midterm and Final valuation and reflection)**

This unit comprises the last two weeks of class, during which time students prepare to terminate economic activity of their startup. Students prepare formal business reports to document all business activities, patents, costs, revenue, challenges, successes, and failures. Reports will be entertaining, informative, and relevant.

##### *Summary of Key Assignments and/or Activities*

Startups all terminate business activities and fulfill existing deliveries, payments and obligations. Students present business reports to the classroom, and rate each other's startup businesses on a qualitative and quantitative rubric. Focusing on successes, challenges, and failures, students candidly share what they did, what worked, and what did not work with the class.

## **California Career Technical Education Model Curriculum Standards Business and Finance Sector**

### **1.0 Academics**

Analyze and apply appropriate academic standards required for successful industry sector pathway completion leading to postsecondary education and employment.

### **2.0 Communications**

Acquire and accurately use Business and Finance sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats.

2.1 Recognize the elements of communication using a sender–receiver model.

2.2 Identify barriers to accurate and appropriate communication.

2.3 Interpret verbal and nonverbal communications and respond appropriately.

2.4 Demonstrate elements of written and electronic communication such as accurate spelling, grammar, and format.

2.5 Communicate information and ideas effectively to multiple audiences using a variety of media and formats.

2.6 Advocate and practice safe, legal, and responsible use of digital media information and communications technologies.

### **3.0 Career Planning and Management**

Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans.

3.1 Identify personal interests, aptitudes, information, and skills necessary for informed career decision making.

3.2 Evaluate personal character traits such as trust, respect, and responsibility and understand the impact they can have on career success.

3.3 Explore how information and communication technologies are used in career planning and decision making.

3.4 Research the scope of career opportunities available and the requirements for education, training, certification, and licensure.

3.5 Integrate changing employment trends, societal needs, and economic conditions into career planning.

3.6 Recognize the role and function of professional organizations, industry associations, and organized labor in a productive society.

3.7 Recognize the importance and impact small businesses have on our state, nation and world economies.

3.8 Understand how digital media are used by potential employers and postsecondary agencies to evaluate candidates.

3.9 Develop a career plan that reflects career interests, pathways, and postsecondary options.

### **4.0 Technology**

Use existing and emerging technology to investigate, research, and produce products and

services, including new information, as required in the Business and Finance sector workplace environment.

- 4.1 Use electronic reference materials to gather information and produce products and services.
- 4.2 Employ Web-based communications responsibly and effectively to explore complex systems and issues.
- 4.3 Use information and communication technologies to synthesize, summarize, compare, and contrast information from multiple sources.
- 4.4 Discern the quality and value of information collected using digital technologies, and recognize bias and intent of the associated sources.
- 4.5 Research past, present, and projected technological advances as they impact a particular pathway.
- 4.6 Assess the value of various information and communication technologies to interact with constituent populations as part of a search of the current literature or in relation to the information task.

## 5.0 Problem Solving and Critical Thinking

Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Business and Finance sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.

- 5.1 Identify and ask significant questions that clarify various points of view to solve problems.
- 5.2 Solve predictable and unpredictable work-related problems using various types of reasoning (inductive, deductive) as appropriate.
- 5.3 Use systems thinking to analyze how various components interact with each other to produce outcomes in a complex work environment.
- 5.4 Interpret information and draw conclusions, based on the best analysis, to make informed decisions.

## 6.0 Health and Safety

Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the Business and Finance sector workplace environment.

- 6.1 Locate, and adhere to, Material Safety Data Sheet (MSDS) instructions.
- 6.2 Interpret policies, procedures, and regulations for the workplace environment, including employer and employee responsibilities.
- 6.3 Use health and safety practices for storing, cleaning, and maintaining tools, equipment, and supplies.
- 6.4 Practice personal safety when lifting, bending, or moving equipment and supplies.
- 6.5 Demonstrate how to prevent and respond to work-related accidents or injuries; this includes demonstrating an understanding of ergonomics.
- 6.6 Maintain a safe and healthful working environment.
- 6.7 Be informed of laws/acts pertaining to the Occupational Safety and Health Administration (OSHA).

## 7.0 Responsibility and Flexibility

Initiate, and participate in, a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the Business and Finance sector workplace environment and community settings.

- 7.1 Recognize how financial management impacts the economy, workforce, and community.
- 7.2 Explain the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.
- 7.3 Understand the need to adapt to changing and varied roles and responsibilities.
- 7.4 Practice time management and efficiency to fulfill responsibilities.
- 7.5 Apply high-quality techniques to product or presentation design and development.
- 7.6 Demonstrate knowledge and practice of responsible financial management.
- 7.7 Demonstrate the qualities and behaviors that constitute a positive and professional work demeanor, including appropriate attire for the profession.
- 7.8 Explore issues of global significance, document the impact on the Business and Finance sector.

## 8.0 Ethics and Legal Responsibilities

Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions when possible, consistent with applicable laws, regulations, and organizational norms.

- 8.1 Access, analyze, and implement quality assurance standards of practice.
- 8.2 Identify local, district, state, and federal regulatory agencies, entities, laws, and regulations related to the Business and Finance industry sector.
- 8.3 Demonstrate ethical and legal practices consistent with Business and Finance sector workplace standards.
- 8.4 Explain the importance of personal integrity, confidentiality, and ethical behavior in the workplace.
- 8.5 Analyze organizational culture and practices within the workplace environment.
- 8.6 Adhere to copyright and intellectual property laws and regulations, and use and appropriately cite proprietary information.
- 8.7 Conform to rules and regulations regarding sharing of confidential information, as determined by Business and Finance sector laws and practices.

## 9.0 Leadership and Teamwork

Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution as practiced in the Future Business Leaders of America (FBLA) career technical student organization.

- 9.1 Define leadership and identify the responsibilities, competencies, and behaviors of successful leaders.
- 9.2 Identify the characteristics of successful teams, including leadership, cooperation, collaboration, and effective decision-making skills as applied in groups, teams, and career technical student organization activities.
- 9.3 Understand the characteristics and benefits of teamwork, leadership, and citizenship

in the school, community, and workplace setting.

- 9.4 Explain how professional associations and organizations and associated leadership development and competitive career development activities enhance academic preparation, promote career choices, and contribute to employment opportunities.
- 9.5 Understand that the modern world is an international community and requires an expanded global view.
- 9.6 Respect individual and cultural differences and recognize the importance of diversity in the workplace.
- 9.7 Participate in interactive teamwork to solve real Business and Finance sector issues and problems.

#### 10.0 Technical Knowledge and Skills

Apply essential technical knowledge and skills common to all pathways in the Business and Finance sector, following procedures when carrying out experiments or performing technical tasks.

- 10.1 Interpret and explain terminology and practices specific to the Business and Finance sector.
- 10.2 Comply with the rules, regulations, and expectations of all aspects of the Business and Finance sector.
- 10.3 Construct projects and products specific to the Business and Finance sector requirements and expectations.
- 10.4 Collaborate with industry experts for specific technical knowledge and skills.
- 10.5 Interpret financial data, analyze results, and make sensible business decisions to promote a financially reliable business.
- 10.6 Evaluate the variety, nature, and diversity of investment vehicles and the elements that contribute to financial growth and success.
- 10.7 Adapt the distribution concepts and processes needed to move, store, locate, and transfer ownership of goods or services.
- 10.8 Integrate the techniques and strategies used to foster positive, ongoing relationships with customers, suppliers, investors, and community.
- 10.9 Evaluate the impact of local, state, federal, and/or international regulations on business and financial management decisions.
- 10.10 Apply the economic principles and concepts fundamental to business operations.
- 10.11 Recognize the importance of marketing in a global economy.
- 10.11 Develop a system for keeping and using financial records and a personal financial plan to manage cash flow and maintain creditworthiness.

#### 11.0 Demonstration and Application

Demonstrate and apply the knowledge and skills contained in the Business and Finance anchor standards, pathway standards, and performance indicators in classroom, laboratory, and workplace settings, and through the Future Business Leaders of America (FBLA) career technical student organization.

- 11.1 Utilize work-based/workplace learning experiences to demonstrate and expand upon knowledge and skills gained during classroom instruction and laboratory



- practices specific to the Business and Finance sector program of study.
- 11.2 Demonstrate proficiency in a career technical pathway that leads to certification, licensure, and/or continued learning at the postsecondary level.
  - 11.3 Demonstrate entrepreneurship skills and knowledge of self-employment options and innovative ventures.
  - 11.4 Employ entrepreneurial practices and behaviors appropriate to Business and Finance sector opportunities.
  - 11.5 Create a portfolio, or similar collection of work, that offers evidence through assessment and evaluation of skills and knowledge competency as contained in the anchor standards, pathway standards, and performance indicators.

### *Business and Finance*

#### *Pathway Standards*

##### A. Business Management Pathway

- A1.0 Explain entrepreneurship and the fundamentals of developing a new business.
- A1.1 Recognize personal traits and leadership styles of entrepreneurs and business leaders.
- A1.2 Analyze management theories and their application within the business environment.
- A1.3 Develop personal management skills to function effectively, efficiently, and collaboratively in a business environment.
- A1.4 Determine the type of business organization most appropriate for various business profiles.
- A1.5 Construct and defend a business plan (components may include an executive summary, organizational structure, market analysis, Strengths Weaknesses Opportunities and Threats (SWOT) analysis, marketing plan, operating procedures, financial data, and feasibility and supporting documentation).
- A2.0 Plan, organize, secure, and manage resources of a project to achieve specific goals.
- A2.1 Determine Specific, Measurable, Achievable, Realistic and Time-bound (SMART) goals for a specific project.
- A2.2 Develop a project schedule, including the constraints of cost, time, and scope, to illustrate project structure using Gantt, Program Evaluation Review Technique (PERT), or other project planning tools.
- A2.3 Optimize allocation of resources necessary to achieve predefined objectives.
- A2.4 Evaluate beneficial change, or added value, of a specific project.
- A3.0 Investigate the functions and techniques of management and organizational structure and distinguish between small and large companies.
- A3.1 Explain the organizational structure of various business environments.
- A3.2 Describe management's role in demonstrating leadership, motivating employees, resolving conflict, addressing stress, and recognizing formal and informal employee groups.
- A3.3 Recognize a business' responsibility to employees, shareholders, society, and the environment.
- A4.0 Apply economic concepts as they relate to business.
- A4.1 Identify factors of production needed to create wealth.
- A4.2 Explain the role of business in a free-enterprise system.

- A4.3 Recognize the determinants of supply and demand and their impact on pricing.
- A4.4 Calculate productivity with various levels of input.
- A4.5 Illustrate the business cycle elaborating on leading, coinciding, and lagging economic indicators.
- A5.2 Determine investment and finance options available at different stages of a business or product life cycle.
- A5.6 Create and use budgets to guide financial decision making.
- A6.0 Explain the importance of risk management and regulatory compliance in business.
- A6.1 Identify, assess, and prioritize risks.
- A6.2 Describe the concept and process of risk management, including the use of risk management tools such as insurance.
- A6.3 Compare and contrast the various types of taxes in terms of the business structure.
- A7.0 Utilize information and technology tools to conduct business effectively and efficiently.
- A7.1 Describe appropriate computer hardware used in business.
- A7.2 Apply appropriate software used in business.
- A7.3 Examine technological trends and analyze the impact of technological innovations on the marketing and distribution of goods and services.
- A7.4 Integrate appropriate use of the Internet in business.
- A7.5 Investigate data security systems for business.
- A8.0 Construct a Marketing Plan.
- A8.1 Describe effective marketing techniques.
- A8.2 Explore how products and services are conceived, developed, maintained, and improved in response to market opportunities.
- A8.3 Conduct market analysis and assess the business organization's position within their industry.
- A8.4 Interpret how market research is used to develop strategies for marketing.
- A8.5 Differentiate the components of a promotional plan (e.g., advertising, public relations, and sales promotion) and describe how the plan is used to achieve a stated outcome.
- A8.6 Practice selling techniques used to aid customers and clients in making buying decisions.
- A9.0 Apply principles of supply chain management and SCM 2.0 to a business model.
- A9.1 Describe Logistics Management systems.
- A9.2 Illustrate the management of the complete flow of materials and activities in the supply chain from suppliers to customers.
- A9.3 Summarize materials management, including effective inventory management practices, Procurement, and continuous control practices.
- A9.4 Create a master plan for resources that addresses market demand, sales, and operations planning.
- A9.5 Change variables in a master plan for resources, analyze its effect, and recommend corrective actions.

## B. Financial Services Pathway

- B1.0 Create and use budgets to guide financial decision making.
- B1.1 Identify various forms of income and analyze factors that affect income as part of the career decision making process.
- B1.2 Evaluate the opportunity costs of savings and investment options to meet short and long term goals.
- B1.4 Analyze factors that affect the choice, cost, and legal aspects of using credit.
- B1.5 Develop and defend a spending/savings plan.
- B3.3 Use equations, graphical representations, and other accounting tools to classify, record, and summarize financial data.
- B4.2 Interpret financial ratios and other metrics, such as cash flow and breakeven analysis, concentration risk, return on investment, leveraged debt, market share, and opportunity costs.
- B4.3 Analyze an annual report and financial statement to predict profitability.
- B6.1 Define capital and explain how it is used to create wealth.
- B6.3 Illustrate the business cycle elaborating on leading, coinciding, and lagging economic indicators.
- B6.5 Explain the role of investment banking in the primary marketplace.
- B8.1 Explain the time value of money.
- B8.2 Describe the functions, responsibilities, and ethical considerations of a financial institution.
- B9.8 Scrutinize lending and borrowing practices.

## *Manufacturing and Product Development*

### *Pathway Standards*

## B. Machining and Forming Technologies Pathway

- B1.0 Validate that a provided part meets specifications from its engineering drawing by comparing specifications (geometric dimensioning and tolerancing) and by demonstrating proper technique using appropriate precision measuring tools.
- B1.1 Identify and describe how the isometric and the orthographic views and the tolerance, scale, and material from an engineering drawing are used with an actual part.
- B1.2 Demonstrate the correct use of precision measuring tools such as vernier and dial calipers, height gages, and micrometers utilizing both English and Metric systems.
- B1.4 Explain calibration, tolerancing, and conditions that cause parts to fall out of tolerance.
- B11.0 Understand and defend the purposes and processes of inspection and quality control in machining and forming processes.
- B11.1 Identify and explain machining and forming imperfections and their causes.
- B11.2 Identify and explain destructive and nondestructive examination practices.
- B11.3 Describe the reasons for inspection and quality control in the manufacturing of machined and formed parts.
- B11.4 Analyze and identify the steps to check for distortion, misalignment, and poor fit before and after machining or forming a part.

- B11.5 Perform continuous online quality control inspections of machined and formed parts.
- B11.6 Evaluate and know how to troubleshoot performance problems of machined and formed parts.

#### D. Product Innovation and Design Pathway

- D1.0 Understand the basic product design and development process as it relates to the design of a product, line of products, system design, or services.
- D1.1 Identify the variations in the product design and development process as it relates to the designing of a product, product line, system design, or service.
- D1.2 Apply and identify the various phases of the product design development process to an existing product, product line, system design, or service.
- D2.0 Understand and apply research methodologies as a means to identify a need, problem, or opportunity for a new product, product line, system design, or service.
- D2.1 Employ research methodologies, using primary research and electronic reference materials, to gather information relevant to the topic or area of opportunity.
- D2.2 Organize information to identify and define an area of opportunity, need, or problem that can be resolved through design.
- D2.3 Identify potential design areas (e.g., product, product line, system design, or service) that would address the need, problem, or opportunity.
- D2.4 Research and identify the user demographic for the product, product line, system design, or service (local, national, global market).
- D3.0 Understand and apply various ideation techniques to develop ideas and concepts.
- D3.1 Apply ideation techniques to explore and produce multiple concepts.
- D3.2 Edit concepts and identify key idea(s) that solve the problem, fulfill a need, or address an opportunity.
- D3.3 Assess the environmental impact of the design solution and other sustainability issues and product life cycle considerations.
- D3.4 Synthesize information and experiment with nontraditional possibilities for innovative design solutions.
- D4.0 Apply various two-dimensional (2-D) graphic and/or three-dimensional (3-D) modeling techniques to development concept.
- D4.1 Create a preliminary design of a product concept utilizing drawing, computer software (graphic or CAD), and/or conceptual model fabrication techniques.
- D4.2 Identify materials, mechanisms, technologies, and other requirements (e.g., safety, manufacturing, sustainability) the concept may require.
- D4.3 Analyze and assess the strengths and weaknesses in the design, function, ergonomics, features, and benefits and identify possible resolutions for improvement.
- D5.0 Develop the concept into a well-defined product for prototyping.
- D5.1 Produce technical drawings and other specifications required for the prototyping or manufacturing of the product.

- D5.2 Recognize the safety issues related to the reliability, functionality, and use of the product.
- D5.3 Communicate and collaborate with fabricators, manufacturers, engineers, technologists, or other industry experts to review requirements and specifications and to validate the design.
- D6.0 Produce a prototype of a product.
- D6.1 Build a looks-like, works-like prototype of the model using the appropriate fabrication, manufacturing, or reproduction techniques or technologies.
- D6.2 Assess the outcome of the prototype product and analyze any issues that need redesigning or refining related to function, construction, or other factors.
- D6.3 Resolve and/or redesign issues with a prototype.
- D7.0 Evaluate the prototype to determine if it meets the requirements and objectives.
- D7.1 Create a performance criteria and a quality standard to measure and evaluate a prototype.
- D7.2 Test the functionality and other features of the prototype against the performance criteria and quality standard and evaluate the results.
- D7.3 Identify any redesigning or additional corrections required to improve the overall quality, look, and performance of the prototype model.
- D8.0 Understand and apply basic business and entrepreneurial principles and identify potential markets and/or other business opportunities for distribution of the product.
- D8.1 Apply research methodologies to identify potential investors or business opportunities to market the product.
- D8.2 Create a marketing plan for the product that includes target consumer, price, product name, brand, and product positioning in the retail market.
- D9.0 Produce a package design concept for a product or line of products.
- D9.1 Understand physical packaging construction and materials used; e. g., chipboard, cardboard, PVC, plastic blisters, etc. as it relates to protecting the product, costs, and logistic requirements.
- D9.2 Understand and apply packaging graphic strategies that effectively communicate and influence the purchasing of the product.
- D9.3 Create a packaging concept utilizing drawing computer software (graphic or CAD).
- D9.4 Produce a physical package with graphics for the product.
- D10.0 Produce a presentation of the product, product line, system design, or service.
- D10.1 Create a presentation of the design solution (e.g., product, product line, system design, or service) that effectively communicates its features and benefits.
- D10.2 Integrate into the presentation a marketing plan that may include an advertisement, promotion, and packaging/retail strategy using one or more visual communication tools (e.g., graphics, multimedia).

### *Marketing, Sales, and Services*

#### *Pathway Standards*

##### A. Marketing Pathway

- A1.0 Demonstrate an understanding of business fundamentals, uses and application of technologies, communications, and basic management functions.

- A1.1 Describe current business and marketing trends.
- A1.2 Describe tools, techniques, systems used to plan, staff, lead and organize in human resources.
- A1.3 Explain the role of business and society.
- A1.4 Compare and contrast advantages and disadvantages of business ownership.
- A1.5 Evaluate governmental and trade regulations affecting business and marketing efforts.
- A1.6 Explore ways technology impacts business competitiveness.
- A1.7 Examine management styles and the role of management in marketing.
- A1.8 Assess the importance of leadership and management in the multicultural environment.
- A1.9 Use digital and graphic design in creation of advertising.
- A2.0 Demonstrate an understanding of basic economic concepts, economic systems, cost-profit relationships, economic indicators and trends, as well as international concepts.
- A2.1 Describe the nature of current economic problems and challenges.
- A2.2 Explain the concept of economic resources.
- A2.3 Explain the principles of supply and demand.
- A2.4 Explain the role of profit as an incentive in a market economy.
- A2.5 Determine forms of economic utility created by marketing activities.
- A2.6 Determine factors affecting business risk.
- A2.7 Examine the causal relationship between scarcity and choices.
- A2.8 Distinguish between economic goods and services.
- A2.9 Explore the relationship of government and business.
- A2.12 Measure current economic conditions.
- A3.1 Describe sources for financing businesses.
- A3.2 Describe the use of technology in the financing function.
- A3.3 Define the significance of ethical behavior in the workplace.
- A3.4 Explain the nature and scope of financing.
- A3.5 Identify and analyze the risks associated with obtaining business credit.
- A3.6 Examine legal issues affecting business such as trade, environmental, personnel, truth in advertising, and workplace regulations.
- A3.7 Analyze the critical relationships between the banking and marketing industries.
- A4.0 Implement the concepts, systems, and tools needed to gather, access, synthesize, evaluate, and disseminate information for use in making business marketing decisions.
- A4.1 Identify considerations in planning and implementing marketing strategies.
- A4.2 Demonstrate the role of technology in marketing information systems.
- A4.3 Explain the nature of sales forecasting.
- A4.4 Explain why beginning with quality market research is more likely to ensure success.
- A4.5 Assess marketing information needs.
- A4.9 Conduct competitive analysis.
- A4.11 Develop a marketing campaign and write a marketing plan.

- A5.2 Demonstrate an understanding of the importance of ensuring quality of products and services.
- A5.5 Evaluate the importance of the product mix.
- A5.6 Analyze factors marketers use to position products and businesses such as branding, packaging, labeling, legal considerations, product life cycle and management techniques for each level of the life cycle, purchasing functions.
- A5.7 Analyze how creativity, compelling communication and design, positioning, and target marketing effectively reach customers.
- A6.1 Recognize the logistics of product delivery and importing and exporting products and services.
- A6.2 Determine the uses of information systems in the order fulfillment process.
- A6.4 Explore the functions of the shipping and receiving process in the success of the distribution function.
- A6.8 Predict how customer service relationships can affect the distribution process.
- A7.0 Demonstrate an understanding of product and institutional promotion through advertising, publicity/public relations, promotional sales, and e-commerce, using product, services, images, and ideas to achieve a desired outcome.
- A7.1 Describe the types of promotion.
- A7.2 Recognize legal and ethical considerations in promotion.
- A7.3 Understand important promotional strategies for communicating information about products, services, images, and ideas in an e-commerce environment.
- A7.4 Explain the role of promotion.
- A7.5 Explain the importance of public relations.
- A7.6 Summarize the effectiveness of different types of advertising media.
- A7.7 Coordinate activities in the promotional plan.
- A7.8 Differentiate between publicity, public relations and advertising.
- A7.9 Discern between the major types of sales promotion.
- A7.10 Assess the importance of and differences between the creative processes and the management processes involved in marketing.
- A8.0 Demonstrate an understanding of the process of establishing and communicating the value or cost of goods and services, the nature and scope of pricing concepts, and the strategies and outcomes of pricing.
- A8.1 Understand the nature, scope and factors affecting the pricing function.
- A8.2 Develop a foundational knowledge of pricing to understand its role in the marketing.
- A8.3 Explain the role of business ethics and legal considerations in pricing as well as the importance of a reputation for honesty in communication and for quality products.
- A8.4 Connect the use of technology in the pricing function.
- A8.5 Employ pricing strategies to determine prices.

## B. Professional Sales Pathway

B1.0 Understand the interrelationships between economic and marketing concepts and selling.

B2.0 Analyze and evaluate legal, moral, and ethical issues affecting selling and sales management.

B2.1 Identify legal aspects of sales contracts and warranties.

B2.2 Recognize legal aspects of standardization, grading, and labeling options.

B2.3 Understand legal aspects pertaining to advertising and pricing.

B2.4 Analyze ethical responsibilities in relationships with sales personnel, customer/clients, competitors, and vendors.

B3.0 Analyze customer/client behavior in the selling process.

B3.1 Define and predict buying motives in the customer's decision-making process.

B3.2 Differentiate between each stage of the customer buying process.

B3.3 Explain the importance of customer service and explain communication techniques.

B3.4 Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue.

**B3.5 Resolve contradictions when possible.**

B3.6 Determine what additional information and/or research is required to deepen the investigation or complete the task.

B3.7 Defend why quality customer service translates into a competitive edge in marketing efforts.

B4.0 Understand the nature and scope of the functions associated with personal and business sales strategies, product knowledge, support activities, and management of selling techniques.

B4.1 Explain the main characteristics of a successful salesperson including; listening, verbal and written communication skills, product knowledge, customer connection, trustworthiness, and power of persuasion.

B4.2 Demonstrate steps of sales and techniques used in the selling process.

B4.3 Apply techniques used by salespeople to enhance selling potential and customer satisfaction.

B4.4 Compare and contrast selling strategies for wholesale and retail environments.

B4.5 Differentiate between each stage of the customer buying process.

B4.6 Obtain and analyze product and service information to facilitate the selling process.

B5.0 Examine different types of sales pathways.

B5.1 Compare retail and wholesale sales methods.

B5.3 Examine Internet sales.

B6.0 Analyze the support activities of sales staff and management. B6.1 Assess the responsibilities of building, training, and evaluating a sales staff.

B6.2 Examine methods of compensation for a sales staff.

B7.0 Complete a strategic plan that includes establishing individual and company sales goals to guide the activities of the sales staff.

B7.1 Apply methods for motivating and evaluating sales staff.



- B7.2 Practice various approaches for organizing a sales staff and leading a sales force to maximize effectiveness.
- B7.3 Track sales figures, and prepare sales reports to analyze sales in relation to a sales plan.
- B8.0 Access and use marketing information to enhance sales opportunities and activities.
- B8.1 Identify sources of demographic data for sales and business planning.
- B8.2 Use personal sales information to guide business activities.
- B8.3 Analyze and use data to identify potential customers and locations for business expansion.
- B8.4 Track consumer spending trends, and analyze data to forecast sales, predict economic conditions, and guide business activities.
- B8.5 Research consumers' needs and wants to identify product/service gaps and to develop, maintain, and improve products and services.

### C. Entrepreneurship/Self-Employment Pathway

- C1.0 Define the role the entrepreneur plays in the free-enterprise system.
- C1.1 Understand the role and importance of entrepreneurship and small business in the economy.
- C1.2 Understand the part government plays in the free-enterprise system and its impact on small businesses.
- C1.3 Know how scarcity and allocation affect small businesses.
- C1.4 Demonstrate the relationship between supply and demand and pricing and production.
- C1.5 Evaluate the importance of economic measurements and the factors used to calculate it.
- C1.6 Explore the impact of cultural and social environments on global trade.
- C2.0 Analyze the development of successful personal entrepreneurial traits.
- C2.1 Define and identify the following entrepreneurial characteristics: adaptability, competitiveness, confidence, discipline, perseverance, vision and risk taking.
- C2.2 Analyze strengths and weaknesses of self in terms of entrepreneurial success.
- C2.3 Deconstruct the reasons for success of key entrepreneurs.
- C2.4 Explore the rationale of why, historically, the United States and California have been leaders in innovation and small-business ventures.
- C3.0 Understand the basic aspects of entrepreneurship.
- C3.1 Know the risk management principles associated with small-business ownership.
- C3.2 Compare the different types of business ownership and the advantages and disadvantages of owning and managing a small business.
- C3.3 Understand differentiation and creating a unique product/service.
- C3.4 Examine current trends that provide both domestic and global opportunities for entrepreneurs.
- C3.5 Identify and analyze ethical and social responsibilities of a successful small business.
- C3.6 Analyze a proposed business situation and its potential market.
- C4.0 Develop creative and innovative thinking skills that apply to entrepreneurship and the products/services created.

- C4.1 Define terms to develop the creative process such as originality, flexibility, brainstorming, modification, associative and metaphorical thinking.
- C4.2 Develop creative thinking in order to stimulate curiosity and promote divergence.
- C4.3 Defend why failure is an opportunity to learn and to understand that creativity and innovation are a long-term and cyclical process of successes and mistakes.
- C4.4 Explore recognized creative-minded individuals and their products and services.
- C4.5 Defend why competitiveness depends on innovation.
- C4.6 Create and design potential innovative twenty-first-century products and services.
- C5.0 Evaluate leadership styles and management functions for the small business.
- C6.0 Demonstrate an understanding of the elements and purpose of business and strategic planning in entrepreneurship.
- C6.1 Identify and explain the components of a business plan.
- C6.2 Define terms necessary for creating a business plan such as return on investment, target markets, and demographics.
- C6.3 Conduct market research by using a variety of methods.
- C6.4 Compare and contrast sample business plans, identifying strengths and weaknesses.
- C6.5 Synthesize all elements into an original business plan.
- C7.0 Identify strategies for business startup and growth.
- C7.1 Identify mission and purpose.
- C7.2 Identify factors for business expansion.
- C7.3 Develop core values.
- C7.4 Develop a vision statement.
- C7.6 Assess barriers to startup.
- C7.7 Create an exit strategy.
- C8.0 Understand financial planning, reports, and projections.
- C8.1 Identify startup costs.
- C8.2 Understand the relationship between supply and demand and pricing and production.
- C8.4 Formulate pricing strategies for goods and services for a small business.
- C8.5 Project annual and monthly business income and expenses.
- C8.6 Calculate financial projection sales, income, expenses, and taxes.
- C8.7 Construct a financial plan.
- C9.0 Understand effective marketing of a small business.
- C9.1 Identify target markets, competition, and customer profiles.
- C9.2 Know the components of a promotional plan (e.g., advertising, public relations, sales promotion) and how the plan is used to achieve a stated outcome.
- C9.3 Identify the selling techniques used to aid customers and clients in making buying decisions.
- C9.4 Understand how products and services are conceived, developed, maintained, and improved.

- C9.5 Use market research to develop strategies for marketing products or services in a small business.
- C9.6 Create an effective marketing plan including current social media, viral marketing, and other technologies.
- C10.0 Identify and evaluate technology used by entrepreneurs.
- C10.2 Explore technology related to global commerce—cultural differences, foreign currencies, and logistics.
- C11.0 Understand the role of human resources in a successful small business.
- C11.1 Identify the role of human resources in selection, training, and evaluation of employees.
- C11.2 Identify government regulations (federal, state, and local) that affect small business.
- C11.3 Recognize various types of taxes that affect a small business.
- C11.4 Understand policies and laws regarding harassment, nondiscrimination, and safety.
- C11.5 Develop job descriptions.

**Instructional Methods and/or Strategies**

- Direct instruction
- Note-taking
- Class discussions
- Guided practice
- Teacher modeling
- Peer modeling
- Peer critiquing
- Cooperative group work
- Homework
- Independent research and work
- Student presentations and peer evaluation
- Instructor Packets
- Computer Programs
- Mini-projects
- Independent Iterative product development, production, and sales

**Assessment Methods and/or Tools**

- Curricular assignments to demonstrate understanding of primary skills and terms in the fields of business, design, and marketing.
- Projects to support individual students' creative ideation
- Peer evaluation to support group consideration of varied ideas and strategies
- Journal writing, periodically on an income expense spreadsheet
- Oral presentations to support students negotiating and selling products
- Quizzes to demonstrate understanding of the skills and tools required
- Midterm and Final Business Report to document all business activities and provide reflection.