

# **B u s i n e s s**

## **Standards:**

### **Applied Learning Standards**

- A1 Problem Solving
- A2 Communication Tools and Techniques
- A3 Information Tools and Techniques
- A4 Learning and Self-Management Tools and Techniques
- A5 Tools and Techniques for Working with Others

### **National Career Development Standards**

- Self-Knowledge
- Educational and Occupational Exploration
- Career Planning

Career Education provides all Middletown High School students with the opportunity to investigate careers and develop the knowledge, skills, and attitudes necessary for them to pursue college programs or to succeed in the workforce.

The National Standards for Business Education, and the Industry and Standards for Technology Education are providing the foundation to redefine the courses we offer.

The content area of all Career Education courses provides a foundation for success for all students no matter what their ultimate goals in life may be. The teachers have developed tasks and standards-based units that include content, applied learning, and other performance standards—English Language Arts, ISTE (Computer Technology), Math, Science, Health, etc. Career-based applications based on standards will help students attain high standards, improve individual achievement, and provide them with a perspective to connect classroom instruction with the world of work.

# Business

Marketing I  
Grades 10 - 12

You and the Law  
Grades 10-12

Entrepreneurship  
Grades 11 - 12

Accounting I  
Grades 10 - 12



Accounting II  
Grades 11-12

### **Entrepreneurship - full year - credits: 1**

Note: We believe that satisfactory completion of Accounting I or Marketing I with a credit grade of “C” or better is an essential foundation for students electing this class.

Students will learn to be job creators, not just job applicants. Students will be introduced to the community and workplaces to see and seize opportunities to either develop a business or pursue a career with an employer.

Students will explore the realities and rewards of small business ownership by:

- ◆ Assessing their personal strengths, abilities, and goals;
- ◆ Analyzing the local community;
- ◆ Identifying business ideas that meet local needs;
- ◆ Researching and writing business plans for a chosen venture; and

Since the classroom is experiential, it is important that the student have prior business education knowledge. Students will learn by undertaking and reflecting upon activities that are essential to the completion of their business plan and the eventual running of their own business. Students will participate in a wide range of group activities designed to build small business skills and knowledge, develop critical thinking and life skills. Middletown, as well as surrounding communities, will serve as the laboratory for the class. Students interested in pursuing business as a career path will be given enrollment preference. (11, 12)

**THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A4: Understanding of Aesthetics

Secondary: A1: Literacy Skills, C2: Personal ethics

### **Marketing I - full year - credits: 1**

Marketing I is the study of marketing and retail careers at the employee level of business. Course topics include: career planning and pre-employment; economics; marketing human resources; selling; advertising and promotion; business distribution; buying and pricing merchandise; and product planning. Job-shadowing opportunities can be arranged. (10, 11, 12)

**THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A4: Understanding of Aesthetics

Secondary: A1: Literacy Skills

### **You and the Law - full year - credits: 1**

This course will survey the nature of the law, judicial procedures, and the possible legal outcomes. Concepts in business, civil, and criminal law will be covered to provide students with a thorough understanding of their individual rights and responsibilities. Guest speakers and field trips will be incorporated where appropriate. Job-shadowing opportunities can be arranged. (10, 11, 12)

**THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary:

Secondary: A1: Literacy Skills, C1: Responsibilities of citizenship, C2: Personal ethics

### **Accounting I - full year - credits: 1**

Accounting I introduces students to basic accounting concepts for single proprietorship and partnership forms of business ownership. Students will learn to use journals, the general ledger, and subsidiary ledgers. Other areas covered are accounts payable, accounts receivable, checking account management, petty cash, and payroll accounting. Students will learn to make end-of-period adjustments and prepare financial statements. In addition, basic concepts of automated accounting will be introduced throughout the course and students will have hands-on experience using accounting software. NBEA Standards, Applied Learning Standards (problem solving and information tools and techniques) and technology standards are addressed. Job-shadowing opportunities can be arranged. (10, 11, 12). Students who complete this course with a “C” or better are eligible to obtain 3 college credits from CCRI.

**THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2: Acquire information – research and problem solving

Secondary: A1: Literacy Skills, C2: Personal ethics

### **Accounting II - full year - credits: 1**

Note: We believe successful completion of Accounting I (A) and (B) is an essential foundation for those electing this course.

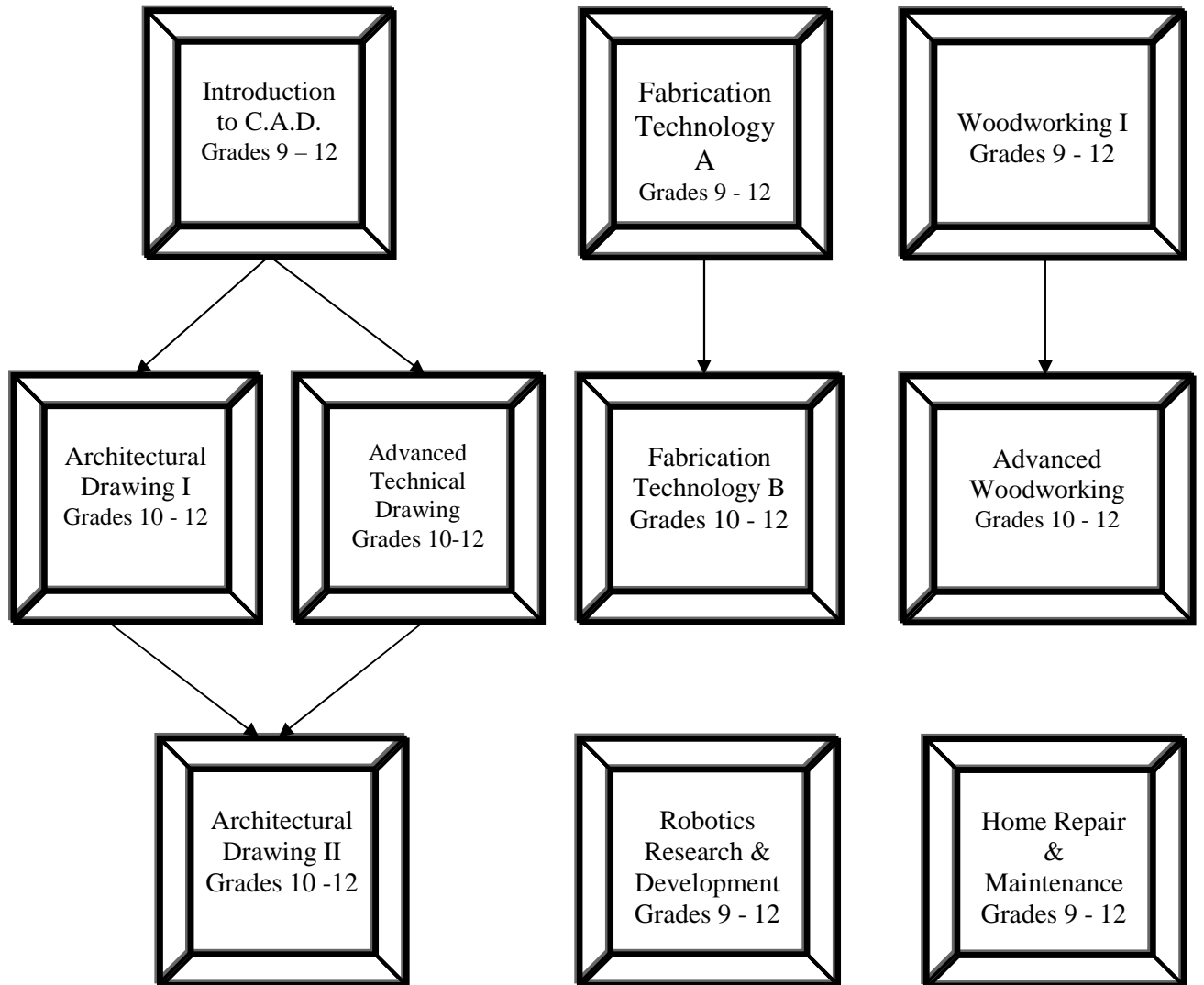
Accounting II introduces students to the basic accounting concepts used in a corporation. Some of the areas covered are: special journals, accounting for plant assets and depreciation, inventory accounting, notes & interest, accrued revenue and expenses, distribution of dividends and end-of-fiscal period accounting for a corporation. Concepts of automated accounting are presented throughout the course as well as the use of accounting software. NBEA Standards, Applied Learning Standards (problem solving and information tools and techniques) and technology standards are addressed in this class. Job-shadowing opportunities can be arranged. (11, 12) Students who complete this course with a C or better are eligible to obtain college credit from CCRI.

**THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2: Acquire information – research and problem solving

Secondary: A1: Literacy Skills, C2: Personal ethics

# Technology



## Technology

### **Fabrication Technology A - half year - credits: .5**

This course introduces students to the processes of metal fabrication. Some of the learning experiences in this course are: reading and drawing basic blueprints, welding, brazing, foundry, and sheet metal. Knowledge acquired may assist with the Capstone requirement in the area of “Designing a Product.”

#### **THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2: Acquire information – research and problem solving , A4: Understanding of Aesthetics

Secondary: A1: Literacy Skills, A3: Technology Literacy, A5: Physical, mental & emotional health, C2: Personal ethics, S1: Demonstrate responsibility

### **Introduction to Computer Aided Design (C.A.D.) - half year - credits: .5**

Learn to design your world. In this course you will use a C.A.D. drawing program. This experience provides a combination of pre-engineering design concepts with a focus on the hands on learning experiences. This course requires students to illustrate a product using the C.A.D. design software. Students will study the Alphabet of Lines, practice reading blueprints and develop a set of working drawings for a project. Knowledge acquired may assist with the Capstone requirement in the area of “Designing a Product.” (9, 10, 11, 12)

#### **THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2: Acquire information – research and problem solving , A4: Understanding of Aesthetics

Secondary: A1: Literacy Skills, A3: Technology Literacy, A5: Physical, mental & emotional health, C2: Personal ethics, S1: Demonstrate responsibility

### **Woodworking I - half year - credits: .5**

Have you ever thought about making something but didn't know how? Well, this might be the course for you. This introductory course in woodworking is designed for students with little or no previous experience in material processing. All students will be encouraged to design and plan a project of their own choosing. With an eye toward conservation and correct material separation and combining techniques, participants will learn wood joinery techniques with an emphasis on safe power tool proficiency.

#### **THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2: Acquire information – research and problem solving, A3: Technology Literature, A4: Understanding of Aesthetics

Secondary: A1: Literacy Skills, A5: Physical, mental & emotional health, C2: Personal ethics, S1: Demonstrate responsibility

### **Robotics Research & Development - half year - credits: .5**

Through the use of the LEGO Mind storm construction system, students will build autonomous mobile robots and program their controllers to perform assigned tasks. The academic emphasis of this class is on problem solving skills. Students will engage in design challenges to learn the basics about the construction of robots and the programming of their behaviors. They will learn about mechanical engineering principles and write programs using the Robolab software package. Students will be introduced to visual programming concepts and design programs containing loops, decision making capabilities, inputs, outputs, and variables.

#### **THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2: Acquire information – research and problem solving

Secondary: A3: Technology Literacy

### **Home Repair and Maintenance – half year – credits .5**

This is an entry-level course designed to provide future homeowners and occupants with an introduction to a safe environmentally responsible living environment. Students will study installation procedures and maintenance techniques used in a variety of residential properties. Topics included will be: alternative energy investigations, light carpentry (framing basics, sheathing coverings, and furniture repair), electrical repair and replacement, plumbing basics, residential hardware, finishing systems (interior and exterior), yard care and lawn maintenance and lawn equipment maintenance.

#### **THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2: Acquire information – research and problem solving, A3: Technology Literacy, C1: Responsibilities of citizenship

Secondary: A1: Literacy Skills, A4: Understanding of Aesthetics, A5: Physical, mental & emotional health, C2: Personal ethics, S1: Demonstrate responsibilities, S2: Demonstrate teamwork skills

### **Fabrication Technology B - full year - credits: 1**

Note: We believe that successful completion of Fabrication Technology A I is an essential foundation for those electing this course. With a “C” or better or permission from the teacher, the course may be repeated for additional credit.

Students gain real world experience by performing repair work and fabrication of metal products to support the needs of such industries as General Dynamics, Automobile repair/salvage, ship fitting, and welding. The Metal Fabrication and Welding program provides student skills such as oxy-acetylene cutting and welding, shielded metal arc welding (stick), gas metal arc welding (mig), and plasma cutting. The program seeks to meet the many needs of our students by stressing creativity, self motivation, and pride in workmanship within a structured curriculum. The program maintains strong relationships with industry and secondary education to stay current with trends in technology and the industry. (10, 11, 12)

#### **THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2: Acquire information – research and problem solving , A4: Understanding of Aesthetics

Secondary: A1: Literacy Skills, A3: Technology Literacy, A5: Physical, mental & emotional health, C2: Personal ethics, S1: Demonstrate responsibility

### **Advanced Woodworking - full year - credits: 1**

Note: We believe that successful completion of Woodworking I is an essential foundation for those electing this course. With the permission of the teacher and/or the department head, the course may be repeated for additional credit.

Applied Learning Standards in action! Students will be allowed to enroll in a course of independent study of woodworking techniques. Students will be expected to master fine woodworking skills - advanced techniques such as dovetail joinery, wood laminating, Formica work, etc. - in accordance with teacher assistance in their selected woodworking medium. The students will assist in demonstrations of machine operations and techniques for those unfamiliar with these processes. Job-shadowing opportunities or internships for juniors and seniors can be arranged (10,11,12)

#### **THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2: Acquire information – research and problem solving, A3: Technology Literature, A4: Understanding of Aesthetics  
Secondary: A1: Literacy Skills, A5: Physical, mental & emotional health, C2: Personal ethics, S1: Demonstrate responsibility

### **Architectural Drawing I - half year - credits: .5**

We believe that success completion of Technical Drawing with a C or better is an essential foundation for those electing this course. This course is designed for a first study in architectural drafting and design. It includes the basic techniques and procedures used in preparing architectural floor plans and structural details. Students will also work with AutoCAD Lt., AutoCAD 13, AutoCAD 14 and RoboCAD 20. Job-shadowing opportunities can be arranged. (10, 11, 12)

#### **THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2: Acquire information – research and problem solving , A4: Understanding of Aesthetics  
Secondary: A1: Literacy Skills, A3: Technology Literacy, A5: Physical, mental & emotional health, C2: Personal ethics, S1: Demonstrate responsibility

### **Computer Aided Design B - full year - credits: 1**

Note: We believe that successful completion of Introduction to Computer Aided Design is an essential foundation for those electing this course. With the permission of the teacher and/or the department head, the course may be repeated for additional credit.

Students learn how engineers and technicians use math, science, and technology in the problem solving process. Students take a leadership role in experimenting with models, using measurement tools such as scales, Vernier calipers, micrometers, and outside and inside Calipers. Student's research design, redesigns, and presents their products. Knowledge acquired may assist with the Capstone requirement in the area of "DESIGNING A PRODUCT."

#### **THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2: Acquire information – research and problem solving , A4: Understanding of Aesthetics  
Secondary: A1: Literacy Skills, A3: Technology Literacy, A5: Physical, mental & emotional health, C2: Personal ethics, S1: Demonstrate responsibility

**Architectural Drawing II - full year - credits: 1**

Note: We believe that successful completion of Architectural Drawing I is an essential foundation for those electing this course. With the permission of the teacher and/or the department head, the course may be repeated for additional credit.

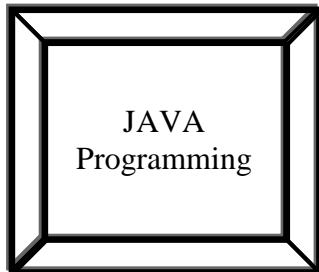
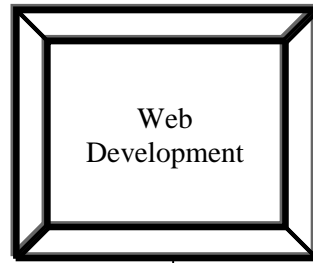
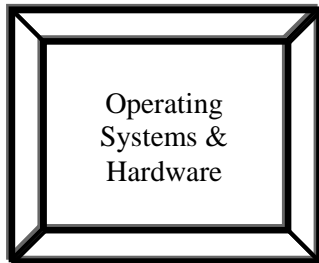
Students in Advanced Architectural Drawing will design a vacation home. This home will have a kitchen, living/dining, bath/laundry, entry hall stairs, covered entry, and exterior deck. They will present their work to other classmates, other teachers and people from the industry.

**THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A2:Acquire information – research and problem solving , A4: Understanding of Aesthetics

Secondary: A1: Literacy Skills, A3: Technology Literacy, A5: Physical, mental & emotional health, C2: Personal ethics, S1: Demonstrate responsibility

# Computer Science



# C o m p u t e r   S c i e n c e

## Standards:

- T1. Basic operations and concepts
  - a. Students demonstrate a sound understanding of the nature and operation of technology systems.
- T2. Social, ethical, and human issues
  - a. Students understand the ethical, cultural, and societal issues related to technology.
  - b. Students practice responsible use of technology systems, information, and software.
  - c. Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.
- T3. Technology productivity tools
  - a. Students use technology tools to enhance learning, increase productivity, and promote creativity.
  - b. Students use productivity tools to collaborate in construction technology-enhanced models, prepare publications, and produce other creative works.
- T4. Technology communications tools
  - a. Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
  - b. Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.
- T5. Technology research tools
  - a. Students use technology to locate, evaluate, and collect information from a variety of sources.
  - b. Students use technology tools to process data and report results.
  - c. Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.
- T6. Technology problem-solving and decision-making tools
  - a. Students use technology resources for solving problems and making informed decisions.
  - b. Students employ technology in the development of strategies for solving problems in the real world.

No one questions the impact of computers on our lives and activities. The computer courses offered provide an opportunity for all students to select an appropriate offering. A hands-on, problem-oriented approach offers the student an opportunity to explore computer applications. All courses are designed to center on in-house equipment at the high school and meet the Middletown requirement for taking a computer course.

### **Web Development - half year - credits: .5**

Students enrolled in this course will be offered the opportunity to learn how to create and maintain a web site. Emphasis will be placed on proper development techniques, on working with a client regarding design and implementation topics, on appropriate use of multimedia applets, and on security and ethical considerations. Various web development tools will be used.

**THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A3: Technology Literacy

Secondary: A1: Literacy skills

### **Advanced Web Development - half year - credits: .5**

Note: We believe that successful completion of Web Development with a “B” or better is an essential foundation for those electing this course. This course may be retaken with Department Head permission.

This course presents the essential topics of DHTML, including working with dynamic layout and content, adding special effects, controlling mouse and keyboard events, and creating new windows and frames. The students will design web pages that may include but are not limited to the following effects: Animated Objects, Customized Style Attributes, Rollovers, Menus and Transitions, Drag-and-Drop Events, Interactive Windows.

**THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A3: Technology Literacy

Secondary: A1: Literacy skills

### **Operating Systems and Hardware - half year - credits: .5**

Note: Students who complete this course with a “C” or better are eligible to obtain college credit through CCRI.

This course will explore microcomputer hardware and operating systems concepts. Students will leave this class with a working knowledge of installing, troubleshooting, repairing, and upgrading microcomputer hardware. Basic networking concepts as well as safety and preventative maintenance techniques will also be addressed. Students will also examine essential operating system applications. A basic knowledge of DOS, Windows 9.X installation, upgrading, and troubleshooting will be demonstrated upon completion of this class.

**THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A3: Technology Literacy

Secondary: A1: Literacy skills, A2: Acquire information – research and problem solving

**JAVA-Introduction to Computer Science half year – credits: .5**

Note: We believe that successful completion of Algebra I with a “B” or better is an essential foundation for those electing this course.

This course is an introduction to computer science where students will be introduced to a survey of programming using Java. The basic concepts and elements of object-oriented programming and design will be explored while emphasizing the development cycle as a means of creating applications. Students will gain experience illustrating well-written programs and documentation according to accepted industry standards. Additionally, the students will be encouraged to work both independently and collaboratively to solve practical problems that illustrate application-building techniques.

**THIS COURSE TARGETS THE FOLLOWING STUDENT LEARNING EXPECTATION**

Primary: A3: Technology Literacy

Secondary: A1: Literacy skills, A2: Acquire information – research and problem solving