
DEPARTMENT OF TECHNOLOGY EDUCATION

Dr. Jack Abramowitz, Assistant Principal - 560-8874

Technology students explore the ever-changing technological world we live in. Through designing, constructing and experimenting with processes, materials and products, students develop their own human potential. Courses are designed for personal development, preparation for further education, and future employment. Unless otherwise indicated, all courses are open to all students as electives or as part of an Occupational Education sequence.

PRINCIPALS OF ELECTRICAL ENGINEERING

Course No. **2421**

Grade Offered: 10-12

(Full-Year) Credit: 1.0

Examination: Class Final

Prerequisite: None

Students who are not taking Technology Arts sequence will find it advisable to have a background in General Science or Algebra before taking this course. General electricity is a valuable aid to pre-engineering students as well as those who choose to plan a technical career in Electricity or Electronics. Areas studied are wiring, testing and measuring, lighting and heating systems, household appliances, magnets, generators, radio and electronic devices.

TV PRODUCTION/MEDIA PRODUCTION

Course No. **2320**

Grade Offered: 10-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: None

Explore the world of narrative and documentary filmmaking. Students are introduced to the basics of movie making including camera operations, lighting, sound capture, and video editing techniques for beginners. Instruction includes both lecture and “hands-on” learning in preparation of students creating their own short video projects. Students use AVID, professional editing software.

TECHNICAL DRAWING

Course No. **2530**

Grade Offered: 9-12

Credit: 1.0

Examination: Class Final

Prerequisite: None

This course provides an introduction to the world of technical drawing and should be taken by those students who are considering careers in fields requiring skills in reading and drawing technical drawings. A majority (75 percent or more) of the student’s class time will be spent working on drawing activities and solving drafting problems. Topics covered in this course include: drafting equipment, lettering, drawing techniques, geometric constructions, basic multi-view drawings, basic isometric drawings and an introduction to computer aided drafting using Auto CAD LT on DELL computers.

CREATIVE WOODWORKING

Course No. **3127**

Grade Offered: 9-12

Credit: 1.0

Examination: Class Final

Prerequisite: None

In this class students will learn how products are made in the industry of wood. Students will become

involved in the making of individual items and then participate in the making of actual useful products, in the production industry, that are used every day in real life. This course also includes experiences in construction involving residential and commercial products. Through activities in manufacturing and construction, useful experience is gained in the proper use of many tools and power equipment with emphasis on safety and the economy with a consideration for minimal environmental disruption. Possible Projects/Areas Explored: Candle Sconces; Wall Shelves; Custom Picture Frames; Clocks; Box Building; Furniture & Cabinet Projects; Individual Projects of Students Choice.

COMPUTER APPLICATIONS

Course No. **3231A**

Grade Offered: 9-12

Credit: 0.5

Examination: Class Final

Prerequisite: None

This is an introductory level course that will enhance students' skills using computer-assisted design. Students will develop their drawing skills in residential planning and computer graphics. Units of study will include: computer aided design, computer graphics and architectural drafting. Taking this course will enhance students' knowledge of careers in the computer and design industry, which include engineering, architectural planning, and web design.

PHOTOGRAPHY 1 (Digital Photography & Adobe Photoshop)

Course No. **2250**

Grade Offered: 10-12

Credit: 0.5

Examination: Class Final

Prerequisite: None

The goal of this course is to provide an opportunity for students to gain an understanding, knowledge and skills in digital photography. Digital photography will permit the students to do their magic in the light, without chemicals! They will be able to correct and modify photographs on the computer screen. It provides a laboratory for synthesizing texture, patterns and special effects that are applied to photographs. Students will be introduced to digital photography and the Apple Macintosh computer; The Adobe Photoshop program will be learned and utilized in real world applications. Digital photography and Adobe Photoshop program are both powerful and absorbing.

PHOTOGRAPHY 2 (Multimedia Production Technology)

Course No. **2270**

Grade Offered: 9-12

Credit: 0.5

Examination: Class Final

Prerequisite: Photography 1

The multimedia business has become a trillion-dollar industry and is dramatically increasing beyond these calculations. This exciting course will help students to evaluate multimedia systems, as well as appreciate the production techniques used in different systems of communications. These systems include audio and video media. The students will use the Apple "iLife" Digital Hub programs to develop and create multimedia productions. This course is only open to students who have received a passing grade in Photography 1.

ROBOTICS

Course No. **2420**

Grade Offered: 10-12

Credit: 0.5

Examination: Class Final

Prerequisite: None

This course is designed to build a multifunctional, programmable robotic machine. Robotics is an area of physics that combines the artificial intelligence of computer science with other systems through

engineering methods to develop robots that develop a variety of functions. Success in robotics requires a creative mind and the ability to apply scientific principles so that intelligent machines can be produced. Each year students will participate in School- Business Partnerships of Long Island, Inc. FIRST Regional Robotics Competition against high school students from other districts. Students have the ability to earn 3 Farmingdale State College credits.

THE WORLD OF MATH, SCIENCE, AND TECHNOLOGY

Course No. **2615**

Grade Offered: 10

Credit: 1.0

Examination: Class Final

Prerequisite: None

Prerequisite: 1 Regents Science credit, 1 Math credit

The World of Math, Science & Technology (MST) is a Technology Education course whereby, students can earn his/her 3rd unit science credit required for graduation. Students will focus on real-world scientific approaches and applications to help analyze and problem-solve human's past, present and future capacities to modify the natural world in the areas of Information/Communication and Bio Technologies. MST-science is designed to leverage students' technological literacy and expose them to a wider array of STEM-career opportunities. The following Digital media tools and resources (DMTR) are expected, provided and utilized to help successfully create project-based learning activities: Laptops; Learning Management Systems (eChalk features); web 2.0 websites; TED.com; and an online eTextbook companion are but a few, DMTR examples to be expected from this 21st century blended learning environment.

LIFE SKILLS TECHNOLOGY

Course No. **4090**

Grade Offered: 9-12

Credit: 1.0

Examination: Class Final

Prerequisite: None

Students will gain knowledge of common tools and machines and how they operate. Students will learn both cognitive and motor skills needed to problem solve and create projects. Students will utilize both the technology lab and computer lab learning a variety of technologies available. Part of the course will focus on educational technologies such as computers, iPads, email, various types of software and more. The other half will focus on motor skills and problem solving.

Alternative Energy

Course No. 2422

Credit 1.0

Prerequisite: None

Alternative Energy is becoming a significant part of our society today. We have come to a point where our natural resources are becoming scarce and far more expensive than ever before. Further awareness and changes are needed as our future in energy is inevitable. This course will be taught by a certified technology teacher. This class is intended to raise awareness throughout the new and future generations of students. This class will discuss, research and promote alternative energy as a viable solution to our world's energy crisis. We will also be discussing why alternative energy is not only a solution but also how it will benefit our atmosphere. Topics that will be discussed include solar, geothermal, wind, oceanic, and tidal methods of energy production. We will be working in the technology and computer laboratories to discuss, research and take a hands on approach to these topics. Before each project students will be given time to research and present on the given topic.

BUSINESS EDUCATION

Dr. Jack Abramowitz, Assistant Principal – (516) 560-8874

21ST CENTURY SKILLS

In today's society, to remain competitive in an increasingly global, knowledge-based economy, today's employers need graduates who are adept at "21st Century Skills". These skills include strong academic skills, thinking, reasoning, communicating, teamwork skills, and proficiency in using technology. We are Going Green! Students can elect to consciously take action to curb harmful effects on the environment through consumer habits, behavior and lifestyle. Business Marketing Education courses are appropriate not only for business majors, but for those students who wish to acquire skills, which will enable them to be eligible for a greater variety of part-time job opportunities. College bound students can gain an insight into the many kinds of careers in the business world as well as acquire skills for their own personal use and transferable skills. Additionally the Business Marketing Department has broadened its horizons to include Career and Technical Education Certification (CTE). CTE is an area of study that includes rigorous academic content closely aligned with career and technical subjects. It provides students with knowledge, skills and behaviors necessary to succeed in a collegiate business program and in a business career. Business and Marketing Education will help students develop skills in finance, information systems, entrepreneurship, marketing, management, and international trade.

CAREER AND FINANCIAL MANAGEMENT

Course No. **3255**

Grade Offered: 9-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: None

This course emphasizes the importance of the business and economic system's evolving role within our society. The course examines the relationship between career planning, life-long goals, and the skills necessary for researching and selecting the appropriate careers. Career and Financial Management examine factors that influence economic decisions relating to financial management while understanding the relevance of fiscal responsibilities.

MICROSOFT OFFICE APPLICATIONS

Course No. **3121**

Grade Offered: 9-12

Credit: 1.0

Examination: Class Final

Prerequisite: None

This new, year long course will continue to include the principals of keyboarding while ensuring that our students are able to utilize aspects of Microsoft Office. By adding this component to the keyboarding course, students will become equipped with the necessary skills to successfully meet the challenges of post-secondary studies and the work world. They will receive hands-on training while learning to utilize the Microsoft Office 2013 software package consisting of Microsoft Word (Word Processing), Microsoft Excel (spreadsheets), Microsoft Access (database), Microsoft Publisher (desktop publishing), and Microsoft PowerPoint (presentations).

ACCOUNTING

Course No. **3020**

Grade Offered: 10-12

Credit: 1.0

Examination: Class Final

Prerequisite: None

This is a course designed to develop occupational competencies in bookkeeping. It is also recommended for students interested in studying accounting after high school. Course content includes the complete accounting cycle but major emphasis is placed on the bookkeeping process through the trial balance. All

students who are following a business course of any kind should include this course in their program. Students have the ability to earn 3 Farmingdale State College credits.

ADVANCED ACCOUNTING

Course No. **3000**

Grade Offered: 11-12

Credit: 1.0

Examination: Class Final

Prerequisite - Accounting

This course is designed primarily for accounting knowledge of bookkeeping procedures. If one is interested in the accounting field as a possible vocational choice, this course is a must. A more intensive study is made of bookkeeping and accounting principles, especially in the partnership and corporation forms of business organization. Practice sets are used extensively to further this study.

COLLEGE PLACEMENT ACCOUNTING

Course No. **3010**

Grade Offered: 12

Credit: 1.0

Examination: Class Final

Prerequisite - Advanced Accounting

Six college credits may be earned upon successfully completing this course by electing to take the State Proficiency examination in June. Many colleges will grant six units of credit on this basis. It is also possible to take this course for high school credit alone. Accounting covers an area from comparatively simple bookkeeping to analysis underlying the highest level of management decisions. Success in this area is a stepping-stone to the top echelons of business management. It leads to careers in accounting, auditing, computer systems, tax work and government positions. The course is designed for seniors who are planning college majors in Accounting, Business Management, Government, Political Science, Economics and related fields.

PERSONAL FINANCIAL LITERACY

Course No. **3081/3082**

Grade Offered: 11, 12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: None

Personal Financial Literacy is a hands-on course designed to teach students how to be on their own financially and appreciate the importance of investing for their future. Students will learn a step-by-step method of approaching smart saving and investing and how to “plan for life” to protect themselves from excess debt and bankruptcy by completing simulations and hands-on lessons. Different money management strategies will be introduced so that students understand that money management may change depending on lifestyle, family circumstances and stage of life teaching young adults to prepare for retirement. Students have the ability to earn 3 Farmingdale State College credits.

SPORTS AND ENTERTAINMENT MARKETING

Course No. **3300**

Grade Offered: 11, 12

Credit: 1.0

Examination: Class Final

Prerequisite: None

This course will help students develop a thorough understanding of the marketing concepts and theories that apply to sports and entertainment events. The areas this course will cover include basic marketing, target marketing and segmentation, sponsorship, event marketing, promotions, sponsorship proposals, and implementation of sports and entertainment marketing plans. This course will also delve into promotion plans, sponsorship proposals, sports and entertainment marketing plans, and event evaluation and management techniques. Students have the ability to earn 3 Farmingdale Credits.

MEDIA AND ENTERTAINMENT LAW

Course No. **3303**

Grade Offered: 9-12

(Half-Year)

Credit: 0.5

Examination: Class Final

Prerequisite: None

Media and Entertainment Law seminars will focus on body of law and legal principles that have developed and evolved in the course of conducting the businesses that are known as branches of the “entertainment industry.” Much of entertainment law falls into two main groups: Litigation and Transaction. The content of the course will cover the law of intellectual property consisting of copyright law, trademark law, trade secrets, libel and slander (defamation), and the right of privacy and publicity in the United States. Additionally, Media and Entertainment Law pertains to business organizations and commercial transactions including the body of law relevant to contracts, partnerships, tax, corporations, securities, labor and international law. Students will have the opportunity to visit the Hofstra Law School, and have guest speakers that may include Entertainment attorneys, publicists, individuals in Media and Television. Additionally, students will view films, videos, and landmark cases related to the topics discussed.

BUSINESS MATH

Course No. **3160**

Grade Offered: 9-12

Credit: 1.0

Examination: Class Final

Prerequisite: None

This course is designed to develop within the student the ability to solve real world problems in order to become productive citizens and workers in a technological society. It will also help students to understand the complex financial world they will encounter during their lives. It is designed to increase skills in arithmetic and introductory algebra. This course should help develop the necessary skills required to solve a wide range of mathematical problems commonly found in everyday business situations. The ability to solve these problems, through knowledge of business operations and the application of problem solving skills, should prepare the student for gainful employment, as well as create a strong foundation for the continuation of a business major in college. It should also better prepare them for their own personal financial management, business operations, and banking and finance for business and personal use. The students who have successfully passed this course may use it to satisfy a math and/or business requirement and counts as an elective credit for graduation.

BUSINESS AND PERSONAL LAW

Course No. **3030 Business Law can be used as the 5th unit of Social Studies for a 5-unit sequence**

Grade Offered: 11, 12

Credit: 1.0

Examination: Class Final

Prerequisite: None

This course provides a solid foundation in understanding legal issues and an important familiarity with the core topics of law integrated within the course. The essence of the course addresses legal topics ranging from the U.S. Constitution to corporate expansion and regulation; coupled with the examination of citizen’s legal rights and obligations relating to such.

BUSINESS OWNERSHIP AND MANAGEMENT

Course No. **3040**

Grade Offered: 11, 12

Credit: 1.0

Examination: Class Final

Prerequisite: None

Business Ownership and Management is designed to provide the students with a background in becoming

an entrepreneur and managing a small business. The skills necessary to start your business such as writing a business plan will be part of this course as well as learning marketing, management and financial skills which relate to the operation of a business. Students have the ability to earn 3 Farmingdale State College credits.

INTERNET/CYBERLAW/E-COMMERCE

Course No. **3130**

Grade Offered: 10-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: None

The Internet is one of history's most revolutionary advances because it impacts virtually every aspect of daily life: communication, information, education, entertainment, and business. This course focuses on various areas of the internet such as the nature of e-tailing, social issues/concerns, cyber bullying, and identity theft as well as e-commerce, e-tailing, careers and security issues, business structures, web-site operations, and marketing strategies. Students discover that Internet and e-commerce is more than just running a business online. In addition, students are introduced to careers available in e-commerce.

MEDICAL TERMINOLOGY

Course No. **3315**

Grade Offered: 11-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: None

This course introduces the student to basic human body structures, presents roots, prefixes, suffixes and other word parts necessary to build a medical term. It introduces the student to a variety of medical terms such as anatomic, pathological, diagnostic, and treatment terms. Students will be able to spell, define, and explain and pronounce medical terms, abbreviations and symbols. Students will also have an opportunity to read various types of medical reports, understand the format of a medical report, and use their medical terminology knowledge in context. For the end-of-the-year project, students research a medical specialty/occupation, create a presentation in MS PowerPoint, and present to their peers the Nature of the Work, Job Outlook, Skill and Educational Requirements, Salary, Work Environment, Course Work, Colleges/Universities, etc.

COLLEGE AND CAREER READINESS

Course No. **3323A**

Grade Offered: 9-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: None

Literacy for College and Career Readiness is a course designed to assist in the preparation associated with persuasive writing, college entry, and entry into the workforce. Business Literacy for College Readiness will provide the student with the opportunity to acquire the skills, concepts, and attitude essentials for understanding and functioning in a college setting and beyond. Students will gain the skills necessary for analyzing college applications and essays, writing professional documents such as personal business letters, creating cover letters, and most importantly creating a professional resume. All of the projects and written assignment must be created and cater to individual needs. Additionally, all work will require students to use the latest versions of Microsoft Office and to have a keen grasp of technology and the Internet

MEDICAL CODING/BILLING/HEALTH INSURANCE

Course No. **3329**

Grade Offered: 11, 12

Credit: 1.0

Examination: Class Final

Prerequisite - Medical Terminology

This course will complete a 3-course sequence in Medical Office Technology which will provide students with entry-level skills, knowledge and attitudes necessary to obtain employment in the field of allied health care/medical information management. CPT and ICD- 9 coding systems will be introduced which will qualify students to work in places like hospitals, insurance companies, doctors' offices, medical billing companies, nursing homes, medical group practices, home health agencies, and clinics.

COOPERATIVE WORK EXPERIENCE PROGRAM/ EARLY RELEASE

Course No. **3170**

Grade Offered: 12 (*Grades 10 and 11 with special approval, must be 16 yrs. of age*)

Credit: 1 to 2

Examination: Class Final

Prerequisite: None

This program offers students the opportunity to gain valuable work experience in office skills and retailing. The student attends school part of the day and is granted early release for the work experience. Weekly seminars are held to assist with the evaluation of students, work experiences, and life goals. From one half to as many as two high school credits may be earned if the student satisfactorily completes a minimum 150 to a maximum 600 hours of paid work experience during the school year, attends weekly seminar sessions, and submits all required reports. This course can be taken 1 or 2 years - up to 2 credits (with required work hours and safety workshop)

CRIMINAL LAW

Course No. **3310/3310A**

Grade Offered: 11, 12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: Business and Personal Law

Criminal Law seminars will focus on the module of the law: Criminal Law that relates to wrongs committed against society, punishable by fines or imprisonment. Criminal Law is designed to prepare students for taking responsibility for their actions, knowing their rights as a minor, and to understand laws effectively and function within the system. The content of the course will cover criminal, civil, juvenile, and family laws in the United States. Students will have the opportunity to visit the Hofstra Law School, and have guest speakers that may include, local attorneys, Corrections Officers, and/or Police Officers. Additionally, students will view films, videos, and landmark cases related to the topics discussed.

FAMILY AND CONSUMER SCIENCE

Dr. Jack Abramowitz, Assistant Principal - 560-8874

The courses in Home Economics Department are designed to provide students with knowledge and skills necessary to make a successful transition from high school into adult life. Students will learn facts that can make their lives a much richer and fulfilling experience. Courses are available to all students whether they want to pick up one elective or form a sequence, whether they are bound for college or headed for the working world. Electives are offered on a full and a half-year basis.

CHILD DEVELOPMENT - PRE-KINDERGARTEN I

Course No. **2680**

Grade Offered: 10-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: Human Development Core

The aim of this course is to focus on child development through the following: Learn how a child develops from conception to five years of age; Recognize the importance of cognitive, social, emotional, physical developmental stages of children; Become aware of available careers working with children; Students that enter Child Development Pre-K I will use the skills they have acquired in Child Development Pre-K II.

CHILD DEVELOPMENT - PRE-KINDERGARTEN II

Course No. **2710**

Grade Offered: 10-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: Child Development - Pre-Kindergarten I or with special permission of Chairperson

This course continues the work started in Child Development Pre-K I by: Focusing on developmental needs of 4 and 5 year olds; Preparing the high school student to work successfully with Pre-Kindergarteners; Utilizing the individual assets of teenagers to conduct appropriate lessons for Pre-School children; Exploring Child Care Employment. 1 credit from C.W. Post College credit may be available.

CULTURE AND FOODS

Course No. **2850**

Grade Offered 11, 12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: Food and Human Nutrition Core

This course is designed to introduce students to various cultures in regards to foods and tradition. Students will identify and prepare high quality foods. Students will gain an understanding of cultural similarities and differences in relation to foods. Students taste their way around the world, preparing classic recipes that will give them a greater appreciation of other cultures. To conclude the course, students work in groups (with independent responsibilities) to research specific cultures and report as well as prepare a dish from that country.

CHILD GROWTH AND DEVELOPMENT

Course No. **2810**

Grade Offered: 12

(Half-Year) Credit: 0.5

Prerequisite: Successful Completion of Child Development Pre-K

This course covers the developing child from age five to twelve. The focus will be on how the child learns in elementary school both academically and socially. Attention is given to special childhood problems, eating disorders, exceptional children and child abuse. The role of the teacher is also discussed. Fieldwork at the Walnut Street Elementary School helps students apply classroom theory.

FOOD AND HUMAN NUTRITION CORECourse No. **2770**

Grade Offered: 9-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: None

This course is required for all Food and Nutrition, Human Development and Home Personal Management sequences. Content of the course includes nutrition awareness, meal management and food purchasing, food preparation, meal service and related career exploration.

FOOD PREPARATION AND NUTRITIONCourse No. **2750**

Grade Offered: 10-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: Food and Human Nutrition Core

This course is designed to help students develop good attitudes towards eating right through the preparation of nutritious foods. The course also provides students with accurate information about a safe, healthy diet needed to have lifelong good health. C.W. Post College credit may be available

GOURMET FOODSCourse No. **2740**

Grade Offered 11-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: Food and Human Nutrition Core or permission of department Director

This course is designed to introduce students to Gourmet Foods. Students will identify and prepare foods that are high quality and require specialized skills. Students identify safety and sanitation procedures for working in a commercial kitchen. Students are afforded the opportunity to develop more of an understanding of food choices, kitchen management, and meal planning.

HUMAN DEVELOPMENT CORECourse No. **2790**

Grade Offered: 10-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisite: None

This course focuses on the adolescent, how he/she relates to others, i.e., peers, young children and adults. This course is recommended for someone interested in the fields of social work, mental health, psychology and education. Ethics and etiquette are introduced and it is designed to polish their skills, improve their professional image and help them to understand that their future success will depend on their respecting and interacting with people.

PARENTINGCourse No. **2830**

Grade Offered: 10-12

(Half-Year) Credit: 0.5

Examination: Class Final

Prerequisites: The Human Development core and the Food and Nutrition core are required for a sequence.

This course is on identifying concepts of responsible childbearing that every young person should know. The potential parent will become aware of the need to begin caring for personal health, practicing informed decisions about personal lifestyle, forming positive ways to meet physical, psychological and emotional needs. The students will develop an awareness of the kind of parent he or she wants to be.

Bake Shop I

Course No: 2741

Credit 0.5

Grade Offered: 11&12

Prerequisite: Food Prep or Food & Human Nutrition

This course will allow students to obtain a more advanced method of baking and prepare them for Bake Shop II culinary studies. Students will gain an in depth understanding of baking techniques. Students will learn how to:

- Demonstrate advanced baking techniques
- Recognize the differences between quick and yeast breads
- Prepare quick and yeast breads
- Learn to work with chocolate
- Integrate math, science and technology core standards

Bake Shop II

Course No: 2742

Credit 0.5

Grade Offered: 11&12

Prerequisite: Bake Shop I

This course will allow students to obtain a more advanced method of baking and prepare them for post high school culinary studies. Students will build on skills learned in Bake Shop I. The focus of this course will be cake decorating and pastries. Students will gain an in depth understanding of advanced baking techniques. Students will learn how to:

- Demonstrate advanced baking techniques
- Prepare cakes
- Learn cake decorating techniques
- Prepare pastries.
- Integrate math, science and technology core standards