

APPLIED TECHNOLOGIES

The purpose of the Applied Technologies Learning Team is to provide students with the fundamental/practical skills and attributes needed for successful, productive, and independent lives. In addition, this department helps prepare students for college study in this area.

BUSINESS AND FINANCE TECHNOLOGY

#700	Accounting I (10-12)	Full Year	1.0
Credit			

Accounting I teaches students the fundamental accounting principles of a proprietorship, partnership, and corporation. This course helps prepare students for entry level accounting or banking positions as well as future high school or college accounting courses. Personal use areas such as banking and credit are also covered as well as introducing students to accounting cycles. Computer applications are introduced and students learn how these applications are applied in work and home settings.

Note: This course may be counted as a Mathematics elective **after** the student has successfully completed the OHS Mathematics graduation requirements.

#701	Accounting II (11-12)	Full Year	1.0
Credit			

Prerequisite: Accounting I

This course focuses on advanced accounting systems and procedures that are applied to accounting records kept for profit-oriented businesses organized as publicly held corporations. Advance concepts in merchandising corporations are featured. Students will use manual and computer methods to maintain corporate accounting records and to experience the types of on-the-job activities that are required in advanced accounting careers. Successful completion of this course will eventually lead to students having the ability to earn 3 college credits from Naugatuck Valley Community College. Please note that there will be a required course average in order to receive these college credits.

Note: This course may be counted as a Mathematics elective **after** the student has successfully completed the OHS Mathematics graduation requirements.

#723	Advanced Information Systems (9-12)	One Semester	.5
Credit			

Prerequisite: Communicating with Text

Computer applications are an integral part of everyday life. The most common of these – spreadsheet, presentation software, and word processing – are presented through business-oriented, problem-solving activities. Microsoft Office will be used in a computer laboratory to provide experiences common to many environments – on-the job, in school, and at home.

#743 Career Exploration (9-12) Credit	One Semester	.5
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The profound business and economic changes now underway in the United States and other industrial countries are radically altering the world of work, greatly increasing the need to incorporate career exploration and development in the education of today's high school student . The Career Exploration course is designed to prepare our students for these changes and challenges. A major goal of this course is for students to examine their talents, aptitudes and interests and begin to identify careers which would be suitable for them. Students will be exposed to various guest speakers in order to become aware of the many different careers and opportunities available to them. Students will be required to prepare to do mock job interviews, prepare resumes, cover letters and follow-up letters.

#721 Communicating with Text I (9-12) Credit	One Semester	.5
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The ability to process information utilizing the "touch system" of keyboard entry is an essential skill needed by all students bound for college or employment. Students gain mastery in the correct approach for keyboarding on computers. Students will also create, produce, and compose a variety of documents using Microsoft Word. This course stresses building an understanding of the differences between formal (letters, memos, reports) and informal (email, instant messaging, blogging, etc) methods of text communication and builds practical skills in both.

#724 Communicating with Text II (9-12) Credit	One Semester	.5
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Prerequisite: Communicating with Text I

This course is designed to refine text input skills and to further expand the student's knowledge of Microsoft Office. Students will be exposed to advanced features found in tables and columns; styles, templates, and AutoText; merging and sorting; graphing and special effects. Students will have an intensive review of reports using the Modern Language Association (MLA) style of report writing. Exposure to a variety of business documents and desktop publishing will complete this course.

#725 Communications English (11-12) Credit	One Semester	.5
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Students electing the Communications English course will learn to think critically and communicate clearly and appropriately. The course will address the five modes of language: reading, writing, listening, speaking, and viewing. Writing assignments will introduce a number of motives for writing: to explore an idea, to report information, to interpret, to evaluate, to amuse, and to persuade. Through viewing, reading, and writing, students will develop

techniques for discovering their purpose in writing, finding a topic, planning and outlining, drafting and revising. Students in the course will also spend a great deal of time learning about effective oral communication and developing/delivering effective oral presentations. These will include speech preparation, developing support material, creating visual aids, conducting research, organizing, deliver, use of voice and audience.

Note: This course may be counted as an English elective **after** the student has successfully completed the OHS English graduation requirements.

#726 Contemporary Business Law (11-12) Credit	One Semester	.5
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The one-semester course is designed to give students an introduction to the world of law. Topics to be covered include: criminal and civil law; the state and federal court structure; the nature of contracts; employment laws; and laws that meet the changing needs of society. Its purpose is to make students aware of legal principles that affect their everyday life.

Note: This course may be counted as a Social Studies elective **after** the student has successfully completed the OHS Social Studies graduation requirements.

#702 Economics (11-12) Credit	One Semester	.5
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Students in this Economics course are exposed to the basic principles of economics as they relate to the United States economy as well as global economic systems. Other topic areas include: macro and micro economics, taxation, money and banking. Students will have the opportunity, in conjunction with Junior Achievement, A Company Program, to create and simulate their own business.

Note: This course may be counted as a Social Studies elective **after** the student has successfully completed the OHS Social Studies graduation requirements.

#727 Entrepreneurship and E-Commerce (9-12) Credit	One Semester	.5
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The Entrepreneurship & E-Commerce course is designed to introduce students to the world of E-Commerce and develop student academic, creative thinking and problem solving skills through the completion of a comprehensive E-Commerce business project. Students and teacher will utilize the leading Open Source e-commerce solution to setup, develop and maintain a fully functioning on-line store. As part of their coursework, students and teacher will participate in on-line technical seminars and virtual conferences facilitated by content experts, high school teachers and technology professionals.

#703 International Business (11-12) Credit	One Semester	.5
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In today's global village, international business has become a fundamental body of knowledge in the study of business. Countries do not function in an economic vacuum; rather, a nation's industries, technology, trade, ecology, standard of living, customs, and all other facets of its economy are dependent on other countries' economic policies. No nation's citizens can function effectively today without developing an understanding of the interrelatedness of one country's political policies and economic practices to another. Students will be required to read and evaluate current periodicals for class relevant events and stories.

#795 Introduction to Business (9-12)	One Semester	.5
Credit		

This course is designed as a survey course that provides a basic understanding of the role of business within our social and economic system. This course is designed to acquaint students with basic economic functions, small business operation and entrepreneurship; the functions of management; production operations; personnel, marketing, and accounting overviews; finance and investments; and international business. Students will be aware of the importance of business in our economy, the value and qualities of well-trained management, and be better prepared to be successful participants in the business world.

#728 Personal Financial Decisions (11-12)	One Semester	.5
Credit		

The one-semester course is offered during the junior and senior year covering such topics as: checking accounts; payroll deductions; income taxes; purchasing and maintaining a car; life, health and homeowners insurance; credit and credit cards; savings and investments; and inflation and recession, which the students would be encountering in his or her daily life at the present time or in the near future.

Note: This course may be counted as a Mathematics elective **after** the student has successfully completed the OHS Mathematics graduation requirements.

#704 Principles of Marketing (11-12)	One Semester	.5
Credit		

Basic marketing concepts such as price, product, promotion, place and packaging are studied. Topics will include marketing strategy, new products and channels of distribution. Economic concepts as they affect the consumer's buying decision process and the development of the total marketing mix will be studied. Students will gain sales and marketing experience in the school store. Both instructional classroom and practical lab (store) time is required.

#744 Work Experience (11-12)	Full Year	1.0
Credit		

Prerequisite: Career Explorations

This program is open to those students who have completed the Career Exploration course. Here, students will apply their skills and knowledge developed through their academic preparation at OHS and the classroom component of Career Exploration. Credit is awarded

based on supervised work experience, attendance at mandatory meetings, and satisfactory job performance. A minimum work week of 10 hours on the job is required as well as student eligibility under relevant labor law. Students are responsible for securing their own job.

#745	Teen Leadership (9-12)	One Semester	.5
Credit			

Teen Leadership is a program in which students develop leadership, professional, and business skills. They learn to develop a healthy self-concept, healthy relationships, and learn to understand the concept of personal responsibility. They will develop an understanding of Emotional Intelligence and the skills it measures, which include self-awareness, self-control, self-motivation, and social skills. Students will develop skills in public speaking and communication and an understanding of personal image. Additionally, they will develop an understanding of the concept of principle-based decision-making, an understanding of the effects of peer pressure, an understanding of the principles of parenting, enabling them to become better family members and citizens. They will also develop an understanding of the need for vision in goal-setting, both personally and professionally.

#	Independent Study (12E)	Full Year	1.0
Credit			

#	On-line Learning Proposal	Full Year	1.0
Credit			

FAMILY & CONSUMER SCIENCES

#821 Bake Shop I (9-12) Credit	One Semester	.5
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Bake Shop 1 is designed as an introduction to baking. Instruction in safety, sanitation and personal hygiene as it relates to baking production will be emphasized. Students interested in learning the basic skills of baking and experimenting with the preparation of baked products are recommended for this course. This course enables students to apply basic terminology, measuring, work methods and kitchen management to the preparation of various baked products. In addition, students will gain knowledge and use of scientific principles as we experiment with a wide range of baking techniques. Baking will also introduce unusual and creative ways of shaping, decorating and serving food, as well as familiar basic skills used in a busy family setting. Students will be responsible for cleaning their own baking tools and equipment. Community service is also an integral part of the Bake Shop class. On a monthly basis we will prepare lunch for the Spooner House and also take part in after school community service activities, on a volunteer basis.

#822 Bake Shop II (10-12) Credit	One Semester	.5
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Students will review safety, sanitation and personal hygiene concepts as well as measuring techniques. Students interested in learning advanced baking skills and plating techniques are recommended for this course. Bake Shop 11 will introduce pastry skills, cake decorating, custards such as flan and crème brulee, yeast breads, and advanced methods and procedures required for commercial baking. Students will be responsible for cleaning their own baking tools and equipment. Community service is also an integral part of the bake shop class. On a monthly basis we will prepare lunch for Spooner House and also take part in volunteer after school community service activities.

#813 Culinary Arts I (9-12) Credit	One Semester	.5
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This course is recommended for students who want to learn the principles of food preparation and will apply them in real life circumstances. Students will learn basic meal planning methods as they apply to class projects and laboratory experiences. Upon completion of this course, students will be introduced to recipe use, weights and measurements, conversions, safety and sanitation, organizing for efficiency, lab procedures, basic knife skills, and cooking techniques, such as steaming, broiling, searing, poaching, pan frying, sauté, braising and roasting. Students are responsible for cleaning their own cooking tools and equipment. Students will be expected to take part in community service activities during class. We also offer after school community service activities on a volunteer basis.

#814 Culinary Arts II (10-12) Credit	One Semester	.5
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Prerequisite: Culinary Arts I

Building on the basic skills learned in Culinary Arts, students in this course will focus on advanced food preparation skills, knife skills, plating and the use and preparation of the *Five Mother Sauces; Béchamel, Veloute, Brown (also known as Brown sauce), Hollandaise and Tomato*. Students will prepare a menu and execute a monthly meal for the faculty as well. Students will also enjoy demonstrations from visiting chefs and field trips. A food tasting, prepared by the students at the end of the semester will highlight what they have learned. Students are responsible for the sanitation of the Culinary Arts lab and will take be expected to participate in community service activities.

#815 Food Production Industry and Entrepreneurship (10-12) Credit	One Semester	.5
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Prerequisite: Culinary Arts II

This course will focus on various employment opportunities in the food industry. We will explore careers in restaurants, catering, entrepreneurship opportunities, food styling, food critique, food writing and more. Visiting professionals in the industry will provide knowledge and insight into the food industry. Students will rotate restaurant jobs twice a month, during our restaurant class..."*The Experience Café*." Students will have the opportunity to job shadow professionals as part of the course. An interview with the teacher is required for enrollment in this course.

#823 Cultures and Cuisines (9-12) Credit	One Semester	.5
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This course allows students to study the global food pattern from a cultural point of view; explore various spices, flavors and holidays of selected U.S. Regions and world countries. Students will examine food and food customs of other cultures in relation to his/her own and apply various food preparation techniques which are unique to specific regions and countries. Food practices and habits of various regions and countries are compared and contrasted. Students are responsible for the sanitation of cooking tools and equipment utilized during the cooking process. Community service will also be integrated into classroom food preparation.

#812 Food for Fitness and Health (9-12) Credit	One Semester	.5
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The course will help students understand the connections between what we eat and how it impacts our health and the way we live. Areas of study will include basic nutrition, the scientific evaluation of food and the energy it provides, the digestive system, weight control and management, metabolism, diets for various populations and the impacts and health implications of supplements and other dietary choices.

#885 EMT Certification (10-12) Parent Permission Only Credit	One Semester	.5
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Emergency procedures are taught as prescribed for the EMT-1 state certification and includes basic life support and pre-hospital care under emergency conditions. Training consists of classroom instruction, skill demonstration, ambulance ride along and supervised clinical experience in an emergency room. Only students successfully completing CPR certification in the first eight (8) hours of class will be permitted to continue EMT training. A minimum of 85% attendance for all class sessions must be maintained for certification eligibility. After successful completion of training, students are eligible to test for EMT - certification through Connecticut licensure processes. A student must be 16 years of age to be earn their certification.

#852 Individual & Family Development (HDFS190) Credit	Full Year	1.0
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To take this class, students must have a 90 average or above and recommendation of School Counselor and interest in the fields of Education, Allied Health or Family Studies. The purpose of this course is to offer students the opportunity to earn college credit in high school and to prepare for the 21st century careers in Education, Nursing, and Family Studies. This course is part of the UCONN Early College Experience with dual enrollment. This course is designed as an introduction to the field of Human Development and Family Studies. Students will be provided with an understanding of individual and family development over the individual's lifespan. Specifically, focus on the individual within the family system and changes that occur in the family system will be discussed. This course may be taken solely for Oxford credit or eventually in conjunction with 3 college credits and an official UCONN transcript. In addition, a 40-hour internship component must be fulfilled.

#850 Child Development & Family Dynamics (9-12) Credit	One Semester	.5
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This course is an interdisciplinary course that provides an overview of the basic processes of child development and family studies. The purpose of these experiences is to provide knowledge that is useful for the health and well-being of individuals and families. Students will

understand the impact of choices made throughout the childhood development process and the various opportunities for help and support throughout our society.

#851	The Preschooler (9-12)	One Semester	.5
Credit			

Prerequisite: Child Development & Family Dynamics

The Preschooler is a comprehensive study of the physical, emotional, social and intellectual growth and development of the child from 3 to 5 years of age. Through a better understanding of children, the young adults will better understand themselves and be more prepared for parenthood or teaching. Included, as part of the course content, is an opportunity to interact with preschool aged children on various occasions throughout the semester. The opportunity will include the planning, implementation, and evaluation of preschool programming for 3 and 4-year old children.

#840	Clothing Construction and Design (10-12)	One Semester	.5
Credit			

This course is designed for students interested in clothing, fabric, fashion, and clothing construction. The class will prepare students to make intelligent, informed decisions when buying and caring for clothes. In addition, this course will explore basic sewing construction skills and career options. A tentative culminating activity for this class will be a field trip to the fashion district in New York City.

#841	Advanced Clothing Construction and Design (10-12)	One Semester	.5
Credit			

Prerequisite: Clothing Construction and Design

Building on basic skills learned in Clothing Construction and Design, students will explore more advanced construction skills, make garments to wear, explore Fashion Merchandising career options and culminate with a student organized Fashion Show featuring garments students constructed in addition to clothes from local retail stores. Models will be Oxford High School students.

#	Independent Study (12E)	Full Year	1.0
Credit			

#	On-line Learning Proposal	Full Year	1.0
Credit			

TECHNOLOGY EDUCATION

#761 Architectural Drafting and Design (9-12) Credit	One Semester	.5
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Prerequisite: Introduction to Drafting and Design

This course is designed for students who have completed (and enjoyed) Introduction to Drafting and Design. The purpose of this course is to draft a complete set of house plans with a parallel research paper which details the rationale behind all of the considered major design elements.

#754 Computer Construction and Repair (9-12) Credit	One Semester	.5
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This is a technically demanding course for students who are interested in learning how to design, build, and repair PCs. The purpose of the course is to help learners diagnose and repair common computer problems, swapping parts, complex software/hardware installations, and even build their own machines from scratch. There may be opportunities for entrepreneurship as well. This course is a prerequisite for the Technology Team.

#773 Construction Systems (9-12) Credit	One Semester	.5
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Construction Systems will focus on the study of various structures such as buildings, bridges, towers, dams, and roadways. Students will examine the forces and stresses involved in the construction of safe and efficient structures. Students will design and build models of truss bridges and towers and then destructively test them in order to determine their strength. Also, students will build wooden models of residential homes. This course will allow students to become aware of standard construction practices for wood framed homes. Human, economic and environmental impacts will also be studied in regard to construction.

#774 Advanced Construction Systems (9-12) Credit	One Semester	.5
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Prerequisite: Construction Systems

This course builds on and extends the learning that students began in Construction Systems. This course will allow students to extend their understanding of standard construction practices for wood framed homes. Human, economic and environmental impacts will also be studied in regard to residential construction.

#776 Digital Electronics I (9-12) Credit	One Semester	.5
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Digital Electronics I introduces the student to the fundamentals of AC and DC electronics circuit theory. This course provides the student with the opportunity to learn about circuit analysis, soldering, circuit models and electronics theory. Students will learn how individual electronic components work and function in working circuits. Students will use discrete components on a solder-less circuit board to construct working circuits such as burglar alarms, audio generators, lighting circuits and various game circuits. Computer assisted projects and bench-work projects

are integrated into the laboratory and lecture topics. Computer simulations and measuring instruments are used to test circuits. Students will be using electronic kits and software to build and test circuits on the bench and computer. Students will also become aware of the electronics field and what it has to offer.

#778 Digital Electronics II (9-12) Credit	One Semester	.5
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Prerequisite: Digital Electronics I

Digital Electronics II picks up where Digital Electronics I left off. Advanced fundamentals of AC and DC electronic circuit theory will be studied. This course focuses primarily on digital theory and the use of Integrated circuits. Also, this course provides the student with an understanding of advanced computer electronics, advanced methods of analyzing circuits, and use of advanced circuit models to solve electrical problems. Students will fabricate advanced digital circuits using microchips. The laboratory portion of the class will include advanced experiments, computer simulated circuitry, advanced measuring instruments, and electronic bench-work. Computer assisted projects and bench-work are integrated into the laboratory and lecture topics. Students will be using digital electronic kits and software to build and test digital circuits on the bench and computer. What the electronics field has to offer will be revisited.

#796 Introduction to Drafting and Design(9-12) Credit	One Semester	.5
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This course is the study of basic mechanical and computer aided drafting techniques. The student will study how to communicate ideas conventionally on drafting tables as well as on the computer using CAD software. Students will create two-dimensional, three view, and isometrics drawings, as well as 3D computer models. Students will utilize these technical drawings to create projects and models. Students will also become aware of the design field and what it has to offer.

#751 Engineering Design I (9-12) Credit	One Semester	.5
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Prerequisite: Introduction to Drafting and Design

This is a fundamental understanding course that is strongly recommended for every student that is considering other technology education courses or those considering a career in engineering, architecture, or related field. Students will learn and practice basic drafting skills and will explore single view drawings, orthographic projections, isometric drawings, dimensioning and solid modeling. Students will use these skills to design, create working drawings, and build prototypes of products.

#752 Engineering Design II (9-12) Credit	One Semester	.5
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Prerequisite: Engineering Design I

This course builds on the foundations begun in Engineering Design I. Students will deepen their learning and practice refining their designing skills while exploring single view drawings, orthographic projections, isometric drawings, dimensioning and solid modeling. Students will create working drawings and prototypes of self-designed consumer products.

#732 Introduction to Transportation (9-12) Credit	One Semester	.5
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Introduction to Transportation will focus on the study of how we move people, goods and materials. Students will design and build models of terrestrial (land), marine (water), and atmospheric (air), and aerospace (space) transportation vehicles. These models include gliders, roller coasters, wind and solar powered boats, mousetrap vehicles, impact cars, and tethered vehicles. Human, economic and environmental impacts including alternative fuel sources will be studied in regard to transportation.

#733 Advanced Transportation (9-12) Credit	One Semester	.5
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Prerequisite: Introduction to Transportation

This course builds on and extends the learning that students begin in Introduction to Transportation. Students will refine, design and build models of terrestrial (land), marine (water), and atmospheric (air), and aerospace (space) transportation vehicles. These models include rat trap cars, electric vehicles, full size boats, and model rockets. Human, economic and environmental impacts including alternative fuel sources will be studied in regard to transportation.

#772 Video & Television Production (9-12) Credit	One Semester	.5
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This is an introductory course in skills and techniques of operating television equipment and producing broadcast programs for viewing within and beyond Oxford High School. Students with an interest in TV production will gain a working experience in various technical and artistic aspects of the television medium. Through practical production experiences, students will acquire an understanding of TV as a communication, artistic, and vocational medium. Students should be prepared not only to perform on technical aspects behind camera, but filmed on camera and broadcasted within the school, state, or nationwide.

#771 Web Page Design (9-12) Credit	One Semester	.5
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This course is designed for those who are interested in all aspects of web page development and hosting. It provides a broad exploration of the questions and issues surrounding technical choice: from the performance of the client-server architecture of the World Wide Web, to the various technical standards and recommendations for the creation and distribution of information. The course also covers issues related to usability and accessibility, navigation, site structure, and information architecture. By the end of the course, you should be a confident user of HTML and be able to design and create your own page or a page for others.

#	Independent Study (12E)	Full Year	1.0
Credit			

#	On-line Learning Proposal	Full Year	1.0
Credit			

