

Willowbrook High School



# **CAREER & TECHNICAL EDUCATION DEPARTMENT**

BUSINESS EDUCATION  
FAMILY & CONSUMER SCIENCES  
INDUSTRY & TECHNOLOGY

**2026 - 2027**

**CTE IS THE  
PLACE TO BE**



# Career & Technical Education Department Dual Credit Classes with College of DuPage

Career and Technical Education Courses prepare students for a future in today's world of work, college and career skills. **TWENTY-TWO** courses currently available to all students at Willowbrook High School in CTE are offered as dual credit - transferable courses – from College of DuPage at NO COST to WBHS students. These classes transfer as elective or department credit to any college/university who accepts credit from College of DuPage.

Currently 61 college credits are available to each WBHS/CTE Student; Average savings is \$500 per course above. Students who successfully complete more than **15** college credits may register as a second semester freshman at College.



# DUAL CREDIT COURSES

<u>WBHS CTE COURSE</u>	<u>CREDITS</u>	<u>COD</u> <u>COURSE CODE</u>
-Accounting 2 Honors	3	ACCOU 1110
-Business Explorations	3	BUSIN 1111
-Entrepreneurship	3	BUSIN 1161
-College & Career Technology	3	OFTI 1200/ IAI BUS 902
-Public Speaking and Communications Technology	3	OFTI 1250
-Keyboarding	3	OFTI 1100
-Introduction to Business	3	MANAG 1100
-Marketing Sports & Entertainment	3	MARKE 1100
-Culinary Arts 3	1	CULN 1120
-Culinary Arts 4	2	CULN 1108
-Fitness & Nutrition	1	CULN 1109
-Education Teacher Prep 1	3	EDUC 1100
-Education Teacher Prep 2	3	EDUC 1101
-Architecture Drafting & Design 2	3	ARCH 1211
-Automotive Technology 1	3	AUTO 1040
-Automotive Technology 2	3	AUTO 1110
-Computer Repair 1	2	CIT 1100
-Computer Repair 2	3	CIT 1111
-Photography Foundations	3	PHOTO 1100
-Photography Digital Fundamentals	3	PHOTO 1101
-Photography Film Foundations	3	PHOTO 1102

**All CTE Dual Credit courses are Honors.**

# Career & Technical Education Department Certificates

## WBHS Class

## Certification

Culinary 1:	Servsafe Food Handler
Culinary 2:	Servsafe Allergen
Culinary 3:	Food Safety & Sanitation Managerial
Human Growth:	Shaken Baby Syndrome Sudden Infant Death Syndrome Prevention
Preschool 1:	Gateway ECE Level 1 Mandated Reporting Poison Prevention Education Lead in the Water Trauma-Informed Practice for Child Care Providers
Preschool 2:	Special Care Inclusion Training
Preschool Intern:	Infant, Child & Adult CPR First Aid, AED

# Career & Technical Education Department

## Certificates

### WBHS Class

### Certification

Auto 1, 2, 3, 4, 5:	Electude Safety & Environment SNAP-ON Battery Starting Charging
Auto 3:	ASE: Engine Performance ASE: Maintenance & Light Repair ASE: Automatic Transmission ASE: Electrical ASE: Manual Drive Train EPA 609
Auto 4 & 5:	ASE: Automobile Service Technology ASE: Electrical/Electronic Systems ASE: Suspension & Steering
Computer Repair:	Computer TIA Certification
Woods 2:	Woodworkers Career Alliance
Math in Construction:	OSHA -10 Construction
CTE Apprenticeship:	OSHA-10 Certification

# CTE – Business Education

## **Accounting 1** (Full-Year Course)

This course is highly recommended for students who plan to study any field of business in college. The study of accounting emphasizes the accounting principles and concepts necessary to process financial data. Students acquire the background essential for a solid foundation for the further study of accounting as well as work in a wide range of accounting, clerical, and data processing jobs or any other business field. Computerized accounting software and spreadsheets are integrated into the curriculum.

(Option of Honors Credit)

Prerequisite: None

Grades: 10, 11, 12

\*Recommended Public Speaking & Communications Technology



## **Accounting 2 - Dual Credit Honors** (Full-Year Course)

This course is highly recommended for students who plan to study any field of business in college. This is an introductory college accounting course. It includes departmentalized accounting, cost accounting, accruals, deferrals, controlling financial resources, and accounting for partnerships and corporations. Computerized accounting software and spreadsheets are integrated.

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: Accounting 1

Grades: 11, 12

\*Recommended Public Speaking & Communications Technology

### **Business Explorations - Dual Credit Honors** (One Semester)

This course will provide students with basic career management tools required in today's workforce, which includes how to design an impressive resume and cover letter. The class is designed to prepare students to successfully enter today's rapidly changing job market and develop skills to ensure lifelong career success, including the application and interview process as well as communications and technology. Students will examine a variety of employment opportunities in the business world that range from professional careers to those involving technical and service-based training. Areas of study include verbal and nonverbal communications as they relate to customer service and methods for responding to a variety of customers and business relations, marketing, management, and law.

(Option of Honors Credit)

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: None

Grades: All

### **Business Law** (One Semester)

This course informs the student about everyday law; students also participate in lively debates as well as a real world mock trial. The course discusses one's legal rights and benefits as well as one's legal duties, obligations, and liabilities. Topics covered in business law include criminal law, civil law, juvenile law, contracts, wills, estates, and a variety of current legal issues that arise in today's society. Students have the opportunity to attend field trips through this class: to College of DuPage Criminal Justice Facility and the DuPage County Courthouse, as well as wonderful guest speakers and job shadow experiences!

(Option of Honors Credit)

Prerequisite: None

Grades: 10, 11, 12

## **College & Career Technology - Dual Credit Honors** (One Semester)

Don't be left out when it comes to learning transferrable, lifelong skills in the Microsoft Office Suite! This Introductory course in Microsoft 365 utilizes the basic functions of file management, operating system, browser, word processing, spreadsheet, electronic presentation, and database software. (Microsoft Word, Excel, PowerPoint, and Access) While it is designed for the office professional or individuals wishing to learn and/or upgrade Microsoft skills, you will also learn how to integrate them together, transfer this knowledge to other software, and have skills for college and the world of work that will be invaluable to you for your entire life! **NEW 2026 - THIS CLASS TRANSFERS DIRECTLY AS IAI BUS 902**

(Option of Honors credit)

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS CTE Certified Instructor.*

Prerequisite: None



Grades: All

## **Consumer Management** (One Semester) (Online Also Available\*)

This course focuses on specific consumer problems that students will encounter now and as an adult. This subject relates to everyday living and helps prepare individuals for making wise purchasing decisions. Topics include: budgeting, savings/checking accounts, investments, comparison-shopping, using credit wisely, tax preparation, insurance, advertising practices, labor relations, and various consumer protection laws. This course meets the consumer education graduation requirement.

Sheltered Also Available

\*Online consumer meets the requirements for Personal Management Boy Scout Merit Badge.

Prerequisite: None

Grades: 10, 11, 12

### **Entrepreneurship - Dual Credit Honors** (One Semester)

Managers play an important role in the success of a business. This course prepares students with the skills managers need to make a positive impact on implementing change in the workplace. Topics include interviewing skills, communication skills, training programs, characteristics of good leadership, how to evaluate employees, motivational strategies, writing job descriptions, and knowledge of labor unions. The course explores new and popular trends in business management.

(Option of Honors Credit)

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: None

Grades: 10, 11, 12

### **Introduction to Business - Dual Credit Honors** (Full-Year Course)

This course presents the everyday business activities that the student will experience in his or her own personal life. It is a general orientation course in the business field, including such topics for exploration as business careers, money management, investing, banking services, consumerism, and types of insurance. The course contributes to a better understanding of American business and where we as consumers and business persons will fit into this social and economic environment. This course meets the consumer education graduation requirement. Highly recommended for those who wish to pursue a career in the business field.

(Option of Honors Credit)

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: None

Grades: All

### **Public Speaking & Communications / Technology - Dual Credit Honors**

(One Semester)

This course is a one-semester integrated English and Business Education course designed to teach students the basic elements of oral communication in combination with current presentation technology. Students will perform several different types of speeches utilizing presentation software. This course meets an English graduation requirement. (Option of Honors Credit)

*Dual credit is available through the College of DuPage for all grades while taking the class at WBHS with a WBHS instructor.*

Prerequisite: None

Grades: 10, 11, 12

### **Keyboarding/ Word Processing 1 - Dual Credit Honors (One Semester)**

This semester course is strongly recommended for college-bound students as well as those students interested in entering the workforce. The objective of this course is to develop the skills necessary to accurately keyboard and word process reports, letters, outlines, and a variety of materials that the individual may have occasion to use. This course develops the skills necessary to key and format material for personal, professional and school use quickly and accurately, as well as increasing speed and accuracy for online testing programs - including PARCC/SAT/ACT testing, college entrance exams, and online college courses.

(Option of Honors Credit)

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: None

Grades: All

### **Marketing – Sports and Entertainment Focus - Dual Credit Honors (One Semester)**

The student will study the four P's of marketing—product, price, promotion, distribution and how they relate to sales, advertising, and the production of goods and services in a sports/entertainment environment. Sales, promotion, consumer behavior, interviewing, and market research are broken down to show how these areas benefit the business world and the consumer. Students will practice their marketing skills by utilizing role playing and engaging in realistic business activities that occur in the sports and entertainment industries. Students have the opportunity to attend a field trip to the Kane County Cougars event or Chicago Wolves marketing event.

(Option of Honors Credit)

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: None

Grades: 10, 11, 12

# CTE – Family and Consumer Sciences

## **Culinary Arts 1** (One Semester)

This course combines both a classroom setting and a laboratory experience. The course focuses on kitchen safety and sanitation, recipe selection and reading, food assembly techniques, and the nutritional value of basic recipes. This course is designed for both everyday cooking and those aspiring to work in the food service industry.

\*Food Handler Certification

Prerequisite: None

Grades: All

## **Culinary Arts 2** (One Semester)

This class expands upon the knowledge and culinary skills obtained in Culinary Arts 1. Students will be reading and preparing more complex recipes involving the use of more difficult preparation techniques. Students will also be introduced to careers within the food service industry.

\*Allergen Certification

Prerequisite: Culinary Arts 1

Grades: All

## **Culinary Arts 3 - Dual Credit Honors**

(Full-Year Course; One or Two Period Block)

Students will learn how to operate a small catering business located at our high school. Course content will include food preparation including plating and garnishing, serving food on occasion, and addressing the cleanup activities that follow. Students gain real life experience (and high school credits) as part of their school day. Activities include planning, scaling recipes, ordering of groceries, and figuring costs in a lab setting. Opportunities to work with clients to determine themes and menus for morning, afternoon and evening events will be included. Students are required to work some hours before/after the school day throughout the semester as is typical in the Hospitality industry. This course is designed for students having an interest in food service as a possible career. (Option of Honors Credit)

\*Food Safety & Sanitation Managerial Certification.

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: Culinary Arts 1 & 2

Grades: 10, 11, 12

## **Culinary Arts 4 The Brook Catering Co.- Dual Credit Honors**

(Full-Year Course) (one or two period block)

This 2nd level of Brook Catering will learn how to operate a small catering business located at the high school. Course content will include food preparation including plating and garnishing, serving food on occasion, and addressing the cleanup activities that follow. Students gain real life experience along with high school credit as part of their school day in both the front and back of the house. Activities include planning, scaling recipes, ordering of groceries, and figuring costs in a lab setting. Opportunities to work with clients to determine themes and menus for morning, afternoon, and evening events will be included. Students should expect to work some hours before/after the school day throughout the semester/year as is typical in the Hospitality industry. This course is designed for students having an interest in food service as a possible career. Food Safety and Sanitation Managerial Certification available. Industry certification opportunity available. (Option of Honors Credit)

Prerequisite: Culinary 1, 2, 3 or Consent of CTE Dept Head

Grades: 11, 12

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

## **Fitness & Nutrition - Dual Credit Honors**

(Full-Year Course; Repeatable)

This course is an inter-departmental course taught by Physical Education and Family & Consumer instructors. The focus of the course is upon physical fitness activities that can be pursued into adulthood and today's nutritional needs. Included topics are body composition testing, computer dietary analysis, laboratory experiences in nutritional food preparations and physical conditioning activities, like yoga. This course can fulfill daily PE requirement. (Option of Honors Credit)

Prerequisite: Junior or Senior status

Grades: 11, 12

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

## **Human Growth and Child Development** (One Semester)

Students explore topics focusing on child growth and care from conception through childhood with emphasis on the techniques and skills necessary to promote healthy physical, social, emotional, intellectual and moral development. This course incorporates concepts from child psychology, educational research, biology, sociology and philosophy. Students will spend a full weekend with a computerized baby to further their understanding of the care needed for an infant. Students have an opportunity to attend field trips to Elmhurst Hospital Labor and Delivery unit.

\*2 Certificates in alignment with the Gateways to Opportunity ECE Program ([www.ilgateways.com](http://www.ilgateways.com)).

-Shaken Baby Syndrome Prevention Certificate

-Sudden Infant Death Syndrome Prevention Certificate

Prerequisite: None

Grades: All



## **Preschool 1** (One Semester)

Students will apply the knowledge that they learned in Human Growth and Child Development, in the preschool lab setting. Children from the community attend the Little Warrior Preschool which is directed by the course instructor, a lead teacher and the assistance of the high school students. Students will have the opportunity to observe the preschoolers as well as work with each child on a one-on-one basis. The course curriculum includes positive guidance techniques, observation skills, reflection and additional information that can be used in Preschool II and a future career related to young children.\*Scholarship Opportunity available.

\*5 Certificates in alignment with the Gateways to Opportunity ECE Program ([www.ilgateways.com](http://www.ilgateways.com)).

Gateway ECE Level 1, Mandated Reporting, Poison Prevention & Lead in the Water, Trauma-Informed Practice for Child Care Providers

Prerequisite: Human Growth and Child Development, 2- ECE Certificates

Grades: All

## **Preschool 2 (One Semester)**

This course focuses on Preschool Practicum as well as any K-12 teaching profession. Students will research, explore and implement the most current teaching trends and techniques for children with a variety of needs in The Little Warrior Preschool. Students will apply the knowledge and practice the skills gained in previous courses. Students will gain further knowledge about a career in education and other child related professions.

\*Certificate in alignment with Gateways ECE

Prerequisite: Preschool 1 and 4 ECE Gateways Certificates

Grades: 10, 11, 12

\*Recommended Public Speaking & Communications Technology

## **Preschool Teaching Internship (One Semester)**

This internship opportunity is given to those students who have successfully completed Human Growth and Child Development, Preschool 1 and Preschool 2 and have been given permission, after an application process, to enroll in this course. As an advanced continuation of Preschool II, the student works as an individual lead teacher in the Little Warrior Preschool acting as a facilitator to those students enrolled in Preschool 1. The student will further their education and knowledge in working with young children by conducting research, observing, planning, implementing and individual reflection. The student will work closely with the classroom teacher who will guide them throughout the course. Students have an opportunity to attend Easter Seals or a local Early Childcare Facility.

(Option of Honors Credit)

\*AED, CPR, First Aid Certification

Prerequisite: Preschool 2 and teacher approval

Grades: 11, 12

\*Recommended Public Speaking & Communications Technology

## **Education Teacher Preparation 1 - Dual Credit Honors** (One semester)

Students will be provided an introduction to teaching as a profession in the American education system, offering a variety of perspectives on education, including historical, philosophical, social, legal, and ethical issues in a diverse society. The course includes organization structure and school governance. A 20-hour field experience is required and will be coordinated from the high school level as a part of the dual credit and industry credential provided. Students will have the opportunity to complete their observation hours at a variety of K-12 classrooms including General and Special Education programs. (Option of Honors Credit)

Industry certification opportunity available.

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: Recommended successful completion of Preschool Internship or CTE Dept Head approval. Grades: 11, 12

## **Education Teacher Preparation 2 - Dual Credit Honors**

(One semester DOUBLE BLOCK)

Students will examine various policies, procedures, and routine activities that are part of the teacher's role as the second course in the Education Pathway. This is a field experience course with each student spending a minimum of twenty clock hours in a classroom. Weekly seminars focus on the development of human relations and problem solving skills necessary for an effective classroom. Students will have the opportunity to complete their clinical hours at a variety of K-12 classrooms, including General and Special Education and therefore must enroll for the double block. Students will also have the opportunity to complete 40 hours of clinicals to qualify for the **Education Pathway Endorsement at ISBE and 6 hours of dual credit if they also completed the EDUC 1100 and other requirements.**

(Option of Honors Credit)

Industry certification opportunity available.

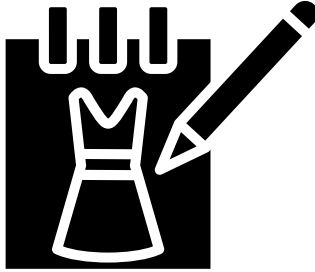
*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: Education Teacher Prep 1 Recommended Grades: 11, 12

## **Fashion & Apparel Design** (One Semester)

This hands-on, performance based class is designed for the student interested in all aspects of the fashion apparel industry. Emphasis is upon fashion trends, methods of basic fashion design, design principles, color theory, and personal fashion analysis. Using the skill of sketching for a variety of garments, students will design a fashion line as their final project.

Prerequisite: None

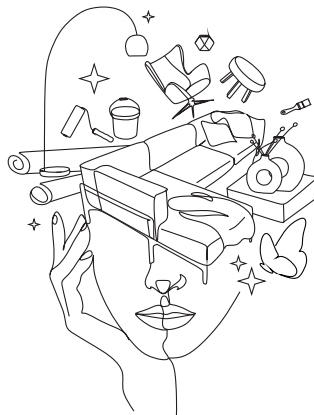


Grades: All

## **Interior Design** (One Semester)

This performance based course is designed for the student interested in the study of interior design. Emphasis is upon the application of art design principles to achieve effective interiors. Units of study include: personal needs and housing, historical development, consumer issues, elements and principles of design, floor plans, and construction basics used in the interior design industry.

Prerequisite: None



Grades: All

CTE students who qualify and are enrolled in the following **capstone** courses may be exempt from one year of science credit for D88 graduation after two science credits are earned. SEE your counselor or CTE Department Head for more information. These **capstones** include:

- Culinary Arts 3 (Brook Catering) CA 1120
- Culinary Arts 4 (Brook Catering) CA 1109
- Ed Pathways Education Teacher Preparation 1 EDUC 1100
- Ed Pathways Education Teacher Preparation 2 EDUC 1101
- Automotive 3, 4 or 5 (5 CERTIFICATES)
- CTE Youth Apprenticeship OSHA 10 -Manufacturing/Engineering/IT
- PLTW Digital Electronics (university credits)

### **CTE Youth Apprenticeship Honors (Full-Year course DOUBLE BLOCK)**

This course is geared towards juniors and seniors who are choosing career paths in career and technical education fields, including: engineering, precision manufacturing, cybersecurity, computer programming, computer hardware and software design, early childcare, education, automotive and construction in the CTE fields. This is a double block course that includes a release period for students to attend a paid apprenticeship at a local company. Students will learn about different aspects of the manufacturing process and have the opportunity to earn career certifications, complete resume and interview skills during the classroom portion. Prior CTE coursework including OFTI 1250 and BSNS 1111 highly recommended. Students should provide their own transportation.

\*OSHA 10 Industry Certification  
(Option of Honors Credit)

Prerequisite: 2 or more semesters of CTE credit successfully completed. ( School Links application)

Grades: 11-12

# CTE – Industry and Technology

## **Architectural Drafting & Design 1** (One Semester)

This course will explore the options, careers, education and skills related to architecture and building construction. It will focus primarily on residential design and the required drawings for constructing buildings ranging from as small as a shed or garage up to large houses. Topics will include building codes, construction plans, room layouts, roofing and more. Students will learn principles of CAD Drafting software and design as well as modeling with balsa wood and foam core board.

(Option of Honors Credit)

Prerequisite: None

Grades: All



## **Architectural Drafting & Design 2 - Dual Credit Honors**

(One Semester)

This course will explore the fundamentals of hand drafting and architectural conventions. This will include the use of tools, lettering, dimensioning, and drafting techniques, and frame construction vocabulary and expanded terminology. Students will expand their principles of CAD Drafting software and design as well as modeling with wood, boards, hand drawings, dimensional drafting, and architectural plans, as well as drafting techniques, foundational plans, wall and stair sections, and exterior elevations. This course will build upon the AutoCAD drawing students will learn to create in Architectural Drafting.

(Option of Honors Credit)

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS Instructor.*

Prerequisite: Arch Drafting 1

Grades: All



IED, POE, and DE offer scholarships and university credit unique to certain colleges and universities both in and out of the state of Illinois.

\* Each student should see his/her advisor to make the best college credit transition for these courses.

PROJECT LEAD THE WAY courses lead to free College Credit/Accreditation at many schools across the USA, including but not limited to:

MILWAUKEE SCHOOL OF ENGINEERING  
UNIVERSITY OF ILLINOIS  
NORTHERN ILLINOIS UNIVERSITY  
ILLINOIS STATE UNIVERSITY  
UNIVERSITY OF IL AT CHICAGO  
PURDUE UNIVERSITY  
INDIANA UNIVERSITY  
IOWA STATE UNIVERSITY  
UNIVERSITY OF IOWA  
DUKE UNIVERSITY  
MISSOURI UNIVERSITY OF SCIENCE AND TECH  
UNIVERSITY OF MARYLAND  
UNIVERSITY OF SOUTH CAROLINA

For student opportunities;  
[www.pltw.org/experience-pltw/student-opportunities](http://www.pltw.org/experience-pltw/student-opportunities)

Transferable credit for Willowbrook High School is generally 3 credit per class. Check with your university for the most updated information.

## **Introduction to Engineering Design (IED)** (Full-Year Course)

Introduction to Engineering Design (IED) is a high school level course for students who are interested in design and engineering. The major focus of the IED course is to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. IED gives students the opportunity to develop skills and understanding of course concepts through activity-project, and problem-based (APPB) learning. Students will employ engineering and scientific concepts in the solution of engineering design problems. In addition, students use Auto Desk INVENTOR, a 3D solid modeling design software package, to help them design solutions to solve proposed problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges that increase in difficulty throughout the course.

**University credit available.**

(Option of Honors Credit)

Prerequisite: None

Grade: All

## **Principles of Engineering (POE)** (Full-Year Course)

Principles of Engineering (POE) exposes students to major concepts they will encounter in a post-secondary engineering course of study. Topics include mechanisms, energy, statics, materials, and kinematics. Students develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, document their work and communicate solutions, along with utilization of a 3D printer and APPB learning. This course will lead to paths of other specializations, including aerospace, biotechnical, civil engineering and architecture, computer integrated manufacturing, digital electronics, and engineering design and development. **University credit available.**

(Option of Honors Credit)

\*G-Suite Certification

Prerequisite: C or better in algebra or consent of CTE Department Chair:  
Introduction to Engineering Design recommended but not required

Grade: 10, 11, 12

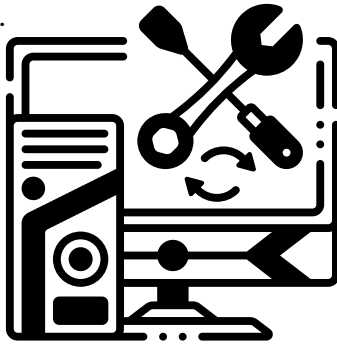
## **Digital Electronics in Engineering (DE)** (Full Year Course)

Our PLTW **Engineering capstone** course provides students with the opportunity to learn important aspects of development and implementation of electronic components. They apply math, science, and standard **engineering** practices to design electrical circuits using technology such as robots, sensors and motor controls in STEM. Students are introduced to the process of combinational and sequential logic design, engineering standards and technical documentation. They are also exposed to programming integrated circuit kits and microcontrollers. With this course students may be exempt from one year of science credit.

**University credit available.** (Option of Honors credit)

Prerequisite: IED or one semester of Computer Repair or consent of CTE Department Chair.

Grades: 10, 11, 12



## **Computer Repair - Servicing 1 - Dual Credit Honors** (One Semester)

This course is designed to equip beginner and semi-experienced students with entry-level computer technician proficiencies. The course follows CompTIA A+ Certification objectives for computer hardware. Students will become proficient with computer hardware components including the motherboard, processor, memory, drives, power supplies and other devices. Classroom activities include demonstrations, videos and lab work to help master the theory and operation of computer hardware. This course follows industry-recognized curriculum and is strongly recommended for students who have an interest in pursuing Computer Servicing and Technology as a career or as a computer enthusiast.

(Option of Honors Credit)

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: None

Grades: All

## **Computer Repair-Servicing 2 - Dual Credit Honors (One Semester)**

This course will build upon the computer repair and servicing to computer and hardware maintenance, troubleshooting, and servicing with modern personal computer systems. Emphasis will be on advanced hardware, operating systems, troubleshooting, networks, printers, and other peripheral devices. Prepares the student for the CompTIA A+ exam - the international industry credential that validates the knowledge of Computer Service Technicians. Career concentrations that benefit from CompTIA A+ training include Network Infrastructure, Programming, and Technical Writing. This course follows industry and university recognized curriculum and is strongly recommended for students who will pursue Computer Hardware and Maintenance Careers or are computer enthusiasts.

(Option of Honors Credit)

*Dual credit is available through the College of DuPage while taking this class at WBHS with a WBHS instructor.*

\*A+ certification

**IT paid Apprenticeships are available after this course at WB.**

Prerequisite: Computer Repair- Servicing 1

Grades: All

## **PHOTO 1100 FUNDAMENTALS OF PHOTOGRAPHY -**

### **Dual Credit Honors (One Semester)**

This course is an exploration of the fundamental principles, techniques, and applications of camera-based image making including both black and white film, use of dark room, and digital photography. The course stresses the proper practices and techniques as they apply to taking and printing quality photographs. Student will learn how to use Adobe Photoshop to edit, process, and print high quality, professional photographs.

(Option of Honors Credit)

*DUAL CREDIT is available through the College of DuPage while taking this class at WBHS with the WB CTE certified instructor.*

Prerequisite: None

Grades: All

## **PHOTO 1101 FOUNDATIONS OF DIGITAL PHOTOGRAPHY-**

### **Dual Credit Honors** (One Semester)

Students will explore an Introduction to digital photography, digital editing, digital output, and management of workflow, with an emphasis on visual literacy. The focus in the class will include capturing still life in a studio setting, pixel manipulation, processing, compression, storage, printing, and professional display of images, along with Utilizing digital cameras, cataloging software, and editing software. Time will be spent learning how to edit and use still shots to create original composites. The Adobe Creative Suite with a strong emphasis in Adobe Photoshop and Adobe Lightroom will be used in the production of projects. (Option of Honors Credit)

*DUAL CREDIT is available through the College of DuPage while taking this class at WBHS with the WB CTE certified instructor*

Prerequisite: 1100



Grades: All

## **PHOTO 1102 FOUNDATIONS OF FILM PHOTOGRAPHY-**

### **Dual Credit Honors** (One Semester)

Students will explore an Introduction to black and white analog photography that explores the techniques and applications for making, developing, and printing enlargements of film-camera images in the chemical darkroom. Students will Utilize analog film-cameras, black and white negative film, and black and white silver gelatin paper and work with studio and commercial lighting as well as learn the proper technique for flash photography.

(Option of Honors Credit)

*Dual credit is available through the College of DuPage while taking this class at WBHS with a WBHS instructor.*

Prerequisite: 1100

Grades: All

## **Screen Printing 1** (One Semester)

Screen Printing is offered as an introductory course in Graphic Communications. This course includes study and projects in the areas of layout and design, computer-assisted design (Adobe Illustrator), desktop publishing, with an emphasis in screen printing. Screen printing is a process that is used to create prints on a wide variety of materials, from fabric to wood. Many commercial printers use screening to print, due to cost factors and ease of use and can result in high quality prints. Screen printing is widely used today to create many mass or large batch produced graphics such as posters, clothing designs, or displays.

Prerequisite: None

Grades: All



## **Screen Printing and Production 2** (One Semester)

This course is a continuation of Screen Printing with a greater emphasis on equipment operation, long run production, and the creation of professional screen print designs. Varying levels of specialization are undertaken with emphasis upon the area of the student's choice. Activities and projects will allow students to develop the skills necessary to seek employment in the field of Graphic Communications. After a general level of competency is achieved, specific advanced skill development can be directed into the following areas: desktop publishing, design and screen-printing. Basic math computation skills and the ability to read a ruler are recommended.

Prerequisite: Screen Printing 1

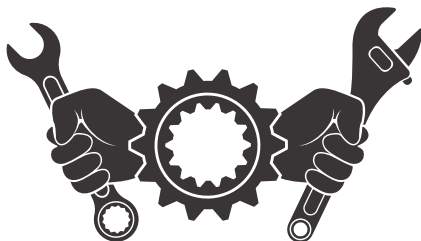
Grades: All

## **Automotive Upkeep** (One Semester)

Do you plan on owning a car? This course is designed to introduce students to the basic operation and maintenance of the automobile. Topics covered will be beneficial to ALL current and future car owners, and will provide students with the skills necessary for owning and maintaining a car. This course will include classroom demonstrations and lab activities including oil changes, under the hood inspections, under the car inspections, changing and rotating tires, replacement of essential maintenance parts on an automobile, and how to properly care for your vehicle. This is the first step to owning a vehicle. Safety glasses are required.

Prerequisite: None

Grades: All



## **Automotive Technology 1 - Dual Credit Honors** (Full-Year Course)

Auto Technology I covers theory and operation of the basic components of the modern automobile. Areas of study include the safe and efficient use of automotive tools, automotive engine fundamentals including theory and operation, automotive maintenance, cooling systems, tire and wheel repair, brake and suspension inspections. This is a prerequisite for Auto Technology II and stresses entry level job skills. It is recommended for students interested in becoming an automotive technician as well as for those who wish to learn basic automotive repair for personal use. +Alignment with NATEF Standards. Safety glasses are required. Electude Certificate.

(Option of Honors Credit)

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: None

Grades: All

### **Automotive Technology 2 - Dual Credit Honors** (Full-Year Course)

This course will provide a more advanced study of design and construction of automotive technology and practical experiences in automotive repair. Areas of study include brake system operation and repair, steering and suspension systems, engine mechanical diagnosis and servicing of fuel injection, emission control systems and electronic engine controls. This is primarily a hands-on lab course where students learn through demonstration and project-based learning activities. Safety glasses are required. +Alignment with NATEF Standards. Electude Certificate.

(Option of Honors Credit)

*Dual credit is available through the College of DuPage for all grades only while taking the class at WBHS with a WBHS instructor.*

Prerequisite: Automotive Technology 1                      Grades: 10, 11, 12

### **Automotive Technology 3/Internship** (Full-Year Course)

(One or Two Period Block)

This is an advanced level course providing a study of design and construction of automotive technology and practical experiences in automotive repair. Areas of study include driveline systems including manual and automatic transmissions, A/C system diagnosis and repair, and Engine performance diagnosis. This course allows students who are interested in a career in automotive repair and maintenance to gain additional knowledge and experience in an area of particular interest. In Auto Tech 3 students put into practice what they have learned and run a service center repairing “customer vehicles.” Safety glasses are required. +Alignment with NATEF Standards. \*5-ASE Certifications.

\*Skills USA, \*EPA 609.

Prerequisite: Automotive Technology 2                      Grade: 11, 12

### **Automotive Technology 4/5** (Full-Year Courses) (Two Period Blocks)

These are advanced level courses for 12th graders who have completed Auto 3. Students apply their experiences and knowledge as they run a service center on live vehicles under the guidance of their instructor. Safety glasses are required. (Option of Honors Credit)

+Alignment with NATEF Standards, \*3-ASE Certifications. \*Skills USA

Prerequisite: Automotive Technology 3                      Grade: 12

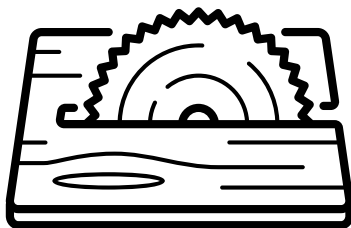
## **Woods 1** (One Semester)

This course will introduce students to basic woodworking skills. Students will learn how to properly operate and maintain woodworking tools and machines, learn to identify different types of wood, and the characteristics of various types of woods while completing basic projects. This is primarily a hands-on lab course where students learn through demonstration and project-based learning activities. Through the completion of projects and classroom activities, students will learn and improve skills in safety, organization, basic math, project planning, and reading. These skills establish a foundation for advanced woods, careers in the building trades, and/or an introduction to a rewarding hobby. Safety glasses are required.

(Option of Honors Credit)

Prerequisite: None

Grades: All



## **Woods 2** (One Semester)

The course is a continuation of Woods I where students will enhance their woodworking skills by creating more complex projects that require them to follow proper project planning guidelines, safety procedures, machine operation techniques, and finishing techniques. Students will work on teacher approved projects throughout the semester. This is primarily a hands-on lab activity course with projects to reinforce student learning. All projects must get approval by the instructor before students begin work. Safety glasses are required.

(Option of Honors Credit)

Prerequisite: Woods 1

Grades: All

### **Woods 3/Independent Study** (One Semester)

This course is a continuation of Woods 1 & 2 where students will enhance their woodworking skills by focusing on the production part of woodworking, learning how to design and create projects to be mass produced. Students will learn the importance of creating a prototype and then making jigs and fixtures to make the process more efficient. This will require them to follow proper project planning guidelines, safety procedures, machine operation techniques, and finishing techniques. Students will continue earning certification on specific machines through the Woodworkers Career Alliance. This is primarily a hands-on lab activity course with projects to reinforce student learning. Students may be required to pay for the materials they use in class; price will vary depending on project and wood used. Safety glasses are required.

(Option of Honors Credit)

Prerequisite: Woods 2

Grades: 10-12

### **Building Trades 1** (One Semester)

This course is designed for students interested in completing some of their own home maintenance and repair work or those who may be interested in learning about a career in the building trades. Students learn the basic information and techniques necessary to use the major tools and various building materials required for routine repair and maintenance of a residential structure and its systems, including exterior and interior walls, tiling, drywall, plumbing, masonry, and insulation. Students will work independently, in a large group, or in pairs while processing individual units of study throughout this course. Safety glasses are required.

\*OSHA 10 Construction Certificate

Prerequisite: None

Grades: All

### **Building Trades 2** (One Semester)

Students will build upon this knowledge in Building Trades 2 and advance their skills in the areas above. Safety glasses are required.

Prerequisite: Building Trades 1

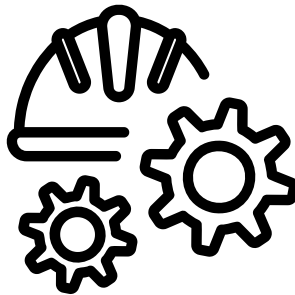
Grades: All

## **Math in Construction (Full year double block required)**

Through this course, students will gain hands-on skills through the practical applications of mathematics in construction. Course will cover structural footings, wall systems, physical properties of wood, building materials, and measurement grading as well as deck construction and design. Hands-on projects allow students to thoroughly understand the principles and methods of rough residential carpentry by framing a mockup, scaled down home. Students will learn actual house framing by building sheds and decks, including floor, wall, and roof construction with special emphasis placed on framing square for stair stringers, tables and hip rafter layout. The class is 2 periods to allow adequate time for construction and classroom instruction. Seniors may take the course as a 4th year math class and earn credit towards graduation. Mathematics concepts include: measurement, trigonometry, area, similar figures, budgeting, linear models, operations with fractions, estimation. Safety glasses are required.  
\*OSHA 10 Construction Certificate

Prerequisite: Must have passed 2 years of Math and have senior status; Woods 1 recommended but not required;

Grades: 12 only



# NOTES

\*Safety glasses are required for all CTE/IT lab courses.

“Equal educational and extracurricular opportunities are available to all students without regard to race, color, nationality, sex, sexual orientation, gender identity, ancestry, age, religious beliefs, physical or mental disability, status as homeless, or actual or potential marital or parental status, including pregnancy and to the Boy Scouts and other designated youth groups.

No student shall, based on sex or sexual orientation, be denied equal access to programs, activities, services, or benefits or be limited in the exercise of any right, privilege, advantage, or denied equal access to educational and extracurricular programs and activities.”

# Career and Technical Education Department

- Accounting 1 (Honors Option)
  - ^Accounting 2 Honors
  - ^Business Explorations (Honors Option)
    - Business Law (Honors Option)
  - ^College & Career Technology (Honors Option)
    - Consumer Management (Online Also Available)
  - ^Entrepreneurship (Honors Option)
  - ^Introduction to Business (Honors Option)
  - ^Public Speaking & Communications/Technology (Honors Option)
  - ^Keyboarding / Word Processing 1 (Honors Option)
  - ^Marketing Sports & Entertainment (Honors Option)
    - \*Culinary Arts 1
    - \*Culinary Arts 2
    - \*\*Culinary Arts 3- (Honors Option)
    - \*\*Culinary Arts 4-The Brook Catering Co. (Honors Option)
  - ^Fitness & Nutrition (Honors Option)
    - \*Human Growth and Child Development
  - \*\*Preschool 1
    - Preschool 2- Preschool Practicum
  - \*Preschool Teaching Internship (Honors Option)
    - Fashion & Apparel Design
    - Interior Design
  - ^Education Teacher Preparation 1 (Honors Option)
  - ^Education Teacher Preparation 2 (Honors Option)
    - \*CTE Youth Apprenticeship ( Honors Option)
      - Architectural Drafting and Design 1(Honors Option)
    - ^Architectural Drafting and Design 2 (Honors Option)
  - +PLTW Intro to Engineering Design (IED) (Honors Option)
  - \*\*PLTW Principles of Engineering (POE) (Honors Option)
    - +PLTW Digital Electronics (DE) (Honors Option)
  - \*\*^Computer Repair - Servicing 1 (Honors Option)
  - \*\*^Computer Repair 2 (Honors Option)
    - ^Fundamentals of Photography (Honors Option)
    - ^Foundations of Digital Photography (Honors Option)
    - ^Foundations of Film Photography (Honors Option)
      - Screen Printing and Production 1 & 2
    - Automotive Upkeep
  - \*\*^Automotive Technology 1 (Honors Option)
  - \*\*^Automotive Technology 2 (Honors Option)
    - \*Automotive Technology 3/Internship
    - \*Automotive Technology 4/5 ( Honors Option)
  - \*Woods 1, 2
  - \*Woods 3 (Honors Option)
  - \*Building Trades 1 & 2
  - \*Math in Construction
- ^DUAL CREDIT HONORS +UNIVERSITY CREDIT \*CERTIFICATE PROGRAM