

# Technology Education

Technology Education is that part of education which draws its content from industry. The course of study is designed to provide you the opportunity to explore certain segments of industry as possible career choices. It is expected that you will start to develop skills, which will prepare you to enter appropriate vocational trade schools. **Note: Safety is of utmost importance in Technology Education classes. Therefore, the use of Safety Glasses and other appropriate safety rules will be strictly enforced as required by the Wisconsin Department of Public Instruction.**

---

## **EXPLORING TECHNOLOGY 9 (1/2 Credit - 1 Semester) 419**

This one semester course for freshmen is designed to introduce students to the four core areas of study: communication, construction, manufacturing, and transportation, available in the Technology Education Department at Superior High School. Some units of study will include construction and manufacturing techniques, CAD drafting applications, and airfoil design, construction and testing. You must provide your own safety glasses.

---

## **BASIC DRAFTING 10 - 11 - 12 (1/2 Credit -1 Semester) 421**

This is an entry-level course designed to introduce students to careers in architectural and technical drawing and design. Students will have the opportunity to demonstrate learned drafting techniques through board and instruments and to a greater extent, through the use of computer-aided drafting (CAD) programs.

---

## **ARCHITECTURAL DRAFTING SEQUENCE 11 - 12 (1 Credit-1 Year)**

**\*Prerequisite: Basic Drafting** - An average grade of "C" or better in Basic Drafting is a prerequisite to sign up for these sequential courses

**These sequential, semester courses designed for juniors and seniors are a study of modern architectural design principals and techniques. Most work will be completed through the use of computer-aided-drafting systems. There are numerous employment opportunities for men and women in architectural design with some 2 year A.A. technical school graduates receiving starting wages of \$14-16/hour. These courses are designed to give students a start on units of study as well as explore vocational interests. The course work includes relevant application of topics studied in mathematics, English, and social studies classes. VICA competitions are available at the state and national levels.**

---

## **ARCH. DRAFTING I (1/2 Credit-1 Semester) 422 \*Prerequisite: Basic Drafting**

Introduction to computer-aided-drafting systems, structures, floor plans, section, elevation, and isometric pictorials will be topics studied.

---

## **ARCH. DRAFTING II (1/2 Credit-1 Semester) 423**

Perspective pictorials, door and window schedules, and architectural styles will be some of the units studied.

---

## **ARCH. DRAFTING III (1/2 Credit-1 Semester) 424**

Special design problems and considerations including remodeling and accessibility make this course interesting and challenging.

# Technology Education

---

---

**ARCH. DRAFTING IV**  
**(1/2 Credit-1 Semester) 425**

Drawings associated with electrical, plumbing, and HVAC will be prepared and/or studied. Heat loss calculations will be performed and topics in super-insulated residential construction and passive solar design are some of the units to be studied.

**TECHNICAL DRAFTING  
SEQUENCE  
GRADES 11-12**

**\*Prerequisite: Basic Drafting** - An average grade of "C" or better in Basic Drafting is a prerequisite to sign up for these sequential courses

These sequential, semester courses designed for juniors and seniors are a study of modern drafting techniques as used in industry. Most work will be done through the use of computer-aided-drafting (CAD) and computer numerically controlled (CNC) machines. These classes would be valuable for men and women considering a career in engineering, technical design and illustration, or machine tool programming. Currently there is a shortage of technical workers and some men and woman with a two year A.A. degree in a technical field receive starting wages of approximately \$16.75/hour. The course work includes relevant application of topics studied Mathematics, English, and social Studies classes. VICA competitions at the state level are available.

---

**TECH. DRAFTING I**  
**(1/2 Credit-1 Semester) 426**

Basic sketching and lettering techniques, introduction to computer-aided-drafting systems and structures, orthographic projections and isometric pictorials will be some of the topics studied.

---

**TECH. DRAFTING II**  
**(1/2 Credit-1 Semester) 427**

Units of study will include dimensioning techniques, section drawings and auxiliary views.

---

**TECH. DRAFTING III**  
**(1/2 Credit-1 Semester) 428**

Study of fasteners and threads, geometric dimensioning and tolerancing, and surface developments make this course interesting and challenging.

---

**TECH. DRAFTING IV**  
**(1/2 Credit-1 Semester) 429**

Units of study will include cams and gears, solid modeling and topics in automated manufacturing processes. The relationship between CAD (computer aided drafting), CAM (computer aided machining), and CNC (computer numerical control) will be stressed.

---

**TECHNICAL DRAFTING  
INDEPENDENT STUDY  
11-12**

The student(s) accepted into this course will apply the CAD skills developed in Technical Drafting to CNC Manufacturing techniques.

*This class mandates a prerequisite of Technical Drafting I and*

# Technology Education

---

(1/2 Credit-1 Semester)      430      *instructors' approval.*

---

## **CONSTRUCTION TECH I**

**10-11-12**

**(1 Credit-1 Year)**

**442**

**443**

CONSTRUCTION Tech I is a course geared to those students who may be interested in building construction for their own use, as a profession, or in other aspects of the building industry such as architects or construction engineers. Units of instruction include blueprint reading, foundations, floor systems, wall and roof framing and an introduction to brick and block masonry. Students will have the chance to develop their skills during the class through the construction of several class projects. Involvement in VICA (Vocational Industrial Clubs of America) is encouraged but not required for the course. Safety glasses and a refundable tool deposit are required.

---

## **CONSTRUCTION TECH II**

**11-12**

**(1 Credit -1 Year)**

**445**

**446**

**\*\*Prerequisite: Successful completion of Construction Tech I**

This course builds on the foundations which you have learned in Construction Tech I and includes the application of the techniques which were learned in that course. Advanced techniques will be taught in residential construction as well as units in estimation, brick and block masonry and residential wiring. Resources from the community and field trips to appropriate local industry are utilized. Students are strongly encouraged to belong to VICA. Safety glasses and a refundable tool deposit are required.

---

## **CONSTRUCTION TECH**

**FOREMAN 12**

**(1/2 Credit- 1 Semester)**

**448**

**\*\*Teacher signature required**

The foreman will be taught shop maintenance and will assist in introductory courses. Special projects and duties will be arranged.

---

## **MATERIAL PROCESSING I**

**10-11-12**

**(1/2 Credit- 1 Semester)**

**449**

Material Processing I is a course that will allow you to develop skills in processing various materials into finished products. Students will work with wood, metal and plastics in a number of small hands-on projects. Have fun while you learn how to use various tools and machinery to build these projects. You must provide your own safety glasses and a \$10.00 tool deposit.

---

## **MATERIAL PROCESSING II**

**10-11-12**

**(1/2 Credit- 1 Semester)**

**450**

Material Processing II is a course that will allow students to further develop skills in processing various materials into finished products. Students will work with wood, metal and plastics in a number of more advanced techniques than in the Material Processing I course.

---



# Technology Education

---

projects, they will gain a basic understanding of the skills used in the rapidly growing world of video and photography. A refundable tool deposit and a nonrefundable lab fee, to cover tapes, film and darkroom supplies, is required.

---

## **ADVANCED VIDEO PRODUCTIONS/ PHOTOGRAPHY**

**11-12**

**(1/2 Credit – 1 Semester) 436**

**\*\*Prerequisite: Video Productions**

This is an advanced level course that will take up where we left off in basic video productions. The use of advanced techniques in production and editing utilizing non-linear editing and digital recording are introduced. The students will have the chance to refine their skills in Photography using filters, lighting and advanced techniques. Careers in the fields of video and photography will be researched. A refundable tool deposit is required.

Note: Students who plan to enter the TV broadcasting program are encouraged to take the basic class first semester and the advanced class second semester their junior year.

---

## **TELEVISION PRODUCTIONS**

**12**

**(1 Credit – 1Year) 470**

**471**

**\*\* Prerequisite: Approval of the  
instructor to enter the class.**

Students entering the Television Productions class have the following two options to select from. Both of these classes will meet together for one period: the students in the 2 credit option will have an additional class period that runs immediately before or after the students in the 1 credit class giving them a two period block of time each day.

Do you want the opportunity to run your own TV station? Students enrolled in the class will actually be running the school cable television station, they will not only learn about the various tasks required to run a station, they will do the actual jobs. Everything from writing scripts, shooting programs, editing, advertising and scheduling will be covered. The class will determine the programming content and schedule, the students then determine how to meet the requirements. Students will spend time out of the building taping as well as in the classroom. This is a chance to be part of one of the most exciting and unique courses taught in our school.

## **TELEVISION PRODUCTIONS**

**12**

**(2 Credits – 1Year) 473**

**474**

**\*\* Prerequisite: Approval of the  
instructor to enter the class.**

Students interested in maximizing their experiences in TV Productions should sign up for this option which is a two hour block every day for the entire year. Much of the emphasis for these students will focus on the shooting and programming out of the school in various locations such as the other schools in the district.

---

## **YEARBOOK PHOTOGRAPHER**

**11-12**

**(1 Credit – 1 Year) 475**

**476**

**\*\* Prerequisite: Approval of the**

Are you a budding young photographer who enjoys shooting photos and just cannot get enough time in the dark room? Do you want to learn more about photography than you have ever had the chance learn before? How about working in color or with digital cameras? Are you good at meeting deadlines? Do you work well under pressure? Do you desire to make an impact on your school yearbook? If so this is the course for you, check with the instructor to find out more about this exciting opportunity.

---

# Technology Education

---

**instructor to enter the class.**

---

**ELECTRICITY**  
**10-11-12**  
**(1/2 Credit – 1 Semester) 438**

Electricity is a technology class devoted to students who want to be part of the exciting and expanding world of electronics. In this course you will study electrical circuits, test equipment, including the many varied devices used in radio, television and computer circuits, and much more. It is desirable that the student have knowledge of algebra.

**PC REPAIR AND MAINTENANCE**  
**11-12**  
**(1/2 Credit – 1 Semester) 431**

Students in this course will learn to support, repair, and troubleshoot personal computers. The students will be able to move from the “just a user” level to the “I can fix this” level for most personal computer hardware and software concerns. Hands on projects will be used to make sure that the students not only understand the material, but can execute the procedures and make decisions on their own.

**\*\*Teacher Signature Required**

**This course, in combination with Engineering Drafting is articulated with WITC campuses. Minimum grade “A” is required to earn advanced standing – 1 credit.**

**CAD FOREMAN**  
**11-12**  
**(1/2 Credit – 1 Semester) 432**

The student(s) accepted into this course will be responsible for maintenance and repairs to the computers not covered under service contract in the CAD lab. Responsibilities include cleaning and optimizing of hard drives as well as installation of hardware as needed.

**\*Prerequisite: PC Repair**

**\*\*Teacher Signature Required**

**CONSUMER AUTO**  
**MECHHANICS**  
**11-12**  
**(1 Credit – 1 Year) 459**  
**460**

Consumer Auto Mechanics is a course for everyone. This class will show you how to do general maintenance on today’s cars and light trucks. For those of you who want to save money and do some of your own home auto repairs or know more about today’s automobiles, this class is for you. Learn how to buy a good used car, take out a loan, shop for insurance, etc. Brakes, tune ups, minor electrical, and basic operation will be covered to help you save money and do it yourself. Safe work practice will be stressed. This will aid those students who wish to become auto technicians. There will be a \$10.00 tool deposit required for this course. Students will also need safety glasses.

# Technology Education

---

**AUTOMOTIVE TECHNOLOGY  
12****(1 credit – 1 year)****462****463**

Automotive Technology is a very technical class for those who have particular interests and aptitude for automotive repair and maintenance. This is a vocational-oriented class that will prepare you for work right out of high school or give you a leading edge in technical school. Engine repair, electrical, brakes, carburetion, fuel injection, computer control, as well as troubleshooting and much technology. Students will be required to have safety glasses and pay a \$10.00 tool deposit.

---