

## Applied Technology

Course	Freshmen	Sophomores	Juniors	Seniors	Prerequisite
Exploring Technology T28	X				
Principles of Technology T245			X	X	Minimum grade of C in two science classes
Small Engines T286	X	X	X	X	
Automotive Technology T300		X	X	X	
Advanced Automotive Technology 1 and 2 T277			X	X	Automotive Technology 2 and department recommendation
Career Automotive Technology 1 and 2 T278				X	Advanced Automotive Technology 2 and department recommendation
TV Production 1 and 2 T249		X	X	X	
Advanced TV Production 1 and 2 T250			X	X	TV Production 2
Electronics Technology 1 and 2 T269		X	X	X	
Drafting/CAD Technology 1 and 2 T264		X	X	X	
Printing Technology 1 and 2 T071		X	X	X	
Introduction to Woodworking Careers 1 and 2 T259		X	X	X	
Industrial Cooperative Education 1 and 2 T255			X	X	16 years of age, approval of coordinator, 0.5 credit in any Applied Tech course, concurrent enrollment in at least a 0.5 credit course in Cooperative Education, although one full credit is highly recommended
Industrial Cooperative Education 3 and 4 T256				X	Industrial Cooperative Education 2, approval of coordinator

### Exploring Technology T288

Grade 9

Year course – 1 credit

Prerequisite: None

In this course, students study transportation, communication and construction systems. Topics lasers, fiber optics, computer-aided design, communications and other technological trends that technical literacy.

### Principles of Technology T245

Grades 11, 12

Year course – 1 credit

Prerequisite: Minimum grade of C in two science classes

Students will study Physics principles and their applications. The topics of forces, vectors, fluids, heat, light, sound, mechanisms, optics, electricity and electromagnetism are studied using robotics, hydraulics, pneumatics, holography, fiber optics, lasers, sensors and motors. This course emphasizes the development of traditional Physics concepts and technical skills. Note: This course may count for science credit.

## **Small Engines T286**

*Grades 9-12*

*Semester course – 0.5 credits*

*Prerequisite: None*

This is an introductory course in the operation of two and four cycle engines used in transportation and industry. Studies include diesel, rotary and alternative forms of power, such as solar and atomic. Students rebuild and service various engines, including lawnmowers, minibikes and snow blowers.

## **Automotive Technology T300**

*Grades 10-12*

*Year course – 1 credit*

*Prerequisite: None*

This course includes the operation of two and four-cycle engines. It provides the student with proper information and skills needed to identify, test, and repair various automobile components, such as fuel, ignition, cooling, drive train, suspension and chassis.

## **Advanced Automotive Technology 1 and 2 T277**

*Grades 11, 12*

*Year course – 1 to 2 credits*

*Prerequisites: Automotive Technology 2 and department recommendation*

These courses emphasize tune-up testing and tune-up skill development. Topics include inspection, diagnosis and testing procedures of engine parts and vehicle systems. The latter half of the program will follow the typical service station model. It is recommended that the student develop skills in metal fabrication and electrical theory.

## **Career Automotive Technology 1 and 2 T278**

*Grade 12*

*Year course – 1 to 2 credits*

*Prerequisites: Advanced Automotive Technology 2 and department recommendation*

In these courses, students will apply the skills developed in Advanced Auto Technology. Students will inspect and repair automotive electrical, fuel and mechanical systems. Computer diagnostic equipment will be used to develop troubleshooting skills.

## **TV Production 1 and 2 T249**

*Grades 10-12*

*Year course – 1 credit*

*Prerequisite: None*

Students are introduced to the production and performance components of broadcast journalism. Activities will include hands-on experiences with broadcasting equipment, program production and on-air talent. Students will work cooperatively in production assignments and learn about the job responsibilities and duties of all production staff.

## **Advanced TV Production 1 and 2 T250**

*Grades 11, 12*

*Year course – 1 credit*

*Prerequisite: TV Production 2*

This course is designed for students who have successfully completed the first year of TV Production and have a desire to learn video editing and post-production aspects of the field.

## **Electronics Technology 1 and 2 T269**

*Grades 10-12*

*Year course – 1 credit*

*Prerequisite: None*

Students will study the history and science of electronics. These courses introduce the mathematical relationships of power and Ohm's Law. Units include AC/DC concepts, safety, occupation opportunities, circuits, instrumentation, block systems, construction manufacturing and testing.

## **Drafting/CAD Technology 1 and 2 T264**

*Grades 10-12*

*Year course – 1 credit*

*Prerequisite: None*

This course covers fundamental skill applications common to all areas of drafting. Students will draw plans for machine parts and residential buildings. Students will be introduced to computer-aided drafting processes. Upon completion of the two semesters, students will have a general understanding of the job entry skills necessary to be a draftsman.

**Printing Technology 1 and 2 T071**

*Grades 10-12*

*Year course – 1 credit*

*Prerequisite: None*

Students are introduced to the printing processes of computer desktop publishing, photo offset lithography and screen printing. In addition, students will be introduced to design and layout, prepress, press and binding and finishing. During the second semester, emphasis is placed on screen printing, desktop publishing and production techniques.

**Introduction to Woodworking Careers 1 and 2 T259**

*Grades 10-12*

*Year course – 1 credit*

*Prerequisite: None*

This is an enrichment program designed to introduce students to basic woodworking tools and techniques. Students will use hand and power tools to make projects of their own choosing. Typical projects include items such as clocks, signs, tool boxes, cabinets and bookshelves. Students will purchase materials used in projects.

**Industrial Cooperative Education 1 and 2 T255**

*Grades 11, 12*

*Year course - 1 to 2 credits*

*Prerequisites: 16 years of age, approval of coordinator, 0.5 credit in any Applied Tech course, concurrent enrollment in at least a 0.5 credit course in Cooperative Education, although one full credit is highly recommended*

This program is designed for Grade 11 and Grade 12 students who are interested in pursuing careers in industrial occupations. Students hold a regular, career related part-time job for their paid cooperative education work experience and participate in at least 200 minutes per week of related classroom instruction. The course emphasizes further career education opportunities, planning for the future, job seeking skills, personal development, human relationships, legal protection and responsibilities, economics and the job and job termination. Classroom instruction is based on the tasks required in a particular occupation and on required employability skills. Students are required to belong to the VICA club.

**Industrial Cooperative Education 3 and 4 T256**

*Grade 12*

*Year course – 1 to 2 credits*

*Prerequisites: Industrial Cooperative Education 2, approval of coordinator*

This course continues and expounds upon the facets of Industrial Cooperative Education 1 and 2. Enrollment in both semesters will fulfill the graduation requirement in Consumer Education.