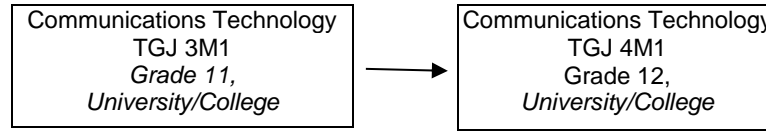


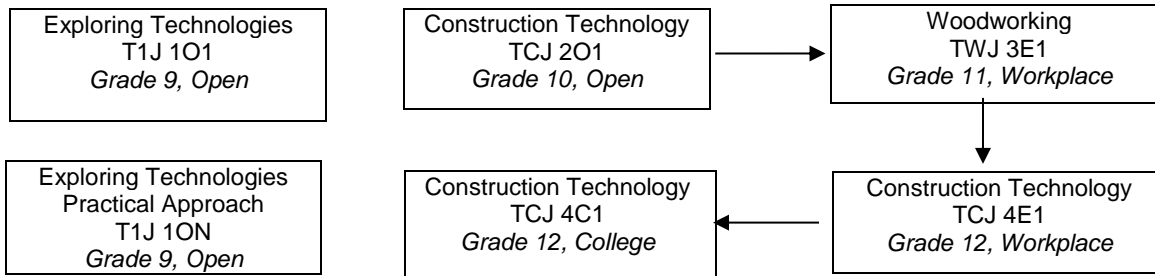
Prerequisite Chart for Technological Education

This chart maps out all the courses in the discipline and shows the link between courses and the possible prerequisites for them. It does not attempt to depict all possible movements from course to course.

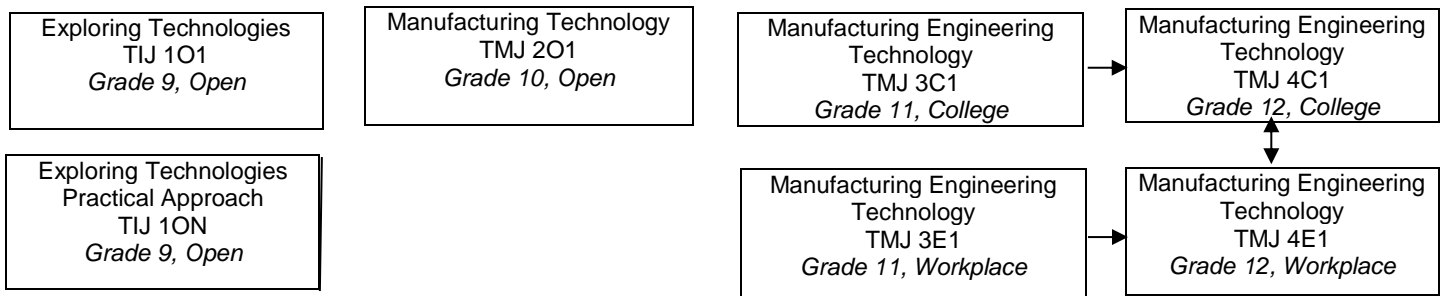
Communications Technology



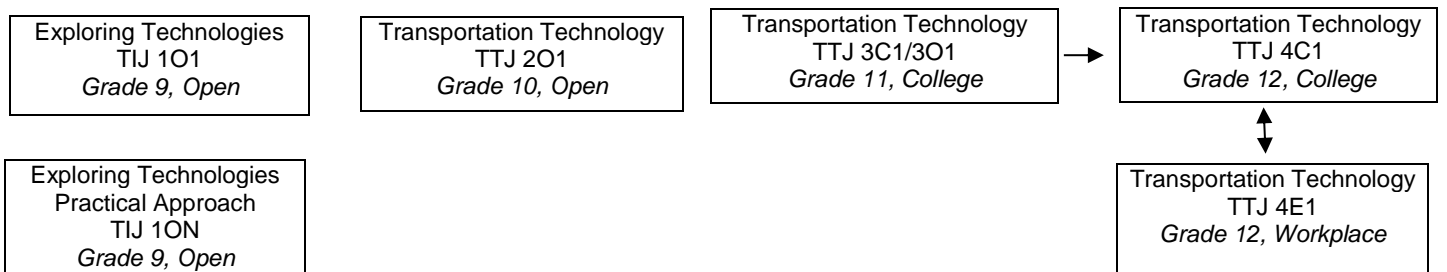
Construction Technology



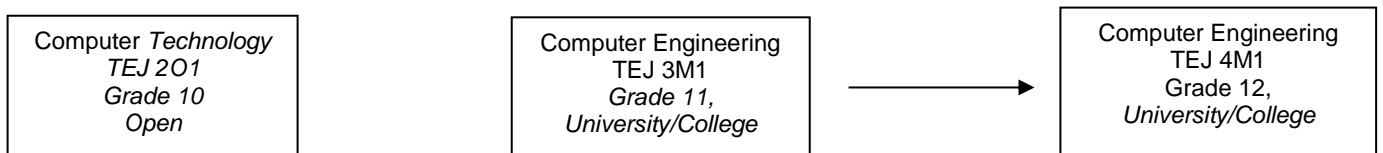
Manufacturing Technology



Transportation Technology



Computer Technology



TECHNOLOGY

- 1. Safety glasses and work boots are mandatory in all classes – students will have an opportunity to purchase their own pair.**
- 2. Materials other than those supplied must be paid for and supplied by the student.**
- 3. The learning in this program is enhanced by field trips and activities which may include an additional cost.**

Exploring Technologies TIJ 101 (OPEN)

This course enables students to further explore and develop technological knowledge and skills introduced in the elementary science and technology program. Students will be given the opportunity to design and create products and/or provide services related to the various technological areas or industries, working with a variety of tools, equipment, and software commonly used in industry. Students will develop an awareness of environmental and societal issues, and will begin to explore secondary and postsecondary education and training pathways leading to careers in technology-related fields.

Exploring Technologies Through A Practical Approach TIJ 10N (OPEN)

This course provides a practical approach to acquiring and refining skills required to solve technical problems, build usable products, or to deliver services, as well as to pursue further technological studies and career paths. Students will use a variety of hand tools and machinery to complete projects and tasks to extend their personal skill set. The course material will be presented in such a way as to encourage students to develop their practical skills inside the classroom and then apply them to their daily lives.

COMMUNICATIONS

Communications Technology TGJ 3M1 (UNIVERSITY/COLLEGE)

This course examines communications technology from a media perspective. Students will develop knowledge and skills as they design and produce media projects in the areas of live, recorded, and graphic communications. These areas may include TV, video, and movie production; radio and audio production; print and graphic communications; photography; digital imaging; broadcast journalism; and interactive new media. Students will also develop an awareness of related environmental and societal issues and explore college and university programs and career opportunities in the various communications technology fields.

Prerequisite: None

Communications Technology TGJ 4M1 (UNIVERSITY/COLLEGE)

This course enables students to further develop media knowledge and skills while designing and producing projects in the areas of live, recorded, and graphic communications. Students may work in the areas of TV, video, and movie production; radio and audio production; print and graphic communications; photography; digital imaging; broadcast journalism; and interactive new media. Students will also expand their awareness of environmental and societal issues related to communications technology and will investigate career opportunities and challenges in a rapidly changing technological environment.

Prerequisite: TGJ 3M1

CONSTRUCTION

Construction Technology TCJ 201 (OPEN)

This course introduces students to building materials and processes through opportunities to design and build various construction projects. Students will learn to create and read working drawings; become familiar with common construction materials, components, and processes; and perform a variety of fabrication, assembly, and finishing operations. They will use a variety of hand and power tools and apply knowledge of imperial and metric systems of measurement, as appropriate. Students will develop an awareness of environmental and societal issues related to construction technology, and will explore secondary and postsecondary pathways leading to careers in the industry. Students must have a tape measure.

Prerequisite: None

Woodworking TWJ 3E1 (WORKPLACE)

This course enables students to develop knowledge and skills related to cabinet making and furniture making. Students will gain practical experience using a variety of materials, tools, equipment, and joinery techniques associated with custom woodworking. Students will learn to create and interpret technical drawings and will plan, design, and fabricate projects. They will also develop an awareness of environmental and societal issues related to the woodworking industry, and will explore apprenticeships, postsecondary training, and career opportunities in the field that may be pursued directly after graduation.

Prerequisite: None

Construction Engineering Technology TCJ 4C1 (COLLEGE)

This course enables students to further develop knowledge and skills related to residential construction and to explore light commercial construction. Students will gain hands on experience using a variety of materials, processes, tools, and equipment and will learn more about building design and project planning. They will continue to create and interpret construction drawings and will extend their knowledge of construction terminology and of relevant building codes and regulations, as well as health and safety standards and practices. Students will also focus on environmental and societal issues related to construction engineering technology, and explore career opportunities in the field. Students must have a tape measure.

Prerequisite: TCJ 3C1

Construction Technology TCJ 4E1 (WORKPLACE)

This course enables students to further develop technical knowledge and skills related to residential construction and to explore light commercial construction. Students will continue to gain hands on experience using a variety of materials, processes, tools, and equipment; create and interpret construction drawings; and learn more about building design and project planning. They will expand their knowledge of terminology, codes and regulations, and health and safety standards related to residential and light commercial construction. Students will also expand their awareness of environmental and societal issues related to construction technology and explore entrepreneurship and career opportunities in the industry that may be pursued directly after graduation. Students must have a tape measure.

Prerequisite: TCJ 3E1



MANUFACTURING

Manufacturing Technology TMJ 2O1 (OPEN)

This course introduces students to the manufacturing industry by giving them an opportunity to design and fabricate products using a variety of processes, tools, and equipment. Students will learn about technical drawings, properties and preparation of materials, and manufacturing techniques. Students will create projects which will use processes such as machining, welding, plastic injection moulding and computerized machining. Students will develop an awareness of environmental and societal issues related to manufacturing, and will learn about secondary and postsecondary pathways leading to careers in the industry.

Prerequisite: None

Manufacturing Technology TMJ 3E1 (WORKPLACE)

This hands-on, project-based course is designed for students planning to enter an occupation or apprenticeship in manufacturing directly after graduation. Students will work on a variety of manufacturing projects, developing knowledge and skills in design, fabrication, and problem solving and using tools and equipment such as engine lathes, milling machines, and numerous styles of welding and fabricating. In addition, students may have the opportunity to acquire industry-standard certification and training. Students will develop an awareness of environmental and societal issues related to manufacturing and will learn about secondary school pathways that lead to careers in the industry.

Prerequisite: None

Manufacturing Technology TMJ 3C1 (COLLEGE)

This course enables students to develop knowledge and skills through hands-on, project-based learning. Students will acquire design, fabrication, and problem-solving skills while using tools and equipment such as lathes, mills, welders, computerized machines, plastic injection moulding and sheet metal equipment. Students may have opportunities to obtain industry-standard certification and training. Students will develop an awareness of environmental and societal issues related to manufacturing and will learn about pathways leading to careers in the industry.

Prerequisite: None

Manufacturing Technology TMJ 4E1 (WORKPLACE)

This project-driven, hands-on course builds on students' experiences in manufacturing technology. Students will further develop knowledge and skills related to the use of engine lathes, milling machines, various types of welding, plastic injection moulding, sheet metal equipment, computer numerical controlled machines and other tools and equipment as they design and fabricate solutions to a variety of technological challenges in manufacturing. Students may also have opportunities to acquire industry-standard training and certification. Students will expand their awareness of environmental and societal issues and of career opportunities in the manufacturing industry.

Prerequisite: TMJ 3E1

Manufacturing Technology TMJ 4C1 (COLLEGE)

This course enables students to further develop knowledge and skills related to machining, welding, blueprint reading, computer numerical control (CNC), and design. Students will extend their knowledge and skills related to the use of engine lathes, milling machines, various types of welding, plastic injection moulding, sheet metal equipment and other tools and equipment as they design and fabricate solutions to a variety of technological challenges in manufacturing. In this project-based learning environment students may have opportunities to obtain industry-standard training and certification. Students will expand their awareness of environmental and societal issues and career opportunities in the manufacturing industry.

Prerequisite: TMJ 3C1

TRANSPORTATION

Transportation Technology TTJ 201 (OPEN)

This course introduces students to the service and maintenance of vehicles, aircraft, and/or watercraft. Students will develop knowledge and skills related to the construction and operation of vehicle/craft systems and learn maintenance and repair techniques. Student projects may include the construction of a self-propelled vehicle or craft, engine service, tire/wheel service, electrical/battery service, and proper body care. Students will develop an awareness of related environmental and societal issues and will explore secondary and postsecondary pathways leading to careers in the transportation industry.

Prerequisite: None

Transportation Technology TTJ 3C1/301 (COLLEGE/OPEN)

This course enables students to develop technical knowledge and skills as they study, test, service, and repair engine, electrical, suspension, brake, and steering systems on vehicles, aircraft, and or watercraft. Students will develop communication and teamwork skills through practical tasks using a variety of tools and equipment. In addition, this course will enable students to become familiar with the options and features of various vehicles, issues of registration and the legal requirements affecting vehicle owners. Students will also learn about vehicle financing and insurance, vehicle maintenance, emergency procedures and the responsibilities of being a vehicle owner. Students will develop an awareness of environmental and societal issues related to transportation and will learn about apprenticeship and college programs leading to careers in the transportation industry.

Prerequisite: None

Transportation Technology: Vehicle Maintenance TTJ 4E1 (WORKPLACE)

This course introduces students to the servicing, repair, and maintenance of vehicles through practical applications. The course is appropriate for all students as a general interest course to prepare them for future vehicle operation, care, and maintenance or for entry into an apprenticeship in the motive power trades. Students will develop an awareness of environmental and societal issues related to transportation and will learn about careers in the transportation industry and the skills and training required for them.

Prerequisite: None

Transportation Technology TTJ 4C1 (COLLEGE)

This course enables students to further develop technical knowledge and skills as they study, test, service, and repair engine management systems; power trains; steering/control, suspension, brake, and body systems on vehicles, aircraft, and/or watercraft; and/or small-engine products. Students will refine communication and teamwork skills through practical tasks, using a variety of tools and equipment. Students will expand their awareness of environmental and societal issues related to transportation and their knowledge of apprenticeship and college programs leading to careers in the transportation industry.

Prerequisite: TTJ 3C1



COMPUTER TECHNOLOGY

Computer Technology TEJ 201 (OPEN)

This course introduces students to computer systems, networking and interfacing, as well as electronics and robotics. Students will assemble, repair and configure computers with various types of operating systems and application software. Students will build small electronic circuits and write computer programs to control simple peripheral devices or robots. Students will also develop an awareness of related environmental and societal issues, and will learn about secondary and post-secondary pathways and career opportunities in computer technology.

Prerequisite: None

Computer Engineering Technology TEJ 3M1 (UNIVERSITY/COLLEGE)

This course examines computer systems and control of external devices. Students will assemble computers and small networks by installing and configuring appropriate hardware and software. Students will develop knowledge and skill in electronics, robotics, programming and networks and will build systems that use computer programs and interfaces to control and/or respond to external devices. Students will develop and awareness of related environmental and societal issues, and will learn about college and university programs leading to careers in computer technology.

Prerequisite: None

Computer Engineering Technology TEJ 4M1 (UNIVERSITY/COLLEGE)

This course extends students' understanding of computer systems and computer interfacing with external devices. Students will assemble computer systems by installing and configuring appropriate hardware and software, and will learn more about fundamental concepts of electronics, robotics, programming and networks. Students will examine related environmental and societal issues, and will explore postsecondary pathways leading to careers in computer technology.

Prerequisite: Computer Engineering Technology, Grade 11, University/College

