

# TECHNOLOGICAL EDUCATION COURSE DESCRIPTIONS

## GRADE 9

### **Exploring Technologies - Open**

**TIJ10**

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 Hospitality and Tourism - Open**

**TFJ10**

This exploratory course introduces students to concepts and skills related to hospitality and tourism, focusing on the areas of safety, food handling, food preparation, the origins of food, event planning, and local tourism. Students will develop an awareness of related environmental and societal issues and will begin to explore secondary and post-secondary pathways leading to careers in the field.

## GRADE 10

### **Communications Technology - Open**

**TGJ20**

This course introduces students to communications technology from a media perspective. Students will work in the areas of TV/video and movie production, radio and audio production, print and graphic communications, photography, and interactive new media and animation. Student projects may include computer-based activities such as creating videos, editing photos, working with audio, cartooning, developing animations, and designing web pages. Students will also develop an awareness of environmental and societal issues related to communications technology, and will explore secondary and post-secondary education and training pathways and career opportunities in the various communications technology fields.

### **Construction Technology - Open**

**TCJ20**

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.

**Hair Styling and Aesthetics - Open****TXJ20**

This course presents hairstyling, make-up, and nail care techniques from a salon/spa perspective. Using materials, processes, and techniques used in the industry, students learn fundamental skills in hairstyling, giving manicures and facials, and providing hair/scalp analyses and treatments. Students will also consider related environmental and societal issues, and will explore secondary and postsecondary pathways leading to careers in the field of hairstyling and aesthetics.

**Hospitality and Tourism - Open****TFJ20**

This course provides students with opportunities to explore different areas of hospitality and tourism, as reflected in the various sectors of the tourism industry, with an emphasis on food service. Students will study culinary techniques of food handling and preparation, health and safety standards, the use of tools and equipment, the origins of foods, and event planning, and will learn about tourism attractions across Ontario. Students will develop an awareness of related environmental and societal issues, and will explore secondary and postsecondary pathways leading to careers in the tourism industry.

**Transportation Technology - Open****TTJ20**

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.

**GRADE 11****Communications Technology - University/College Preparation****TGJ3M**

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 will explore college and university programs and career opportunities in the various communication technology fields.

**Communications Technology, New Media & Animation - University/College Preparation****TGI3M**

Students will be exposed to the different types of new media technologies offered at Westside. These technologies include, Digital Illustration, 2D animation, Game Design, 3D Modeling and 3D Animation. Students will have the opportunity to develop skills in digital illustration using a wacom tablet, create 2D animations and character development, design their own video game graphics, as well as model, animate and print their own 3D character. Fully licensed software such as Adobe Animate, Autodesk Maya and Autodesk Sketchbook are provided for each student. Students will have access to HTC Vive and Oculus Rift hardware and software, as well as their own Wacom digital illustration tablet. Please note this course attains a high level of concept drawing through digital illustration, however no drawing skills are required as a prerequisite. Students who choose this course may have a post secondary interest in Animation, 3D Modeling, Game Design or Virtual/Augmented Reality industries.

### **Construction Engineering Technology - College Preparation**

**TCJ3C**

This course focuses on the development of knowledge and skills related to residential construction. Students will gain hands-on experience using a variety of construction materials, processes, tools, and equipment; learn about building design and planning construction projects; create and interpret working drawings and sections; and learn how the Ontario Building Code and other regulations and standards apply to construction projects. Students will also develop an awareness of environmental and societal issues related to construction technology, and will explore career opportunities in the field.

### **Hairstyling and Aesthetics - Workplace Preparation**

**TXJ3E**

This course enables students to develop knowledge and skills in cosmetology and offers a variety of applications that will equip students to provide services for a diverse clientele. Students will identify trends in the hairstyling and aesthetics industry, learn about related health and safety laws, and expand their communication and interpersonal skills through interactions with peers and clients. Students will also consider environmental and societal issues related to the industry, and will acquire a more detailed knowledge of apprenticeships and direct-entry work positions.

### **Hospitality and Tourism - College Preparation**

**TFJ3C1**

**Baking: TFJ3C2**

This course enables students to develop or expand knowledge and skills related to hospitality and tourism, as reflected in the various sectors of the tourism industry. Students will learn about preparing and presenting food, evaluating facilities, controlling inventory, and marketing and managing events and activities, and will investigate customer service principles and the cultural and economic forces that drive tourism trends. Students will develop an awareness of health and safety standards, environmental and societal issues, and career opportunities in the tourism industry.

### **Hospitality and Tourism - Workplace Preparation**

**TFJ3E**

This course enables students to acquire knowledge and skills related to the food and beverage services sector of the tourism industry. Students will learn how to prepare, present, and serve food using a variety of tools and equipment, and will develop an understanding of the fundamentals of providing high-quality service to ensure customer satisfaction and the components of running a successful event or activity. Students will develop an awareness of health and safety practices, environmental and societal issues, and career opportunities in the food and beverage services sector.

### **Transportation Technology - College Preparation**

**TTJ3C**

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. 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.

## GRADE 12

### **Communications Technology - University/College Preparation**

**TGJ4M**

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:** Communications Technology, Grade 11, University/College Preparation

### **Communications Technology, New Media & Animation - University/College Preparation**

**TGI4M**

Grade 12 New Media & Interactive Animation will be further exposed to industry technologies as well as develop a postsecondary portfolio which focuses on their chosen new media and interactive pathway. Students have the option of choosing 2D or 3D Animation, 3D Modeling, Game Design, or Virtual/Augmented Reality. After a pathway is chosen, students will have the opportunity to develop their portfolio through 2 major assignments of their choice. At the end of the course each student's portfolio will be presented as a gallery, animated short film, a functioning game, or a virtual reality or augmented reality experience. Fully licensed software such as Adobe Animate, Autodesk Maya and Autodesk Sketchbook will be provided for each student. Students will have access to HTC Vive and Oculus Rift hardware and software, as well as their own Wacom digital illustration tablet. Students who choose to take this course will be on their way in pursuing post-secondary education and careers in 2D and 3D Animation, 3D Modeling, Game Design, and Virtual/Augmented Reality.

**Prerequisite:** Communications Technology, New Media and Animation, Grade 11, University/College Preparation

### **Construction Engineering Technology - College Preparation**

**TCJ4C**

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 will explore career opportunities in the field.

**Prerequisite:** Construction Engineering Technology, Grade 11, College Preparation

### **Hairstyling and Aesthetics - Workplace Preparation**

**TXJ4E**

This course enables students to develop increased proficiency in a wide range of hairstyling and aesthetics services. Working in a salon/spa team environment, students will strengthen their fundamental cosmetology skills and develop an understanding of common business practices and strategies in the salon/spa industry. Students will also expand their understanding of environmental and societal issues and their knowledge of postsecondary destinations in the hairstyling and aesthetics industry.

**Prerequisite:** Hairstyling and Aesthetics, Grade 11, Workplace Preparation

**Hospitality and Tourism - College Preparation****TFJ4C1****Baking TFJ4C2**

This course enables students to further develop knowledge and skills related to the various sectors of the tourism industry. Students will demonstrate advanced food preparation and presentation skills; increase health and wellness knowledge; develop tourism administration and management skills; design and implement a variety of events or activities; and investigate principles and procedures that contribute to high-quality customer service. Students will expand their awareness of health and safety issues, environmental and societal issues, and career opportunities in the tourism industry.

**Prerequisite:** Hospitality and Tourism, Grade 11, College Preparation

**Hospitality and Tourism - Workplace Preparation****TFJ4E**

This course enables students to further develop knowledge and skills related to the food and beverage services sector of the tourism industry. Students will demonstrate proficiency in using food preparation and presentation tools and equipment; plan nutritious menus, create recipes, and prepare and present finished food products; develop customer service skills; and explore event and activity planning. Students will expand their awareness of health and safety practices, environmental and societal issues, and career opportunities in the food and beverage services sector.

**Prerequisite:** Hospitality and Tourism, Grade 11, Workplace Preparation

**Transportation Technology - College Preparation****TTJ4C**

This course enables students to further develop technical knowledge and skills as they study, test, service, and repair engine management systems; powertrains; 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:** Transportation Technology, Grade 11, College Preparation