COURSE INFORMATION

DATE: February 2024
SCHOOL: Yeshiva High School of Ottawa
DEPARTMENT HEAD: N/A
TEACHER: Mr. Nathan Lawrie
DEPARTMENT: General Studies, Maths and Sciences

CURRICULUM POLICY DOCUMENT	The Ontario Curriculum: Grades 9 and 10 – Technological Education (2009, revised)		
COURSE TITLE	Exploring Technology	**COURSE CODE**	TIJ1O
PRE-REQUISITE	None	**GRADE & TYPE**	Grade 9 Open
FULL YEAR / SEMESTER	Semester	**CREDIT VALUE**	1.0

COURSE DESCRIPTION

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.

UNIT 1 — Careers and Innovation   TIME: 25 HOURS

Part 1: **Technology Careers**: Students will explore and research a variety of careers in technology and will research and present on a chosen career. Students will focus on necessary skills, educational pathways, and national opportunities.

Part 2: **Space Technology:** Students will study the documentary Apollo 11 and discuss the problems faced by the Astronauts and Control Team. Students will research the Canadarm and explain how this Canadian innovative technology has transformed Space research.

Example Assignment 1 - Students research and present on a technology based career
Example Assignment 2 - Students create an interactive panel highlighting a historical technological advancement or disaster.

UNIT 2 — Communication Technology   TIME: 25 HOURS

Part 1 - **Types of Communication:** Students will evaluate a variety of types of online communication technology including Prezi, PowerPoint, Google, Microsoft Teams and complete a variety of exercises to highlight their understanding of these platforms.

Part 2 - **Local Newsletter:** Students will learn how to organize data and use a variety of technology (including video / photo-editing, and graphic design) in order to collaboratively publish an end of term school bulletin.

Example Group Assignment: Students create an online bulletin for the school.

UNIT 3 — Computer Technology   TIME: 20 HOURS

Part 1 - **Games Design:** Students will explore a variety of computer design programs including Scratch and RPG maker to code and create their own RPG game. This will be cross-curricular with Math and potentially English.

Example Assignment 1 - Students code a small computer game via Scratch (or another appropriate program).
Example Assignment 2 - Students create a digital map via RPG map maker and build their own RPG game rules around this.

UNIT 4 — Environmental Technology	TIME: 30 HOURS

Part 1 - **Sustainable Energy:** Students look in detail at sustainable energy and the effects it has on the environment. Students consider the science relating to sustainable energy and the types of technology needed to harness it.
Part 2 - **Pollution**: Students look at the devastating effects of environmental pollution, both on a small and large scale and consider the technological steps required to alleviate the issue.
Example Assignment 1: Students write an informative piece on a chosen type of sustainable energy which includes detailed research notes and scientific explanations.
Example Assignment 2: Students will create a short news report via Screencastify or a similar technology highlighting a current pollution issue in Ottawa.

UNIT 5 — Summative Assignment	TIME: 10 HOURS

Environmental Project: Students will complete a project on sustainability such as encouraging recycling, re-using plastics etc Students will invent a technology that can be implemented locally and will encourage people to be more mindful of their environment. Students must use all learning and skills from the previous units in this assignment. They must consider career and job areas around environmental technology, use communication technology to design and highlight their innovation, such as creating a pitch deck through Prezi, Google Slides, or PowerPoint alongside Screencastify. They must also create a 'model' program using coding, and display their understanding of environmental technology in order to successfully pitch the overall project.

STUDENT EVALUATION CRITERIA					
TERM – 70%		**FINAL – 30%**		**FINAL REPORT CARD GRADE CALCULATION**	
Knowledge/Understanding	25%	Knowledge/Understanding	25%	**TERM TOTAL + FINAL TOTAL = REPORT CARD MARK**	
Inquiry/Thinking	25%	Inquiry/Thinking	25%		
Communication	25%	COMMUNICATION	25%		
Application	25%	Application	25%		

ASSESSMENT METHODS		
OBSERVATIONS:	**CONVERSATIONS:**	**PRODUCTS:**
- Informal presentations - Reading skills - Writing process steps (graphic organizers, research notes, outlines, drafts, editing checklists) - Listening and speaking skills - Self-assessment - Records of practice including checklists, anecdotal notes (homework, classroom contributions, metacognition charts, notetaking)	- Peer feedback / editing - Group work records - Conferences (student- teacher, group) - Classroom contributions - Composition/ arrangements - Response Journals	- Review quizzes - Unit tests - Projects - Oral presentations - Assignments - Summative tasks - Final Examination (30%)

LEARNING SKILLS	
Report Cards will include a letter grade for the following Learning Skills:	
INDEPENDENT WORK	**The student:** - accomplishes tasks independently - accepts responsibility for accomplishing tasks - follows instructions - regularly completes assignments on time and with care - uses time effectively
COLLABORATION	**The student:**

	▪ works willingly and cooperatively with others ▪ listens attentively, without interrupting ▪ takes responsibility for his/her share of the work to be done ▪ helps to motivate others, encouraging them to participate ▪ shows respect for the ideas and opinions of others
ORGANIZATION	**The student:** ▪ organizes work when faced with a number of tasks ▪ devises and follows a coherent plan to complete a task ▪ demonstrates ability to organize and manage information ▪ follows an effective process for inquiry and research
RESPONSIBILITY	**The student:** ▪ completes homework on time and with care ▪ follows directions ▪ shows attention to detail ▪ perseveres with complex projects that require sustained effort ▪ applies effective study practices
INITIATIVE	**The student:** ▪ seeks out new opportunities for learning ▪ seeks necessary and additional information ▪ requires little prompting to complete a task, ▪ approaches new learning situations with confidence and a positive attitude ▪ seeks assistance when needed
SELF-REGULATION	**The student:** ▪ sets individual goals and monitors own progress ▪ seeks clarification or assistance when needed ▪ reflects and assesses critically own strengths, needs and interests ▪ perseveres and makes an effort when responding to challenges

NOTE: The above chart is a reformatting of the skills identified in the Ministry of Education's *__Guide to the Provincial Report Card, Grades 9 – 12__* : *__Appendix C: pages 27 to 29__* .

POLICIES AND PROCEDURES	
ATTENDANCE	The Ontario Ministry of Education requires 110 hours of instruction for each course. As such, it is essential for the students to arrive punctually to each class. Students arriving more than ten minutes late will be marked "Late" on their report card. Students who are absent for an acceptable reason (see below) still have to make up the number of hours missed under the supervision of a teacher or the principal according to their availability. It is the student's duty to determine and arrange this supervision, and YHSO does not guarantee teacher's or principal's availability. ***Students who are absent for non-acceptable reasons will forfeit their credit.*** ACCEPTABLE REASONS FOR ABSENCE • Medical reason (may require a physician's note) • Family trips or special occasions (up to four missed classes per course) Regardless of reason for an absence, if a student misses more than 26 classroom hours they will forfeit their credit.
ASSIGNMENTS	Students are responsible to complete all their assignments and homework on time. Teachers will write all assignments, homework and tests on a classroom board, along with their due dates, but students are accountable to complete these assessments punctually. ***Assignments handed in late may result in a deduction of marks.*** Teachers will post all assessments and assignments and their due dates on Google Classroom.

	Students and their parents will have access to the Google Classroom for their courses.
BEHAVIOUR	Students may not act in any manner that disrupts the education of another, or distracts a teacher. This includes: - Excessive noise - Physical disruptions - Eating (unless granted individual permission) - Use of technology not for schoolwork purposes - Acts of disrespect such as name calling, abusive or offensive language or gestures Failure to adhere to these rules will result in disciplinary action as described in the Student Handbook and Course Calendar.
PLAGIARISM	Academic integrity and honesty is expected from every student in Yeshiva High School of Ottawa. We take all instances of suspected dishonesty, plagiarism, or any form of "cheating" very seriously. A student who submits work that is, in whole or in part, plagiarized, will be subject to academic penalties. Repeated infractions may result in the loss of a credit and further disciplinary action. A student who assists another student in academic dishonesty may face academic consequences, including revocation of a credit.