

York Region District School Board
Bur Oak Secondary School
TPJ4M Grade 12 Health Care Technology
COURSE OUTLINE

Course Title: Health Care Technology
Course Code: TPJ4M
Grade: 12
Course Type: Mixed College/University
Credit Value: 1.0

Curriculum Policy Document: The Ontario Curriculum
Grades 11 and 12 Technological Education 2009
Department: Technological Education
Course Developer: Angela McKay
Department Head: Aron Katz
Development Date: 2013
Revision Date: January 2022

COURSE OVERVIEW

This course focuses on the development of a range of skills needed to analyse and interpret clinical findings. Students will learn about accepted health care practices and demonstrate an understanding of basic procedures and the use of appropriate instruments and equipment. They will acquire an understanding of basic concepts related to the function of the human immune system and explore the relationship between pathology and disease prevention and treatment. Students will expand their awareness of workers' health and safety issues, analyse environmental and societal issues related to health care, and further explore professional practice standards and postsecondary destinations in the field.

Overall Expectations:

HEALTH CARE FUNDAMENTALS

- A1. demonstrate an understanding of health care terminology and its correct usage;
- A2. demonstrate an understanding of the structure and functioning of the immune system;
- A3. demonstrate an understanding of fundamental concepts in pathology and their application to the diagnosis and treatment of disease;
- A4. demonstrate an understanding of the transmission of disease and methods of preventing it.

HEALTH CARE SKILLS

- B1. demonstrate competence in using health care instruments, equipment, and materials;
- B2. demonstrate the ability to use vital signs to determine a client's health status;
- B3. demonstrate an understanding of and apply standard practices and procedures used in the health care field;
- B4. demonstrate an understanding of and apply communication and documentation techniques required in the health care industry.

HEALTH CARE, THE ENVIRONMENT, AND SOCIETY

- C1. assess the impact of the health care industry on the environment, and identify legal requirements and guidelines for protecting the environment from harmful consequences;
- C2. assess the societal and ethical implications of advances in medical technology.

PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES

- D1. demonstrate an understanding of and comply with safe working practices and the laws and regulations governing the health and safety of workers in the health care industry;
- D2. demonstrate an understanding of legal, ethical, and professional standards governing the practice of health care;
- D3. demonstrate an understanding of the range of career opportunities in conventional and alternative therapy fields.

UNITS OF STUDY

Unit 1 Health Care Fundamentals

Length: 15 days

This unit focuses on the fundamental health care concepts related to Vital Signs, Medical terminology, Communication and Documentation.

Students will manipulate medical prefixes, roots and suffixes to accurately translate terms between professional and lay language. They will use directional terms to describe the locations of organs and areas of injury. They will safely and correctly use appropriate equipment to measure a client's vital signs and will accurately apply correct terminology to describe normal and abnormal vital signs. Students will gather and document client information to industry standards.

Expectations A1, B1, B2, B4, D1,	Focus Accurate translation of medical terminology. Basic knowledge of common medical prefixes, roots and suffixes Heart anatomy and function as it relates to vital sign assessment Knowledgeable and safe equipment use for accurate measurement of the 4 basic vital signs. Gathering, organizing and documenting client information.	Assessment KU/TI/C/A Frequent formative assessments Unit tests Skills assessment
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Unit 2 Infection Control

Length: 9 days

This unit will focus on the principles of asepsis. Students will have a clear understanding of the difference between clean and sterile. They will solidify this through the practice of techniques such as donning and doffing of sterile gloves, preparing and maintaining a sterile field, preparing, sterilizing and using sterile equipment in sterile procedures such as wound care.

Expectations A1, A4, B1, B3, C1, D1, D3	Focus Terminology related to infection control Clean technique Sterile techniques	Assessment KU/TI/C/A Frequent formative assessments Skills demonstration Unit test
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Unit 3 Microbiology

Length: 16 days

This unit will focus on the differentiation of microorganisms and related lab skills. Students will be able to identify the major types of pathogens. Students will use actual and simulated lab equipment to practice industry standard skills in order to make the connection between pathogens and disease transmission, identification, treatment and prevention

Expectations A1, A3, A4, B1, B3, D3	Focus Microbiology terminology Morphology of the major pathogen groups: Bacteria, viruses, fungi and parasites Differentiation techniques for bacterial identification and disease treatment Microbiology lab techniques	Assessment KU/TI/C/A Frequent formative assessments Skills practice Performance task Unit test
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Unit 4 Anatomy and Physiology
Length: 12 days
 The anatomy and physiology unit in grade 12 focuses on the anatomy and function of the blood, immune system and lymphatic system. Students will make the connection between the structure and function of these systems and disease processes.

Expectations A1, A2, A3, A4, B1, B2, B3, D1, D3	Focus blood components and function lymphatic organs and function immune reaction process blood typing	Assessment KU/TI/C/A Frequent formative assessments Skills practice blood lab Performance task Unit test
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Unit 5 Health Care and Society
Length 12 days
 In this unit students will explore health care in the media from a variety of health perspectives including, physical, social, cultural, emotional and environmental.

Expectations C1, C2, D2	Focus Analyzing health information source legitimacy Identification of areas of health Identification of current health issues Health ethics	Assessment A Oral presentation
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Culminating Project
Health Careers and Professional Practice
Length: 9 days
 This unit will build on the units studied throughout the semester with a focus on health care professionals, their assessment of clients and the diagnosis and treatment of disease. This includes knowledge and application of pharmacology, diagnostics, assessment techniques and appropriate documentation.

Expectations A1, A3, B1, B3, B4, C1, D1, D3	Focus Charting Diagnostics: blood testing, blood typing, venipuncture, urinalysis, diagnostic imaging, Disease treatment: Pharmacology	Assessment Performance tasks Frequent formative assessments Skills practice
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Assessment and Evaluation

Evaluation will take the form of the four level system as provided by the Ministry of Education:

·	Level 1	- 50 - 59%	- Limited effort in relating: Knowledge, Thinking/ Inquiry, Communication and Application
·	Level 2	- 60 - 69%	- Moderate effort in relating: Knowledge, Thinking/ Inquiry, Communication and Application
·	Level 3	- 70 - 79%	- Considerable effort in relating: Knowledge, Thinking/ Inquiry, Communication and Application
·	Level 4	- 80 - 100%	- High Degree of effort in relating: Knowledge, Thinking/Inquiry, Communication and Application

Grades will be based upon the following:

70% of the course grade is based on assessments throughout the semester. These include but are not limited to Unit Tests, Projects and Lab skills. The weightings of the summative evaluations that make up this 70% are:

Knowledge & Understanding 17%

Understanding subject-specific content and comprehension of its meaning and significance. Knowledge and understanding will be assessed through a variety of question formats including multiple choice, matching, diagrams and short answer questions during summative assessments.

Thinking & Inquiry 14%

Use of planning skills. Use of processing skills. Use of critical/creative thinking processes

Communication 14%

Expression and organization of ideas and information in oral, visual, and written forms. Communication for the specific audience in oral, visual, and/or written forms. Use of conventions vocabulary, and terminology of the discipline in oral, visual, and written forms,

Application 25%

Application of knowledge and skills in familiar contexts. Transfer of knowledge and skills to new contexts. Making connections within and between various contexts

Assessment marks will be posted on the YRDSB Teachassist where they are available for viewing by students and parents/guardians.

During the first week of school students will be given access to the TPJ4 Google classroom which will contain assignments, powerpoints and practice activities for students.

I strongly encourage parents and guardians to have the students show you how to access their teachassist and Google classroom so that you are aware of the work being done and your student's progress.

Learning Skills

In addition to the specific skills that are developed throughout the course, students learn to:

- Solve problems through careful analysis, cooperation and communication;
- Develop Time-management Skills To Design And Follow Organizational Plans To Complete A Range Of Tasks;
- Develop Individual And Group Skills Through Student-centred Activities;
- Show Commitment To A Task By Maintaining A Level Of Effort Required To Complete Projects And Activities
- Develop The Ability To Self-monitor Progress Using Record-keeping And Tracking Procedures Such As Logs, Journals And Project Portfolios.

Assessment/Evaluation Techniques

Methods of assessment and evaluation include a variety of approaches to enhance the learning environment. Assessment methods may include: performance assessment such as project deliverables and skill demonstrations; personal communication assessment such as instructional questions and answers, conferences, classroom discussions, journals, or log books; and standardized tests such as classroom tests or examinations. Self and peer assessment assist the student by providing directions to improve performance. Assessment charts included in each activity provide the basis for teacher evaluation rubrics, student self-assessment, and peer assessment.

Teaching/Learning Strategies

A variety of teaching and learning strategies are used throughout the course, including: classroom lessons, brainstorming, collaborative and cooperative learning, student–teacher conferencing, design process, independent study, demonstrations, practical applications, theory lessons and assignments, research and reflection.

Equity and Inclusive Education

Throughout the units of study in the Health Care Technology course students are guided to explore and discuss a variety of social, economic and cultural perspectives related to the application of health care skills and policies. Concepts of health care are presented so that students can see themselves, and their own and classmates' lived experience reflected in what and how they are learning.

We will work together to minimize the barriers that limit students' ability to achieve and to pursue their chosen pathways after graduation while supporting the choice of appropriate pathways to work, college, apprenticeship, or university.

Safe and Appropriate Use of Equipment and Facilities

As per the BOSS student handbook, No communication devices are to be played on school property without the authorization of the teacher. Unauthorized use of cell phones, tablets, laptops etc. are not permitted and may be confiscated at the school's discretion.

Students are expected to practice safety/censorship on the Internet by following School Board Policies relating to appropriate student use and access to Internet services. The teacher will address safety/censorship on the Internet by implementing School Board Policies relating to appropriate student use and access to Internet services.

The units in this course profile rely upon the availability of a wide range of equipment. Students are expected at all times to use all equipment with utmost care. Horseplay and careless use of equipment can result in students not getting to use the equipment. All students are responsible for putting away equipment after use. Students are required to report all equipment misuse or damage immediately to the teacher. Any student who through acts of misuse causes damage to any equipment will be required to pay for all repair and or replacement costs.

Students will be instructed in the safe use of equipment on an ongoing basis throughout the semester and will be required to sign safe use agreements related to the learning.

Any disrespectful or inappropriate use of manikins or equipment will not be tolerated and students will lose the privilege of their use at the discretion of the teacher.

If a student does not use classroom equipment appropriately they may not be able to complete required work.

Plagiarism, attendance, late and missed assignments, tests and performance activities:

Please refer to the BOSS Assessment, Evaluation and Communication Policy for more information

The teacher will clearly identify the summative evaluations that will be used to arrive at a final grade.

Students who are absent for part or all of a class may miss important learning opportunities.

Students are responsible for work covered during any absence, and can expect to be evaluated on all information covered in the course. It is the student's responsibility to find out what they have missed. Persistent absences may place the student in jeopardy of losing the credit.

Sometimes absences from class are unavoidable. If a student has an anticipated absence on the day of summative assessment the student must notify the teacher two days prior to the absence and arrange for submission or completion of the assessment prior to the absence.

If a student has an unscheduled, authorized absence on the due date for a summative assignment the student will be expected to make arrangements to submit the assignment directly to the teacher on the scheduled due date despite the absence. This may be achieved by having a friend, sibling or parent/guardian hand the assignment directly to the teacher or by submitting evidence of the completed assignment via email or google classroom.

Students are expected to submit completed projects at the beginning of class on the due date.

Work submitted later than the beginning of the class on the due date will be considered late. Incomplete work handed in on time will be assessed using the assessment outline and rubric.

All late assignments may be subject to a mark reduction of 3% per day to a maximum of 15%.

Students with unauthorized absences will be given a mark of zero on missed evaluations.

If a student has a scheduled absence on the day of a summative test the student is expected to make arrangements to write the test prior to the absence.

If a student has an unscheduled, authorized absence on the day of a summative test the student will be expected to be responsible for attending and writing the test on the day of their return at lunch or during class, whichever comes first.

Students who have absences during some or all of any group work projects will be expected to complete alternate assignments. Limited opportunity may be available in class for catching up. Students who need extra time or assistance with understanding course content and project expectations may arrange to see the teacher during non teaching periods.

To assist students in recognizing and avoiding plagiarism most summative work will be done in the Google Classroom. Students will be expected to show evidence of their process in the google classroom and as instructed **all work should be done in the Google classroom on the documents provided** by the teacher. Students may be asked to submit some assignments to Turnitin. **If a project expectation is submission through Turnitin then the project will not be graded until this step is completed.**

My email is angela.mckay@gapps.yrdsb.ca Parents/guardians and students please use this email to contact me with any questions, comments or concerns that you have throughout the semester. I look forward to working together.