Westside Secondary School

Course Outline

Course: **TEJ3M**	**Teacher:** **Ms. Jackie Griffith**	**Program Leader:**	**Mr. Jim Wardle**
Computer Technology	**Voice Mail:** **539**	**Email:**	**jgriffith@ugcloud.ca**

Course Description:

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.

Big Ideas (overall learning outcomes for the course):

- gain an understanding of the fundamental concepts in technology

- achieve a higher level of technological competence

- develop a creative and flexible approach to problem solving

- develop the skills, including critical thinking skills, and the knowledge of strategies required to do research, conduct inquiries, and communicate findings accurately, ethically, and effectively develop lifelong learning habits

- make connections that will help take advantage of potential postsecondary educational and work opportunities

Overall Curriculum Expectations: (by the end of this course, students will):

Computer Technology Fundamentals - discover advances in Computer Technology; understand system optimization' network addressing and routing.

Computer Technology Skills - build, configure and maintain a computer system and connect peripheral devices; install, configure, test, and troubleshoot networks; create programs that interact with external devices.

Technology, The Environment, and Society - describe environmental and societal issues related to the widespread use of computers and associated technologies.

Professional Practice and Career Opportunities - describe ethical and security issues related to the use of computers; explain the importance of following industry health and safety standards and practices; describe various careers related to computer technology.

Assessment and Evaluation:

Formative assessments are used to improve student learning by providing varied opportunities to demonstrate an understanding of course expectations in preparation for summative evaluations. Summative evaluations test groups of key expectations. Failure to complete a summative evaluation may result in the expectations of the course not being met and the credit not being granted.

Late Policy:

Students are expected to complete all assigned work and submit it by the teacher's established due date. Every attempt will be made to encourage students to complete all assigned work on time so their grade represents their actual achievement. For late and missed summative assessments, please see the Westside's Student Contract for Missing Evidence of Learning.

More details about Westside's Assessment and Evaluation Policy is available at:
http://www.ugdsb.ca/westside/wp-content/uploads/sites/74/2016/12/Westside-Assessment.pdf

Learning Skills:

Your learning skills will be assessed in the following manner:

1	Responsibility
2	Organization
3	Independent Work
4	Collaboration
5	Initiative
6	Self-Regulation

The learning skills will be evaluated using a 4-point scale:

E – Excellent
G – Good
S – Satisfactory
N – Needs Improvement

70% Summative Assessment:

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Category	Concentration
Knowledge and Understanding	25%
Thinking and Inquiry	25%

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Communication	25%
Application	25%

	Term Work (70%)
Unit of Study	**Summative Evaluations**
Networking	Simple networking schematics and interfacing
Computer Hardware	Assemble and Upgrade a Personal Computer
Operating Systems	Install and Configure a single-user Operating System
Programming	Basic Programming for Arduino and use of Khan Academy
Reverse Engineering	Unethical Computer Hacking and Safe Computer Use
Societal	Research Assignment regarding the Impact of Technology
Career Explorations	Explore appropriate Careers in Information Technology
	Final Summative (30%)
All units 10%	Culminating Activity
All units 20%	Final Exam (on Exam Day)