NAME:_____

BLK: _____

COURSE OUTLINE
ELECTRONICS LEVEL 1

I. COURSE OBJECTIVES

A. To gain experience and knowledge in the outlined areas of work and study.
B. To gain some knowledge of systems, and how the functional units connect to each other.
C. To design or modify a system or sub-system.
D. To initiate and complete a project or practical job to a reasonable standard.
E. To read drawings related to electronics.
F. To develop skills in the use of electronic tools.
G. To develop skills in the use and application of test equipment.
H. To gain knowledge of symbols and units of measure.
I. To gather, organize, and interpret performance data.
J. To gain knowledge of troubleshooting techniques and procedures.
K. To develop skills in the use of reference materials and resources.

II. COURSE CONTENT

A.	Introduction – General concepts of electronics technology	Intro to Electricity Intro to Electronics
B.	Electrical Safety	Safety Quiz
C.	Basic Electron Theory	
D.	Troubleshooting Guide	
E.	Intro to component identification	"Rock on a Hill" analogy 4 Basic Parts of a Simple Circuit
F.	Systems and Circuits	Hand-out Best #2-Lab #1
G.	Resistor color code	Color code exercises
H.	Intro to solderless breadboard	Lesson 4
I.	Intro to digital multimeter (DMM)	Resistance measurement
J.	Intro to DC power supply	Voltage measurement
K.	Project Labs	#2 –30
L.	Units of measure conversion	How to - Unit 10
M.	Capacitors	Unit 16
N.	Semiconductors	Unit 17 – Semiconductor lab #1-2
O.	Project work	Alarm Simulator

III. SUPPLIES REQUIRED

- Bring a **binder with paper, pencil and eraser** to class,
- Bring your **parts box** to class,
- Bring a **calculator** to class.
- Bring your SHSS **Planner** to class.

IV. SECURITY, SAFETY & BEHAVIOR

- Any abuse or misuse of equipment will result in consequences,
- No outdoor jackets permitted in the lab,
- No backpacks or large carry bags,
- No food or drink,
- No personal cell phones, cameras or DAPs may be brought into the Elx Lab.
- Only use machinery or equipment that you have observed a **SAFETY** demonstration for and for which you have received an 80% or better mark on the Safety test.
- Items left in the class are at your own risk.
- **ASK FOR PERMISSION TO USE THE MACHINERY.**
- For all potentially hazardous products **WHIMS** must be read and understood.

V. EVALUATION

The final mark is based on theoretical work, project work, lab work, and participation/accountability.

Note book..... 10%
Participation/Accountability 10%
i) Safety
ii) Attendance
iii) Work habits
Term tests..... 20%
Term project..... 30%
Labs..... 30%
TOTAL..... 100%

VI. NOTEBOOK

Tests and quizzes will be based on the notes you have taken in class. It is essential that you keep your notebook neat and organized. If you miss a day of notes, it is your responsibility to get the notes from another member of the class. All handouts you receive must be hole-punched and inserted correctly into your binder. 10% of your grade for the course will be based on how neat and complete your notebook is.

NAME:_____

BLK: _____

VII. PROJECT COST & ADDITIONALS

Every student will be able to meet the course objectives at no cost to the student.

Each student is required to have a prototyping breadboard.
This is available for use during the course but will require a damage deposit of $10.00 which will be returned at the end of the semester if the breadboard is undamaged. The student may wish to purchase their own breadboard at a cost of $10.00.

A parts box (fish tackle box) is highly recommended and can be purchased from Canadian Tire ~ $6.00 - $10.00 alternately any container that has a lid can be used.

If the student decides to build and take home a project, the cost of all materials will be their responsibility. A cost sheet for these materials will be made available to parents once an appropriate project is decided on.

_____

Parent Signature