



## Royal West Academy

### Course Outline

Course: **Educational Technology and Design, Secondary III**

Teacher: F. Girardin Room: 208

E-mail: fgirardin@emsb.qc.ca

Texts/workbooks: None

### Course Description:

- 1. Google Sheets:** Students will build upon what they learned in Ed. Tech. II and continue to create, format, and manipulate spreadsheets to organize data, generate charts, and perform complex calculations.
- 2. Programming with Python:** Students will discover the power of coding with Python. This segment covers basic programming concepts, including variables, control structures and functions. Students will develop their problem-solving skills by working on engaging projects and coding challenges.
- 3. Electronics with Arduinos:** Students will get hands-on experience with electronics and microcontrollers using Arduino kits. They will learn the basics of circuit design and use LEDs, sensors, and motors to build interactive projects that respond to real-world inputs. Students will write code to control hardware, fostering a deeper understanding of how software and hardware interact.
- 4. 3-D Modeling with Tinkercad:** Students will continue to explore the fundamentals of 3-D design and modeling with Tinkercad. They will create and refine digital models from simple geometric shapes to complex structures, gaining a solid foundation in spatial thinking and design principles. Projects will include creating prototypes and practical models for various applications.

## Evaluations

<b>Semester 1 ( August 31<sup>st</sup> 2024 to January 20<sup>th</sup> 2025 )</b>		
<i>Competencies Targeted</i>	<i>Evaluation Methods</i>	<i>Timeline</i>
C1: Communicates in the languages used in science and technology C2: Applies his/her knowledge of science and technology C3: Seeks answers or solutions to scientific or technological problems	Major Project  Assignments  Quizzes	Classes are six times a cycle. Students will always know well in advance when evaluations will occur.
<i>Communication to Students and Parents</i>	<i>Materials Required</i>	
Students are responsible for keeping track of deadlines. Parents will be contacted if deadlines are repeatedly missed. Parents and students can contact me via the email listed above for further questions and enquiries.	Pencil       All other materials will be provided in class.	

<b>END OF YEAR RESULT</b>	
1 <sup>st</sup> Report  Progress	2nd Report  100% of Final Mark

## Additional Information / Specifications

- All students are required to complete their own assignments. Students who knowingly duplicate and submit for evaluation work belonging to another student are subject to significant penalties (loss of marks and notification to parents). This policy applies to both the donor and the recipient of the assignment.
- Unless pre-approved by the teacher, the use of AI in the production of schoolwork is prohibited. AI may not be used at any point in the production process, including but not limited to conceptualizing the work, researching the work, producing the work, and editing the work. Without the prior approval of a teacher, use of AI by a student will result in a grade of zero.
- Students are to be responsible of their success in this course by keeping track of the deadlines and evaluation criteria for each assignment or project. Assignments handed in late with no valid justification may be penalized 20% per school day.
- Students are welcome to work on class related subjects in one of the computer labs often open at lunch.

## Remediation

Day 4 and Day 6 starting at 12:34 in room 204