**Computer Science 20**

**Course Outline**

**Teacher:** Mrs. Christine Mishra **Room:** 309
**Website:** [www.mrsmishra.ca](http://www.mrsmishra.ca)
**Google Classroom:** xrd802

**Email:**  christine.mishra@rbe.sk.ca

**Sign up for Remind** (text/email reminder service):

Download the app and use code **@mishracs20**, or text **@mishracs20​** to **(902) 701-9279**
(Contact Mrs. Mishra for email)

**Welcome to Computer Science 20!** This course aims to introduce you to computer science as a field, with a specific focus on introductory programming in JavaScript and Python. We will be researching computer science careers, learning about how computers “think” and how to give them instructions, some history of computer and program development, how to check for errors, key hardware components, and how to make some simple games!

**Note:** The course materials will mostly be found on Google Classroom. Almost assignments will be handed in digitally, through Google Classroom – we will talk about how to do this in detail. Be careful to follow the instructions in each assignment about how to name your assignments and where to save them, so that you get credit for your work! If you aren’t sure, ask!

The course website/blog is another very important tool for this course. Deadlines will be posted on the course calendar, and other resources and links will be posted there.

**Assessment Breakdown**

* 40% Programming Assignments
* 10% Written Assignments
* 15% Quizzes & Tests
* 15% Major Project
* 20% Final Exam

 **Course Outcomes**

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| **Problem Solving** |
| CS20 – PS1 Apply various **problem-solving strategies** to solve programming problems |

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| **Fundamentals of Programming** |
| CS20 – FP1: Implement **variables and different data types,** including integer, float, Boolean and string. |
| CS20 – FP2: Investigate how **control structures** affect the **order** in which instructions execute. |
| CS20 – FP3: Construct and utilize **functions** to encapsulate **reusable pieces of code.** |
| CS20 – FP4: Use common coding techniques to **enhance code elegance and troubleshoot errors.** |
| CS20 – FP5: Investigate applications of **one-dimensional arrays**  |

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| **Computing and Society** |
| CS20 – CC1: Explore the **underlying technology** of the **Internet.** |
| CS20 – CC2: Examine the evolution of **computing machinery and impacts on society** |
| CS20 – CC3: Investigate **computer security practices** and **privacy implications.** |
| CS20 – CC4: Explore **computer science related career paths** in Saskatchewan, Canada, and the world. |

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| **Student-Directed Study** |
| CS20 – SD1: Develop a coding **project** or conduct research in an area of computer science of the **student’s choosing.** |

**SWC Attendance Incentive Program**

(aka Freeze or Earned Option – freeze course mark before finals)

To Qualify for the Incentive for This Class, YOU MUST:

* **Have a NO MORE THAN 7 TOTAL ABSENCES during the semester**
	+ Absences include: Excused, School-Excused, and Unexcused
* **Have NO MORE THAN 3 TOTAL LATES during the semester**
	+ Includes excused and unexcused. Must be in class BEFORE the bell to be considered on time
* **All ASSIGNMENTS must be completed in a satisfactory way (no zeros)**
* **Have NO MORE THAN 3 TOTAL LATE ASSIGNMENTS throughout the semester**
	+ If you request and are granted an **extension** BEFORE THE DEADLINE, this does not count as a late assignment. Extensions will be granted at the teacher’s discretion.
	+ When you are absent for any reason, the assignment is considered to be due on the first day you return to classes.
* Students who participate in school organized extra-curricular activities (Sports, music, SLC, etc.) will be marked “Extra-Curricular” and will be permitted an additional 3 absences in each class, per semester. These absences will not negatively affect the Attendance Incentive.
* **You must have AT LEAST 50% in this class, ONE WEEK BEFORE THE END OF CLASSES.**
* **NO UNEXCUSED ABSENSES (SKIPPING), and NO SUSPENSIONS during the semester**

**Mrs. Mishra’s Specific Expectations**

**Be present. Be on time.**

* + If you come late to class, you are not only affecting your own learning, but also disrupting the learning of your peers. Please enter the room QUIETLY if you are late, and immediately sit down and get to work. If the door is closed, knock once and wait patiently to be let in.
* If you miss a day, or will be late for any reason, you and/or your family need to inform the Office by calling 523-3550 **within 5 days of the absence**.
	+ - Your SWAP teachers will be contacting home on a weekly basis for those who need encouragement regarding their attendance, punctuality, and assignments.
* Students planning on missing extended periods of time must fill out an Application for Exemption form from the Office.

**Come prepared for class**

* Bring all materials with you each day (binder, paper, calculator, writing utensils, highlighter – plus other materials when requested)
* Phone calculators will be allowed during class time at the teacher’s discretion, however, **not ever for quizzes or exams**.  Please bring a calculator for use on tests and quizzes.

**Technology** (cell phones, tablets and other devices)

* Cell phones and other devices may **only** **be used with permission** from Mrs. Mishra during class time.
* The following are **encouraged uses** of your technology (but all **still require permission** to do them during class time):
	+ - Use your technology to check on your own progress in PowerSchool.
		- Use your technology for organizational purposes (enter due dates, reminders, to do lists)
		- Use your technology for educational purposes (calculator, periodic table app, measurement conversions, internet research)
* If there is a non-educational reason to use your device, you **must ask Mrs. Mishra**.
* When asked to put your phone or other device away, please do so **immediately**. If you do not, it may be confiscated for the rest of class or the rest of the day, at the teacher’s discretion.
	+ - Confiscated cell phones will be held by Mrs. Mishra or in the office and returned at the discretion of the teacher and/or administration
		- There is a “phone jail” organizer in class, which students may use to charge their phones during class (no visitation rights!), which may be a good option if students are distracted by their phone or device during class.

**Assignments**

* + You are responsible for material missed due to your absence. You should always check Google Classroom and Mrs. Mishra’s website first for any missed handouts, then ask another student, and then come speak to Mrs. Mishra.
	+ Neatness is expected for all assignments. Be proud of your work!
	+ Please hand in any hard-copy assignments TO THE **HAND-IN FOLDER**, not on my desk or anywhere else.

**Deadlines**
Assignments **must** be completed and handed in **by the specified due date.**

* It is the sole responsibility of the student to be aware of and to submit assignments on time.
* All assignments will be due the day after they are given, unless otherwise stated.
* If you have **an excused absence**, the assignment(s) will be due the **first day you return**.
* Missing assignments, projects and tests will be **marked as a zero** and the **“missing” indicator will be attached**. This zero will remain until arrangements are made to make up the work, through discussion with the teacher.
	+ - All late assignments should still be completed (remember: these are learning experiences, not just busy work).
		- A small amount of marks (no more than 10%) will be taken off for late work.
		In University, College, and in the world of work, deadlines matter.
		See the Passes below for the exceptions to this policy.

**Passes:**

Students will receive the following passes at the start of semester. **No replacements** will be given, so be very careful not to lose them!

* **2 Late Assignment Passes** – these allow the student to hand in **1 assignment 1 day late** without losing any marks for lateness. However the late will still count against the Incentive. Cannot be used for the Major Project.
* **1 Grumpy Pass** – We all have awful-no-good-very-bad-days sometimes. Your grumpy pass can be used to ask Mrs. Mishra to leave you alone for 1 class period. Cannot be used with a sub, or on a major test or exam day.

In addition, students **may EARN** one or more Good Student “Goof” Pass through **exemplary classroom behavior and citizenship.** This is because in real life, **your reputation matters**, and people will cut you more slack for minor “goofs” if you have a positive reputation.

* **The Good Student “Goof” Pass** allows the student to hand in an assignment or notebook check 1 day late, without losing marks for lateness, AND it will not count against the incentive.

**Exams are to be written at the designated date and time**

* Unit Exams will be set with a minimum of one calendar week notice.
* If students are not able to write at the date and time designated, and their **absence is excused**, they may choose:
	+ To not write the exam and a mark of 0 will be entered
	+ To write missed exams on the designated re-write day, or at another time by appointment, using the Request to Retest form.

***Note:*** *Flexibility will be granted to students who advocate for themselves well in advance*

* + If students miss an exam with an **unexcused absence**, they will receive a **zero**.
* Students needing to write Final Exams on an alternate date must fill out an Application for Exemption Form at the Office in advance.

 **Extra Help**

* Mrs. Mishra is always happy to provide extra help! Come by Room 309 before school, at lunch (after 12:35), or after school on Coding Club days. It’s important that you take responsibility for your learning, and I’m always more than willing to help you out if you show some initiative!