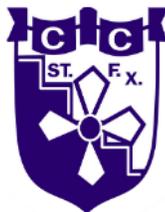


Science 20

ST. FRANCIS XAVIER CATHOLIC HIGH SCHOOL



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Science Department 2021-2022

Science 20 (SCN2270A5), 5 CREDITS

Semester 2: February 1, 2022 – June 28, 2022

Patrick McKay | patrick.mckay@ecsd.net

Block: 4, Room: 116

Google Classroom Code: **vo2fzmy**

St. Francis Xavier High School acknowledges Treaty 6 territory—the ancestral and traditional territory of the Cree, Dene, Blackfoot, Saulteaux, Nakota Sioux, as well as the Métis. We acknowledge the many First Nations, Métis, and Inuit whose footsteps have marked these lands for generations. We are grateful for the traditional Knowledge Keepers and Elders who are still with us today and those who have gone before us. We recognize the land as an act of reconciliation and gratitude to those whose territory we reside on or are visiting.

GENERAL OUTCOMES/ COURSE OVERVIEW

Chemistry: 1. investigate aqueous solutions to determine conductivity and to calculate concentration 2. explain oxidation, reduction and spontaneity and apply this knowledge to voltaic and electrolytic cells and to industrial processes 3. describe the properties of simple hydrocarbons and describe hydrocarbon-based industrial processes that are important in Alberta.

Physics: 1. describe one-dimensional motion of objects in terms of displacement, time, velocity and acceleration 2. describe and analyze the law of conservation of momentum for one-dimensional collisions and change in momentum (impulse) to explain how force affects motion.

Geology: 1. analyze the scientific evidence and explanations for geologic phenomena that occurred long ago or are taking place over a long period of time 2. analyze and assess the evidence to explain the theory of plate tectonics and the internal structure of Earth 3. analyze and assess the evidence provided by the fossil record of change in the environment and life forms over a period of 3.5 billion years 4. analyze the evidence of, and assess the explanations for, natural variations in Earth's climate over the last two million years.

Biology: 1. analyze ecosystems and ecological succession in the local area and describe the relationships and interactions among subsystems and components 2. analyze and investigate the cycling of matter and the flow of energy through the biosphere and ecosystems as well as the interrelationship of society and the environment 3. analyze and describe the adaptation of organisms to their environments, factors limiting natural populations, and evolutionary change in an ecological context.



ASSESSMENT

The student's grade is determined by the knowledge the student has acquired based on the program of studies and the skills the student is able to show in articulating his or her knowledge. The units listed below will not necessarily be taught in this order.

Course Units:	Approximate Classroom Days	Course Weight by Unit
Unit 1: Chemistry (Chemical Changes)	24	25%
Unit 2: Physics (Changes in Motion)	17	25%
Unit 3: Geology (The Changing Earth)	22	25%
Unit 4: Biology (Changes in Living Systems)	17	25%

The student's grade will be calculated based on the following: Unit Coursework: 20% Unit Exams: 80%
Final Grade: School awarded mark: 90% / Common Summative Assessment (Final Exam): 10%

A wide range of assessment information is used in the development of a student's final grade. At St. Francis Xavier High School, individualized assessments provide specific information regarding student progress and overall performance in class. Student assessment may vary from student to student to adapt for differences in student needs, learning styles, preferences, and paces. It should also be noted that not all assignments are used to determine the final grade, and that scale factors may have been used to determine the weight of individual assignments.

COMPUTER/EQUIPMENT USE:

All students registering at St. Francis Xavier High School are required to sign a document indicating an understanding of the responsible use of a computer within the school. Computer use will be immediately restricted for any student who in fact lacks this understanding.

Students are required to responsibly use school audio video and other equipment in the completion of their assignments in this course and to ensure that they follow all classroom procedures when borrowing equipment. Please consider that subsequent classes need to find and use well maintained equipment, charged batteries etc.

PLAGIARISM

We provide a Catholic education, where the Core Values of dignity, respect, fairness, personal and communal growth, loyalty, and honesty are the framework for all that we do. Within this Catholic education that St. Francis Xavier School provides, one of our main focuses is to encourage and facilitate the pursuit of knowledge and excellence in academics. To ensure that we attain this focus, all students at our school community are expected:

1. to meet the standards of individual integrity outlined in the policy;
2. to practice intellectual honesty in the process of acquiring and extending knowledge by improving their own personal academic competence, critical thinking, and self-evaluation.

Therefore, students who submit work not their own, take or copy answers from another student or source (cheating), provide answers to any assessment to another student (collusion), cheat during examinations, or use unauthorized means to obtain answers or complete work, after investigation by the teacher supervisor, are at risk of the following:



- First offense – May receive a zero for the assessment and a two-day suspension.
- Second offense – May receive a zero for the assessment and a three-day suspension.
- Third offense – May be removed from the class, further suspensions, or possible recommendation for expulsion.

Conditions surrounding the investigation will be considered and each situation will be dealt with on an individual basis. Review of the incident will first be conducted by the teacher and will then potentially involve additional staff (department head), administration, parents and the student(s) involved.

SCHOOL POLICIES

St. Francis Xavier does not publish report cards. Parents and students are encouraged to keep up to date on Power School and contact their teacher if there are any issues.

At St. Francis Xavier, zeros may be administered for incomplete or absent work with the opportunity to rectify the mark with conversation with their teacher.

CELL PHONE POLICY

Cellphones may be used in the classroom by the teacher invitation only. If the teacher deems the device is a distraction to the learning environment, the teacher reserves the right to ask that the phone be put away or to confiscate until the end of the class.

No cellphones shall be on a student's person during an assessment and should be put on mute in their bag. A zero will be awarded if the device was used for cheating.

CLASSROOM POLICY & MISSED ASSIGNMENT POLICY

Students who miss class are responsible for anything that they miss. If they miss an in-class assignment or a lab, they are to contact the teacher to see if they need to do anything to catch up. Any lessons or notes that were taken must be learned by the student on their own time. They can use someone else's notes or the PowerPoint slides (which are found online via Google Classroom) to catch up. Students can complete evaluations later than others if they missed a substantial amount of class and if they have the teacher's permission ahead of time.

Any assignments that are to be handed in but have not been so by the due date are to be awarded a score of 0 (it will appear as "NHI" [not handed in] on PowerSchool). If a student completes the assignment afterwards, I will still grade it without penalty and the new grade will replace the 0 on PowerSchool.

Evaluation is important and must be fair to everyone, therefore all unwritten tests must be accounted for. Students missing a test will be required to write an alternate exam upon their return. Missed test writes typically take place Friday after school beginning after 12:15 PM.

