



BIOLOGY 30

SCN3230

5 Credit Course

ALTERNATIVE EDUCATION

Contact Information	Teacher Name: Site Phone Number: Teacher Email:
Prerequisite	A mark of at least 50% in Biology 20.
Required Materials & Resources	• ADLC Biology 30 Program – Twelve modules • Textbook: Inquiry into Biology (McGraw-Hill Ryerson) • Tutorial Booklet

Course Overview

Biology 30 consists of four units of study, as outlined below. These units emphasize the nature of science, science and technology and science in societal and environmental contexts.

Unit	Topics of Study	Weighting
A. Nervous and Endocrine Systems	• Neuron • Nerve impulse transmission • Central and peripheral nervous systems • Reflex arcs • Sensory receptors • Endocrine system and hormones • Homeostasis and feedback systems • Endocrine and nervous system interactions	25%
B. Reproduction and Development	• Male and female reproductive systems • Reproductive hormones • Reproductive technologies • Embryonic and fetal development • Parturition • Lactation	20%
C. Cell Division, Genetics and Molecular Biology	• Cell cycle • Mitosis and meiosis • Chromosome number • Karyotype • Alternation of generations • Mendel's laws of heredity • Probability • Monohybrid, dihybrid and sex-linked inheritance • Incomplete dominance and codominance • Polygenic and multiple allelic traits • Gene linkage • Model of DNA • Replication • Transcription • Translation • Mutation • Genetic engineering • Hardy-Weinberg principle	40%

D. Population and Community Dynamics	• Determiners of population size: natality, mortality, immigration, emigration • Population growth rate and population growth curves • R- and K-selected reproductive strategies • Gene pool • Natural selection • Symbiotic relationships and other interactions • Succession • Determiners of population size: natality, mortality, immigration, emigration • Population growth rate and population growth curves • R- and K-selected reproductive strategies	15%
Assessment	The student's grade will be calculated based on the following:	
	Coursework	20%
	Unit Evaluations – quizzes, exams, labs, projects	80%
	*Final Grade: 70% School awarded mark + 30% provincial diploma exam mark. Parents and students are encouraged to keep up to date on PowerSchool and contact their teacher if there are any issues.	
Important Note Regarding Assessment	A wide range of assessment information is used in the development of a student's final grade. In Edmonton Catholic Schools, individualized assessments provide specific information regarding student progress and overall performance in class. Assessment may vary from student to student, differentiating for various student needs. 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.	