



BIOLOGICAL SCIENCES 101

GENERAL BIOLOGY

SUMMER 2014 (1144)

INSTRUCTOR	OFFICE	PHONE	EMAIL
Dr. Onkar S. Bains	N/A	N/A	onkarb@sfu.ca

COURSE PREREQUISITES - High school biology 12 (or equivalent) with a C grade or better, or BISC 100 with C- or better, or HSCI 100 with C+ or better. Breadth-Science.¹

Lectures: Tuesdays 10:30-11:20 (AQ3182) and Thursdays, 09:30–11:20 (EDB 7618)

Laboratory: Labs are mandatory and are scheduled (i.e. it is not a drop-in open lab). Please attend lab every week at your scheduled time and location (B8210/B8206).

COURSE OUTLINE

Cell biology

- Cellular chemistry: structure and properties of biological molecules
- Cell structure: membrane and organelle form and function
- Cellular reproduction: mitosis, cytokinesis and the cell cycle
- DNA, RNA and gene expression
- DNA technology
- Metabolism and enzymes
- Cellular respiration

Animal biology

- Form and function; different tissue types
- Nutrition and digestion
- Circulatory and respiratory systems; immune function
- Excretion and homeostasis; hormones
- Nervous, muscle and sensory systems
- Reproduction

Plant biology

- Plant cells and photosynthesis
- Growth and development
- Plant nutrition and transport processes
- Angiosperm reproduction
- Plant hormones and interactions with environment

TEXTBOOKS - Reece, J.B., Urry, Cain, Wasserman, Minorsky & Jackson 2011. Campbell Biology (9th Edition). Pearson Benjamin Cummings Publishing Co. [8th Edition also acceptable]

MARK DISTRIBUTION - **Lecture Midterm - 20 % Lecture Final Exam - 40% . Lab and tutorial prep. – 15%. Lab final exam – 25%.**

Note: There is a 5% penalty for non-attendance in tutorials.

****You must pass the laboratory part of the course to pass BISC 101**

ADDITIONAL COURSE FEE - \$23.00

¹ Prerequisite Minimum Grade Requirement: Unless stated, a grade of C- or better is required on all Prerequisite BISC & MBB courses.