

SCIE – SCIENCES

SCIE 010

Science 10

5 Credits **Weekly (6-0-0)**

Science 10 is based upon the content of Alberta Education's Science 10. Science 10 is intended to prepare students for Chemistry 20, Biology 20 and Physics 20.

SCIE 030

Science 30

5 Credits **Total (90-0-0)**

Science 30 is equivalent to Alberta Education's Science 30. Topics studied include Circulation, Immunity, Genetics, Acids & Bases, Organic Compounds, Electric & Magnetic Fields, Electromagnetic Radiation, Energy Sources and their impacts on the environment. Students will use technology to develop critical thinking skills and discuss science, technology and society issues.

Prerequisites: SCIE 010 (or equivalent) and MATH 10C (or equivalent) and one of any 20-level science (or equivalent).

SCIE 201

Scientific Process: From Research Questions to Printed Manuscript

3 Credits **Weekly (3-0-1)**

This course discusses the qualities of competent scientists, research ethics, a multidisciplinary approach to natural sciences and quantitative social sciences, and types of scientific studies. It systematically covers the four broad phases of the scientific process, namely, the planning and preparation phase (defining the research problem, surveying the literature, formulating hypotheses, establishing the research design, and writing a proposal); the data collection phase (in particular, the common principles involved); the data analysis and interpretation phase (concepts in statistical analysis, appropriate selection of statistical analysis tools, and drawing conclusions); and the scientific writing and presentation phase (from first draft to published manuscript).

Prerequisites: Minimum of C- in STAT 151 or STAT 161 and any 100-level science course.