Math 118
Calculus II for Life Sciences

This course is specifically designed for students with interest in life sciences. The major goals of the course are to provide students with quantitative and qualitative skills and well as to introduce insights that mathematics can provide into all branches of life sciences.

Prerequisite: MATH 111 with a C or better

Pre- or corequisite: BIO 112

Timetabling

One or two sections of MATH 118 run in each Winter semester on Abbotsford campus.

What next?

- MATH 211* (Multivariate Calculus), with a C or better in MATH 118
- MATH 221* (Linear Algebra), with a C or better in MATH 118
- MATH 225 (Topics in Discrete Math), with a C+ or better in MATH 118
- MATH 255 (Ordinary Differential Equations), with a B or better in MATH 118
- MATH 265* (etc…), with a C+ or better in MATH 118
- MATH 270 (etc…), with a C- or better in MATH 118

*MATH 211, MATH 221, and MATH 265 are required courses in the UFV Math minor and Math major, and are important intermediate courses for students planning on earning Math as a teachable subject in Secondary School Teacher Education.

More information

See official course outline here:
https://www.ufv.ca/calendar/CourseOutlines/PDFs/MATH/MATH118-20120302.pdf

See all department's course offerings and their descriptions here:
https://www.ufv.ca/calendar/current/CourseDescriptions/math.htm#118

COURSE EXAMPLES

Predator-prey dynamics

To restore ecological balance, in 1995 Yellowstone National Park officials decided to re-introduce wolves, which have been absent in the park since 1920s. How many wolves had to be released to effectively control elk population without endangering it? How did it impact the existing predator-prey system?

Discrete and continuous dynamical systems

Every year, BC hatcheries raise and release over 8 million fish into 800 lakes around the province, each with its unique needs. How do the officials decide how much fish to release into Mill Lake to ensure adequate fishing supply and avoid overpopulation? How does this number change from year to year? What factors need to be taken into account?