



COURSE OUTLINE

**BIOLOGY 102
PRINCIPLES OF BIOLOGY II**

**45 HOURS
3 CREDITS**

PREPARED BY: _____
Tara Stehelin, Instructor

DATE: _____

APPROVED BY: _____
Shelagh Rowles, Dean

DATE: _____

YUKON COLLEGE

Copyright September, 2011

All rights reserved. No part of this material covered by this copyright may be reproduced or utilized in any form or by any means, electronic or mechanical, traded, or rented or resold, without written permission from Yukon College.

Course Outline prepared by Tara Stehelin, December 14, 2011.

Yukon College
P.O. Box 2799
Whitehorse, YT
Y1A 5K4

BIOLOGY 102, PRINCIPLES OF BIOLOGY II

INSTRUCTOR: Tara Stehelin, B. Sc., M. Sc.

OFFICE HOURS: FRIDAY 11:00 – 12:30, or by appointment

OFFICE LOCATION: A2806 (behind biology lab)

TELEPHONE: 668-8898

E-MAIL: tstehelin@yukoncollege.yk.ca

FAX:

COURSE OFFERING

DAYS & TIMES:

LECTURES Tuesdays and Thursdays 1:00 – 2:30

Room: A2103

LABS: Wednesdays OR Fridays 1:00 – 4:00

Room: A2805 (Biology Lab)

COURSE DESCRIPTION

A continuing introductory course following Bio 101, emphasizing principles of wide application to all living organisms, including the mechanism of inheritance, basic anatomy, functioning of the major systems in living organisms and behavior.

This course is part of core introductory science courses, transferrable to most Canadian universities as a first-year level Biology course. A comparative approach to the unity and diversity of organisms is stressed. Mandatory lab sessions reinforce subject matter presented in lectures.

LEARNING OUTCOMES:

Upon successful completion of the course, students will be able to demonstrate understanding of

mechanisms by which genetic traits are inherited, and an understanding of organ functioning and organs systems. Students will also be able to demonstrate knowledge of reproduction, cell division, immunity, hormonal control systems, and mechanisms of homeostasis in both plants and animals. Upon completion of mandatory lab sessions students will be able to demonstrate patterns of inheritance, complete basic statistical tests on data, and demonstrate knowledge of the following: vertebrate anatomy, principles of immunity, human health, animal behavior, and basic research protocol.

COURSE TRANSFER:

Examples:

UBC With BIOL 101, first-year Biol 111/112/140. (6 credits)

UVIC With BIOL 101, Biol 190A and 190B 210 + 220 (3)

UAF(University of Alaska Fairbanks) Biol 106x (3)

UAS With BIOL 101, Biol 113 (3)

UNBC Biol 100 (3) Yukon Biol 101 & 102 = UNBC Biol 100 (4) & Biol (2) 100L

UR With BIOL 101, Biol 100/101 (6)

TRU-OL (Thompson Rivers University, formerly BC Open University) Biol 1210

TWU With BIOL 101, Biol 113/114

SFU BiSc 102 (3)

UBCO(University of British Columbia Okanagan) With BIOL101, Biol 116/125

UFV (University of the Fraser Valley, formerly University College of the Fraser Valley)
With BIOL 101, Biol 111/112

VIU (Vancouver Island University) With BIOL101, Biol 121/122

For more information about transferability contact the Arts and Science Division.

COURSE PREREQUISITES

Admission to the Arts and Science Division and Completion of Bio 101 or permission of instructor.

DELIVERY METHODS/FORMAT:

Material will be presented in two lectures and one lab session per week. Attendance in the laboratory is mandatory. Students must pass the lab and lecture portions independently.

COURSE REQUIREMENTS/EVALUATION:

Attendance and Participation

ATTENDANCE POLICY

Attendance is mandatory in labs and greatly encouraged in lectures. A student may be withdrawn

from a course if more than 10% of the scheduled contact hours are missed in any one course. Withdrawal from a course may result in loss of full-time status and loss of sponsorship funding. Absence from labs results in a zero grade assigned for assignments and quizzes relevant to the missed lab. If the instructor is notified in advance of potential problems with attendance, alternate work will be assigned.

Students must attend the laboratory session assigned to them upon registration, once per week.

Assignments

LAB ASSIGNMENTS

Assignments are given during laboratory sessions and graded on the basis of understanding and applying principles involved as well as the correctness of answers to solutions. Most students finish assignments during the lab session, although they are not due until the next week day. A lab quiz will be given each week during each scheduled lab to assess progress. Written reports may also be assigned.

Projects

None.

Tests

LECTURE

Quizzes on lecture material are given once every two weeks. There are 5 quizzes in total, worth 10% each and then a final exam worth 15% of the total mark. The final examination will be held at the end of the term. It will cover the entire course and the examination date will be announced as soon as confirmed by administration.

LAB

Quizzes on laboratory material are given every lab session (except the first lab) and cover material from the lab exercises the week before. There is no final lab exam.

Evaluation

On lecture material: five quizzes worth 10% each (50%), and a final exam worth 15% for a total of 65% of the mark for the lecture portion of the course. Laboratory marks make up 35% of the total mark. Laboratory assignments worth 15.75%, laboratory quizzes worth 15.75%, and attendance and attitude in the lab worth 3.5% of total mark. There is no final exam for the laboratory portion of the course.

Plagiarism

Plagiarism involves representing the words of someone else as your own, without citing the

source from which the material is taken. If the words of others are directly quoted or paraphrased, they must be documented according to standard procedures (APA). The resubmission of a paper for which you have previously received credit is considered a form of plagiarism.

Plagiarism is academic dishonesty, a serious academic offence, and will result in you receiving a mark of zero (F) on the assignment or the course. In certain cases, it can also result in dismissal from the college. And do not underestimate the impact such a situation will have on your reputation.

STUDENTS WITH DISABILITIES OR CHRONIC CONDITIONS:

Reasonable accommodations are available for students with a documented disability or chronic condition. It is the student's responsibility to seek these accommodations. If a student has a disability or chronic condition and may need accommodation to fully participate in this class, he/she should contact the Learning Assistance Centre (LAC) at (867) 668-8785 or lassist@yukoncollege.yk.ca.

REQUIRED TEXTBOOKS/MATERIALS:

"Biology, Concepts and Connections", Campbell, Mitchell & Reece. 2012 7th Ed., Addison Wesley Longman Press

Or

"Campbell Biology" 7th, 8th, or 9th Edition, Reece, Urry, Cain, Wasserman, Minorsky, and Jackson. Pearson Benjamin Cummings

Lab Manual: assembled by instructor and handed out during first lab session

TOPIC OUTLINE/SYLLABUS

WEEK	TOPIC
1, 2, 3,	Biological reproduction . cell division, genetic inheritance, gene functioning
4,5,6,7,8,	Biological systems, homeostatic processes . Introduction to plant nutrition, animal nutrition . Gas exchange and transport in plants and animals . Immune systems of plants and animals . Homeostasis of body fluids
9,10,11	Comparative control mechanisms

- . Introduction to hormones: plants/animals**
- . Neurons, sensory receptors**
- . Brain functions, muscle function**
- . Behavior**