UNIVERSITY OF THE FRASER VALLEY

OFFICIAL UNDERGRADUATE COURSE OUTLINE (page 1)

COURSE IMPLEMENTATION DATE:	January 2014
COURSE REVISED IMPLEMENTATION DATE:	May 2014
COURSE TO BE REVIEWED:	May 2020
(six years after UEC approval)	*(month, year)*

OFFICIAL UNDERGRADUATE COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.

Shaded headings are subject to change at the discretion of the department – see course syllabus available from instructor

BIO 383	Faculty of Science/Biology	3
COURSE NAME/NUMBER	FACULTY/DEPARTMENT	UFV CREDITS

Human Physiology

COURSE DESCRIPTIVE TITLE

CALENDAR DESCRIPTION:

This course is focused on the study of the physiology of humans. We will be studying the endocrine, nervous, sensory, muscular, cardiovascular, respiratory, excretory, and gastrointestinal systems of humans. This course is meant as a survey of the different organ systems in humans with particular focus on physiological principles and mechanisms.

Note: Students with credit for BIO 280 may not take BIO 383 for further credit.

PREREQUISITES: BIO 111 and BIO 112. Note: As of May 2015, prerequisites will change to the following: BIO 201 and BIO 202.

COREQUISITES:

PRE or COREQUISITES:

SYNONYMOUS COURSE(S):

(a) Replaces: **BIO 280**

(b) Cross-listed with:

(c) Cannot take: **BIO 280** for further credit.

SERVICE COURSE TO: *(department/program)*

TOTAL HOURS PER TERM: **45**

STRUCTURE OF HOURS:

Lectures:	**45**	Hrs
Seminar:		Hrs
Laboratory:		Hrs
Field experience:		Hrs
Student directed learning:		Hrs
Other (specify):		Hrs

TRAINING DAY-BASED INSTRUCTION:

Length of course:

Hours per day:

OTHER:

Maximum enrolment: **24**

Expected frequency of course offerings: every year

(every semester, annually, every other year, etc.)

WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)	☒ Yes	☐ No
WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)	☐ Yes	☒ No
TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:	☐ Yes	☒ No

Course designer(s): **Anthony Stea, Gregory Schmaltz**

Department Head: **Allan Arndt** Date approved: **June 4, 2013**

Campus-Wide Consultation (CWC) Date of meeting: **June 14, 2013**

Curriculum Committee chair: **David Fenske** Date approved: **September 20, 2013**

Dean/Associate VP: **Lucy Lee** Date approved: **September 20, 2013**

Undergraduate Education Committee (UEC) approval Date of meeting: **October 25, 2013**

LEARNING OUTCOMES:

Upon successful completion of this course, students will be able to:

1. Demonstrate information competency on the various physiological systems covered in the course: endocrine, nervous, sensory, muscular, cardiovascular, respiratory, excretory, and gastrointestinal.
2. Integrate various physiological concepts to exemplify the central role of homeostasis in regulating body functions.
3. Apply knowledge from cellular biology and anatomy to the central theme of form and function in physiology.
4. Interpret biological data from scientific figures and experiments.
5. Analyze critically relevant literature information on various topics in current physiological research.
6. Communicate effectively through writing on current findings in physiology.

METHODS: *(Guest lecturers, presentations, online instruction, field trips, etc.)*

This course will involve a standard lecture approach to cover basic information along with assignments and topical readings to stimulate student-based learning and discussion.

METHODS OF OBTAINING PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

☒ Examination(s) ☐ Portfolio assessment ☐ Interview(s)
The student must challenge the course by writing an examination. The student will be provided with a copy of the syllabus and information how to obtain a copy of the current textbook. The student will also be given information about exam style and expected standards. The student can write the examination for the course at a time convenient to both student and instructor.

☐ Other (specify):

☐ PLAR cannot be awarded for this course for the following reason(s):

TEXTBOOKS, REFERENCES, MATERIALS: *[Textbook selection varies by instructor. An example of texts might be:]*

Silverthorn DU, 2012, Human Physiology: An Integrated Approach Plus Mastering A&P with eText, Siverthorn

SUPPLIES / MATERIALS:

STUDENT EVALUATION: *[An example of student evaluation for this course might be:]*

Term paper:	10%
Quizzes and assignments:	20%
Midterm:	25%
Final exam:	45%

COURSE CONTENT: *[Course content varies by instructor. An example of course content might be:]*

- Overview of the anatomy and function of the main tissue types and the integration in organ systems.
- Explanation of the major glands of the endocrine system with a focus on the main hormonal axes and modes of production of hormones.
- Overview of the nervous system and description of the physiology of electrical and chemical signaling in the nervous system.
- Discussion of the transduction mechanisms of the five senses.
- Explanation of the mechanisms for muscle contraction including the sliding filament model.
- Overview of the anatomy and function of the heart with a focus on the cardiac cycle.
- Description of the role of blood in the cardiovascular system and in particular the role of red blood cells in gas exchange.
- Overview of the anatomy of the respiratory system and its role.
- Overview of the anatomy of the kidney with a focus on the role of the nephron.
- Description of the organs of the gastrointestinal tract with a focus on the role of each in human digestion.