



## **DEPARTMENT OF SCIENCE**

### **COURSE OUTLINE – Fall 2016**

#### **NS 1500 - Anatomy and Physiology**

**INSTRUCTOR:** Dr. Sean Irwin, Ph.D.   **PHONE:** 539-2860 (W); 567-2226 (H)

**OFFICE:** J 221   **E-MAIL:** sirwin@gprc.ab.ca

**OFFICE HOURS:** Wed. and Fri. 10:00 - 11:20 am, Mon. 11:30 – 1 pm, J221

**DELIVERY MODE(S):** Lectures – B2: Tues. and Thurs. 10 – 12:50, B 201

**PREREQUISITE(S)/COREQUISITE:** Biology 30 and Chemistry 30 or equivalents.

#### **REQUIRED TEXT/RESOURCE MATERIALS:**

Saladin, K.S. (2015), Anatomy and Physiology : The Unity of Form and Function, 7th ed., (or 6<sup>th</sup> ed. 2012) WCB / McGraw-Hill, Boston MA, ISBN 978-0-07-340371-7

#### **CALENDAR DESCRIPTION:**

##### **NS1500 6 (6-0-0) UT Pending 90 Hours 15 Weeks**

Introduction to the structure of the human body and an introduction to human physiology. Notes: Available only to Nursing students.

#### **LEARNING OUTCOMES:**

Upon successful completion of this course a student will have a working knowledge of the structure and function of the human body.

## COURSE OBJECTIVES:

1. To gain further understanding of the structure and function of the human body.
2. To develop critical thinking skills with respect to the anatomy and physiology of the human body.
3. Integrate clinical situations with the underlying physiological principles and concepts.
4. Demonstrate critical thinking skills in relation to the study of physiology.
5. To gain an understanding of anatomy and physiology that will facilitate future work in the medical field.

## TRANSFERABILITY:

Transfer: UA

**\*Warning:** Although we strive to make the transferability information in this document up-to-date and accurate, **the student has the final responsibility for ensuring the transferability of this course to Alberta Colleges and Universities.** Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at Alberta Transfer Guide main page <http://www.transferalberta.ca> or, if you do not want to navigate through few links, at <http://alis.alberta.ca/ps/tsp/ta/tbi/onlineSearch.html?SearchMode=S&step=2>

**\*\* Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability**

## EVALUATIONS:

Exam I	20%	- In order to defer an exam due to
Exam II	25%	illness you will require a medical
Exam III	25%	note.
Final Exam	<u>30%</u>	
Total	100%	

## GRADING CRITERIA:

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**.

Alpha Grade	4-point Equivalent	Percentage Guidelines	Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	90-100	C+	2.3	67-69
A	4.0	85-89	C	2.0	63-66
A-	3.7	80-84	C-	1.7	60-62
B+	3.3	77-79	D+	1.3	55-59
B	3.0	73-76	D	1.0	50-54
B-	2.7	70-72	F	0.0	00-49

### COURSE SCHEDULE/TENTATIVE TIMELINE:

Week	Topic	Chapter	
1	Introduction to anatomy; The Chemistry of Life  - Orientation to Human Anatomy Introduction to physiology; Homeostasis and Feedback mechanisms  - Enzymes and Metabolism	2  Atlas A  1	
2	Anatomy of the Cell and Histology  Membrane Transport and Cellular respiration Cellular Function – Protein Synthesis and DNA Replication	3 and 5  4 and 26	
3	The Integumentary System Bone Tissue	6  7	
4	<b>Exam I (20%) - Sept. 21 – A2; Sept. 22 – B2</b>  The Axial and Appendicular Skeletal Systems  Selected Joints	<b>Weeks 1 -3</b>  8  9	
5	The Muscular System Muscle Tissue	10 11	

6	The Spinal Cord and Spinal Nerves  Nervous Tissue - Somatic Reflexes	13  12	
7	<b>Exam II (25%) – Oct. 12 – A2; Oct. 13 – B2</b>  The Brain and Cranial Nerves  - CNS Function and Processing The Autonomic Nervous System	<b>Weeks 4 -6</b>  14  15	
8	Sense Organs  The Endocrine System	16  17	
9	The Circulatory System: Blood The Lymphatic and Immune System	18 21	
10	<b>Exam III – 25% - Nov. 8 – B2; Nov. 9 – A2</b>  The Circulatory System: The Heart  The Circulatory System: Blood Vessels	<b>Weeks 7 – 9</b>  19  20	
11	The Respiratory System  The Urinary System	22  23	
12	The Digestive System The Female Reproductive System	25  27	
13	The Male Reproductive System  The Female Reproductive System	27  28	
14	Human Development	29	
	<b>Final Exam (Scheduled by the Registrar’s Office) - 30%</b>	<b>Weeks 10 - 14</b>	

## **STUDENT RESPONSIBILITIES:**

The College Policy on Students Rights and Responsibilities can be found at

<https://www.gprc.ab.ca/about/administration/policies/>

## **STATEMENT ON PLAGIARISM AND CHEATING:**

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Calendar at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at <https://www.gprc.ab.ca/about/administration/policies>

\*\*Note: all Academic and Administrative policies are available on the same page.