

DEPARTMENT OF SCIENCE  
COURSE OUTLINE – Fall 2023

**NS1500 (A2/B2/C2): Anatomy and Physiology – 6 (6-0-0) 90 Hours for 15 Weeks**

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

<b>INSTRUCTORS:</b>	Dr. Sean Irwin Ph.D. (Section A2/C2)	Dr. Beatrice Amar Ph.D. (Section B2)
<b>PHONE:</b>	780-539-2860 (office)	780-539-2031 (office)
<b>OFFICE:</b>	J224/HEC	J208/HEC
<b>OFFICE HOURS:</b>	T/R 11:30 – 1 pm	W 10–12 pm/ F 11-1 pm
<b>EMAIL:</b>	<a href="mailto:sirwin@nwpolytech.ca">sirwin@nwpolytech.ca</a>	<a href="mailto:bamar@nwpolytech.ca">bamar@nwpolytech.ca</a>

**CALENDAR DESCRIPTION:**

Introduction to the structure of the human body and an introduction to human physiology.

Notes: Students not enrolled in the Nursing Program require permission of the department.

**PREREQUISITE(S)/COREQUISITE:** Biology 30 or equivalent.

Saladin, K.S. (2023), Anatomy and Physiology : The Unity of Form and Function, 10th ed., (or 9<sup>th</sup> ed. 2020) WCB / McGraw-Hill, Boston MA, ISBN 9781265782801

NS1500 Study Aid – Available at the bookstore.

**DELIVERY MODE(S):** Lectures – A2: Tues. and Thurs. 14:30 – 17:20 pm, HEC201  
B2: Mon. and Wed. 8:30 – 11:20 am, HEC206  
C2: Tues. and Thurs. 8:30 – 11:20 am, HEC206

**LEARNING OUTCOMES:**

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

**TRANSFERABILITY:**

Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at the Alberta Transfer Guide main page <http://www.transferalberta.alberta.ca>.

**Please note that a grade less than C+ is not accepted for transfer to the U of A for NURS 106 (previously NURS 140 and 150). A minimum grade of C+ is required to receive credit in NS1500.**

**\*\* 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 illness
Exam II	22.5%	you will require a medical note.
Exam III	22.5%	
Final Exam	25%	
Completed Study Aid	5%	
Online Quizzes	<u>5%</u>	
Total	100%	

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	95-100	C+	2.3	67-69
A	4.0	85-94	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 Cellular Function – Protein Synthesis and DNA Replication	3 and 5 3 and 4
3	The Integumentary System Bone Tissue	6 7
4	The Axial and Appendicular Skeletal Systems Selected Joints <b>Exam I – B2 - Sept. 27; A2/C2 Sept. 28</b>	8 9 <b>Weeks 1 -3</b>
5	The Muscular System	10 11

	Muscle Tissue	
6	The Spinal Cord and Spinal Nerves	13
	Nervous Tissue - Somatic Reflexes	12
7	The Brain and Cranial Nerves - CNS Function and Processing	14
	The Autonomic Nervous System	15
	<b>Exam II – B2 - Oct. 18; A2/C2 Oct. 19</b>	<b>Weeks 4 -6</b>
8	Sense Organs	16
	The Endocrine System	17
9	The Circulatory System: Blood	18
	The Lymphatic and Immune System	21
10	<b>Exam III – B2 - Nov. 8; A2/C2 - Nov. 9</b>	<b>Weeks 7 – 9</b>
	The Circulatory System: The Heart	19
	The Circulatory System: Blood Vessels	20
11	Fall Break – Nov. 13 – 17.	
12	The Respiratory System	22
	The Urinary System	23
13	The Digestive System	25
	The Female Reproductive System	27
14	The Male Reproductive System	28
	Human Development	29
15	Catch-up/ Review	
	<b>Final Exam (Scheduled by the Registrar's Office)</b>	<b>Weeks 10 - 15</b>

## STUDENT RESPONSIBILITIES:

Refer to the Northwestern Polytechnic Policy on Student Rights and Responsibilities at:

<https://www.nwpolytech.ca/about/administration/policies/>

## STATEMENT ON ACADEMIC MISCONDUCT:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available at <https://www.nwpolytech.ca/about/administration/policies/index.html>.

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