

ACP 502 – Pathophysiology

6 credits, approximately two 3-hour classes per week

Course Description

Pathophysiology is the study of the biologic basis of disease. It is a required course for diagnosis-based treatment in pre-hospital care.

Co-requisites: ACP 501 and ACP 503

Instructor

Dawn Brownschlaigle ACP, BScHS, BScN

Office: BL253

Instructor Contact:

dawn.brownschlaigle@keyano.ca

Microsoft teams

Office Hours (virtual)

0800 – 1700

Hours of Instruction

90

Required Textbook

McCance, K. L., & Huether, S. E. (2019). *Pathophysiology: The biologic basis for disease in adults and children* (8th ed.). Maryland Heights, Mo: Mosby Elsevier.

Course Outcomes

Upon successful completion of the course the student will:

- Apply foundational principles of normal human anatomy and physiology to pathophysiological processes.
- Understand that pathophysiology is the systematic study of the functional changes in cells, tissues, and organs altered by disease and/or injury.
- Identify and discuss etiology, mechanisms, clinical manifestations, and complications of pathophysiological processes for various systems across the lifespan.
- Utilize research provided to guide evidence-based knowledge and practice.
- Perform high fidelity simulation (HFS) during tech weeks to enhance knowledge and praxis.

Evaluation

- Students must achieve a minimum of B grade for total course grade to progress.
- Midterm and Final Exams require mandatory attendance. Absences will require prior approval.

Grading System

Descriptor	Alpha Scale	4.0 Numeric Scale	Percentage
Excellent	A+	4.0	96-100
	A	4.0	90-95
	A-	3.7	85-89
Good	B+	3.3	80-84
	B	3.0	76-79
	B-	2.7	72-75
Satisfactory	C+	2.3	68-71
	C	2.0	64-67
	C-	1.7	60-63
Poor Minimum Pass	D+ D	1.3	55-59
		1.0	50-54
Failure	F	0	0-49

Students must receive and 76% or B to be successful in this course

Relevant NOCP Competencies

Appendix	Sub-appendix
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**Course Schedule for 2023
Tuesdays and Thursdays**

- Morning class 09:00 – 11:50
- Afternoon class 13:00 – 15:50 (make up for tech week and holiday time)

Date	Subject	Modules
January 5	Orientation and Syllabus Review	Syllabus
January 10 January 12 <i>Due Jan 26 @ 0900</i>	Cell Biology Cell Adaptations <i>Quiz – Module 1</i>	Module 1
January 17 January 19 <i>Due Jan 31 @ 0900</i>	Genes, Mechanisms of Self-Defense, and Cancer <i>Quiz – Module 2</i>	Module 2
January 24 January 26 <i>Due Jan 31 @ 0900</i>	Integumentary System Musculoskeletal System <i>Quiz – Module 3</i>	Module 3
January 31 February 2 February 7 <i>Due Feb 14 @ 0900</i>	Neurological System <i>Quiz - Module 4</i>	Module 4
February 7 February 9 (am) February 9 (pm) <i>Due Feb 14 @ 0900</i>	Endocrine System <i>Quiz – Module 5</i>	Module 5
February 13-17, 2023	TECH WEEK (ON-SITE)	<i>*Note – Module 4 and 5 quizzes are due during tech week</i>
FEBRUARY 20-24, 2023	READING WEEK	
February 28	MIDTERM-1 (Module 1 - 5)	
March 2 March 7 March 9 <i>Due Mar 14 @ 0900</i>	Hematological System Cardiovascular System Lymphatic System <i>Quiz – Module 6</i>	Module 6
March 14 March 16 <i>Due Mar 21 @ 0900</i>	Respiratory System <i>Quiz – Module 7</i>	Module 7
March 20-24	TECH WEEK (ON-SITE)	<i>*Note – Module 7 quiz is due during tech week</i>
March 28	MIDTERM-2 (Module 6 - 7)	

March 30 April 4 April 6 <i>Due Apr 11 @ 0900</i>	Digestive System <i>Quiz – Module 8</i>	Module 8
April 11 (am) April 11 (pm) April 13 <i>Due Apr 18 @ 0900</i>	Renal and Urologic Systems <i>Quiz – Module 9</i>	Module 9
April 18 (am) April 18 (pm) <i>Due Apr 20 @ 0900</i>	Reproductive Systems <i>Quiz – Module 10</i>	Module 10
April 20	Review	Modules 1-10
April 27	FINAL EXAM (Module 1-10)	

Exam Schedule and Grade Distribution

Date		Grade weighting	Topics Covered
January 26 Due @ 09:00	Quiz 1 15 MC questions	2%	Module 1
January 31 Due @ 09:00	Quiz 2 15 MC questions	2%	Module 2
January 31 Due @ 09:00	Quiz 3 25 MC questions	2%	Module 3
February 14 Due @ 09:00	Quiz 4 25 MC questions	2%	Module 4
February 14 Due @ 09:00	Quiz 5 30 MC questions	2%	Module 5
March 14 Due @ 09:00	Quiz 6 30 MC questions	2%	Module 6
March 21 Due @ 09:00	Quiz 7 30 MC questions	2%	Module 7
April 11 Due @ 09:00	Quiz 8 30 MC questions	2%	Module 8
April 18 Due @ 09:00	Quiz 9 20 MC questions	2%	Module 9
April 20 Due @ 09:00	Quiz 10 20 MC questions	2%	Module 10
February 28 09:00 – 10:30	Mid-Term Exam #1 40 MC questions	20%	Modules 1-5
March 28 09:00 – 10:30	Mid-Term Exam #2 60 questions	20%	Modules 6-7
April 27 09:00-11:30	Final Exam 100 questions	40%	Modules 1-10 (Cumulative)

* Multiple-choice exam designed to introduce the student to the Alberta College of Paramedics' style of written examinations

Please Note: Date and time allotted to each topic is subject to change.

Performance Requirements and Student Services

Student Responsibilities

As a student, it is your responsibility to contact the Office of the Registrar to complete the required forms, including the Withdraw Course or Program or a Change of Registration form. Please refer to the important dates listed in the Academic Schedule in the [Keyano College credit calendar](#). The Keyano College credit calendar also has information about Student Rights and the Code of Conduct. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and the Code of Conduct Policies.

Student Attendance

Class attendance is helpful for two reasons: First, class attendance maximizes a student's learning experience. Second, attending class is an excellent way to keep informed of matters relating to the course administration (e.g., the timing of assignments and exams). Ultimately, you are responsible for your learning and performance in this course. It is the responsibility of each student to be prepared for all classes. Absent students are responsible for the material covered in those classes, and students must ensure they are ready for their next class, including completing any missed assignments and notes.

Academic Misconduct

Students are considered responsible adults and should adhere to the principles of intellectual integrity. Intellectual dishonesty takes many forms:

- Plagiarism or the submission of another person's work as their own,
- The use of unauthorized aids in assignments or examinations (cheating),
- Collusion or the unauthorized collaboration with others in preparing work,
- The deliberate misrepresentation of qualifications,
- The willful distortion of results or data,
- Substitution in an examination by another person, • Submitting unchanged work for another assignment, and
- Breach of confidentiality.

The consequences for academic misconduct range from a verbal reprimand to expulsion from the College. More specific descriptions and details are found in the Student Rights and Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Code of Conduct Policies. To ensure your understanding of plagiarism, you may be required to complete the online [Understanding Plagiarism tutorial](#) and submit the certificate of completion.

Online Learning

Technology and internet connectivity will impact your online learning experience. You may be required to watch online videos, take online quizzes, or participate in live online classes. Live/virtual courses will be hosted in Microsoft Teams or Zoom. For all course delivery types, you will access your course resources on Keyano's learning management system: Moodle (iLearn). Login in using your [Keyano username and password](#). Keyano College operates in a Windows-based environment and having access to the correct tools for online learning is essential.

Internet Speed

Minimum download and upload speeds of 10 Mbps. Recommended download speeds of 25 Mbps and upload speeds of 10 Mbps (if you are sharing your internet at home). You can check your internet speed with [Speedtest by Ookla](#).

Computer System Requirements

Keyano College software are Windows based.

Minimum Requirements and Recommended Upgrades for Windows (preferred system) and Apple devices

These minimum standards are required for a Windows computer/laptop (OS 10 or 11) and a Macintosh (OS 10.14 or above).

1. Windows 10 Operating System or above
2. 4GB of RAM. Recommended upgrade to 8GB of RAM.
3. 10GB+ available hard drive storage space. Note installing Microsoft Office 365 requires 3GB of available hard drive space.
 - a. Install the Microsoft Office 365 suite (~3GB) *
4. Microphone, webcam, and speakers (All modern laptops have these three accessories built-in. However, a headset or earbuds with a microphone is also recommended.
5. Windows has built-in anti-virus/malware software. It is essential to install system updates to keep your device secured regularly.

*[Microsoft Office 365](#) is free to Keyano students.

Tablets, iPads, and Chromebooks are **not** recommended: they may not be compatible with the testing lockdown browsers and Microsoft Office 365.

Specific Department Requirements

Business and OA programs require Windows 10 or higher.
Other programs may utilize Windows-based tools as well.

Computer Software

Students have access to Microsoft Office 365 and Read & Write for free using Keyano credentials.

See [Recommended Technology](#) for more information.

Recording of Lectures and Intellectual Property

Students may only record a lecture if explicit permission is provided by the instructor or Accessibility Services. Even if students have permission to record a lecture or lecture materials, students may not share, distribute, or publish any of the lectures or course materials; this includes any recordings, slides, instructor notes, etc., on any platform. Thus, no student is allowed to share, distribute, publish or sell course-related content without permission. It is important to recognize that the Canadian Copyright Act contains provisions for intellectual property. The [Academic Integrity Policy](#) provides additional information on Keyano College's expectations from students as members of the intellectual community.

ITS Helpdesk

If you have issues with your student account, you can contact the ITS Helpdesk by emailing its.helpdesk@keyano.ca or calling 780-791-4965.

Specialized Supports

The Student Services Department is committed to Keyano students and their academic success. There is a variety of student support available at Keyano. All student services are available during Keyano

business hours: Monday to Friday, 8:30 a.m. to 4:30 p.m. The College is closed on statutory holidays. If you require support outside of regular business hours, please inform the support service team, and they will do their best to accommodate your needs.

Accessibility Services provides accommodations for students living with disabilities. Students with documented disabilities or who suspect a disability can meet with an Access Strategist to discuss their current learning barriers and possible accommodations. Students who have accessed accommodations in the past are encouraged to contact the department to request accommodations for the following semester. Please note that requesting accommodations is a process and requires time to arrange. Contact the department as soon as you know you may require accommodations. For accessibility supports and disability-based funding, please book an appointment by emailing us at: accessibility.services@keyano.ca.

Accessibility Services also provides individual and group learning strategy instruction for all students and technology training and support to enhance learning. You can meet with an Access Strategist to learn studying and test-taking strategies. In addition, you can schedule an appointment with the Assistive Technology Specialist to explore technology tools for learning. Book an appointment today by emailing: accessibility.services@keyano.ca

Wellness Services offers a caring, inclusive, and respectful environment where students can access free group and individual support to meet academic and life challenges. Mental Health Coordinators provide a safe and confidential environment for you to seek help with personal concerns. Our Wellness Navigator offers support with basic needs such as housing, financial and nutritional support, and outside referrals when needed. Wellness Services welcomes students to participate in group sessions that address topics including mindfulness and test anxiety throughout the academic year. Individual appointments can be made by emailing wellness.services@keyano.ca.

Library Services provides students with research, information, and educational technology supports as they engage in their studies. Library staff are available to help you online and in person throughout the semester. Librarians offer individual and small group consultations booked using the online [Book A Librarian calendar](#). The library also provides virtual research and subject guides to help you with your studies. Find the guide that supports your course-related research by viewing the complete list of online [Subject Guides](#). To start your research and access citation guides (APA, MLA, Chicago, or IEEE), visit the [Research Help page](#). The library's collections (including print and online materials) are searchable using [OneSearch](#). The library offers a Loanable Technology collection to support students accessing and using technology. For an up-to-date list of technology available for borrowing, visit the library's [Loanable Technology webpage](#). For a detailed list of library resources and services, go to www.keyano.ca/library. For all inquiries, please email askthelibrary@keyano.ca or [chat with us online](#).

The **Academic Success Centre** at Keyano College (CC-119) provides **free** academic support services to registered students, such as tutoring, writing support, facilitated study groups, workshops, and study space. Academic Content Specialists are available in Mathematics, Science, Trades, Power Engineering, Upgrading/College Prep, Human Services, English, Humanities, and more. Students are encouraged to visit the Academic Success Centre to discuss study strategies and academic concerns. For additional information, please email Academic.Success@keyano.ca.

The **Academic Success Coach** is located in the Academic Success Centre and works with students to develop academic success plans, time management skills, study strategies, and homework plans. For additional information, please email Academic.Success@keyano.ca.

Authorization

This course outline has been reviewed and approved by the Program Chair.

[Dawn, Brownschlaigle], Instructor

[Candi, Muise], Chair

Date Authorized

[Arlene, Starks], Dean

Date Authorized

Signed copies to be delivered to:
Instructor