



**PATHY 105**

**KEYANO COLLEGE**

**COURSE OUTLINE**

**PATHOPHYSIOLOGY FOR HEALTH**

**CARE PROFESSIONALS**

**WINTER 2020 JANUARY 6, 2020 –MARCH 19, 2020**

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**PRACTICAL NURSING 105  
PATHOPHYSIOLOGY FOR HEALTH CARE PROFESSIONALS**

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# PATHOPHYSIOLOGY FOR HEALTH CARE PROFESSIONALS COURSE OUTLINE

## CALENDAR STATEMENT/COURSE DESCRIPTION

### **PATHOPHYSIOLOGY FOR HEALTH CARE PROFESSIONALS \* Semester II**

The Pathophysiology course focuses on the pathological processes underlying disease and disorders. The student is provided with a comprehensive foundation for understanding the phenomena that produce alterations in human physiologic function across the life span. Content in the course includes common disease entities as examples of the pathological processes. Each pathological process will be explained as a concept and illustrated by typical diseases and disorders. Diseases will be discussed in terms of manifestations, etiology and complications. The diagnosis and management of disease processes associated with pathophysiological dysfunction/alterations is also introduced. This is a theory course.

**Prerequisites:** PN 100, PN 101

## COURSE HOURS

**TOTAL HOURS: 45**

**LECTURE: 45**

**CREDITS: 3**

## TUTOR INFORMATION

Instructor: Carla Hamblay  
Phone (Office): 780-881-1740  
E-mail: [carla.hambley@keyano.ca](mailto:carla.hambley@keyano.ca)  
Office Hours: By Appointment

### **GENERAL LEARNING OUTCOMES**

Upon successful completion of this course, the learner will:

1. Describe common pathologic processes resulting in alteration of the structure and function of the body.
2. Correlate alterations in the physiologic function of the body to clinical presentation of signs and symptoms.
3. Identify common disease and disorders associated with pathophysiological processes.

4. Apply pathophysiologic principles to the interpretation and treatment of symptoms and disease processes.
5. Identify and prioritize actual and potential problems associated with the pathological process.
6. Describe common diagnostic assessments of pathological processes.
7. Identify medical treatments for common pathological processes.

## **Instructional Methods**

- This course uses a variety of teaching/learning methods including: discussion, experiential exercises, learner presentations, role-plays, case studies, lectures, reflection, lab demonstration and practice, and group activities. These course activities provide the opportunity for learners to learn with and from others who are undergoing a similar learning experience.
- The course emphasizes pre-class preparation, participation in interactive classes, and post-class reflection and review. The learner is expected to take an active part in class discussions and take responsibility for his/her own learning. The instructor's role is to facilitate learning.

### Expectations of Students Writing On-Line Exams

1. Each instructor will have the following options with regards to writing quizzes: writing on line from a location and computer of their choice; writing in a classroom with their own device invigilated by the instructor, or writing the quiz on paper. The course instructor will provide information related to where the student is to write the quiz.
2. If quizzes are written from a location and computer of their choice, these are **not** open book exams. The quiz is to have been studied for prior to the quiz or exam date and is to be completed independently: that is by oneself, not in collaboration with or in the company of another person or persons. No photos of quiz questions are to be taken via phones.
3. Midterm and Final exams will be invigilated by the instructor. The time and place can be found in the course syllabi. Students may be required to provide their own devices for these exams.
4. Students who are writing from a location and computer of their choice are responsible for discussing any computer/internet issues with the instructor at least two days prior to the exam date listed in the course timetable.
5. Once the quiz/exam has started, the student will submit their answers immediately prior to going on to the next question.

6. Time for all quizzes and exams will be strictly adhered to. For example if a quiz is 30 minutes, the quiz will be open for exactly 30 minutes.
7. No grades will be released until the instructor has had time to review the quiz/exam stats. Once the review has been done, the marks will be released. Review of the quiz/exam questions in class will be done at the instructor's discretion.
8. If any problem arises during the taking of the quiz/exam, the student is to contact the instructor immediately at the time of the issue.
9. It is the responsibility of each student to be familiar with the contents of the Student Code of Conduct. It is mandatory that all students sign a form identifying they have read/or are familiar with the Student Code of Conduct. First, Second, and Third year students will have read or are familiar with the Keyano College Student Code of Conduct. Fourth year students will identify they are familiar with the University of Alberta Student Code of Conduct. Beginning in Sept 2016, all new students plus those moving from third year to fourth year will be mandated to sign the above form(s).

### **Statement on Plagiarism**

All students must complete the Plagiarism/Tutorial Certificate found on Moodle. To locate this information, sign into Moodle and on the left side of the page under student the tutorial can be located. Expectations:

1. All students must complete this tutorial. The certificate must be shown to the instructor prior to submitting any written assignment. Failure to show the instructor the certificate of completion could result in a late written assignment penalty.
2. If you have completed this tutorial in a University Studies course you can show your instructor the certificate. The tutorial is required to be completed only once during your time at Keyano unless you have left the program and returned.

### **Student Code Of Conduct**

Please refer to the Student Handbook and review the Student Code of conduct Policy (Policy 110.0), Students Rights policy (Policy 111.0) and Student Code of Conduct Procedure (110.1). It is expected that you will review and be aware of expectations relative to student rights, responsibilities and behaviours

## **PRACTICAL NURSING PROGRAM POLICIES**

Please refer to Keyano College Practical Nurse Handbook for specific Practical Nursing Program policies and to Keyano College Calendar for general College policies.

## **LATE POLICY FOR ASSIGNMENTS**

All assignments are to be passed in at the time and place they are due. Please see timetable. Extensions on assignments may be granted and must be negotiated with the tutor prior to the due date and with a date specified for late submissions. If prior arrangements are not made, a penalty of 5% deduction per day including weekends will be administered. This will be applied each day until the assignment is received by the instructor. Students can submit assignments by e-mail on weekends, but must provide a paper copy on the first day following the weekend.

## **SPECIALIZED SUPPORTS & DUTY TO ACCOMMODATE**

### **DISABILITY SUPPORT SERVICES: LEARNER ASSISTANCE PROGRAM**

If you have a documented disability or you think that you would benefit from some assistance from a Disabilities Counselor, please call or visit the Disability Supports Office 780-792-5608 to book an appointment (across from the library). Services and accommodations are intended to assist you in your program of study, while maintaining the academic standards of Keyano College. We can be of assistance to you in disclosing your disability to your instructor, providing accommodations, and supporting your overall success at Keyano College.

### **SPECIALIZED SUPPORTS AND DUTY TO ACCOMMODATE**

Specialized Support and Duty to Accommodate are aligned with the office of Disability Support Services: Learner Assistance Program (LAP) guided by federal and provincial human rights legislation and defined by a number of Keyano College policies. Keyano College is obligated by legislation to provide disability-related accommodations to students with identified disabilities to the point of undue hardship.

## OVERVIEW OF LEARNING EXPERIENCES

This course consists of the following units:

**Unit 1:** Cell Adaptation, Proliferation, and Differentiation

Topic 1.1: Introduction to Pathophysiology

Topic 1.2: Cell Injury, Adaptation, and Death

Topic 1.3: Alterations in Cellular Proliferation and Differentiation  
Topic 1.4: Alterations in Genetics and Development  
Topic 1.5: Alterations in Blood Cells

**Unit 2:** Alterations in Defence Mechanisms

Topic 2.1: Alterations in Skin Integrity

Topic 2.2: Inflammatory Process – Tissue Reaction to Injury

Topic 2.3: Tissue Repair – Recovering From Injury

Topic 2.4: Infectious Processes  
Topic 2.5: Alterations in Immunity

**Unit 3:** Alterations in Communication and Regulation

Topic 3.1: Alterations in Hormonal Messaging and Effects on Regulatory Functioning

Topic 3.2: Alterations in Neuronal Transmission and Effects on Regulatory Functioning

Topic 3.3: Alterations in Fluid, Electrolyte, and Acid-Base Balance

**Unit 4:** Alterations in Communication, Regulation, and Patency

Topic 4.1: Alterations in Ventilation and Diffusion

Topic 4.2: Alterations in Perfusion

**Unit 5:** Alterations in Communication, Regulation, Patency, and Motility

**Unit 6:** Alterations in Communication, Regulation, Filtration, Transport, and Nutrient Metabolism

Topic 6.1: Alterations in Filtration

Topic 6.2: Alterations in Absorption, Secretion, and Nutrient Metabolism

**Unit 7:** Application of Combined Pathophysiologic Concepts

**Unit 8:** Alterations in Body Support and Movement

**Unit 9:** Alterations in Sensory Function and Pain Perception

**Unit 10:** Degenerative Changes in Aging

## OVERVIEW OF COURSE ASSESSMENT

### Assessments

To complete course requirements for PN105 Pathophysiology for Health-Care Professions, you will be required to complete two exams and a final exam.

### Distribution of Marks

Assessment Method	Description	Value	Date
<b>Exam 1</b> Multiple choice	Demonstrate knowledge of course content (Units 1–3)	<b>30%</b>	<b>Feb 24</b>
<b>Exam 2</b> Multiple choice	Demonstrate knowledge of course content (Units 4–6)	<b>30%</b>	<b>Mar 16</b>
<b>Final Exam</b> Cumulative; multiple choice	Demonstrate knowledge of course content	<b>40%</b>	<b>Mar 19</b>
	<b>Total</b>	<b>100%</b>	

### Passing Level and Grading Scale

A student must achieve a minimum grade of 1.7 (C-) or 60% to receive credit for PN 105 Pathophysiology for Health-Care Professions.

Students must complete all assignments and examinations to receive a final course grade. Students will not be allowed to rewrite the assignments or exam to raise their course grade.

Refer to the Practical Nurse Handbook and Keyano College Calendar for information regarding grading scale, extensions, writing exams, supplemental exams and other program/College standard practices.

### Important Additional Information

**Note to all students:** It is the student's responsibility to retain course outlines for possible future use in support of applications for transfer credit to other educational institutions.



## REQUIRED TEXTS

Braun, C.A., & Anderson, C.M. (2011). *Pathophysiology: A clinical approach* (3rd ed.). Philadelphia, PA: Lippincott Williams & Wilkins.

McConnell, T.H. (2014). *The nature of disease: Pathology for the Health Professions* (2<sup>nd</sup> ed.). Philadelphia, PA: Lippincott Williams & Wilkins.

Medical dictionary

Access to the Internet

### Required Internet Readings

#### Library Database

Matteucci, R. & Caple, C. (2011). Deep vein thrombosis: Prevention. In *Evidence-Based Care Sheet* series. Glendale, CA: CINAHL Information Systems. Retrieved from CINAHL Plus with Full Text database.

Buckley, L., & Schub, T. (2010). Stroke, ischemic: Treatment with thrombolysis. In *Evidence-Based Care Sheet* series. Glendale, CA: CINAHL Information Systems. Retrieved from CINAHL Plus with Full Text database.

Caple, C. & Schub, T. (2011). Diabetes mellitus, type 2: Cardiovascular risk. In *Evidence-Based Care Sheet* series. Glendale, CA: CINAHL Information Systems. Retrieved from CINAHL Plus with Full Text database.

Buckley, L. & Caple, C. (2011). Diabetes mellitus, type 1: Prevention. In *Evidence-Based Care Sheet* series. Glendale, CA: CINAHL Information Systems. Retrieved from CINAHL Plus with Full Text database.

Strayer, D., & Caple, C. (2011). Crohn's disease: Inducing/maintaining remission with medications. In *Evidence-Based Care Sheet* series. Glendale, CA: CINAHL Information Systems. Retrieved from CINAHL Plus with Full Text database.

Caple, C. & Cabrera, G. (2011). Asthma: Management in older adults. In *Evidence-Based Care Sheet* series. Glendale, CA: CINAHL Information Systems. Retrieved from CINAHL Plus with Full Text database.

Caple, C., & Schub, T. (2011). Diabetes mellitus, type 2: Prevention. In *Evidence-Based Care Sheet* series. Glendale, CA: CINAHL Information Systems. Retrieved from CINAHL Plus with Full Text database.

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Strayer, D., & Caple, C. . (2011). Diabetes mellitus, type 2: Treatment adherence. In *Evidence-Based Care Sheet* series. Glendale, CA: CINAHL Information Systems. Retrieved from CINAHL Plus with Full Text database.