Primary Care Paramedic

400 – Essentials

PRIMARY CARE PARAMEDIC CERTIFICATE

2021-2022

INSTRUCTOR: Kyle Bouyers
Office: Main Campus S109D
Phone: 403-361-0553
Email: kyle.bouyers@keyano.ca

HOURS OF INSTRUCTION:

Classes occur over the 12-week didactic portion of the course.

COURSE DESCRIPTION:

PCP 400 - Integrated Theory   6 credits   128 hours

This course affords the theory necessary for a Primary Care Paramedic and to inform clinical decision making during practical components and throughout their career. Students will apply the theoretical components and incorporate practical skills, history, assessment, clinical presentation, and diagnostic findings with integrated theory in the areas of communication, legal and ethical issues, medical terminology, and the basis of all medicine – Anatomy and Physiology.

The course is designed as a flipped classroom format where you will learn the didactic components than mixed with onsite weeks where the student will engage in experiential learning and practice in the state of the art high-fidelity simulated scenarios which are fitted with recently learned material under the guidance of experienced instructors.

PCP 400 – Integrated Theory is comprised of five modules that occur over 12 weeks and provide the theoretical foundation needed for a PCP.

1. Anatomy and Physiology Module
2. Pharmacotherapy Module
3. Essentials Module – Medical & traumatic Emergencies, Special Populations, and Aeromedical
4. Communications Module
5. Legal and Ethical Issues Module

COURSE TEXTBOOKS:

Bledsoe, B, Porte, R, & Cherry, R. (2017). *Paramedic Care: Principles & Practice*. (5th ed., Vol. 1). Pearson Education.

Aehlert, B. (2018). *ECG's Made Easy* (6th ed.). Mosby.

Bledsoe, B, Porte, R, & Cherry, R. (2017). *Paramedic Care: Principles & Practice*. (5ᵗʰ ed., Vol. 2). Pearson Education.

Bledsoe, B, Porte, R, & Cherry, R. (2017). *Paramedic Care: Principles & Practice*. (5ᵗʰ ed., Vol. 3). Pearson Education.

Bledsoe, B, Porte, R, & Cherry, R. (2017). *Paramedic Care: Principles & Practice*. (5ᵗʰ ed., Vol. 4). Pearson Education.

Bledsoe, B, Porte, R, & Cherry, R. (2017). *Paramedic Care: Principles & Practice*. (5ᵗʰ ed., Vol. 5). Pearson Education.

Derrickson, G., Tortora J. (2016). *Principles of Anatomy and Physiology*. (15ᵗʰ ed.) Wiley Global Education.

Roy Alson (Ed.) (2020) *International Trauma Life Support*. (9ᵗʰ ed.) Pearson Education

BASIC ANATOMY & PHSYIOLOGY

Course Outline

Module Description

An PCP must have a rudimentary understanding on how the Human Body functions. This understanding allows a practicing PCP to make informed prehospital assessments and treatment decisions when patients are in distress. This course will introduce the student to the normal functioning components of the Human Body. The students will apply their knowledge of anatomy and physiology to their assessment and treatment skills.

Module Outcome

Upon completion of this course the student will:

1. Relate anatomy and physiology knowledge to PCP clinical judgement
2. Describe the organization of the human body
3. Explain the functions of specific body systems
4. Describe the concept of homeostasis and relate it to normality
5. Describe and relate how the human body works as a whole
6. Explain the relationship between cells, tissues, organs, and systems
7. Use appropriate anatomical terms when describing the human body and function
8. Explain the functions of major organs found in each body system and how they relate to clinical medicine in the pre-hospital setting

Evaluation

- One multiple choice exam worth 10% of the overall mark in EMT 400 course.
- Assignments may be given ad hoc depending on if a deficiency is noticed by the administering instructor

Relevant National Occupational Competency Profile Components

The NOCP profile does not list general knowledge of Anatomy & Physiology as a competency and the degree to which this is delivered is autonomously up to the referring institution.

Required Course Textbooks

Derrickson, G., Tortora J. (2016). *Principles of Anatomy and Physiology*. (15th ed.) Wiley
   Global Education.

Roy Alson (Ed.) (2020) *International Trauma Life Support*. (9th ed.) Pearson Education

Supplemental Reading:

This is subject to each instructor and may provide additional reading on an ad hoc basis.

INTRODUCTION TO PHARMACOTHERAPY

Module Description:

The responsibility of administering medications requires a PCP to exercise skill, knowledge, and judgment. Focusing on patient safety, students will be introduced to the pharmacokinetics, pharmacotherapeutics, and safe administration techniques to each of the drugs for which a PCP is responsible.

Module Outcomes

Upon completion of this module the student will be able to:

1. Demonstrate an understanding of the basic concepts related to the pharmacodynamic principles underlying drug action in the human body.

2. Demonstrate an understanding of the basic pharmacokinetic principles related to movement of drugs within the human body; including various routes of administration.

3. Demonstrate an understanding of the classification, nature, properties, and effects of drugs.

4. Demonstrate sufficient knowledge of various classes of medications including but not limited to: Sympathomimetics, opiates, nitrates, analgesics, anti-inflammatories

5. Demonstrate an understanding of various toxidromes.

6. Demonstrate an understanding of the role of the PCP in ethical drug administration

7. Understand and perform safe medication administration and incorporate the rights to administration

Module Evaluation:

1. One multiple choice final exam – worth 10%
2. Integrated Research Assignment - worth 10%

The Medication module is worth 20% of the overall mark in EMT 400 course.

Relevant NOCP Competencies

- 1.2.c - Interpret evidence in medical literature and assess relevance to practice.
- 2.1.g - Use appropriate terminology.
- 4.2.b - Obtain patient's medication profile
- 5.2.a Prepare oxygen delivery devices.
- GENERAL COMPETENCY: 5.8 Administer medications.

- o 5.8.a Recognize principles of pharmacology as applied to medications listed in Appendix 5
- o 5.8.b Follow safe process for responsible medication administration
- o 5.8.c Administer medication via subcutaneous route
- o 5.8.d Administer medication via intramuscular route.
- o 5.8.e Administer medication via intravenous route.
- o 5.8.f Administer medication via intraosseous route.
- o 5.8.g Administer medication via endotracheal route.
- o 5.8.h Administer medication via sublingual route.
- o 5.8.i Administer medication via the buccal route
- o 5.8.j Administer medication via topical route
- o 5.8.k Administer medication via oral route
- o 5.8.l Administer medication via rectal route.
- o 5.8.m Administer medication via inhalation.
- o 5.8.n Administer medication via intranasal route
- o 5.8.o Provide patient assist according to provincial list of medications

COMMUNICATIONS MODULE

Module Description:

A PCP is responsible for medical information every day. The medical information obtained from a patient is often shared with other members of the health care team. Accurate and timely sharing of this information assists to promote continuity of care for the patient. In this module, the learner will practice techniques used to obtain patient information, communicate effectively, and communicate patient information in a variety of methods to other members of the health care team.

Module Outcomes

Upon completion of this module the student will be able to:

1. Collect relevant and accurate patient data.
2. Understand and demonstrate the ability to adapt communication techniques based on patient history and current incident.
3. Document patient information in an organized manner
4. Verbalize and demonstrate behaviors that maintain patient confidentiality and protect patient information.
5. Demonstrate the ability to deliver organized, accurate, and relevant patient information via a radio report.
6. Demonstrate the ability to deliver organized, accurate, and relevant patient information via a verbal report.
7. Use technical vocabulary and medical terminology appropriately and accurately in written and verbal communication.

8. Demonstrate professional behaviors related to therapeutic communication, establishing trust and rapport, diplomacy, tack, and discretion with patients and other members of the health care team.

9. Demonstrate effective conflict resolution and defusing skills.

Relevant NOCP Competencies:

- 1.1 Function as a professional.

    o 1.1.f, g, h

- 1.3: Possess an understanding of the medicolegal aspects of the profession.

    o 1.3.b, c

- 1.5.b Accept and deliver constructive feedback

- 1.7 Manage scenes with actual or potential forensic implications.

    o 1.7.a, b

- 2.1 Practice effective oral communication skills

    o 2.1.a, b, c, f, g.

- 2.2 Practice effective written communication skills.

    o 2.2.a, b

- 2.3 Practice effective non-verbal communication skills

    o 2.3.a

Module Evaluation:

Evaluation: Integrated Assignment Patient Care Report (PCR)

Assignment is worth 15% of the overall mark in EMT 400 course.

LEGAL AND ETHICAL ISSUES MODULE

Module Description:

Understanding the legalities and the ethical issues that confront PCPs is a critical area of importance. Before practicing as a PCP, students need to consider how Canadian and Alberta legislation affects patient care. In this module, the learner will have an opportunity to relate legal and ethical issues to his/her future practice in EMS.

Module Outcomes:

Upon completion of this module the student will be able to:

1. Understand and undertake the role of a professional PCP

2. Understand and utilize provincial and federal legislation as it relates to practice.

3. Understand and implement appropriate scope of practice for an PCP

4. Demonstrate knowledge of professional development activities and currency of practice

5. Understand and discuss patient's rights and PCP responsibilities of patient advocacy

6. Explain and demonstrate ethical behavior

7. Work collaboratively and cooperatively with other members of the health care team

Relevant NOCP Competencies:

1.1: a, b, g, h, I | 1.7: a,b | 2.4: a, b, c |

Module Evaluation:

    Ethical Debate   10%
    worth 10% of the overall mark in EMT 400 course.

Module Resources:

The learner is to use resources found in and around their community. The resources will depend on the debate/research subject. Examples are:

- Internet through scholarly searches
- Keyano College Library
- Community Library
- Family Community Support Services
- Public Health Office

PRE-HOSPITAL ESSENTIALS MODULE

Module Description:

In this module, through a series of eleven comprehensive lessons, the student will learn the essential theoretical knowledge required of a PCP practitioner. Students will participate in opportunities to apply their knowledge to skills practice in the classroom/lab setting.

Note: Students will participate in lectures, group discussions, and independent learning practices to help them prepare to work as a PCP. During class time, instructors will provide direction to students, however, the expectation is that students will work together and independently outside of class time to complete the learning activities found in each lesson.

These lessons have a large reading component and it is expected that the student will manage their time in order to complete the required readings and any additional material assigned by the instructors.

Module Outcomes:

Upon completion of this module the student will be able to:

1. Demonstrate knowledge of appropriate techniques (inspection, palpation, percussion, and auscultation) related to objective assessments of all body systems.

2. Demonstrate knowledge of the specialized assessment techniques related to the pregnant, neonatal, pediatric and geriatric patient

3. Demonstrate knowledge of the specialized assessment techniques related to the psychiatric patient experiencing crisis and patients experiencing drug overdose.

4. Demonstrate ability to consider assessment findings and infer a differential diagnosis.

5. Demonstrate a sound understanding and competence in obtaining & evaluating vital signs.

6. Based on the interpretation of assessment findings and the differential diagnosis, demonstrate decision making skills and knowledge to provide care to a variety of clients across the lifespan.

7. Provide basic care for soft tissue injuries.

8. Demonstrate knowledge, clinical decision-making skills, and ability to provide care for patients experiencing a variety of medical condition at a basic life support level

9. Demonstrate ability to distinguish between urgent and non-urgent illnesses and injuries and explain the approach to each patient

10. Demonstrate an understanding and ability to justify approach, assessment, care, and transportation decisions related to patients experiencing traumatic injury.

11. Demonstrate an understanding of relationship of mechanism of injury to patient condition and care provided.

12. Demonstrate knowledge and ability to protect self and others from communicable disease transmission.

13. Demonstrate knowledge and ability to protect self and others from exposure to environmental hazards

14. Demonstrate knowledge, clinical decision-making skills, and understanding of how to triage multiple casualty situations and situations where there is only one patient.

15. Demonstrate understanding of safety and knowledge specific to fixed wing and rotary wing aircraft specific to patient transportation.

16. Recognize stress indicators, coping strategies and an understanding of the Critical incident Stress Management System (CISM).

17. Demonstrate knowledge of specific illnesses, injuries and complications related to all body systems, across the lifespan.

Relevant NOCP Competencies:

4.1: a, b, c, d | 4.2: a, b, c, e,f | 4.3: a-p | 4.4: a-i | 4.5: a, b, c, d, i, m, n, q, 8.2.b, 8.3: a-f

Module Evaluation:

Four multiple choice exams (covers all material covered in the Essential 400 modules)

- One multiple choice exam worth 5%
- Second multiple-choice exam worth 5%
- Third multiple choice exam worth 15%
- Final Exam **(comprehensive)** multiple choice worth 20%

All four Essentials exams are worth 45% of the overall mark in EMT 400 course.

Performance Requirements

Student Responsibilities
It is your responsibility as a student to contact the Office of the Registrar to complete the forms for Withdrawal or Change of Registration, and any other forms. Please refer to the list of important dates as noted in the Academic Schedule in the Keyano College credit calendar. The Keyano College credit calendar also has information about Student Rights and Code of Conduct. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Code of Conduct Policies.

Student Attendance
Class attendance is useful for two reasons. First, class attendance maximizes a student's learning experience. Second, attending class is a good way to keep informed of matters relating to the administration of the course (e.g., the timing of assignments and exams). Ultimately, you are responsible for your own learning and performance in this course.

It is the responsibility of each student to be prepared for all classes. Students who miss classes are responsible for the material covered in those classes and for ensuring that they are prepared for the next class, including the completion of any assignments and notes that may be due.

Academic Misconduct
Students are considered to be responsible adults and should adhere to principles of intellectual integrity. Intellectual dishonesty may take many forms, such as:

- Plagiarism or the submission of another person's work as one's 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;
- Handing in the same unchanged work as submitted 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.

In order to ensure your understanding of the concept of plagiarism, <u>you must successfully complete the online tutorial found on ilearn.keyano.ca. Then print the certificate, sign it, and show it to each of your instructors.</u> Your course work may not be graded until you show this signed certificate.

Specialized Supports
The Student Services department is committed to Keyano students and their academic success. There are a variety of student supports available at Keyano College. Due to the continuing situation with the Covid-19 pandemic, the offered support services will be implemented differently this semester by being provided mostly virtually. In-person service can be requested as needed. All Alberta Health Services guidelines will be followed for in-person appointments—wear a mask, maintain two meters of physical distance, use hand sanitizer, and stay home if you are unwell.

All student services are available during Keyano business hours: Monday to Friday, 8h30-16h30.
The Library has evening and weekend hours. Please check keyano.ca/library for current hours.

Accessibility Services: provides accommodations for students with disabilities. Students with documented disabilities, or who suspect a disability, can meet with a Learning Strategist to discuss their current learning barriers and possible accommodations. Students who have

accessed accommodations in the past are encouraged to contact us to request them for the semester. Please note that requesting accommodations is a process and requires time to arrange. Contact us as soon as you know you may require accommodations. For accessibility services supports and to book a virtual appointment, please contact accessibility.services@keyano.ca.

Accessibility Services also provides individual and group learning strategy instruction for all students, as well as technology training and supports to enhance learning. Meet with a Learning Strategist to learn studying and test-taking strategies for online classes. Schedule an appointment with the Assistive Technology Specialist to explore technology tools for learning. Book an appointment today by emailing accessibility.services@keyano.ca

Academic Success Coaching: offers you support and access to resources for your academic success to help you to find the Keys to your Success. The Academic Success Coach will work with you to develop an academic success plan, develop your study and time management skills, and connect you with the right resources here at Keyano. Academic.success@keyano.ca is the best way to access resources during virtual service delivery.

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 offer a safe and confidential environment to seek help with personal concerns. All individual appointments will continue virtually.

Wellness Services welcomes students to participate in any of the virtual group sessions offered throughout the academic year addressing topics including mindfulness and test anxiety.

Individual virtual appointments can be made by emailing wellness.services@keyano.ca.

Library Services: provides students with research and information supports as they engage in their studies. Library staff are available to support you both virtually and in person during the fall semester. For library service supports and inquiries, please email askthelibrary@keyano.ca.

Individual support with the Information Librarian will be provided virtually. Appointments can be requested by email or by placing a Book a Librarian request using the online form found here.

Research and Subject Guides are helpful resources when conducting research or addressing your information needs. To view a subject or course specific guide, use the following Subject Guides link

To access additional research resources, including Citation Guides (APA, MLA, Chicago, or IEEE), go to the Research Help Library page.

Skill Centre: provides academic support services to students registered in credit programs at Keyano College in the form of tutoring, writing support groups, facilitated study groups, workshops and study space. Tutoring services are **free** to Keyano students. Tutoring is available for Math, Writing, English, and Science subject areas.

Recommended Requirements	Recommended Requirements
· 8GB of RAM	· 8GB of RAM
· A method of backing up/synchronizing to local or cloud-based storage such as OneDrive is highly recommended. This is included if you complete the setup of KeyanoMail and download MS Office using your Keyano email for free.	· A method of backing up/synchronizing to local or cloud-based storage such as OneDrive is highly recommended. This is included if you complete the setup of KeyanoMail and download MS Office using your Keyano email for free.

Chromebooks are **not** recommended as they are not compatible with testing lockdown browsers.

A Microsoft Surface or iPad or iPad Pro may be possible alternatives in some program areas.

Specific department requirements:
Business and OA programs require Windows 10.
Other programs may utilize Windows based tools as well.
Computer Software
Students will be able to get access to Microsoft Office 365 for Free using Keyano Credentials by clicking here.

Recording of lectures and Intellectual Property
Students may only record a lecture if explicit permission is provided by the instructor or by Accessibility Services. Even if students have permission to record a lecture or lecture materials, students may not publish any of the lectures or lecture materials, this includes any recordings, slides, instructor notes, etc. on any platform. Thus no student is allowed to publish or sell instructor notes without formal written permission. It is important to recognize that the Canadian Copyright Act contains provisions for intellectual property.

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