



COURSE OVERVIEW

PCP-119, Trauma 1, will be delivered in the classroom setting using a blend of lecture and group discussion. In Trauma 1, we will present the student with specific information regarding the assessment and management of traumatic injuries with which they may be faced when responding to emergencies.

Specific topics include: Airway management & ventilation, supplemental oxygen therapy, airway pharmacology, and trauma systems & mechanism of injury

MEETING TIMES & INSTRUCTIONAL METHODS

In-class sessions (virtual when warranted)

Lecture/Group Discussion: Mondays 13:00 – 14:45

Total hours: 13

REQUIRED MATERIALS, PREREQUISITES, & COREQUISITES

Textbooks

Caroline, N. (2021). *Emergency Care in the Streets, Canadian Edition 8th edition*. Burlington, MA, Jones and Bartlett Learning.

Class Materials

Students will be expected to be prepared to take notes and to complete in-class activities. Instructors may also specify the use of mobile phones and laptops for some activities.

Supplemental Materials to be posted on the Omni Life Support (OLS) website:

Materials related to PCP-119, such as in-class presentations, will be available for student access on. Academy faculty does not authorize the posting of PCP-119 materials on other sites. Each student is responsible for his/her own learning which includes staying current with postings on the OLS website.

Prerequisites: None

Corequisites: PCP-105, PCP-107, PCP-112, PCP-113, PCP-114, PCP-116,
PCP-117, & PCP-11PT



INSTRUCTOR(S)

Instructor: Joel Mattatall, ACP E-mail: joel.mattatall@omnilifesupport.com
Voice: (506) 830-4277

LEARNING OUTCOMES

Upon successful completion of this course, it is expected that students will have gained sufficient knowledge and skill to safely and proficiently render patient care to patients suffering from traumatic emergencies. By the end of the course, the student will be able to:

- Describe the structure and function on the upper & lower airways
- Evaluate an airways patency and take corrective steps to remove obstruction
- Describe how to safely suction a patient's upper airway
- Explain how to provide supplemental oxygen therapy and properly use oxygen delivery devices
- Explain proper procedure for inserting, maintaining, and removing advanced airway devices
- Describe the procedure for insertion of a gastric tube
- Describe the difference between surgical and non-surgical airways
- Identify the different types of forces placed upon the body during various traumatic situations based on mechanism of injury
- Describe local trauma reporting and the provincial trauma system
- Describe the equipment used for mechanical ventilation, when it is provided, and have a general understanding of the various ventilation modes and settings.

INTENDED LEARNING OBJECTIVES:

Learning objectives for PCP-119 Trauma 1 are guided by the *National Occupational Competency Profiles (NOCP)* for Paramedics. Each objective, indicated by the prefix "O", is linked to the corresponding NOCP sub-competency with the matching alpha-numerical code (e.g., O1.1.a is the learning objective tied to sub-competency 1.1.a of the NOCP for Paramedics). As per the NOCP guidelines for Paramedics, to succeed in this course, you must demonstrate competence in the following areas.



Learning Objectives	Embedded Knowledge and Skills
O5.1.a	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ 5.1.a.1 - Apply problem-solving techniques required with various types of patients. ○ 5.1.a.2 - Adapt maneuvers and positioning for head, neck, and jaw positioning, which improve airway patency. ○ 5.1.a.3 - Perform manual airway maneuvers, under a variety of patient and environmental presentations. ○ 5.1.a.4 - Adjust to changes in patient’s airway patency. ○ 5.1.a.5 - Demonstrate management of potential complications of airway maneuvers.
O5.1.b	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Explain the purposes of and indications for oropharyngeal suctioning. ○ Describe suctioning equipment. ○ Explain established standards of maintenance for suctioning equipment. ○ Identify pressure limitations for suctioning various age groups. ○ Operate appropriate suctioning devices. ○ Perform suctioning using safe technique. ○ Adapt suctioning techniques, to changes in a patient’s condition. ○ Explain potential complications of suctioning. ○ Perform cleaning and disinfection of suctioning equipment.
O5.1.c	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Identify indications and equipment for suctioning beyond the oropharynx.
O5.1.d	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Explain the purpose and indications for inserting an oropharyngeal airway. ○ Discuss oropharyngeal airway types and sizes. ○ Perform oropharyngeal airway sizing procedures. ○ Perform insertion of an oropharyngeal airway. ○ Adjust to changes in patient presentation.
O5.1.e	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Explain the purposes of and indications for inserting a nasopharyngeal airway. ○ Perform nasopharyngeal airway sizing procedures. ○ Perform nasopharyngeal airway insertion. ○ Adjust to changes in patient presentation.



Learning Objectives	Embedded Knowledge and Skills
O5.1.f	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Explain the purposes of and indications for airway devices not requiring visualization of vocal cords and not introduced endotracheally. ○ Describe various types of airway devices not requiring visualization of vocal cords and not introduced endotracheally. ○ Perform sizing procedures for airway devices not requiring visualization of vocal cords and not introduced endotracheally. ○ Perform insertion of airway devices not requiring visualization of vocal cords and not introduced endotracheally. ○ Adjust to changes in patient presentation.
O5.1.g	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Explain the purposes of and indications for airway devices not requiring visualization of vocal cords and introduced endotracheally. ○ Describe various types of airway devices not requiring visualization of vocal cords and introduced endotracheally.
O5.1.g	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ 5.1.g.1 - Explain the purposes of and indications for airway devices not requiring visualization of vocal cords and introduced endotracheally. ○ 5.1.g.2 - Describe various types of airway devices not requiring visualization of vocal cords and introduced endotracheally.
O5.1.h	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ 5.1.h.1 - Explain the purposes of and indications for airway devices requiring visualization of vocal cords and introduced endotracheally. ○ 5.1.h.2 - Describe the various types of airway devices requiring visualization of vocal cords and introduced endotracheally.
O5.1.i	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Identify the indications for AFB removal. ○ Describe the methods of relieving airway obstructions ○ Describe the differences in technique required for AFB removal in various age groups. ○ Perform AFB removal under a variety of presentations. ○ Adjust to changes in patient presentation. ○ Identify potential complications of AFB removal.



Learning Objectives	Embedded Knowledge and Skills
O5.1.j	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Identify the purposes of and indications for foreign body removal by forceps. ○ Describe equipment used for foreign body removal by direct techniques. ○ Identify potential complications of AFB removal by direct techniques.
O5.1.k	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ 5.1.k.1 - Identify the purposes of and indications for percutaneous cricothyroidotomy. ○ 5.1.k.2 - Describe equipment used for percutaneous cricothyroidotomy. ○ 5.1.k.3 - Identify potential complications of percutaneous cricothyroidotomy.
O5.1.l	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ 5.1.l.1 - Identify the purposes of and indications for surgical cricothyroidotomy. ○ 5.1.l.2 - Describe equipment used for surgical cricothyroidotomy.
O5.2.a	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ 5.2.a.1 - Describe indications for oxygen administration. ○ 5.2.a.2 - Discuss the purpose of oxygen administration. ○ 5.2.a.3 - Discuss oxygen administration complications. ○ 5.2.a.4 - Describe the safe handling of oxygen delivery systems. ○ 5.2.a.5 - Discuss oxygen administration precautions. ○ 5.2.a.6 - Identify different oxygen cylinder types and sizes. ○ 5.2.a.7 - Apply the formulas that determine oxygen cylinder factors, volume (or type) and maximum filling volumes and duration. ○ 5.2.a.8 - Identify various types of oxygen delivery systems. ○ 5.2.a.9 - Explain the difference between portable and fixed delivery systems.
O5.2.b	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ 5.2.b.1 - Describe the sequential steps for setting up oxygen delivery systems. ○ 5.2.b.2 - Operate oxygen delivery systems. ○ 5.2.b.3 - Demonstrate cleaning and disinfection of oxygen delivery systems.



Learning Objectives	Embedded Knowledge and Skills
O5.3.a	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Identify the purposes of and indications for the use of a nasal cannula. ○ List the steps for administration of oxygen by nasal cannula. ○ Perform oxygen administration using a nasal cannula. ○ Adjust to changes in patient presentation.
O5.3.b	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Identify the purposes of and indications for the use of a low concentration mask. ○ List the steps for administration of oxygen by a low concentration mask. ○ Perform oxygen administration using a low concentration mask. ○ Adjust to changes in patient presentation.
O5.3.c	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Identify the purposes of and indications for the use of a controlled concentration oxygen mask.
O5.3.d	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Identify the purposes of and indications for the use of a high concentration mask. ○ List the steps for administration of oxygen by a high concentration mask. ○ Perform oxygen administration using a high concentration mask. ○ Adjust to changes in patient presentation.
O5.3.e	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Identify the purposes of and indications for the use of a pocket mask. ○ List the steps for administration of oxygen by a pocket mask. ○ Perform oxygen administration using a pocket mask. ○ Adjust to changes in patient presentation.



Learning Objectives	Embedded Knowledge and Skills
O5.4.a	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Identify the purposes of and indications for the use of a manual positive pressure device. ○ List the steps for administration of oxygen by a manual positive pressure device. ○ Discuss rate, rhythm, volume, compliance, and positive end expiratory pressure. ○ Perform ventilation using a manual positive pressure device. ○ Distinguish between one person and two-person application of a manual positive pressure device. ○ Evaluate the effectiveness of ventilation. ○ Adjust to changes in patient presentation.
O5.4.b	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Define “mechanical ventilation”. ○ Identify the various types of mechanical ventilation equipment. ○ List indications for mechanical ventilation.
O5.4.c	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Discuss potential complications and safety issues when using mechanical ventilation. ○ Describe vent circuit, end tidal carbon dioxide, manometer, and respirometer. ○ Differentiate between intermittent mandatory ventilation, continuous mandatory ventilation, assist control, and inverse ratio ventilation. ○ Discuss continuous positive airway pressure, positive end expiratory pressure, and noninvasive positive pressure ventilation. ○ Describe blender, saturated oxygen. ○ Describe compliance, resistance, plateau pressure, inspiratory pressure, expiratory pressure, peak expiratory pressure, tidal volume, and respiratory rate.
O5.4.d	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Describe use of mechanical ventilator based on patient presentation. ○ Describe the adjustment of parameters to changes in ventilatory and hemodynamic status. ○ Discuss the use of mechanical ventilator based on patient presentation. ○ Discuss the use of capnography and pulse oximetry.



Learning Objectives	Embedded Knowledge and Skills
O5.5.t	By the end of the course, the student will be able to: <ul style="list-style-type: none"> ○ Describe indications for oral and nasal gastric intubation. ○ Identify equipment for oral and nasal gastric intubation.

GRADING

Students will be evaluated through written examination & class participation. A minimum of **70%** must be attained to receive a passing grade for PCP-119 Trauma 1.

Class Engagement	10%
Final Exam	90%

EXPECTATIONS & TIPS FOR SUCCESS

Academic Standards and Workload: Appropriate professional tone is expected on all student submissions and examinations. This is to help build strong professional practice skills.

A typical PCP course should require 1-2 hours per week of out-of-class work. This time may vary depending on how quickly you read and comprehend assigned course materials. **Classroom Protocol:** Students are expected to be courteous and respectful of others, and mindful that a classroom is a shared working space with the primary goal of learning course material.

Unnecessary distractions are to be minimized – that includes turning off cell phones and other distracters during lectures unless permission has been granted by the instructor.

Tardiness is strongly discouraged as it is in the Paramedic workplace. If for some reason you arrive late, please wait and enter the class during break.

Unless otherwise notified by the class instructor, attendance to all classes is mandatory. Absences will be dealt with on a case-by-case basis.

Deadlines and Late Penalties: Course deliverables submitted after the due date will be assigned a grade of zero (0). This penalty may be waived at the discretion of the instructor in the event of extraordinary or special circumstances (with supporting verification/documentation).



**OLS
Academy**

Primary Care Paramedicine 2024-25
Term 1 | Block 2
PCP-119 Trauma 1
OLS Academy
Course Outline

Engagement Points: A student's engagement will be graded out of 100 (representing 10% of the overall course mark). Students will be evaluated on their attendance and participation in every class. Each class will be worth an equal portion of the total 100 points. (See: *Engagement Rubric* in the Resource Folder.)

Absence Due to Special Circumstances or Illness: Let Mr. Mattatall know in advance if you need to be away due to special circumstances. If the event conflicts with class examinations, verification of the reason for absence will be required.

Academic Integrity: In order to maintain a culture of academic integrity, members of the OLS Academy community are expected to promote honesty, trust, fairness, respect and responsibility.

Communication Methods: Most communications regarding PCP-119 will be done during class sessions. Special announcements will be posted on the OLS Academy website. Emails sent to students will be sent from academy@omnilifesupport.com. Students can email the instructor at joel.mattatall@omnilifesupport.com.

This outline is subject to change at the discretion of academy administrators.