



COURSE OVERVIEW

PCP-116 Lab Skills I will be delivered in the classroom setting using an interactive, student-centered blend of skills demonstration, lecture, group discussion and skills practice. In *Lab Skills I*, we will introduce students to the essential paramedic skills that will be practiced and honed during lab time.

Specific topics include vital acquisition, patient handling, airway maneuvers & basic adjuncts, suctioning the airway, capnography, advanced airway insertion, extubation, respiratory diagnostics, capnography, oxygenation and ventilation skills, physical examinations, 3-lead and 12-lead acquisition, enteral and parenteral medication administration, drawing up medication from an ampule and vial, intravenous cannulation, and fluid administration.

MEETING TIMES & INSTRUCTIONAL METHODS

In-class sessions

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

Total hours: 30

REQUIRED MATERIALS, PREREQUISITES, & COREQUISITES

Textbook

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 come to class prepared to take notes and 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 private members' area of the Omni Life Support website. Materials related to *PCP-116* (such as in-class presentations and assignments) will be available for student access on this website. Academy faculty does not authorize the posting of *PCP-116* materials on other sites. Each student is responsible for their own learning which includes staying current with postings on the Omni Life Support website.



Prerequisites: None
Corequisites: PCP-101, PCP-105, PCP-107, PCP-112, PCP-113, PCP-114, PCP-117, PCP-119, & PCP-11PT

INSTRUCTOR(S)

LEARNING OUTCOMES:

Upon successful completion of this course, it is expected that students will have gained sufficient knowledge and skills to safely and proficiently perform skills utilized in the assessment and treatment of patients suffering from medical and traumatic emergencies. By the end of the course, the student will be able to:

- Perform a rapid trauma assessment
- Perform a detailed physical examination
- Demonstrate safely lifting and moving patients in multiple positions using appropriate techniques for each situation
- Safely perform the various accepted airway maneuvers to improve or maintain patient airway patency
- Assess patient respiratory sufficiency utilizing various techniques and equipment
- Demonstrate proper oxygenation and manual ventilation of a patient using industry accepted techniques and equipment
- Remove a foreign body airway obstruction with the safe use of a laryngoscope and Magill forceps
- Demonstrate safe operation of suction equipment to suction the upper airway
- Utilize and interpret quantitative and qualitative end tidal CO₂ monitoring equipment
- Demonstrate the proper insertion, use, and removal of a supraglottic airway device
- Demonstrate the administration of medications via enteral and parenteral routes
- Demonstrate drawing up medication from a vial and from an ampule
- Demonstrate safe intravenous cannulation with intravenous fluid and medication administration



INTENDED LEARNING OBJECTIVES:

Learning objectives for *PCP-116 Lab Skills* 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
O3.2.a	By the end of the course, the student will be able to: <ul style="list-style-type: none">○ 3.2.a.1 - Define “safe biomechanics.”○ 3.2.a.2 - Describe potential injuries common to EMS practitioners.○ 3.2.a.3 - Describe strategies to reduce risk of injury.○ 3.2.a.4 - Choose strategies to reduce risk of injury.○ 3.2.a.5 - Adapt proper lifting techniques.
O3.2.b	By the end of the course, the student will be able to: <ul style="list-style-type: none">○ 3.2.b.1 - List equipment required for a patient transfer.○ 3.2.b.2 - Describe indications for equipment use related to a patient transfer.○ 3.2.b.3 - Identify specifications of the equipment to be used for a patient transfer, including equipment for special patient populations.○ 3.2.b.4 - Explain techniques of a patient transfer, using specified equipment.○ 3.2.b.5 - Perform patient transfers.
O3.3.d	By the end of the course, the student will be able to: <ul style="list-style-type: none">○ 3.3.d.1 - Identify safe and secure methods to secure patients to various equipment.○ 3.3.d.2 - Integrate safe and secure procedures for patient movement and transport.
O3.3.c	By the end of the course, the student will be able to: <ul style="list-style-type: none">○ 3.3.c.1 - Describe basic, nonmechanical patient extrication principles.○ 3.3.c.2 - Apply basic, nonmechanical patient extrication principles.○ 3.3.c.3 - Integrate basic, nonmechanical patient extrication principles.



Learning Objectives	Embedded Knowledge and Skills
O4.3.a	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 4.3.a.1 - Explain primary assessment.○ 4.3.a.2 - Distinguish between trauma assessment and primary medical assessment.○ 4.3.a.3 - Evaluate life-threatening findings from primary assessment.○ 4.3.a.4 - Apply appropriate sequential techniques for primary assessment.○ 4.3.a.5 - Apply primary assessment to different age groups.○ 4.3.a.6 - Perform techniques for primary assessment.○ 4.3.a.7 - Adapt assessment techniques to primary assessment findings.○ 4.3.a.8 - Analyze initial assessments, to determine patient's level of distress and severity of illness or injury.○ 4.3.a.9 - Infer a provisional diagnosis.
O4.3.b	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 4.3.b.1 - Explain secondary assessment.○ 4.3.b.2 - Distinguish between trauma assessment and secondary medical assessment.○ 4.3.b.3 - Evaluate life-threatening findings, from the secondary assessment.○ 4.3.b.4 - Apply appropriate sequential techniques, for the secondary assessment.○ 4.3.b.5 - Apply the secondary assessment, to different age groups.○ 4.3.b.6 - Perform techniques for a secondary assessment.○ 4.3.b.7 - Adapt assessment techniques, to secondary assessment findings.○ 4.3.b.8 - Infer a provisional diagnosis.



Learning Objectives	Embedded Knowledge and Skills
O4.3.d	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 4.3.d.1 - Explain the pathophysiology of specific neurological illnesses and injuries.○ 4.3.d.2 - Apply assessment techniques, specific to the neurological system.○ 4.3.d.3 - Evaluate findings related to the etiology, pathophysiology, and manifestations of neurological system illnesses and injuries.○ 4.3.d.4 - Perform assessment techniques, for neurological illnesses and injuries.○ 4.3.d.5 - Adapt assessment techniques, to neurological history findings.
O4.3.e	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 4.3.e.1 - Explain the pathophysiology of specific respiratory illnesses and injuries.○ 4.3.e.2 - Apply assessment techniques, specific to the respiratory system.○ 4.3.e.3 - Evaluate findings related to the etiology, pathophysiology, and manifestations of respiratory system illnesses and injuries.○ 4.3.e.4 - Perform assessment techniques, for respiratory illnesses and injuries.○ 4.3.e.5 - Adapt assessment techniques, to respiratory history findings.
O4.3.j	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 4.3.j.1 - Explain the pathophysiology of specific musculoskeletal illnesses and injuries.○ 4.3.j.2 - Apply assessment techniques, specific to the musculoskeletal system.○ 4.3.j.3 - Evaluate findings related to the etiology, pathophysiology, and manifestations of musculoskeletal system illnesses and injuries.○ 4.3.j.4 - Perform assessment techniques, for musculoskeletal illnesses and injuries.○ 4.3.j.5 - Adapt assessment techniques, to musculoskeletal history findings.



Learning Objectives	Embedded Knowledge and Skills
O4.5.d	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 4.5.d.1 - Identify indications and rationale for performing peripheral venipuncture.
O5.1.a	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.1.a.1 - Describe methods of relieving the symptoms of airway obstruction.○ 5.1.a.2 - Describe the types of airway opening maneuvers for various patients.○ 5.1.a.3 - Discuss the indications, contraindications, and precautions, of performing airway maneuvers.○ 5.1.a.4 - Apply problem-solving techniques required with various types of patients.○ 5.1.a.5 - Adapt maneuvers and positioning for head, neck, and jaw positioning, which improve airway patency.○ 5.1.a.6 - Perform manual airway maneuvers, under a variety of patient and environmental presentations.○ 5.1.a.7 - Adjust to changes in patient's airway patency.○ 5.1.a.8 - Demonstrate management of potential complications of airway maneuvers.
O5.1.b	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.1.b.1 - Explain the purposes of and indications for oropharyngeal suctioning.○ 5.1.b.2 - Describe suctioning equipment.○ 5.1.b.3 - Explain established standards of maintenance for suctioning equipment.○ 5.1.b.4 - Identify pressure limitations for suctioning various age groups.○ 5.1.b.5 - Operate appropriate suctioning devices.○ 5.1.b.6 - Perform suctioning using safe technique.○ 5.1.b.7 - Adapt suctioning techniques, to changes in a patient's condition.○ 5.1.b.8 - Explain potential complications of suctioning.○ 5.1.b.9 - Perform cleaning and disinfection of suctioning equipment.
O5.1.c	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.1.c.1 - Identify indications and equipment for suctioning beyond the oropharynx.



Learning Objectives	Embedded Knowledge and Skills
O5.1.d	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.1.d.1 - Explain the purpose and indications for inserting an oropharyngeal airway.○ 5.1.d.2 - Discuss oropharyngeal airway types and sizes.○ 5.1.d.3 - Perform oropharyngeal airway sizing procedures.○ 5.1.d.4 - Perform insertion of an oropharyngeal airway.○ 5.1.d.5 - Adjust to changes in patient presentation.
O5.1.e	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.1.e.1 - Explain the purposes of and indications for inserting a nasopharyngeal airway.○ 5.1.e.2 - Perform nasopharyngeal airway sizing procedures.○ 5.1.e.3 - Perform nasopharyngeal airway insertion.○ 5.1.e.4 - Adjust to changes in patient presentation.
O5.1.f	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.1.f.1 - Explain the purposes of and indications for airway devices not requiring visualization of vocal cords and not introduced endotracheally.○ 5.1.f.2 - Describe various types of airway devices not requiring visualization of vocal cords and not introduced endotracheally.○ 5.1.f.3 - Perform sizing procedures for airway devices not requiring visualization of vocal cords and not introduced endotracheally.○ 5.1.f.4 - Perform insertion of airway devices not requiring visualization of vocal cords and not introduced endotracheally.○ 5.1.f.5 - Adjust to changes in patient presentation.
O5.1.i	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.1.i.1 - Identify the indications for AFB removal.○ 5.1.i.2 - Describe the methods of relieving airway obstructions○ 5.1.i.3 - Describe the differences in technique required for AFB removal in various age groups.○ 5.1.i.4 - Perform AFB removal under a variety of presentations.○ 5.1.i.5 - Adjust to changes in patient presentation.○ 5.1.i.6 - Identify potential complications of AFB removal.



Learning Objectives	Embedded Knowledge and Skills
O5.1.j	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.1.j.1 - Identify the purposes of and indications for foreign body removal by forceps.○ 5.1.j.2 - Describe equipment used for foreign body removal by direct techniques.○ 5.1.j.3 - Identify potential complications of AFB removal by direct techniques.
O5.2.a	<p>By the end of the course, the student will be able to:</p> <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	<p>By the end of the course, the student will be able to:</p> <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.
O5.3.a	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.3.a.1 - Identify the purposes of and indications for the use of a nasal cannula.○ 5.3.a.2 - List the steps for administration of oxygen by nasal cannula.○ 5.3.a.3 - Perform oxygen administration using a nasal cannula.○ 5.3.a.4 - Adjust to changes in patient presentation.



Learning Objectives	Embedded Knowledge and Skills
O5.3.b	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.3.b.1 - Identify the purposes of and indications for the use of a low concentration mask.○ 5.3.b.2 - List the steps for administration of oxygen by a low concentration mask.○ 5.3.b.3 - Perform oxygen administration using a low concentration mask.○ 5.3.b.4 - Adjust to changes in patient presentation.
O5.3.c	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.3.c.1 - Identify the purposes of and indications for the use of a controlled concentration oxygen mask.
O5.3.d	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.3.d.1 - Identify the purposes of and indications for the use of a high concentration mask.○ 5.3.d.2 - List the steps for administration of oxygen by a high concentration mask.○ 5.3.d.3 - Perform oxygen administration using a high concentration mask.○ 5.3.d.4 - Adjust to changes in patient presentation.
O5.3.e	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.3.e.1 - Identify the purposes of and indications for the use of a pocket mask.○ 5.3.e.2 - List the steps for administration of oxygen by a pocket mask.○ 5.3.e.3 - Perform oxygen administration using a pocket mask.○ 5.3.e.4 - Adjust to changes in patient presentation.
O5.4.a	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.4.a.1 - Identify the purposes of and indications for the use of a manual positive pressure device.○ 5.4.a.2 - List the steps for administration of oxygen by a manual positive pressure device.○ 5.4.a.3 - Discuss rate, rhythm, volume, compliance, and positive end expiratory pressure.○ 5.4.a.4 - Perform ventilation using a manual positive pressure device.○ 5.4.a.5 - Distinguish between one person and two-person application of a manual positive pressure device.○ 5.4.a.6 - Evaluate the effectiveness of ventilation.○ 5.4.a.7 - Adjust to changes in patient presentation.



Learning Objectives	Embedded Knowledge and Skills
O5.5.c	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.5.c.1 - Describe equipment for peripheral IV infusion.○ 5.5.c.2 - Identify factors that affect the flow rate.○ 5.5.c.3 - Demonstrate the ability to discontinue an infusion following sequential steps.○ 5.5.c.4 - Adjust devices as required to maintain flow rates.
O5.5.d	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.5.d.1 - Identify the purposes of and indications for peripheral IV cannulation.○ 5.5.d.2 - List the steps of peripheral IV cannulation.○ 5.5.d.3 - Perform peripheral IV cannulation.○ 5.5.d.4 - Discuss potential complications of peripheral IV cannulation.○ 5.5.d.5 - Adapt to changes in patient presentation.
O5.5.t	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.5.t.1 - Describe indications for oral and naso-gastric intubation○ 5.5.t.2 - Identify equipment for oral and nasal gastric intubation.
O5.8.b	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.8.b.1 - Explain the “Five Rights” of medication administration.○ 5.8.b.2 - Distinguish between the different drug administration routes.○ 5.8.b.3 - Describe how medication administration protocols are applied to specific patient presentation.○ 5.8.b.4 - Apply policies when medication administration errors occur.○ 5.8.b.5 - Explain the role of the paramedic in medication administration.○ 5.8.b.6 - Demonstrate how to provide medications using a sequential step method of administration.○ 5.8.b.7 - Demonstrate how to prepare a patient for medication administration.○ 5.8.b.8 - Demonstrate how to measure the required quantity of medication.○ 5.8.b.9 - Set up the supplies required for the specific route of drug administration.○ 5.8.b.10 - Receive consent before administration of medications.



Learning Objectives	Embedded Knowledge and Skills
O5.8.c	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.8.c.1 - Identify medical conditions and indications for subcutaneous administration of a medication.○ 5.8.c.2 - Apply proper calculations for correct medication requirement for the patient presentation.○ 5.8.c.3 - Distinguish those approved drugs that are given via subcutaneous routes.○ 5.8.c.4 - Evaluate appropriate site for the injection.○ 5.8.c.5 - Discuss the benefit of medication administration via subcutaneous route in comparison to other routes.○ 5.8.c.6 - Demonstrate how to provide subcutaneous medications using a sequential step method of administration.○ 5.8.c.7 - Demonstrate how to prepare a patient for subcutaneous medication administration.○ 5.8.c.8 - Demonstrate how to measure the required quantity of medication.
O5.8.d	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.8.d.1 - Identify medical conditions, and indications for intramuscular administration of a medication.○ 5.8.d.2 - Apply proper calculations for correct medication requirement for the patient presentation.○ 5.8.d.3 - Distinguish those approved drugs that are given via intramuscular routes.○ 5.8.d.4 - Evaluate appropriate site for the injection.○ 5.8.d.5 - Discuss the benefit of medication administration via intramuscular route in comparison to other routes.○ 5.8.d.6 - Demonstrate how to provide intramuscular medications using a sequential step method of administration.○ 5.8.d.7 - Demonstrate how to prepare a patient for intramuscular medication administration.○ 5.8.d.8 - Demonstrate how to measure the required quantity of medication.



Learning Objectives	Embedded Knowledge and Skills
O5.8.e	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.8.e.1 - Describe medical conditions and patient indications for intravenous administration of a medication.○ 5.8.e.2 - Apply proper calculations for correct medication requirement for the patient presentation.○ 5.8.e.3 - Identify those approved drugs that are given via intravenous routes.○ 5.8.e.4 - Explain the benefit of medication administration via intravenous route in comparison to other routes.
O5.8.h	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.8.h.1 - Evaluate medical conditions, and indications for sublingual administration of a medication.○ 5.8.h.2 - Apply proper calculations for correct medication requirement for the patient presentation.○ 5.8.h.3 - Distinguish those approved drugs that are given via sublingual routes.○ 5.8.h.4 - Discuss the benefit of medication administration via sublingual route in comparison to other routes.○ 5.8.h.5 - Demonstrate how to provide sublingual medications using a sequential step method of administration.○ 5.8.h.6 - Demonstrate how to prepare a patient for sublingual medication administration.○ 5.8.h.7 - Demonstrate how to measure the required quantity of sublingual medication.
O5.8.m	<p>By the end of the course, the student will be able to:</p> <ul style="list-style-type: none">○ 5.8.m.1 - Evaluate medical conditions, and indications for inhalation administration of a medication.○ 5.8.m.2 - Apply proper calculations for correct medication requirement for the patient presentation.○ 5.8.m.3 - Distinguish those approved drugs that are given via inhalation.○ 5.8.m.4 - Discuss the benefit of medication administration via inhalation in comparison to other routes.○ 5.8.m.5 - Demonstrate how to provide inhalation medications using a sequential step method.○ 5.8.m.6 - Demonstrate how to prepare a patient for inhalation administration of a medication.○ 5.8.m.7 - Demonstrate how to measure the required quantity of inhalation medication.



GRADING

Students will be evaluated through practical skills evaluations (tracked through *CompTracker*). A mastery in *all* Lab Skills I competencies must be attained to receive a passing grade for PCP-116 – Lab Skills I. Students who fail to achieve 100% completion on their Lab Skills II competencies will receive an “Incomplete.”

<i>CompTracker</i> - Lab Skills I Competencies	Mastery
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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. This includes turning off cell phones and other distractors 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 the break.

Unless otherwise notified by the class instructor, attendance of 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).



Absence Due to Special Circumstances or Illness: Let Ms. Heath 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. **Total Amount of Absences Permitted = 2 classes.**

Academic Integrity: 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-116* 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 cheyenne.heath@omnilifesupport.com.

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