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## **COURSE OVERVIEW**

*PCP-112, Human Essentials 1*, will be delivered in the classroom setting using an interactive, student centered blend of lecture and group discussion formats. In Human Essentials 1, we will introduce students to the anatomy & physiology of the human body. This curriculum is designed to be supportive of the core paramedic courses in that, it will provide foundational knowledge of normal structure and function facilitating the recognition of abnormal structure and function.

Specific topics include: Major structures and function of the systems of the human body, neuromuscular connection and physiology, internal and external respiration, lung volumes and capacities, physiology of the blood, components of an ECG tracing, DNA, special sensory systems, and proper nutrition

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## **MEETING TIMES & INSTRUCTIONAL METHODS**

In-class sessions (virtual when warranted)

Lecture/Group Discussion:	Mondays	08:30 – 10:00
	Thursdays	13:00 – 14:45

Total hours: 22

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## **REQUIRED MATERIALS, PREREQUISITES, & COREQUISITES**

### **Textbook**

AAOS (2015). *Anatomy & Physiology for the Prehospital Provider 2<sup>nd</sup> edition*. Burlington, MA, Jones and Bartlett Learning.

### **Class Materials**

Students will be expected to come to class 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 private members' area of the Omni Life Support website:** Materials related to PCP-112 such as in-class presentations & assignments will be available for student access on this website. Academy faculty does not authorize the posting of PCP-112 materials on other sites. Each student is responsible for his/her own learning which includes staying current with postings on the Omni Life Support website.



**Prerequisites:**

None

**Corequisites:**

PCP-101, PCP-105, PCP-107, PCP-113, PCP-114, PCP-116,  
PCP-117, PCP-119, & PCP-11PT

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### **INSTRUCTOR(S)**

**Instructor:** Joel Mattatall, ACP

E-mail: [joel.mattatall@omnilifesupport.com](mailto:joel.mattatall@omnilifesupport.com)

Voice: (506) 830-4277

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### **LEARNING OUTCOMES:**

Learning outcomes for PCP-112 Human Essentials 1 are guided by the pathophysiologies and patient presentations that are discussed in the following courses:

- PCP-114 Medical 1
- PCP-124 Medical 2
- PCP-119 Trauma 1
- PCP-129 Trauma 2

By the end of the course, the student will be able to:

- Identify the major structures and function of the systems of the human body
- Explain how a muscle contracts and fatigues
- Explain how a motor neuron stimulates a muscle to contract
- Differentiate between skeletal muscles, smooth muscles, and cardiac muscles
- Explain the processes of internal and external respiration
- List respiratory volumes and capacities
- Describe the clotting process of blood
- Describe the electrophysiology of the heart
- Identify the components of an electrocardiogram (ECG)
- Explain the visual representation of a normal sinus rhythm on an ECG tracing
- Describe how DNA functions and plays a role in human development
- Identify the major structures and function of special sensory systems
- Describe the components of proper nutrition and the associated energy systems of the body

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### **INTENDED LEARNING OBJECTIVES:**

Learning objectives for PCP-112 Human Essentials 1 are purely supportive of other courses and not directly linked to a corresponding NOCP sub-competency.



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## **GRADING**

Students will be evaluated through written examination & class participation. A minimum of **70%** must be attained to receive a passing grade for PCP-112 Human Essentials 1.

Class Participation	20%
Quiz	5%
Midterm Test	25%
Final Exam	50%

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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 & respectful of others, and mindful that a classroom is a shared working space with the primary goal of learning.

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.

**Class Participation:** A student's participation will be graded out of 100 (representing 20% of the overall course mark). Each student will receive quarterly participation mark of "25" (reasonable attempt to participate) or "0" (no reasonable attempt made).

**Absence Due to Special Circumstances or Illness:** Let the instructor 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



**OLS  
Academy**

**Primary Care Paramedicine 2022-23**  
**Term 1 | Block 1 & 2**  
**PCP-112 Human Essentials 1**  
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the OLS Academy community are expected to promote honesty, trust, fairness, respect and responsibility.

**Communication Methods:** Most communications regarding PCP-112 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](mailto:academy@omnilifesupport.com). Students can email the instructor at [joel.mattatall@omnilifesupport.com](mailto:joel.mattatall@omnilifesupport.com).

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