

RC-170

Introduction to the profession and its
concepts, skills, etc.

Spring 2007

Do I know what I am getting into?

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TEST DATES:

- **Test 1- O2, Field, Program**
 - Feb. 27th 2007 part 1
 - March 13th 2007 part 2
- **Test 2 – CPR:**
 - April 3rd 2007
- **Test 3 – BH, SMI, PAV, ABG, CC**
 - April 24th 2007
- **Test 4 - Basic Sciences:**
 - May 8th 2007
- **Final Exam- Comprehensive**
 - June 5th 2007 End of Semester 6/09/07
- **Quizzes/make up exams-May or May not Be Announced. (Changes to schedule TBA as needed)**

Today's Plan

- How the class sequence works
- Orientation to class, program & field
 - Job opportunities
 - Movie
- Attendance
- What will it take to complete program
- Instructions, dates, etc., for next weeks...
- Tour of lab and computer, simulation systems
- Intro to systems, like the CP system

Holidays-No Class NoLab

- Washington's Holiday – Monday Feb. 19th
- Spring Break – April 8th – 14th No Class 10th
- Memorial Day Holiday - May 28th
- Graduation & end of semester – June 8th

Today's Plan

- Orientation to class, program & field
–*Movie-done*
- Introductions Instructions
- How the class sequence works-*done*
- What will it take to complete- *done*
- Tour of lab and computer, simulation systems-
done
- Intro to systems, like the CP system-*done*

Today's Plan

- Orientation to class, program & field
 - Movie*–
- Introductions Instructions
- How the class sequence works-
- What will it take to complete-
- Tour of lab and computer, simulation systems-
- Intro to systems, like the CP system-

Today's Plan

- Orientation to class, program & field
 - Movie
- *Introductions*
 - *Name, What I have been doing, how I got here and question about program or field of RC.*
- How the class sequence works
- What will it take to complete
- Tour of lab and computer, simulation systems
- Intro to systems, like the CP system

Today's Plan

- Orientation to class, program & field
 - Movie
- Introductions
- *How the class sequence works*
 - *Preclinical Phase coursework*
 - *Clinical Phase courses*
- What will it take to complete
- Tour of lab and computer, simulation systems
- Intro to systems, like the CP system

Today's Plan

- Orientation to class, program & field
 - Movie
- Introductions
- How the class sequence works
- ***What will it take to complete***
- Tour of computer folders & lab.
- Intro to systems, like the CP system

Today's Plan

- Orientation to class, program & field
 - Movie
- Introductions
- How the class sequence works
- What will it take to complete
- ***Tour of computer folders & lab.***
- Intro to systems, like the CP system

Today's Plan

- Orientation to class, program & field
 - Movie
- Introductions
- How the class sequence works
- What will it take to complete
- Tour of lab and computer
- *Intro to systems, like the CP system*

170 Week 1

Intro to Respiratory Care
Introduction to systems thinking:
The Cardiopulmonary System

Cardiopulmonary System

Oxygen Transportation

- Cardio = Heart
- Pulmonary = Lungs
- System = things working together to accomplish a goal, usually, effect one part of the system and it effects another.
- Goal in this case = transport Oxygen from the atmosphere to the tissues to keep your organs functioning and alive.

Continued... O₂ Transport:

- **Tracing an O₂ molecule from the atmosphere to the tissues and back again.**
- **Alveolar Air equation:**
- **Partial Pressures, Barometric pressure, pressures of O₂ and CO₂.**

$$PAO_2 = (P_b - P_{H_2O}) * FIO_2 - PaCO_2$$

Next slides homework

- But before you try them see the PDF:
 - CPS and oxygen transport
 - Talk to someone who was in class
 - Review there notes, even if you were in class
 - Ask each other questions
 - Can look in other books with basic human physiology, oxygen transportation, cardiopulmonary system in the index or TOC.

Trace O₂ Molecule

[Link to CPS Module...](#)

Practice Problem 1:

FIO₂ = room air

What is PAO₂?

Practice Problem 2:

$$\text{FIO}_2 = .40$$

What is PAO₂?

Practice Problem 3

$$FIO_2 = 1.00$$

What is PAO_2 ?

In a normal patient, what will the PaO_2 be?