

# ANATOMY & PHYSIOLOGY REVIEW PROGRAM - COURSE OUTLINE

Forward

Program Outline

Program Design

Quality Assurance Program

**Module 1      BASIC BUILDING BLOCKS ..... 4**

***Subject Matter***

The Cell  
Epithelial and Connective Tissues  
Essentials of Body Chemistry  
Body Cavities and Regions  
Mitosis  
Questions  
Clinical Application & Critical Thinking Questions  
Support Information Sheets

**Module 2      INTEGUMENTARY SYSTEM ..... 24**

***Subject Matter***

Structure of the Skin  
Classification of Body Membranes  
Functions of the Skin  
Appendages of the Skin  
Questions  
Supporting Information Sheets

**Module 3      SKELETAL SYSTEM ..... 34**

***Subject Matter***

Function of the Skeletal System  
Microscopic Structure of Bone  
Structure of the Typical Long Bone  
Divisions of the Skeleton  
Joints  
Questions  
Clinical Application & Critical Thinking Questions

**Module 4      MUSCULAR SYSTEM ..... 45**

***Subject Matter***

Major Muscle Tissues  
Major Body Muscles  
Types of Movement  
Questions  
Clinical Application & Critical Thinking Questions

**Module 5      NERVOUS SYSTEM ..... 62**

***Subject Matter***

- Divisions of the Nervous System
- Function of the Nervous System
- Cranial and Spinal Nerves
- Autonomic Nervous System
- Central Nervous System
- Peripheral Nervous System
- Questions
- Supporting Information Sheets

**Module 6      ENDOCRINE SYSTEM ..... 86**

***Subject Matter***

- Mechanisms of Hormone Action
- Regulation of Hormone Secretion
- Mechanisms of Endocrine Disease
- Prostaglandins
- Pituitary Gland
- Thyroid Gland
- Parathyroid Glands
- Adrenal Glands
- Male & Female Sex Glands
- Questions & Diagrams
- Clinical Applications & Critical Thinking Questions
- Supporting Information Sheets

**Module 7      CIRCULATORY SYSTEM ..... 103**

***Subject Matter***

- Blood
- Heart & Heart Disease
- Blood Circulation
- Questions
- Clinical Applications & Critical Thinking Questions
- Supporting Information Sheets

**Module 8      LYMPHATIC SYSTEM ..... 131**

***Subject Matter***

- Lymphatic System
- Immune System Molecules
- Immune System Cells
- Questions & Diagrams
- Supporting Information Sheets

**Module 9      RESPIRATORY SYSTEM ..... 145**

***Subject Matter***

- Structures
- Respiratory Tract & Mucosa
- Nose, Pharynx, Larynx
- Lungs & Pleura

Respiration

Questions & Diagrams

Clinical Application & Critical Thinking Questions

**Module 10 DIGESTIVE SYSTEM ..... 156**

***Subject Matter***

- Mouth
- Teeth
- Digestive Tract
- Liver & Gall Bladder
- Pancreas
- Nutrition & Metabolism
  - Diagrams & Crossword
  - Questions

**Module 11 URINARY SYSTEM ..... 177**

***Subject Matter***

- Kidneys
- Formation of Urine
- Ureters & Bladder
- Micturition
  - Questions & Diagrams
  - Clinical Application & Critical Thinking
  - Supporting Information Sheets

**Module 12 REPRODUCTIVE SYSTEM ..... 197**

***Subject Matter***

- Common Structures Between Males & Females
- Male Reproductive System
- Female Reproductive System
- Disorders
  - Questions & Diagrams

**Module 13 SPECIAL SENSES ..... 209**

***Subject Matter***

- Ear
- Eye
  - Questions & Diagrams
  - Clinical Application & Critical Thinking Questions

**References**

**Answers**

**Evaluation Form**

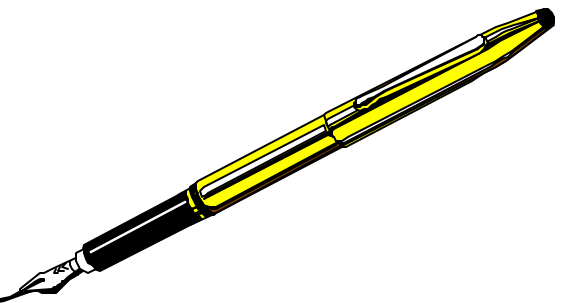
## FORWARD

This self-directed learning package is produced by the Professional Development Standing Committee of the O.A.M.R.T. as a service to Members of the O.A.M.R.T.

It is intended to be a **refresher** program only and was designed as such in response to Members who had asked for such a program in their responses documented on the Annual Membership Survey (AMS) the Association received.

A thorough understanding of anatomy and physiology is fundamental to the practice of the Profession. Further, it is a cornerstone concerning advanced practices.

This Program will have served as a good refresher upon completion and be helpful should you decide to study cross-sectional anatomy or pathology.



## **PROGRAM OUTLINE**

### **INTRODUCTION**

The purpose of this continuing education self-directed learning program is to provide refresher training in the subject of anatomy and physiology. It is not meant to be a comprehensive course.

### **PROGRAM FOCUS**

The Program covers the scope of the human body in various degrees. The focus is on the systems of the body; to include:

- Integumentary System
- Skeletal System
- Muscular System
- Nervous System
- Endocrine System
- Circulatory System
- Lymphatic System
- Respiratory System
- Digestive System
- Urinary System
- Reproductive System

Although not the main focus of this Program, other aspects which compliment the major organ systems are addressed.

### **PROGRAM OBJECTIVES**

On completion of the program you will:

- Be able to define the terms: anatomy, physiology and pathology
- Be able to list the eleven (11) major organ systems of the body
- Be able to identify and locate the major organs of each major organ system
- Be able to briefly describe the major functions of each of the organ systems
- Be to apply your knowledge using the critical thinking and clinical application questions that you were challenged with
- Have a re-appreciation about the beauty and “connectedness” of the human body



Have an integrated knowledge of the human body

## **PROGRAM DESIGN**

The Program package is broken down into modules. Each module addresses an area of the body, a system or information pertinent to the major organ systems.

Each module will contain one (1) or more of the following exercises:

- True or False questions
- Fill in the blanks
- Labeling a diagram
- Answering a clinical application question
- Matching answers

There is no detailed information provided in the package. It is up to you to research the questions in order to answer them, however, in some cases, a supporting information sheet is provided.

The modules provided are:

- Module 1 - Basic Building Block
- Module 2 - Integumentary System
- Module 3 - Skeletal System
- Module 4 - Muscular System
- Module 5 - Nervous System
- Module 6 - Endocrine System
- Module 7 - Circulatory System
- Module 8 - Lymphatic System
- Module 9 - Respiratory System
- Module 10 - Digestive System
- Module 11 - Urinary System
- Module 12 - Reproductive System
- Module 13 - Special Senses

## **ANSWERS:**



Anatomy and Physiology Review Program

This course can be taken in separate modules or as a complete course. If the course is ordered one module at a time, the answer guide for that module will be provided. For those who order the entire course, the Answer Section is at the end portion of the Course Package.



## **QUALITY ASSURANCE PROGRAM**

This Self-Directed Learning Package can be used to satisfy the requirements of the CMRTO's QA Program, provided it is one of your stated learning objectives.

This program is self paced. The estimated time to complete all modules is 25 hours.

## **REFERENCES**

References are included. You should note that any good anatomy and physiology text should suffice, including those you used in your undergraduate training program.

Some personal research may be required. The supporting information sheets provided in some of the modules you may also find helpful.

