**FOM 1211 CARDIOVASCULAR & RESPIRATORY SYSTEMS 5 Weeks**

**Course description**

This course covers the anatomy and normal functioning of the cardiovascular and respiratory systems. The course involves tutorials, lectures, seminars and practical sessions

**Course Objectives**

To describe the anatomy of the chest cavity and its contents

To explain the physiology and biochemistry of the cardiovascular and respiratory systems

Explain the defensive mechanisms of the respiratory tract

To outline the normal radiological and laboratory findings

To outline measures to be taken to maintain normal cardiovascular/respiratory function

**Course outline:**

Anatomy: Embryology, Histology and Gross Anatomy of the chest wall and its contents, mediastinum, respiratory tract.

Physiology/Biochemistry of cardio-respiratory system: Mechanics of respiratory, Ventilation and lung volume, Pulmonary blood flow, Ventilation/perfusion relationships, Transport of gases, Control of respiration and respiration in unusual environment, Immunology of the cardio-respiratory system

Heamodynamics: Cardial cycle, Peripheral circulation and its regulation, Regulation of arterial blood pressure

Acid Base balance, Structural barriers, Chemical barriers

# Investigative procedures eg. Pulmonary function tests

# Lifestyle; Diet, Habits – smoking, Over crowding, Occupation hazards (exposure to wood dust, cement)

Health education and community mobilization

Gross Anatomy; Blood vessels and Heart, Lymphatics, Spleen/liver/thymus bone marrow lymph node

**Requirements:**

**5 weeks, 75 CH**

**Mode of assessment**

Progressive assessment 40%

Written summative examination 40%

Practical examination 20%

**Course coordinator**

Dr. Joel Okullo MBChB, MSc (MUK)

**Reading materials**

1. [Medical embryology: human development, normal and abnormal / Jan Langman ; illustrations by Jill Leland](http://81.199.17.5:8000/cgi-bin/gw_42_20a/chameleon?host=81.199.17.5%2b1111%2bDEFAULT&search=KEYWORD&function=INITREQ&SourceScreen=INITREQ&sessionid=2006101809571219106&skin=default&conf=.%2fchameleon.conf&lng=en&itemu1=2000&scant1=Medical%20Embryology&scanu1=4&u1=2000&t1=@442515&pos=1&prevpos=1&)

2. [Textbook of medical physiology](http://81.199.17.5:8000/cgi-bin/gw_42_20a/chameleon?host=81.199.17.5%2b1111%2bDEFAULT&search=KEYWORD&function=INITREQ&SourceScreen=INITREQ&sessionid=2006101717302405175&skin=default&conf=.%2fchameleon.conf&lng=en&itemu1=2000&scant1=Textbook%20of%20medical%20physiology%20%2f&scanu1=4&u1=2000&t1=@23812&pos=1&prevpos=1&), [Philadelphia: Saunders, 2000](http://81.199.17.5:8000/cgi-bin/gw_42_20a/chameleon?host=81.199.17.5%2b1111%2bDEFAULT&search=SCAN&function=INITREQ&SourceScreen=INITREQ&sessionid=2006101717302405175&skin=default&conf=.%2fchameleon.conf&lng=en&itemu1=2009&u1=2009&t1=Philadelphia%20%3a%20Saunders,%20c2000.&pos=1&prevpos=1&beginsrch=1)

3. [Clinical anatomy for medical students/](http://81.199.17.5:8000/cgi-bin/gw_42_20a/chameleon?host=81.199.17.5%2b1111%2bDEFAULT&search=SCAN&function=INITREQ&SourceScreen=NEXTPAGE&sessionid=2006101717302405175&skin=default&conf=.%2fchameleon.conf&lng=en&itemu1=4&u1=4&t1=Clinical%20anatomy%20for%20medical%20students%2f&pos=1&prevpos=41&beginsrch=1)[Phildelphia: Lippincott Williams and Wilkins, 2000](http://81.199.17.5:8000/cgi-bin/gw_42_20a/chameleon?host=81.199.17.5%2b1111%2bDEFAULT&search=SCAN&function=INITREQ&SourceScreen=NEXTPAGE&sessionid=2006101717302405175&skin=default&conf=.%2fchameleon.conf&lng=en&itemu1=2009&u1=2009&t1=Phildelphia%3a%20Lippincott%20Williams%20and%20Wilkins,%202000&pos=1&prevpos=41&beginsrch=1)

4. [Gross anatomy/](http://81.199.17.5:8000/cgi-bin/gw_42_20a/chameleon?host=81.199.17.5%2b1111%2bDEFAULT&search=SCAN&function=INITREQ&SourceScreen=NEXTPAGE&sessionid=2006101717302405175&skin=default&conf=.%2fchameleon.conf&lng=en&itemu1=4&u1=4&t1=Gross%20anatomy%2f&pos=1&prevpos=51&beginsrch=1)[Baltimore: Williams and Wilkins , 1995](http://81.199.17.5:8000/cgi-bin/gw_42_20a/chameleon?host=81.199.17.5%2b1111%2bDEFAULT&search=SCAN&function=INITREQ&SourceScreen=NEXTPAGE&sessionid=2006101717302405175&skin=default&conf=.%2fchameleon.conf&lng=en&itemu1=2009&u1=2009&t1=Baltimore%20%3a%20Williams%20and%20Wilkins%20,%201995&pos=1&prevpos=51&beginsrch=1)

5. [Harper's biochemistry/](http://81.199.17.5:8000/cgi-bin/gw_42_20a/chameleon?host=81.199.17.5%2b1111%2bDEFAULT&search=SCAN&function=INITREQ&SourceScreen=INITREQ&sessionid=2006101717302405175&skin=default&conf=.%2fchameleon.conf&lng=en&itemu1=4&u1=4&t1=Harper%27s%20biochemistry%2f&pos=1&prevpos=1&beginsrch=1)[New York : McGraw-hill , 2000](http://81.199.17.5:8000/cgi-bin/gw_42_20a/chameleon?host=81.199.17.5%2b1111%2bDEFAULT&search=SCAN&function=INITREQ&SourceScreen=INITREQ&sessionid=2006101717302405175&skin=default&conf=.%2fchameleon.conf&lng=en&itemu1=2009&u1=2009&t1=New%20York%20%3a%20McGraw-hill%20,%202000.&pos=1&prevpos=1&beginsrch=1)