



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

# BREATH, BLOOD, AND THE BRAIN

SCHOOL OF BIOMEDICAL SCIENCES



# BREATH, BLOOD, AND THE BRAIN

## Anatomical Skills Workshop



### COURSE CONTENT

Breath, Blood, and the Brain provides an overview of the respiratory, cardiovascular, and nervous systems with an emphasis on pathology and clinically relevant anatomy.

Participants will view a pre-dissected human cadaver and human anatomical specimens will be used.

Participants will also view external anatomical features, internal organs in situ through the progressive reflection of tissue layers, and deep structures of the posterior abdominal and thoracic wall of a human body.

Participants will locate the carotid, radial, ulnar, femoral, and dorsalis pedis pulses using surface anatomy techniques.

Fractures and their effect on limb stability will be discussed.

Stabilisation of clavicle and humerus fractures through correct bandaging and positioning will be demonstrated on real human material.

#### The respiratory system

Dissected human specimens will allow participants to view the sinuses, larynx and vocal folds, airways, diaphragm and pleura, and to examine the mechanism and anatomy of normal and forced respiration. Live models are used to demonstrate pathology and trauma including aspiration, asthma, emphysema, anaphylaxis and pneumothorax. The Triple Airways Manoeuvre and intubation will be discussed in relation to anatomical organisation of the larynx.

Intubation and manual respiration will be demonstrated on a dissected human specimen. The oesophagus and stomach will be discussed in terms of choking and the Recovery Position.

#### The cardiovascular system

Dissected human specimens will allow participants to view the heart and major vessels. Features of the heart will be examined including the coronary vessels. The significance of vessel location will be discussed in relation to coronary perfusion, tachycardia and defibrillation. The vascular supply to the brain will be investigated and referred to cervical spine injury and stroke. Stroke (cerebrovascular accident), heart attack (myocardial infarction), coronary bypass, and cervical spine injury will be investigated using human material and models. Shock, fainting and dizziness will be discussed.

#### The nervous system

Dissected human specimens will allow participants to examine the brain, spinal cord, spinal nerves, cranial nerves, and the autonomic nervous system. Participants will be given an overview of the function of the lobes of the brain and major cranial nerves. The vagus and

phrenic nerves and pupillary reflex of the eye will be examined in relation to trauma. The cardiac and respiratory functions of the brainstem will be discussed. The bones of the face and cranium will be investigated in relation to impact trauma such as a motor vehicle accident.

### COURSE OBJECTIVES

On completion of the course, participants will have an understanding of:

- the anatomy of the respiratory, cardiovascular and nervous systems
- the anatomical basis for the Triple Airways Manoeuvre
- the anatomical components of respiration
- the anatomical basis for aspiration, asthma, choking
- the anatomical basis for the Recovery Position, defibrillation and spinal isolation in neck injury.

### PRE- AND POST-COURSE SUPPORT

Participants will be provided with pre-course material to enhance their learning experience and have access to a University of Queensland Anatomist following completion of the course.

A Certificate of Achievement is issued to participants who successfully complete the assessment for this course.

### THE COURSE FEES

The fee for completion of all modules is \$175 plus GST and is all inclusive of course materials, PPE (Personal Protection Equipment), and refreshments.

### MORE INFORMATION

Please contact our CPD Program Manager to learn more about our School and its continuing professional development offerings:

Email: [sbmsscpdinfo@uq.edu.au](mailto:sbmsscpdinfo@uq.edu.au)

Web: [www.uq.edu.au/sbms/continuing-professional-development](http://www.uq.edu.au/sbms/continuing-professional-development)

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### VENUE

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