

EXERCISE PHYSIOLOGY WORKSHOPS

MAXIMUM OXYGEN UPTAKE AND LACTATE THRESHOLD

Maximal O_2 uptake or VO_{2MAX} is a strong prerequisite for success in endurance events and is routinely used by sport scientist to predict athletic performance. This workshop has been running for a number of years now, and has proved to be very popular, especially with A2 level classes. The workshop involves assessing cardiovascular and respiratory response to exercise using the latest on-line breath-by-breath systems that supply instant data. Within the workshop students will be able to:

- observe how oxygen uptake and heart rate change during an incremental exercise test

(1 volunteer required)

- examine blood lactate response to exercise (requires a small amount of fingertip blood)
- understand how energy system specific training helps to improve performance.



CARDIO-RESPIRATORY AND ENERGY EXPENDITURE DURING EXERCISE

The measurement of energy expenditure is important for many reasons. Using this information, it is possible to tailor nutritional intake to meet the heavy demands of elite athletes or to assist in weight management programmes. The workshop involves assessing cardiovascular and respiratory response to exercise using the latest on-line breath-by-breath systems that supply instant data.

Within the workshop students will be able to:

- observe how oxygen uptake, blood pressure, oxygen-haemoglobin saturation and heart rate change during exercise test

(1 volunteer required)

- examine the changes in energy expenditure & fuel utilisation during physical activity
 - understand how this can be applied in a real-life setting
- This workshop marries the benefits of exercise on health and fitness with a theoretical knowledge of physiology suited to the A-level syllabus. It allows the students to measure energy expenditure and substrate utilisation.

WHAT MAKES A TOP SPRINT ATHLETE A GREAT SPRINT ATHLETE?

Assessment of anaerobic energy output is essential in understanding the performance of power and sprint athletes. This workshop gives the students the opportunity to compare their own anaerobic performance against those obtained from elite performers.

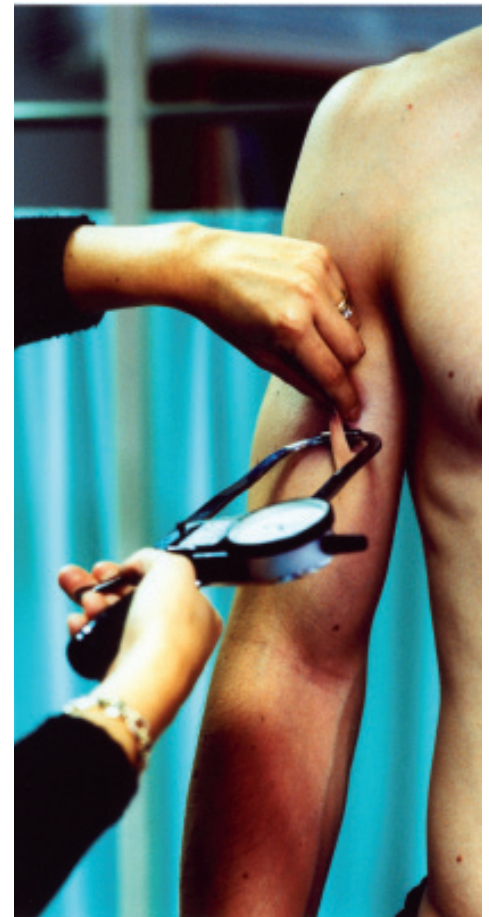
TAILOR MADE WORKSHOPS – LET US DESIGN A SESSION THAT MATCHES YOUR SYLLABUS

PRICE

£250 per session (approximately 2 hours), maximum 15 students per session.

AVAILABLE DAYS

Tuesday 2–4pm, Wednesday 11am–1pm or 2–4pm (other days and time can be pre-arranged upon request and availability).



BOOKING/CONTENT DETAILS

For booking details contact:

Mr Pierre-Ferraroli
T: 0207 911 5000 ext 64414
E: J.Ferraroli01@westminster.ac.uk

For content details contact:

Dr Richard Mackenzie
T: 0207 911 5000 ext 3811
E: R.Mackenzie@westminster.ac.uk

[westminster.ac.uk/
lifesciences](http://westminster.ac.uk/lifesciences)