University of Essex

SRES

Year 12/13

FREE Schools Outreach Programme

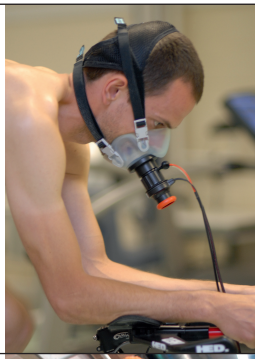
Give your students the opportunity to:

- Get hands-on experience with cutting edge sport science and sport performance equipment
- Collect, analyse and understand performance data in an applied setting
- Learn the theoretical principles underpinning the practical activities, taught by sports scientists.
- Listen to academics discuss topics such as 'studying Sport & Exercise Science or Sports Performance and Coaching at university', 'what to think about when choosing a degree', 'how does a degree make you a better sports coach', 'student life and experiences' and 'how to make a successful application'

Practical Workshops

Our practical workshops are designed with you in mind, delivering aspects of your higher education curriculum, such as; cardiovascular demands of exercise, optimising physiological performance, technology in sport and measuring energy expenditure. Get hands-on experience with cutting edge sport science sport performance equipment.

Exercise Physiology and Metabolism



Students will undertake two physiological tests. One student will wear a portable gas analyser for both tests; the remaining students (have the option to) wear heart rate monitors.

Curriculum content covered:
measurement of energy expenditure, gas exchange system, VO2max testing, respiratory exchange ratio, technology in sport, cardiovascular response to exercise.

Access to a sports hall is required.

Training at Altitude – The acute response

Students will observe and record data from an individual student exposed to sea level and simulated altitude (hypoxia) at rest and during exercise. Heart rate and arterial saturation will be recorded.

Curriculum content covered:
optimising physiological performance, technology in sport, cardiovascular response to exercise.

Access to a treadmill or stationary bike is required.

Performance Testing and Sports Nutrition

Students will undertake a series of performance tests using timing gates and a jump mat. In addition, students can assess their own hydration status.

Curriculum content covered:
the influence of dehydration on performance, hydration strategies, carbohydrate requirements for athletes and sports supplements.

Access to a sports hall is required.

Session Outline

Duration (min)	Description
20	Arrive, set-up and welcome (Sport Scientist)
60	Practical activity (Sport Scientist)
10 - 20	Pack equipment away and analyse results
45	Practical activity presentation (Sport Scientist)
30	Outreach presentation (Academic)

How to Book

Please contact:
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