Current year 9 & 10

Cambridge Nationals in Sport Science

Elite sport has embraced sport science disciplines wholeheartedly in the past few decades, moving from a perspective which assumed the primacy of natural talent in producing outstanding performance, to one which considers every minute detail of an athlete’s training programme, rest time, environment and psychology in the pursuit of excellence. The Cambridge Nationals in Sport Science offer learners the opportunity to study key areas of sport science including anatomy and physiology linked to fitness, health, injury and performance; the science of training and application of training principles, and psychology in sport and sports performance.



**Content overview**

**Mandatory**

For both the Award and the Certificate there are two mandatory units:

**R041: Reducing the risk of sports injuries**

Students learn how to prepare participants to take part in physical activity so that they minimise the risk of injuries. They also learn how to respond to common sporting injuries and how to recognise the symptoms of some common medical conditions.

**R042: Applying principles of training**

Students develop knowledge and understanding of the principles of training and how to keep performers in peak physical condition. They apply practical skills in fitness testing and in designing bespoke training programmes to suit individual requirements.

### Optional

For the Certificate there are a further four optional units. Students select **two** from the following:

#### R043: The body’s response to physical activity

Students explore how the body changes and responds to physical activity. They develop knowledge and understanding of the musculoskeletal and cardio-respiratory systems and some of the changes that occur in response to physical activity, both short term and long term.

#### R044: Sport psychology

Students look at some of the key elements of sport psychology and the strategies and techniques used to help sports performers maintain an effective balance between being relaxed and focused when performing under pressure.

#### R045: Sports nutrition

Students explore the role that diet plays in different sports and activities and the importance of a healthy, balanced diet that includes essential nutrients in the correct quantities. They use the knowledge they gain to produce an appropriate, effective diet plan for a performer.

#### R046: Technology in sport

Students consider how various technologies are used in sport to enhance performance and the experience of sport both for performers and for spectators, as well as the career opportunities that the use of technology presents. They also explore arguments both for and against the increasing use of technology in sport.