



**Letter of support for International Baccalaureate Sports, Exercise and Health Science qualifications  
submitted for funding approval July 2023**

The purpose of this letter of support is to provide evidence of the University's recognition of the value of this qualification in preparing learners for transition to higher education courses in the subject, or a related area. This is provided to meet a requirement of the Department for Education's approval process for the funding of Alternative Academic Qualifications (AAQ).

This letter of support is in relation to the following qualifications

- IBO Level 3 Certificate in HL Sports, Exercise and Health Science (AAQ)
- IBO Level 3 Certificate in SL Sports, Exercise and Health Science (AAQ)

**IBO Level 3 Certificate in HL Sports, Exercise and Health Science (AAQ)**

- a) We recognise this qualification specifically as meeting subject entry requirements for courses such as Sport and Exercise Science BSc/MSci. We additionally recognise this qualification as meeting the more generic requirement for a science subject required by some of our other degrees including Pharmacy MPharm and Chemistry BSc/MChem, as we would for A level Biology.
- b) We recognise this qualification for entry onto many of our courses. As with most universities, many of our programmes do not have pre-requisite subjects and a range of subjects can provide a sound academic preparation for our degrees. IBO Level 3 Certificate in HL Sport, Exercise and Health Science (AAQ) provides this sound academic preparation.

The University of Bath has for many years accepted the IBO Level 3 Certificate in HL Sport, Exercise and Health Science for entry in these courses, either as part of the IB Diploma Programme, as a separate qualification, or as part of the IB Career-related Programme. The University uses the following equivalence scale to compare the IBO Level 3 Certificate in HL Sports, Exercise and Health Science (AAQ) to A level:

IBO Level 3 Certificate in HL Sports, Exercise and Health Science (AAQ) grade	A Level grade
7	A*
6	A
5	B
4	C

We have found that the grades achieved by applicants holding the IBO Level 3 Certificate in HL Sports, Exercise and Health Science (AAQ) are an accurate guide to potential achievement in undergraduate courses at the university and are an effective part of the selection process.

Applicants who do not take this qualification as part of the IB Diploma Programme, can be considered based on their stand-alone IB Higher Level Certificates either on their own or combined with other qualifications.

We will consider applicants studying the IB Career-related Programme on a case-by-case basis based on the individual IB certificates and vocational qualifications studied within the programme which must be equal to at least three A levels to be considered.

For candidates studying only three Higher Level Certificates, will also be looking for evidence of a high academic standard across a breadth of study through their wider school curriculum or additional qualifications. The IB Higher Level Certificates will need to include any essential subjects, as listed on our course pages.

The IBO Level 3 certificate in HL Sports, Exercise and Health Science (AAQ) provides a firm foundation in the principles of human biology, physiology, nutrition, biomechanics, and psychology allowing candidates to progress successfully to undergraduate courses where a knowledge of these subjects is a pre-requisite. The qualification content covers subject content which include:

### **Exercise physiology and nutrition of the human body**

- Inter-system communication: nervous and endocrine systems
- Maintaining homeostasis
- The cardiovascular and respiratory systems
- Water and electrolyte balance
- Fuelling for health and performance
- Energy systems - phosphagen, glycolytic and oxidative systems
- Maximal oxygen consumption (VO<sub>2</sub> max).
- Excess Post-exercise Oxygen Consumption (EPOC)
- Qualities of training and the benefits of being active.
- Fatigue and recovery

### **Biomechanics**

- Anatomical position, planes and movement in planes and rotation along axes.
- Anthropometry
- Structure and function of connective tissues and joints and muscular function to create movement and stability
- The sliding filament theory
- Levers in movement and sport
- Forces, motion and movement
- Analysis of linear and angular motion using Newton's laws of motion.
- Momentum in collisions; friction, work
- The path of a projectile through air is determined by different factors and forces.

- Conditions affecting the external forces acting on an object. Forces, buoyancy, lift and drag acting on a body as it moves through a fluid. Bernoulli's principle and the Magnus effect.
- Movement analysis and its applications
- Causes of injury and susceptibility to injury
- Acute and cumulative trauma
- Chronic or overuse injuries relationship to technique
- Methods of lowering the risk of injury.
- Injury treatment and healing
- Treatment of concussion

### **Sports psychology and motor learning**

- Understanding personality
- Social learning theory and personality change
- Mental toughness
- The theory of the "self-fulfilling prophecy"; Positive outcomes of mental toughness ; Attribution theory
- Motor learning processes
- The psychological refractory period.
- Transfer of learning
- Proficient execution of specific skills and attentional focus.
- Achievement motivation and Need Achievement

Additionally, the qualification develops the key skills necessary for students to access undergraduate Sports Science and other undergraduate science courses:

- Experimental techniques
- The use of appropriate technology to collect, analyse and model data
- The use of mathematics

In all of our undergraduate courses we expect our students to take an inquiring approach to their studies. The IBO Level 3 certificate in HL Sports, Exercise and Health Science (AAQ) qualification supports this aspect through its inquiry process through which candidates demonstrate independent thinking, initiative, and insight through the following:

- Exploring and designing
- Collecting and processing data
- Concluding and evaluating

### **IBO Level 3 Certificate in SL Sports, Exercise and Health Science (AAQ)**

a) We recognise this qualification for entry onto our related courses.

The University welcomes applicants holding the IBO Level 3 SL certificate in Sports, Exercise and Health Science (AAQ) as it provides breadth to an applicant's studies and provides a complementary qualification alongside other IBO HL courses, or other qualifications enabling applicants to prepare for courses such as Health and Exercise Science BSc, Sport Management and Coaching BSc, and Psychology BSc by providing them with the fundamental knowledge and understanding of biology which supports progression to these courses. We value the skills and knowledge that students with this qualification bring and the contribution to their success.

The IBO Level 3 Certificate in SL Sports, Exercise and Health Science (AAQ) provides a firm foundation in the principles of sports science allowing candidates to progress successfully to undergraduate courses where a knowledge of human biology and psychology is desirable. The course content covers the fundamental principles of sports and health science which includes:

#### **Exercise physiology and nutrition of the human body**

- Inter-system communication: nervous and endocrine systems
- Maintaining homeostasis
- The cardiovascular and respiratory systems
- Water and electrolyte balance
- Fuelling for health and performance
- Energy systems - phosphagen, glycolytic and oxidative systems
- Maximal oxygen consumption (VO<sub>2</sub> max).
- Qualities of training and the benefits of being active.

#### **Biomechanics**

- Anatomical position, planes and movement in planes and rotation along axes.

- Structure and function of connective tissues and joints and muscular function to create movement and stability
- Levers in movement and sport
- Forces, motion and movement
- Analysis of linear and angular motion using Newton's laws of motion.
- The path of a projectile through air is determined by different factors and forces.
- Movement analysis and its applications
- Causes of injury and susceptibility to injury
- Acute and cumulative trauma
- Methods of lowering the risk of injury.
- Injury treatment and healing
- Treatment of concussion

### **Sports psychology and motor learning**

- Understanding personality
- Mental toughness
- Motor learning processes
- The psychological refractory period.
- Transfer of learning
- Proficient execution of specific skills and attentional focus.
- Achievement motivation and Need Achievement

Additionally, the qualification develops the key skills necessary for students to access a wider range of undergraduate science courses:

- Experimental techniques
- The use of appropriate technology to collect data
- The use of mathematics

In all of our undergraduate courses we expect our students to take an inquiring approach to their studies. The IBO Level 3 certificate in HL Sports, Exercise and Health Science (AAQ) supports this aspect through its inquiry process which includes:

- Exploring and designing
- Collecting and processing data
- Concluding and evaluating



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 24 July 2023

*The University of Bath is registered with the Office for Students as a provider of Higher Education*