

 Learna

| Diploma MSc

Sport and Exercise Nutrition

MSc Course



UNIVERSITY OF
GIBRALTAR



Year 1

Delivered over 1 year, the online, part-time, Postgraduate Diploma course is specially developed for busy health professionals. Formatted in 6 modules, each 6 weeks in duration; the course is designed to be practical and clinically focused.

Year 2

The MSc runs over 1 calendar year, starting with an initial 12 week online module to develop their skills in critical appraisal and knowledge of research methodologies. Students then complete the professional project module which consists of a 1,500 word proposal and 10,500 word professional project.

Why study Sport and Exercise Nutrition with us?

Nutrition plays an essential role in exercise and sport as it is important for health, adaptations to physical activity and exercise, weight maintenance, and exercise performance - not just for elite and pro athletes, but for recreational exercisers too. Nutrition influences nearly every process in the body involved in energy production and recovery from exercise.

This online course provides a scientific basis for sport nutrition that covers the principles, background, and rationale of current evidence-based nutrition guidelines and advice. On completion of the course, you will be equipped with new in-depth knowledge and skills that can be applied to your daily practise immediately.

To apply the principles of sport nutrition, practitioners must have a good understanding of nutrition and knowledge of the biochemical and physiological processes that occur in cells and tissues, and the way those processes are integrated throughout the body.

The course is specifically designed for current and aspiring sport and exercise nutritionists who have a desire to upskill and broaden their scope of practise within the field. These individuals would typically be sport & exercise scientists, sports medicine physicians, physiotherapists, nutritionists, dietitians and personal trainers.

Sport and Exercise Nutrition MSc

Year 1

Our online Sport and Exercise Nutrition MSc a part-time, distance-learning course. Delivered over 2 calendar years, the online part-time distance course is specially developed for busy health professionals.

Module 1 - Human Physiology

Aim of the module:

- This module aims to develop the student's understanding of the different physiological systems and concepts of the human body. Students will be able to develop an appreciation of how these systems contribute to normal physiological functioning during homeostasis and imbalance.

Synopsis of module content:

- Musculoskeletal system, including power and strength
- Cardiovascular system, respiration and aerobic fitness
- Neuro-endocrine system
- Immune system
- Fluid, electrolyte balance and thermoregulation
- Principles and components of fitness

On completion of this module, students will be able to:

1. Demonstrate a systematic, extensive and comparative knowledge and understanding of the importance of an in-depth knowledge of physiology and health
2. Critically analyse the mechanisms for the integration of metabolism at molecular, cellular and whole-body levels in health.

Module 2 - Human Nutrition

Aim of the module:

- This module aims to develop the student's practical and theoretical skills essential to understand the digestive system and the requirements of human nutrition to optimise health, especially in the terms of the relevant evidence-based guidelines and the latest research relating to food and health.
- The student will develop analytical skills to enable them to assess the adequacy of nutritional intake as applied to general populations and subgroups of populations to include ethnicity and/or cultural differences. An awareness of the effect of nutrient deficiencies and excesses on health and an appreciation of the role of diet in various nutrition related diseases will be developed.
- The student will also be provided with the opportunity to demonstrate their knowledge of professional conduct, good working practice and competency in nutritional assessment.

Synopsis of module content:

- Digestion, absorption and excretion
- Energy, macronutrients
- Micronutrients
- Dietary assessment and recommended intakes
- Contribution of nutritional deficiencies to disease
- The effects of disease on nutrition requirements

On completion of this module, students will be able to:

1. Critically analyse the validity and reliability of techniques to assess energy intake.
2. Demonstrate a systematic, extensive and comparative knowledge and understanding of nutrients, the metabolism thereof and their role in health.
3. Demonstrate a systematic, extensive and comparative knowledge and understanding to assess, plan and evaluate evidence-based nutrition guidelines for populations, taking into account all the relevant factors including nutrition science, culture, ethnicity, activity levels and special needs.

- The regulation of ATP synthesis in skeletal muscle
- Physiological adaptations to exercise
- Laboratory techniques and field testing in sport and exercise nutrition

On completion of this module, students will be able to:

1. Critically analyse the varying physiological effects of different exercise intensities.
2. Demonstrate a systematic, extensive and comparative knowledge and understanding to select relevant laboratory and field-testing techniques for the assessment of health and performance within the scope of practice of a sport and exercise nutrition practitioner.

Module 3 - Integrating Exercise Physiology and Nutrition

Aim of the module:

- This module aims to develop the student's theoretical understanding and appreciation of the integration between physiological and biochemical responses to physical activity. This will include analysis and assessment of testing methods available.

It also aims to help students develop the

- knowledge and skills to translate the principles of Sport and Exercise Nutrition into foods and eating patterns appropriate to client lifestyles.

Synopsis of module content:

- Carbohydrate metabolism
- Lipid metabolism
- Protein and amino acid metabolism in muscle

Module 4 - Applied Sport and Exercise Nutrition

Aim of the module:

- This module aims to develop the student's practical and theoretical skills essential to designing, delivering and monitoring performance nutrition programs for different sporting modalities. Students will be taught to examine the influence of nutrition on sport and exercise performance and to explore the role of nutritional strategies during the preparation for, participation in and recovery from exercise.
- It also aims to help students develop the knowledge and skills to translate the principles of Sport and Exercise Nutrition into foods and eating patterns appropriate to the lifestyle of athletes with the aim of optimising performance at training and/or competition.



Little did I know that the MSc was going to be a significant stepping stone in my medical career! Both the diploma and MSc were invaluable in terms of expanding my knowledge and management of Diabetes Medicine, but also enhanced my critical thinking and writing skills.

- Dr Kevin Fernando

Synopsis of module content:

- Intake prior to training or competition
- Intake during training or competition
- Post exercise or training recovery
- Hydration
- Metabolic effects, efficacy, health, safety and legal aspects of ergogenic aids
- Nutritional education of athletes

On completion of this module, students will be able to:

1. Critically evaluate the theoretical basis for the metabolic effects, efficacy, health, safety and legal aspects of ergogenic aids of all kinds including pharmacologically active agents, sports foods, sports drinks, and supplements.
2. Formulate an approach to developing individual sports nutrition advice that takes into account the demands of the chosen sport and the individual's needs and circumstances.
3. Critically understand behaviour change and theories supporting behaviour change.

- The effect of body Composition on sport performance
- Body composition and its assessment
- Body composition and its regulation for health
- The effect of body Composition on sport performance

On completion of this module, students will be able to:

1. Demonstrate a systematic, extensive and comparative knowledge and understanding of the physiological, environmental and behavioural factors that influence body composition, with a particular focus on dietary composition and intake (both generalised and individualised), and its impact on health & performance.
2. Critically evaluate laboratory and field-testing methods used to assess body composition, and demonstrate their appropriate selection and interpretation, informing practice.

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Module 5 - Body Composition in Sport, Exercise and Health

Aim of the module:

- This module aims to develop the student's theoretical knowledge of body composition. This includes the process of assessment, recommendations for different sporting modalities and the influence of diet configuration on body weight regulation.

Synopsis of module content:

- Body composition and its assessment
- Body composition and its regulation for health



"When I enrolled into the course I had no idea about the opportunities it would provide me with. Having my first paper published through this course helped me overcome my apprehensions of academic writing and made me more confident to pursue it further. "

- Rutu Dave



Module 6 - Human Physiology

Aim of the module:

- This module aims to develop the student's knowledge, interpretation and practical skills essential to sport related nutritional considerations. Students will be taught on various approaches to address relative energy deficiency in sport, the female athlete, the travelling and injured athlete; as well as nutritional support for the disabled, young and ageing athlete.

Synopsis of module content:

- Relative energy deficiency in sport (RED-S)
- Relative energy deficiency in sport (RED-S) - female athlete
- Travelling athlete
- The injured athlete
- Special populations
- Making weight (boxing, MMA, jockeys etc)
- Coaching

On completion of this module, students will be able to:

1. Critically formulate sport and exercise nutrition advice for an individual, taking into account the demands of the chosen sport, the sport related nutrition considerations, and the individuality of the participant.
2. Critically evaluate and monitor interventions over time implementing appropriate outcome measures and adjusting the nutrition strategy as appropriate.
3. Analyse, and understand how and when to refer problems (e.g. Medical, nutritional, psychological) outside your area of expertise.

Teaching Methods

Our courses are conducted entirely online through self-directed distance learning. However, you will receive guidance throughout with tutor-stimulated academic discussions, which are based on clinically-rich case scenarios. These usually occur within groups of 10-15 students, allowing you to clearly communicate with both your tutor and fellow students.

You will participate in a combination of group and individual activities, which are recorded in a reflective journal. This innovative teaching method enables you to envisage the translation of your studies into your every day work and practice.

Our dedicated Student Support Team are also available to help with any problems you may face. From navigating our online platform to advising you on deadlines, our team can assist with any questions or challenges you may have along the way.

Study skills week

Once you have secured your place on the course, you will be invited to an Study Skills week webinar. This will give you the opportunity to participate in workshops on Harvard referencing, scientific and reflective writings, and levels of evidence in preparation for your studies. It is not compulsory for you to attend our Induction Day but it is recommended, as it'll provide you with a sturdy introduction to the course.

Sport and Exercise Nutrition

Entry Requirements

Documents required:

- A copy of your updated CV including your address and date of birth.
- A copy of your undergraduate degree certificate.
- The name and email address of someone who is able to provide a reference, this can be a work colleague, employer or former tutor.
- A detailed personal statement explaining why you would like to undertake the course.

Applicants should submit copies of the following with their application:

Proficiency in the English language is also essential to completing our courses. If English is NOT your first language, we ask for proof of competency during the application process. We are able to accept an IELTS overall score of 6.0 (with a minimum of 5.5 for each band) or an equivalent qualification.

Health professionals working within a clinical setting, both UK and overseas, with a related Healthcare Science degree (including international qualifications) are eligible to apply for the MSc in Sport and Exercise Nutrition.

Applicants without the above academic criteria but relevant/ suitable experience can apply. Applications will be judged on the individual specifics of background and qualifications including ability to work at Postgraduate level (applicants may be asked to submit a piece of work for assessment to confirm that they are able to work comfortably at postgraduate level and demonstrate requisite clinical/professional knowledge).



Sport and Exercise Nutrition MSc

Year 2

Module 7 - Research Methodologies and Critical Appraisal

Aim of the module:

- To prepare students for an independent research-based project by developing skills in selecting, appraising, discriminating, using evidence and appropriate research/investigative methods to address relevant topics for investigation.

Topics may include:

- Quantitative Studies
- Statistical Analysis Interpretation
- Interpreting the Evidence
- Meta-analysis and Systematic Reviews
- Qualitative Studies
- Evidence Appraisal: Interpreting, Weighing and Synthesizing the Evidence
- Audit, Governance and Quality Improvement, Health Economics
- Preparing a Research Proposal: Research Committees, Consent, Ethics, Probity and Literature Review

On completion of this module, students will be able to:

1. Critically analyse and interpret research to assess its application to delivery/service development.
2. Select and apply different methodological approaches and tools to answer research questions in your field of practice.

Module 8 - Professional Project: Sport and Exercise Nutrition

Aim of the module:

- To formulate the research question that you seek to answer.
- To develop an ability to critically evaluate areas of professional practice.
- To critically appraise specific areas of clinical, research and organisational practice.
- To develop skills in independent research and study. To develop skills relevant to scientific publications.

Synopsis of module content:

- Systematic literature review and appraisal of the evidence.
- Audit of non-patient data/organisational audit. Review and implementation of evidence-based practice.
- Literature review and qualitative or quantitative research proposal.
- Case(s)-based and quality of service review with critical appraisal.
- Case report, review of literature and organisational assessment.
- Secondary data analysis

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On completion of this module, students will be able to:

1. Design and undertake research and a development project related to sport and exercise nutrition in order to produce an extensive piece of literature which may be suitable for peer-reviewed publication.
2. Critically evaluate practice and suggest improvements or change.
3. Incorporate knowledge of the research process in developing services appropriately.



Teaching Methods

Module 7 - Research Methodologies and Critical Appraisal

This module runs over a 12 week period and is designed to develop skills in critical appraisal and knowledge of research methodologies used in . The module consists of mandatory formative assessment activities to support your learning and development prior to the professional project module.

Module 8 - Professional Project

You will be required to produce a piece of work based upon a clinically-related project that is relevant to your practice. Once you have selected a specific project, you will submit a project summary/ proposal of approximately words. Following the approval of your proposal you will then complete a word professional project student's journal by the student.

Graduates of this course will receive a Master of Science award from the University of Gibraltar, Diploma MSc's collaborative partner.



What do our students think?

Since 2010, over 1000 students have progressed their medical career by enrolling in one of our qualifications. We ourselves have learned a lot during this time and continually seek to improve the student learning experience. Here is what some of our previous students have said:

"I found the online learning very interesting. It enabled me to save money and time."

Dr Imad Eddin Rahamtalla, Doctor

"I strongly recommend Diploma MSc to all those busy physicians who are working in remote areas and wish to upgrade their knowledge."

Dr Junaid Zaffar, Diabetologist

"The learning was fun and enjoyable. The course was awesome and it increased my confidence."

Dr Sankar Nath Jha, Assistant Professor

"I found learning with Diploma MSc interesting, it helped to update my academic knowledge."

Dr Prasanth Kinattapurayil, Doctor

"I love that it was flexible and that I could log in at my convenience. I found this course to be very in-depth, informative, challenging and stimulating."

Kerri-Ann Best PGDip, RD



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