Course Outline

Code: NUT310
Title: Advanced Sports Nutrition

School: Health & Sport Science
Teaching Session: Semester 2
Year: 2019
Course Coordinator: Associate Professor Gary Slater
Course Moderator: Professor Fiona Pelly

Please go to the USC website for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1 Description
Advanced sports nutrition is an advanced level course that provides you with an understanding of the key principles of sports nutrition and its practical application to both active lifestyle/recreational individuals and competitive athletes. The course builds upon knowledge and skills acquired in NUT203 Active Lifestyle Nutrition. You will learn about the impact of training and competition on energy and macronutrient, micronutrient needs, fluid requirements and supplement guidance according to specific sporting groups. You will be required to examine the role of nutrition for individuals in terms of enhancing exercise performance, while also addressing the requirements for overall health.

1.2 Course topics
Influence of training and competition on exercise metabolism and thus energy, protein, fat, carbohydrate and fluid requirements of athletes; sports supplement industry and frameworks for classification of supplement use and associated issues relating to integrity of sport; application of sports nutrition principles to specific life stages and sporting populations, including combat sports, endurance (gravitational and non-gravitational) sports, combat (and other weight category) sports, plus strength and power sports; nutrition in environmental extremes.

2. What level is this course?
300 level Graduate - Independent application of graduate knowledge and skills. Meets AQF and professional requirements. May require pre-requisites and developing level knowledge/skills. Normally taken in the 3rd or 4th year of an undergraduate program

3. What is the unit value of this course?
12 units
4. How does this course contribute to my learning?

<table>
<thead>
<tr>
<th>Specific Learning Outcomes</th>
<th>Assessment Tasks</th>
<th>Graduate Qualities or Professional Standards mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>On successful completion of this course you should be able to:</td>
<td>You will be assessed on the learning outcome in task/s:</td>
<td>Completing these tasks successfully will contribute to you becoming:</td>
</tr>
<tr>
<td>Apply the principles of sports nutrition to analyse and interpret nutritional assessment data as it relates to the needs of a specific sport</td>
<td>1,</td>
<td>Empowered</td>
</tr>
<tr>
<td>Applies an evidence-based approach to formulate nutrition goals and a nutrition intervention plan for an athlete that is client-centred</td>
<td>1</td>
<td>Empowered</td>
</tr>
<tr>
<td>Describe and evaluate the impact of variance in training type and load on exercise metabolism and needs for energy, protein, fat, carbohydrate and fluid across a wide range of sport activities</td>
<td>2</td>
<td>Knowledgeable. Empowered.</td>
</tr>
<tr>
<td>Critically reflect and evaluate the ethical implications of supplementation</td>
<td>1</td>
<td>Ethical.</td>
</tr>
<tr>
<td>Uses critical thinking and professional judgement to construct a nutrition intervention plan (within scope of practice) for an athlete in relation to best practice</td>
<td>1</td>
<td>Creative and critical thinkers. Empowered.</td>
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</tbody>
</table>

5. Am I eligible to enrol in this course?

Refer to the USC Glossary of terms for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1 Enrolment restrictions

N/A

5.2 Pre-requisites

(NUT203 or NUT202 or NUT352) or (NUT212 and enrolled in SC344 or SC347)

5.3 Co-requisites

N/A

5.4 Anti-requisites

SPX352

5.5 Specific assumed prior knowledge and skills (where applicable)

It is expected that students will have a general understanding of nutrition as it applies to health and performance amongst active lifestyle participants.

6. How am I going to be assessed?

6.1 Grading scale

Standard – High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL)

6.2 Details of early feedback on progress

In week 3 of this course, an evaluation of a specific supplement for an athlete will be submitted via Blackboard. Furthermore, a formative summary of your search strategy of the evidence related to a specific sports nutrition topic will be required in week 3.
## Assessment tasks

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Assessment Tasks</th>
<th>Individual or Group</th>
<th>Weighting %</th>
<th>What is the duration / length?</th>
<th>When should I submit?</th>
<th>Where should I submit it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Report – Nutrition Intervention Plan</td>
<td>Individual</td>
<td>50%</td>
<td>1500 words</td>
<td>a) Week 3 b) Week 13</td>
<td>Blackboard</td>
</tr>
<tr>
<td>2</td>
<td>Exam</td>
<td>Individual</td>
<td>50%</td>
<td>120 mins</td>
<td>Central Examination Period</td>
<td>In person</td>
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<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

### Assessment Task 1: Report – Nutrition Intervention Plan

**Goal:** The goal of this task is to apply principles of sports nutrition to analyse and interpret nutrition assessment and body composition data of an athlete, and formulate dietary recommendations and a meal plan that is evidence based and meets specific needs of the individual sport.

**Product:** Dietary evaluation and nutrition intervention plan

**Format:** This assessment task has two (2) components: a) Dietary analysis (required preparation work) b) You will be provided with a real life athlete seeking dietary advice. You will be required to interpret the training schedule and diet, use this information to identify the food groups, number of serves per food group, and sources of key micro- and macronutrients within foods in the diet and compare this to the Australian dietary guidelines for active individuals. You will submit this dietary analysis (using the template provided) in class during week 3 for peer assessment, with formative (ungraded) feedback. You are to interpret the implications of this and provide guidance to the athlete that will assist in achieving their specified goals. You will submit the following documents electronically through Blackboard. Dietary analysis template (using template provided) and nutrition intervention plan report of 1500 words. You will include in this report the following information: dietary assessment of the individual, nutrition goals, dietary guidance specific to the individual, and justification for your nutrition intervention plan

**Criteria:** You will be assessed on your ability to:
- Correctly evaluate and interpret dietary intake, physical activity data and body composition data
- Formulate key nutritional priorities and goals
- Create an intervention which aligns nutrition guidelines and is client centred. Use critical thinking and integrate evidence to justify nutrition intervention plans
- Use credible, relevant and high quality references appropriately and according to scientific report writing conventions
- Communicate in written form consistent with a professional report

### Assessment Task 2: Exam

**Goal:** The goal of this task is to demonstrate your understanding of how training type and load influences energy, macro and micronutrient needs plus fluid requirements of athletes across a range of sports develop and deliver a workshop on sports nutrition requirements relevant to a specific sport

**Product:** Exam paper

**Format:** A 120 minute final exam that will assess knowledge of content taught in this course in workshops and online activities. This exam will evaluate knowledge of the impact of variance in training types and load on exercise metabolism, and thus energy, protein, fat, carbohydrate and fluid needs of athletes.

**Criteria:** You will assessed on your:
- Application of the knowledge of advanced sports nutrition principles in the recommendations of dietary advice
- Evaluation of data
7. What are the course activities?

7.1 Directed study hours
The directed study hours listed here are a portion of the workload for this course. A 12 unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Directed study hours may vary by location. Student workload is calculated at 12.5 learning hours per one unit.

<table>
<thead>
<tr>
<th>Location: Specific Campus(es) or online.</th>
<th>Directed study hours for location:</th>
</tr>
</thead>
<tbody>
<tr>
<td>USC Sunshine Coast</td>
<td>Four hour workshop weeks 1-11. Students will have two (2) weeks of self-directed study in weeks 12 and 13 to complete assessment tasks.</td>
</tr>
</tbody>
</table>

7.2 Course content

<table>
<thead>
<tr>
<th>Week # / Module #</th>
<th>What key concepts/content will I learn?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction: Exercise metabolism, and the implications of training prescription on energy needs and dietary guidance</td>
</tr>
<tr>
<td>2</td>
<td>Carbohydrate needs of athletes</td>
</tr>
<tr>
<td>3</td>
<td>Protein needs of athletes. Class discussion and feedback of Assessment task 1a</td>
</tr>
<tr>
<td>4</td>
<td>Fluid needs of athletes</td>
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<tr>
<td>5</td>
<td>Body mass management of athletes</td>
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<tr>
<td>6</td>
<td>Sports Supplements</td>
</tr>
<tr>
<td>7</td>
<td>Sport Specific Nutrition - Endurance Sport (non-gravitational)</td>
</tr>
<tr>
<td>8</td>
<td>Sport Specific Nutrition - Endurance Sport (gravitational)</td>
</tr>
<tr>
<td>9</td>
<td>Sport Specific Nutrition - Team Sport</td>
</tr>
<tr>
<td>10</td>
<td>Sport Specific Nutrition - Strength and Power Sport</td>
</tr>
<tr>
<td>11</td>
<td>Sport Specific Nutrition – Combat Sport</td>
</tr>
<tr>
<td>12/13</td>
<td>Self-directed</td>
</tr>
</tbody>
</table>

Please note that the course content may be subject to variation.

8. What resources do I need to undertake this course?

Please note that course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Blackboard site. Please log in as soon as possible.

8.1 Prescribed text(s)

There are NO prescribed textbooks for this course. However, regular access to the resource(s) listed below may be of benefit in understanding advanced sports nutrition concepts:

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burke and Deakin</td>
<td>2015</td>
<td>Clinical Sports Nutrition</td>
<td>McGraw Hill</td>
</tr>
<tr>
<td>Jeukendrup and Gleeson</td>
<td>2019</td>
<td>Sport Nutrition</td>
<td>Human Kinetics</td>
</tr>
</tbody>
</table>

8.2 Specific requirements

Nil

9. Risk management

Health and safety risks for this course have been assessed as low.

It is your responsibility as a student to review course material, search online, discuss with lecturers and peers, and understand the health and safety risks associated with your specific course of study. It is also your responsibility to familiarise yourself with the University’s general health and safety principles by reviewing the online Health Safety and Wellbeing training module for students, and following the instructions of the University staff.
10. **What administrative information is relevant to this course?**

10.1 **Assessment: Academic Integritiy**

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Blackboard, are electronically checked through SafeAssign. This software allows for text comparisons to be made between your submitted assessment item and all other work that SafeAssign has access to.

10.2 **Assessment: Additional requirements**

**Eligibility for Supplementary Assessment**

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

a) The final mark is in the percentage range 47% to 49.4%

b) The course is graded using the Standard Grading scale

c) You have not failed an assessment task in the course due to academic misconduct

10.3 **Assessment: Submission penalties**

Late submission of assessment tasks will be penalised at the following maximum rate:

- 5% (of the assessment task’s identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task’s identified value) for the third day
- 20% (of the assessment task’s identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task.

Weekdays and weekends are included in the calculation of days late.

To request an extension, you must contact your Course Coordinator and supply the required documentation to negotiate an outcome.

10.4 **Study help**

In the first instance, you should contact your tutor, then the Course Coordinator. Additional assistance is provided to all students through Academic Skills Advisers. To book an appointment or find a drop-in session go to [Student Hub](https://studenthub.usc.edu.au).

Contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au

10.5 **Links to relevant University policy and procedures**

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Administration of Central Examinations
- Deferred Examinations
- Student Academic Misconduct
- Students with a Disability
10.6 General Enquiries

In person:
- **USC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **USC South Bank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **USC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **USC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **USC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au

Visit the USC website:
http://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching