EXERSCI 206
Exercise Nutrition
(15 points)
(Semester 2, Newmarket Campus)
Prerequisites: 15 points from BIOSCI 107 or MEDSCI 142

Who should take this course?
Nutrition has a major influence on human health and performance. If you are interested in understanding the science and application of nutrition to support a physically active lifestyle, or enhance athletic performance, then you will benefit from this course.

Exercise Nutrition is an integrative science topic that combines human physiology, biochemistry and dietetics. A deep understanding of these disciplines is not required for this course, but you should be familiar with basic human organ systems physiology and metabolism. An understanding of exercise physiology (EXERSCI or SPORTSCI 201) and exercise prescription (EXERSCI or SPORTSCI 105) is also helpful, but extra support for these topics is available to BSc students with no Exercise Sciences (formerly Sport & Exercise Science) background.

Learning Outcomes
By the end of the course it is expected that students will be able to:

- Recall the basic physiology and biochemistry underpinning nutrients and their metabolism.
- Demonstrate how nutritional practices can improve exercise training and performance outcomes.
- Apply techniques of dietary assessment to quantify nutritional status.
- Evaluate the efficacy of diets and dietary supplements.
- Design individualised and periodised nutritional interventions.
- Recognise potentially marginal diets and sports with dietary pressures.

Learning and Teaching
This course provides scientific background for understanding human nutrition as it applies to exercise and sport. It introduces principles of physiology and biochemistry that underpin diets and nutritional practices for physical activity. The course examines the fundamentals of nutrition, macro- and micro-nutrients, fluids, dietary supplements, and drugs in sport. Practical skills include quantifying nutritional status, critically evaluating dietary practices, and examining the scientific basis of supplements.

Learning is organised within four modules: 1. Fundamental of Exercise Nutrition (fuel sources, energy metabolism, digestion and absorption of nutrients); 2. Nutritional Status and Exercise (dietary assessment, disordered eating, considerations for females); 3. Macronutrients for Exercise; 4. Micronutrients and Fluids for Exercise; 5. Dietary supplements and drugs.
The course uses a blended learning system, with online knowledge topics and quizzes followed by 2-hour laboratory seminars each week. During the laboratory seminar, students will develop knowledge topics and learn practical skills related to each module. Students will complete three coursework assignments and participate in the appraisal of classmates' work. Assignment 1 involves a quantitative dietary assessment and a dietary analysis report. Assignment 2 requires the critical analysis a dietary supplement followed by in-class presentation of findings. Assignment 3 is a dietary recommendations report that is designed following consultation with an athlete.

**Teaching Staff**

**Associate Professor Nicholas Gant**  
*Department of Exercise Sciences*  
Faculty of Science  
373 7599 extn 86607  
n.gant@auckland.ac.nz

**Assessment*** (200 points in Canvas)

**Examination**

Mid-semester examination, 30 points (15%)  
Final examination, 100 points (50%)

**Coursework**

Dietary analysis, report: 25 points (12.5%), [report = 23 points;  
peer assessment = 2 points]

Supplements presentation : 25 points (12.5%) group presentation = 20 points;  
peer assessment = 5 points

Dietary recommendations report : 20 points (10%) report = 18 points;  
peer assessment = 2 points

* subject to change

**Recommended Textbooks.**  
Jeukendrup, A and M. Gleeson.  
*Library: 613.2024796*

Clinical Sports Nutrition (2010) Burke, L. and DeakinV.  
*Library: 613.2024796*

**Student Feedback**

100% student satisfaction rating in all response categories for both Course and Lecturer evaluations in 2007-2018.