EXERSCI 302
Exercise Physiology for
Special Populations
(15 points)
(Semester 2, Newmarket Campus)

Prerequisite: EXERSCI 301 or SPORTSCI 301

Recommended elective especially if you are planning on postgraduate study for the Postgraduate Diploma in Science in Clinical Exercise Physiology

Who should take this course?

This course expands, and extends upon the understanding of human physiology that each student is expected to have attained from the completion of Exercise Physiology courses EXERSCI or SPORTSCI 201 and EXERSCI or SPORTSCI 301. This course includes lectures and laboratory classes.

The course applies basic exercise physiology to special circumstances when a medical/environmental limitation, or highly adapted physiological excess, alter physiological responses to exercise and adaptations to training.

The course examines the physiology of persons with specific disease states (medical populations), the physiology of elite sportspeople (athletic populations) and the physiological challenges faced when exercising in challenging environments (Extreme Environments). Practical skills involve administering and interpreting physiological tests suited to special populations and presenting outcomes in scientific reports.

Learning Outcomes

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

- Recall theoretical and practical aspects of the physiological responses and adaptations to physical activity in special populations and extreme environments.
- Recognise how clinical and environmental limitations, or highly adapted physiological excess, alter physiological responses to exercise and adaptations to training
- Follow the principles and methodologies of functional testing and evaluate limitations of assessments of special populations.
- Administer laboratory exercise tests and diagnostic procedures, analyse and interpret physiological data.
- Prepare written reports that present outcomes of physiological tests, critically evaluate and interpret the procedures
Learning and Teaching

Students are expected to attend two 1-hour lectures or 1 seminar, each week. Lectures are organised into three Modules: 1. Athletic Populations. 2. Extreme Environments. 3. Medical Populations. Students are expected to attend 10 3-hour laboratory classes. ‘Drop In’ tutorial sessions are also available for additional support on a weekly basis.

Teaching Staff

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Assessment*

Examinations:
- Mid Semester Examination, 40 points (20%)
- Final Examination, 80 points (40%)

Coursework:
- Testing elite performers, Lab Report, 40 points (20%)
- Performing in hot environments, Lab Test, 20 points (10%)
- Readiness to exercise, Lab Report, 20 points (10%)

* subject to change

Recommended Textbooks

Useful textbooks for this course are outlined below. All books are available in the University books shop and library.