

Exercise Sciences

Undergraduate Handbook 2018



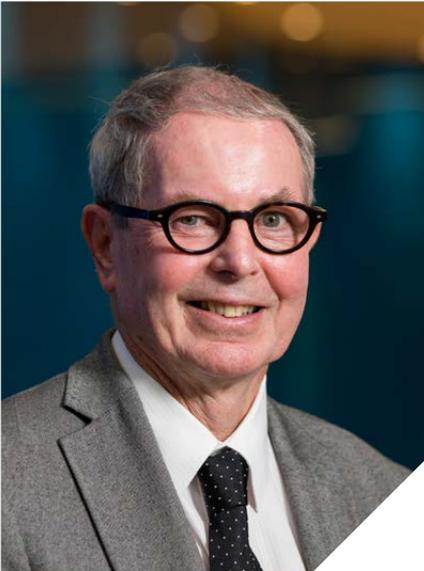
THE UNIVERSITY OF
AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

SCIENCE
DEPARTMENT OF
EXERCISE SCIENCES



Welcome to the Department of Exercise Sciences

A degree in Exercise Sciences is key to understanding how the human body works and works-out. As exercise scientists we want to know how physical activity changes the human body when it is growing, performing and how aging and disease impact being physically active.



The exercise sciences bring together biomechanics, movement neuroscience, exercise physiology, exercise metabolism and exercise psychology to understand the role of exercise in sustaining health, improving disease outcomes, and enhancing human performance.

Exercise scientists prescribe exercise as medicine, analyse performance techniques, develop new interventions to help rehabilitation and recovery from disease, and engage with physicians, allied health professionals and the health industry.

Most of our courses are taught on the City campus and also attract students studying Physiology, Engineering and other science disciplines.

ASSOCIATE PROFESSOR GREG ANSON
Head of Department

From early 2018, the Department of Exercise Sciences will be located in new facilities nearer the City and Grafton campuses on the Newmarket Campus.

Bachelor of Science in Exercise Sciences

Are you interested in how and why the human body moves? Then study Exercise Sciences, an important discipline that relates to all aspects of our everyday life. Our courses cover human physiology, exercise and sport psychology, biomechanics, and movement neuroscience. Studying Exercise Sciences will facilitate skills for life-long learning, critical and analytical thinking, communication, independence, collaboration and intellectual curiosity. In laboratory classes you will develop hands-on skills in interacting with human participants and the processes of experimentation. The programme is committed to developing graduates working in the exercise sciences, health, wellness, physical fitness, rehabilitation, sport science and clinical exercise physiology.

Preparation for school leavers

Students are strongly encouraged to have NCEA Level 2/3 biology/human biology, NCEA Level 2 chemistry and physics.

Mathematics (including algebra and trigonometry) physics, statistics, and physical education are also recommended.

Complementary majors

A double major is strongly recommended as it will enhance your career options by providing a broader base of skills and knowledge.

On average it takes three years to complete a Bachelor of Science degree.



EXERCISE SCIENCES +

Biological Sciences

Physiology

Psychology

Statistics

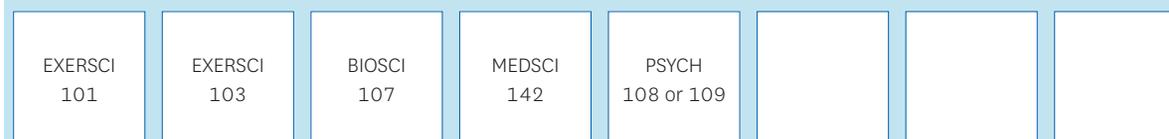
www.science.auckland.ac.nz/doublemajors

For course planning and enrolment:
www.science.auckland.ac.nz/student-centre
Thinking about postgraduate study options?
www.es.auckland.ac.nz/pg

BSc degree planner – Exercise Sciences

BSc

Year 1



With appropriate prerequisites can also be filled by Stage II or III.

Recommended courses are: EXERSCI 105, STATS 101, MATHS 102, PHYSICS 160, CHEM 150, or other courses in Chemistry or Computer Science. SCIGEN 101G is also recommended as a General Education course.

Year 2



Any Stage

Recommended Year 2 and Year 3 courses: EXERSCI 206 and EXERSCI 302.

Year 3



Stage III Science

Stage II or III Science

1. Courses in a minimum of three subjects listed in the BSc Schedule.
2. At least 180 points (12 courses) must be above Stage I.
3. Up to 30 points (two courses) may be taken from outside the faculty.
4. 30 points (two courses) must be taken from the appropriate General Education Schedules for BSc students.
5. At least 75 points must be at Stage III, of which 60 points must be in the majoring subject.

It is the student's responsibility to check that the final programme complies with University Regulations. The Faculty of Science is the final authority on all BSc regulations.

To view regulations for majors, and course descriptions, see www.calendar.auckland.ac.nz
BSc degree requires: 360 points (24 x 15 point courses). Each box represents one 15 point course.
We recommend that students enrol in eight courses each year.

Degree Planners for double majors can be found at www.science.auckland.ac.nz/course-planning

Undergraduate courses in Exercise Sciences

Course code	Title
Stage I	
EXERSCI 101	Foundations of Exercise Sciences and Sport
EXERSCI 103	Human Anatomy
EXERSCI 105	Exercise Prescription
Stage II	
EXERSCI 201	Exercise Physiology 1
EXERSCI 202	Principles of Tissue Adaptation
EXERSCI 203	Biomechanics 1
EXERSCI 204	Psychology of Physical Activity
EXERSCI 206	Exercise Nutrition
Stage III	
EXERSCI 301	Exercise Physiology 2
EXERSCI 302	Exercise Physiology for Special Populations
EXERSCI 303	Biomechanics 2
EXERSCI 304	Sport Psychology
EXERSCI 305	Movement Neuroscience
EXERSCI 309	Practicum in the Exercise Sciences

For course descriptions and prerequisite information:

www.es.auckland.ac.nz/ugcourses and www.es.auckland.ac.nz/prerequisitecourses

The following courses are offered by other departments at the University of Auckland. These courses are prerequisite courses for a Bachelor of Science majoring in Exercise Sciences:

Course code	Title
BIOSCI 107	Biology for Biomedical Science: Cellular Processes and Development
MEDSCI 142	Biology for Biomedical Science: Organ Systems
PSYCH 108	Individual, Social and Applied Psychology
<i>OR</i>	
PSYCH 109	Mind, Brain and Behaviour
MEDSCI 205	The Physiology of Human Organ Systems

General Education course offered by our department:

EXERSCI 100G	Exercise and Fitness: Myths and Reality
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Students majoring in Exercise Sciences are not eligible to take EXERSCI 100G as one of their General Education requirements.

www.auckland.ac.nz/generaleducation

Careers in Exercise Sciences

An Exercise Sciences major can lead on to a career in any of the following:

Cardiac physiologist

Clinical exercise physiologist

Corporate exercise specialist

Exercise scientist

Human movement scientist

Injury prevention consultant

Respiratory physiologist

Sport and fitness practitioner

Sport scientist (consultant in biomechanics, exercise, nutrition, physiology)

Janel Tolentino is studying toward a Bachelor of Science and Bachelor of Music conjoint degree, majoring in Exercise Sciences and Composition.

“Both of my older sisters studied at the University of Auckland, and they told me about the wonderful learning environment, extracurricular activities, and the resources that the University offers. The University’s world-ranked status also drew me to study here.

“I decided to take a conjoint degree because I have an equal interest in both fields. I love the vast variety of topics covered, as my conjoint programme allows me to study two very different subjects.

“I’m lucky that my programme allows me to have a range of opportunities for the future. For Exercise Sciences, I would love to be able to work with everyday people or professional athletes, and help them to improve their performance.

“University has allowed me to mature – in terms of my learning and work ethic. I have been fortunate enough to be taught by lecturers that are passionate about what they are teaching, and tutors that genuinely care about helping students perform to the best of their abilities.”



Helpful information

Academic dates

www.auckland.ac.nz/dates

Academic Integrity Course

www.auckland.ac.nz/academic-integrity

Accommodation

www.accommodation.auckland.ac.nz

Buy coursebooks

www.science.auckland.ac.nz/resource-centre

Career Development and Employment Services

www.auckland.ac.nz/careers

Course advice and degree planning in Science

www.science.auckland.ac.nz/student-centre

General education

www.auckland.ac.nz/generaleducation

How to apply

www.apply.auckland.ac.nz

How to enrol

www.auckland.ac.nz/enrolment

International students

www.international.auckland.ac.nz

Māori and Pacific students

www.science.auckland.ac.nz/tuakana

Need help?

www.askauckland.ac.nz

Rainbow Science Network for LGBTI students

www.science.auckland.ac.nz/rainbowsience

Scholarships and awards

www.scholarships.auckland.ac.nz

Support for students

www.science.auckland.ac.nz/support



Applications close on 1 December for all students applying to Exercise Sciences.

**Questions about Exercise Sciences?
exercise-sciences@auckland.ac.nz**

Disclaimer

Although every reasonable effort is made to ensure accuracy, the information in this document is provided as a general guide only for students and is subject to alteration. All students enrolling at the University of Auckland must consult its official document, the University of Auckland Calendar, to ensure that they are aware of and comply with all regulations, requirements and policies.



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