

AUT

A FUTURE IN
**SPORT AND
EXERCISE
SCIENCE**



WHAT IS SPORT AND EXERCISE SCIENCE?

Sport & exercise science can impact on people from all walks of life by helping improve people's health, fitness and performance levels.

Sport & exercise science involves understanding and interpreting people's responses and adaptations to muscular activity, then using this knowledge to either enhance athlete performance and reduce injury risk, or improve the health and wellbeing of individuals. It involves the study of biomechanics, nutrition, exercise and assessment of health and exercise.

You could be working with national sports teams on their training and conditioning, helping track and field athletes improve their techniques, advising and planning fitness programmes for youth or elderly, or helping businesses deliver health and fitness programmes or occupational health and wellbeing to staff.

According to the Exercise Association of NZ, employment opportunities are driven by a growing market in one-to-one instruction, an ageing population using exercise to stay healthy, and a strong emphasis on the role of exercise in public health.

Overseas, the international professional sports industry is a multi-million dollar industry with expanding opportunities for sport & exercise science graduates.

New Zealand leads the world in terms of practice, but is a smaller country so work opportunities are highly sought after.

Do you love to keep fit and healthy and do sporting activities? Are you keen to help others achieve to their potential? Do you enjoy the science and technology involved in sport and health? If so, a career in sport & exercise science could be the ideal fit for you.



OUTLOOK AND TRENDS

Growth in health and fitness centres – There are around 400 health and fitness centres in New Zealand, according to the Exercise Association of New Zealand. The sport and recreation industry has seen consistent growth in the last 10 years and it is expected to continue over the next five years, according to Skills Active Aotearoa 2017 Workforce Scan.

Increased use of sport science – A decade ago, specialist strength and conditioning coaches, sport scientists and performance analysts were a rare addition to a team. Now all professional teams employ these specialists as part of the wider team support staff. However, it is still a growing industry and most specialists outside of professional sport will work by contract, servicing multiple clients.

Use of sports technology – Wearable technologies, such as GPS, heart rate monitors and inertial sensors, are growing in popularity. They deliver a huge stream of data on athletic performance and injury reduction but that data needs careful analysis to be truly useful. (Source: VX Sport)

Major sportswear companies (eg Adidas and Nike) invest significantly in wearable technology and are keen to employ people who understand how to apply them in the sport and exercise context.

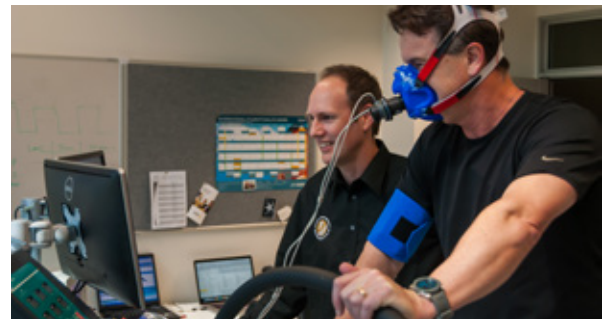
More holistic approaches – The personal development of an athlete is becoming increasingly important. There is a shortage of professionals who understand the psychological and human development, as well as physical aspects, of sports and athletic development.

Occupational health and wellbeing – Increasingly, organisations are committing to safeguarding and improving the health and wellbeing of their employees. This is partly a response to legislation, and partly due to employers realising they need to look after their workers in order to attract and maintain the workforce they need.

Silver bullet for health – Exercise is the 'silver bullet' providing a relatively low cost solution over medication to many health conditions and illnesses, particularly for our ageing population. In the future there is likely to be a more holistic approach to exercise, health and wellness delivery as Kiwis place increased emphasis on wellness and lifestyle goals.

(Source, Registrar of NZ Register of Exercise Professionals)

- **Sport:** designing and monitoring physical conditioning programmes, working with teams and individuals from youth to elite athletes
- **Fitness:** helping individuals and groups with fitness and overall health at gyms or studios.
- **Business/industry:** working in an occupational health role to ensure and improve health outcomes of staff in organisations
- **Business/entrepreneur:** running own business in a related field
- **Health:** developing training and exercise programmes for wellness, injury rehabilitation and disabilities. Providing clinical exercise testing and prescription, and nutrition advice
- **Education:** teaching sport and exercise science in schools and sports academies
- **Defence/protection:** working as a physical conditioner for first responders (police, fire service) or military



CAREER ROLE EXAMPLES

Performance Analyst (team based)

Captures and analyses video of team games and trainings using the latest video analysis software. Develops, tests and uses hand and computerised sport notational analysis systems to help coaches and athletes improve their understanding of their performance and the performance of their opposition. (The tools and analysis used depends on the type of sport and whether individual or team based. Video not always dominant).

Career progression – assistant practitioner, practitioner, senior practitioner, head of department.

Strength and conditioning specialist for a national/regional/club/school sports team

Develops athlete performance plans and individualised physical conditioning programmes to assist players to achieve personal and team goals and prepare competitively. Provides on and off field support through nutrition and recovery strategies. Monitors progress and provides direction to players. Collaborates with coaches and physiotherapists.

Sports Co-ordinator (school/sports academy)

Develops and co-ordinates the sports programme for a school or academy. Helps promote sport and fitness in the school and effective management of all codes. Liaises with internal staff and builds positive relationships with community sport groups.

EMPLOYMENT FIELDS

Work ranges from full-time and part-time, to volunteer and seasonal work. Usual employers include boutique and niche businesses, nation-wide franchises, council owned or managed facilities. Not-for-profit organisations are also entering the industry as the exercise industry and health sector continue to connect.

High performance and exercise scientist roles are difficult to enter without internships and applied research experiences.

Graduates can find employment in a range of sectors including the following;

Maintains records, prepares reports and manages resources and equipment.

Fitness instructor / personal trainer

Assesses fitness and body types and designs appropriate fitness programmes. Explains and demonstrates exercises, weight training or class routines. Gives advice on nutrition and injury prevention and recovery.

Personal trainers also discuss lifestyle and fitness goals and run personal training sessions. If self-employed, need marketing, business administration and management skills.

SALARY GUIDE

Pay varies depending on contracts and level of expertise, with relatively low earnings at entry-level.

Incomes increase with experience. Self employment and consultancies can attract high income.

	Salary (per year)
Strength & conditioning coach	\$52,000 - \$67,000 plus depending on organisation and experience
Sport development officer	\$39,000 to \$76,000 depending on organisation and experience
Personal trainer	\$25 - \$70 per hour depending on clientele, hours and experience
Performance analyst Ranges from entry level to very senior and dependent on specialisation, contract & experience	\$50,000 - \$130,000+

Sources: Occupational Outlook 2017; Skills Active Aotearoa Workforce Scan 2017; NZ payscale.com (Jan 2018)

Salary range is indicative of the NZ job market at the time of publication (early 2018) and is only to be used as a guideline.

SKILLS AND KNOWLEDGE

Ability to -

- Assess and evaluate clients' athletic/sporting ability
- Prescribe appropriate exercise programmes
- Provide appropriate nutrition advice
- Safely operate and demonstrate technologies used for the assessment and monitoring of clients
- Develop and lead exercises classes for groups
- Demonstrate the interpersonal skills to build strong relationships with all ages and ethnicities
- Communicate well, verbally and in writing. A good listener
- Be a team player, able to work unsupervised and manage time effectively
- Initiate and demonstrate health and safety regulations and First Aid

If self-employed, skills are needed in sales, development and maintenance of client base, and in business administration, so a double major in sport & exercise science and management is advantageous.

PERSONAL QUALITIES

Strong interpersonal skills are essential, as is a growth mindset according to Netball NZ and the Register of Exercise Professionals.

- Patient, friendly, outgoing, supportive and professional
- Enthusiastic and able to motivate clients
- Energetic, fit, healthy and strong, with good physical co-ordination
- Organised and adaptable

PROFESSIONAL REGISTRATION

Most exercise industry businesses will only employ fitness instructors registered with the New Zealand Register of Exercise Professionals. Registration requires completion of an appropriate qualification at a registered education provider such as AUT.

THE AUT ADVANTAGE

AUT sport and exercise science graduates have developed experience and practical knowledge through extensive industry experience and co-operative education placements. Third year students complete placements of approximately two days a week throughout the year.

AUT has strong connections with the high performance sport and fitness industries, through SPRINZ (Sports Performance Research Institute NZ), High Performance Sport New Zealand, national sport organisations and health providers, as well as industry partnerships with AUT Millennium, Harbour Sport, and the YMCA.

FURTHER STUDY OPTIONS

Further study in sport and exercise science is available at postgraduate level, including PhD options. Applied research is an important part of gaining high performance roles.

The School of Sport and Recreation has research strengths in exercise science, physical conditioning, coaching, injury prevention and human performance, physical activity and nutrition, and sport management.

The School is involved in research institutes and centres, including: Sports Performance Research Institute New Zealand (SPRINZ), the Coach Development Centre (CDC) which is No 1 in NZ and The Human Potential Centre (HPC).



Anna Skipper

High Performance Sport New Zealand (HPSNZ)

Bachelor of Sport and Recreation in Exercise Science and Management, Postgraduate Diploma in Sport and Exercise.

Currently studying Masters in Sport and Exercise

I have been working as a Performance Physiologist at HPSNZ for almost 3 years. I did my year long -co-op with High Performance Athlete Development here in 2013, then an internship in the Performance Physiology department for a year before moving into this job.

My role as a performance physiologist is split between two sports; Yachting New Zealand and Paralympic New Zealand Swimming. With Yachting NZ I have to ensure the sailors are physically fit and fresh enough to perform at international regattas through individualised and sailing-specific fitness prescription, training load management and athlete education. To do this effectively, I work collaboratively with other athlete performance support personnel and Yachting NZ & its coaches.

With Paralympic Swimming I work with the coaches to answer specific performance questions. Both roles are very different and require a thorough understanding of the sports and the individual athletes.

It is incredibly hard to find this kind of role, so I was very lucky to be in the right place at the right time – proof internships are invaluable, as is anything you can do to gain experience.

I have found the theoretical underpinnings of my study of anatomy and physiology is vital. The experience I gained from workshops at AUT is also invaluable and really helped me develop my skills quickly when I was interning.

Things change very quickly in this workplace and it's important to be able to adapt. I've also had great opportunities to travel overseas with different sports and gain immersion with those sports; something you cannot fully experience in the home environment.

TIPS TO JOB SEEKERS

Get as much experience as you can. Interning and volunteering are great ways to do this and can be done while you are studying. Be open to working in areas, or sports, that you are not familiar with. The more experience the better!

USEFUL WEBSITES

Sportspeople and jobs

www.sportspeople.co.nz/?ID=18621#do

New Zealand Register of Exercise Professionals

www.reps.org.nz

High Performance Sport New Zealand

www.hpsnz.org.nz

Sport New Zealand

www.sportnz.org.nz

Sport and Exercise Science New Zealand

www.sesnz.org.nz

Exercise Association of New Zealand

www.exercisenz.org.nz

Sport Performance Research Institute NZ

www.sprinz.aut.ac.nz

FURTHER INFORMATION


For the most up-to-date information on sport and exercise science study, visit our website:

www.aut.ac.nz/exercise-sci

FUTURE STUDENTS

Contact the Future Student Advisory team for more information: www.aut.ac.nz/enquire


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For other Future Career Sheets visit:

www.aut.ac.nz/careersheets

For employability and career support, AUT students can book an appointment through <https://elab.aut.ac.nz/>


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The information contained in this career sheet is correct at time of printing, August 2019.

