School of Physical Education,
Sport and Exercise Sciences
*Te Kura Para-Whakawai*

# 400-Level Module Options for 2022

**All modules require Co-ordinator's approval**
**2 modules are required for each 400 level (20 pt) paper**

# SPEX 440 ADVANCED TOPICS IN PHYSICAL EDUCATION, ACTIVITY AND HEALTH (S1)

## Module options

### Exercise: its role in energy balance and substrate metabolism - (Assoc. Prof. Nancy Rehrer)

A critical evaluation of the role of exercise on energy and substrate utilisation and compensatory mechanisms, including varying paradigms drawing from historical and recent experimental evidence. The impact of energy balance and substrate availability on training adaptations will also be examined. Students will explore varying techniques to measure energy and substrate utilisation and gain practical insight.
*(Pre-requisite knowledge: A basic understanding of exercise effects on metabolism acutely and chronically.)*

### Extreme environments for health and performance - (Prof. Jim Cotter)

Critique the opportunities and physiological bases by which environmental and exercise stressors (e.g., heat, hypoxia, vibration, pollution, gravity) acutely impair and chronically enhance (or impair) human health, performance and cross adaptation to other stressors. For example, how, why and to what extent is repeated heat exposure beneficial not only in adapting people to work or compete in hot or humid environments, but also before surgery (prehabilitation), recovery (rehabilitation), or as an adjunct to exercise for athletes or people with restricted access (e.g., peripheral arterial disease or spinal cord injury). Why is pollution problematic for exercise, and is adaptation possible? Etc. In this module, students will participate actively in weekly seminars, and learn relevant laboratory techniques.
*(Pre-requisite knowledge: SPEX303 or equivalent upper-level Exercise Physiology paper, or approval by module coordinator understanding that the student may be required to complete extra readings and/or lectures.)*

### Topics in Clinical Exercise Physiology - (Assoc. Prof. Lynnette Jones)

Students will undertake a Review of Literature in an area of interest in Clinical Exercise Physiology. The initial topic and review question will be discussed at the first meeting and developed in subsequent meetings.
*(Pre-requisite knowledge: Completion of SPEX310 Exercise for Clinical Populations would be an advantage.)*

### Indigenous Perspectives of Sport for Development - (Dr Jeremy Hapeta)

This module examines Sport for Development (SFD) programmes offered in local Indigenous communities as well as those within global contexts. The primary focus will be on comparing and contrasting current SFD practices, particularly as they relate to mainstream SFD settings and with programme participants who identify as Indigenous, First Nations or Aboriginal.
*(Pre-requisite knowledge: SPEX206 and/or SPEX306, or approval by module coordinator understanding that the student may be required to complete extra readings and/or lectures).*

# SPEX 441 ADVANCED TOPICS IN PHYSICAL EDUCATION, ACTIVITY AND HEALTH (S2)

## Module Options

### Pūrākau methodology and wayfinding leadership: Indigenous storytelling and wayfinding in research - (Dr Chanel Phillips)

Pūrākau are more than fireside stories. Pūrākau are the pū (base) of the rākau (tree) or the origin of strength for Māori and indigenous peoples worldwide. Wayfinding leadership draws upon ancient wisdom often embedded within pūrākau that widens and deepens a leader's abilities and enables him or her to lead effectively. This course will encourage you to use pūrākau as your source of strength and leadership for better understanding yourself within your respective research context. The kaupapa (purpose) of this paper is to highlight that you are the kaihautū (leader, steerer) of your own research journeys, and pūrākau and wayfinding leadership are tools we can use to help this flourish. You will examine and analyse a pūrākau of your choosing and explore how this pūrākau helps you unpack your research area/thesis topic and explore its potential as a method and/or methodology in relation to the five waypoints of leadership.
*(Pre-requisite knowledge: At least one upper (300-) level paper in Maori/ indigenous studies)*

### The Psychology of Physical Activity Behaviour Change - (Assoc. Prof. Elaine Hargreaves)

Examines the theoretical underpinning and application of behaviour change techniques used in research interventions to motivate physical activity behaviour change. We will critique research methodologies and the process of translating theory into practice to examine the efficacy of these techniques. Students will emerge with an understanding of how to create effective interventions from both a research and physical activity promotion perspective.
*(Pre-requisite knowledge: SPEX 308 Psychology of Physical Activity or equivalent)*

### Advanced Understanding of Sports Coaching – (Prof. Chris Button)

In this module students will utilise social, cultural and educational concepts to examine what happens in the name of sports coaching and critically reflect on why it happens the way it does. Some core principles of motor learning and pedagogy will be presented and discussed both in practical and group sessions. In addition students will be exposed to contemporary debates on topics such as leadership, teamwork, sport technologies, child and athlete development.
(*Pre-requisite knowledge: Ideally students will have previously taken SPEX202 Motor Behaviour (S2) or be willing to attend lectures from the 2nd module on Motor Learning. Other prior educational or practical coaching experience may also be taken into account.)*

### Sport Media and Communication Skills - (Dr Sebastian Potgieter)

This course aims to develop students' ability to communicate effectively through written word. It will provide students with the necessary tools to communicate their ideas in a clear, concise, and confident manner, ensuring they are able to convey their message through writing. Students will be instructed on a practical guide to craft different formats of written communication, which may include: writing reports and memorandums; crafting media releases and developing a journalistic style; effectively communicating technical information to non-technical audiences; crafting written communication which resonates with a specific target audience; recognizing the diversity of

audiences and their respective needs; assisting in the development of students' own creative and unique writing style; tightening up writing skills and the ability to write in a short format; and advancing students' self-expression through writing. This paper is suitable for all students as effective communication ability is a vital component in any workplace environment. In particular, students keen on entering into leadership positions, public relations roles, or have an interest in freelance journalism are encouraged to attend the course.

# SPEX 450 ADVANCED TOPICS IN EXERCISE AND SPORT SCIENCE (S1)

## Module Options

### Applied Sport Psychology - (Prof. Ken Hodge)

This module will focus primarily upon the philosophy and practice of psychological interventions in sport and physical activity. The theoretical and research basis of sport psychology interventions will also be examined. In addition to examining sport psychology interventions, selected issues in applied sport psychology will also be discussed; these will include ethical considerations and qualifications/accreditation in sport psychology.
*(Pre-requisite knowledge: SPEX304 or equivalent upper level Sport Psychology paper, or approval by module coordinator understanding that the student may be required to complete extra readings and/or lectures.)*

### Data processing and analysis - (Dr Peter Lamb)

This module teaches students to automate their analysis of data obtained from measurement devices commonly used in exercise physiology, biomechanics, PAH and motor control. Students will learn to read raw data into analysis software, compute discipline-specific outcome measures, and imbed their analysis in reusable and understandable reports. Data processing procedures may include organisation, visualisation, error checking, normalisation, filtering, common statistical tests and producing publication quality figures.
*(Pre-requisite knowledge: At least one University-level statistics paper recommended.)*

### Movement Neuroscience - (Dr Rebekah Blakemore)

This module will examine the neurophysiological mechanisms underlying information processing and the control of human movement. Emphasis will be placed on understanding changes in behaviour, muscle, and brain activity during voluntary movement, with a focus on commonly used methodological techniques in movement neuroscience. Implications for sport and exercise, the integration of other neuroscience domains (cognition, emotion), as well as clinical populations will be considered. *(Pre-requisite knowledge: SPEX317 or equivalent upper level Neurophysiology or Neuropsychology paper, or approval by module coordinator understanding that the student may be required to complete extra readings and/or lectures).*

### Extreme environments for health and performance - (Prof. Jim Cotter)

Critique the opportunities and physiological bases by which environmental and exercise stressors (e.g., heat, hypoxia, vibration, pollution, gravity) acutely impair and chronically enhance (or impair) human health, performance and cross adaptation to other stressors. For example, how, why and to what extent is repeated heat exposure beneficial not only in adapting people to work or compete in hot or humid environments, but also before surgery (prehabilitation), recovery (rehabilitation), or as an adjunct to exercise for athletes or people with restricted access (e.g., peripheral arterial disease or spinal cord injury). Why is pollution problematic for exercise, and is adaptation possible? Etc. In this module, students will participate actively in weekly seminars, and learn relevant laboratory techniques.
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## Indigenous perspectives of Sport for Development (Dr Jeremy Hapeta)

This module examines Sport for Development (SFD) programmes offered in local Indigenous communities as well as those within global contexts. The primary focus will be on comparing and contrasting current SFD practices, particularly as they relate to mainstream SFD settings and with programme participants who identify as Indigenous, First Nations or Aboriginal.
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# SPEX 451 ADVANCED TOPICS IN EXERCISE AND SPORT SCIENCE (S2)

## Module Options

### Neuromechanics of Human Movement - (Assoc. Prof. Melanie Bussey)

Neuromechanics is a sub-discipline of biomechanics and motor control. Specifically, we are interested in how the nervous and musculoskeletal systems work together to achieve a motor task. In this module we will learn the fundamental Neuromechanical concepts of healthy human movement and explore the relationships between altered control strategies and aberrant movement patterns associated with acute and chronic conditions.
***May not be offered in 2022***

### The Psychology of Physical Activity Behaviour Change - (Assoc. Prof. Elaine Hargreaves)

Examines the theoretical underpinning and application of behaviour change techniques used in research interventions to motivate physical activity behaviour change. We will critique research methodologies and the process of translating theory into practice to examine the efficacy of these techniques. Students will emerge with an understanding of how to create effective interventions from both a research and physical activity promotion perspective.
*(Pre-requisite knowledge: SPEX 308 Psychology of Physical Activity or equivalent)*

### Advanced Understanding of Sports Coaching – (Prof. Chris Button)

In this module students will utilise social, cultural and educational concepts to examine what happens in the name of sports coaching and critically reflect on why it happens the way it does. Some core principles of motor learning and pedagogy will be presented and discussed both in practical and group sessions. In addition, students will be exposed to contemporary debates on topics such as leadership, teamwork, sport technologies, child and athlete development.
*(Pre-requisite knowledge: Ideally students will have previously taken SPEX202 Motor Behaviour (S2) or be willing to attend lectures from the 2nd module on Motor Learning. Other prior educational or practical coaching experience may also be taken into account.)*

### Sport Media and Communication Skills - (Dr Sebastian Potgieter)

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*(Pre-requisite knowledge: At least one University-level statistics paper recommended).*

# SPEX 460 ADVANCED SPORT DEVELOPMENT (S1)

## Module Options

### Applied Sport Psychology - (Prof. Ken Hodge)

This module will focus primarily upon the philosophy and practice of psychological interventions in sport and physical activity. The theoretical and research basis of sport psychology interventions will also be examined. In addition to examining sport psychology interventions, selected issues in applied sport psychology will also be discussed; these will include ethical considerations and qualifications/accreditation in sport psychology.
*(Pre-requisite knowledge: SPEX304 or equivalent upper level Sport Psychology paper, or approval by module coordinator understanding that the student may be required to complete extra readings and/or lectures.)*

### Globalisation and Sport Media - (Prof. Steve Jackson)

This module examines sport media in both the global and the local context. The focus will be on contemporary issues in sport as they relate to the media, politics and identity.

### Critical Advances in Sport Management - (Assoc. Prof. Sally Shaw)

This advanced level module critiques the mainstream sport management approach of focusing on organisational gains at the expense of organisational members. Develops advanced, reflective thinking, examining and critiquing the position of the individual in organisations. Focuses on theories and research methods to offer alternative organisational practices.

### Indigenous Perspectives of Sport for Development - (Dr Jeremy Hapeta)

This module examines Sport for Development (SFD) programmes offered in local Indigenous communities as well as those within global contexts. The primary focus will be on comparing and contrasting current SFD practices, particularly as they relate to mainstream SFD settings and with programme participants who identify as Indigenous, First Nations or Aboriginal.
*(Pre-requisite knowledge: SPEX206 and/or SPEX306, or approval by module coordinator understanding that the student may be required to complete extra readings and/or lectures).*

# SPEX 461 ADVANCED TOPICS IN SPORT MANAGEMENT & POLICY (S2)

## Module Options

### The Politics of Sport Governance (Assoc. Prof. Mike Sam)

An analysis of the dilemmas, paradoxes and reverse-effects of policies and programmes aimed at reforming sport. Examines the exercise of public authority around sport at international, national and local levels.

### Advanced Understanding of Sports Coaching – (Prof. Chris Button)

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