

# Bachelor of Sport and Exercise Science

Whakapakari:  
Industry Projects 2021



THE EXPERIENCE YOU NEED & THE SUPPORT TO SUCCEED



## FUTURE CAREER AND STUDY OPPORTUNITIES

The Bachelor of Sport and Exercise Science provides pathways and employment possibilities across the sport and exercise landscape.

### **Wellbeing, Lifestyle and Health Promotion**

Consultation and exercise prescription, Green Prescription advisor, corporate wellness consultant, special needs populations activity facilitator, community health initiatives.

### **Exercise and Conditioning**

Business owner, personal trainer, group fitness instructor, team trainer/conditioner.

### **Sports Administration and Management**

Sports coordinator, development officer, regional coordinator, player liaison, administrator, sponsor manager.

Further career opportunities are available by undertaking additional study such as postgraduate study (e.g. master's degree) or physical education teaching or sport journalism.

### **Sports Coaching and Leadership**

Coach, coach educator, sports coordinator, team manager, player liaison, player life-skills coach, referee/official.

### **Community Recreation Management**

Recreation officer, recreation programmer, special needs programmer, facility management, business owner.

### **Sport Science and Support**

Mental skills analysis trainer, exercise physiologist, biomechanist, team trainer/conditioner, research technician.

## Profiles

### **Ally Hislop** 5

Project: Fundamental movement skill and mental wellbeing analysis Education Outside the Classroom programme

Organisation: Hawke's Bay Community Fitness Centre Trust

### **Brad Cate** 7

Project: Re-learning how to stand. Physical disabilities no longer a barrier to achieving goals

Organisation: ENLIVEN, working out of Rowan House

### **Gary Lowe** 8

Project: Creating coaching resources across a variety of sporting codes at a female secondary school

Organisation: Napier Girls' High School

### **Hannah Pugh** 9

Project: Nutritional Data analysis of educational facilities in Hawke's Bay

Organisation: Nourishing Hawke's Bay - He wairua tō te kai

### **Madie Holmes** 11

Project: Basketball skills development programme for primary school children

Organisation: Basketball Hawkes Bay

### **Mikal Hales** 13

Project: Increasing nutritional awareness and sport performance in young athletes through nutritional education

Organisation: N Cubed

### **Rangatira Fox** 15

Project: A quantitative approach to understand and improve the physiological demands required of aspiring police officers

Organisation: Eastern District Police

### **Ondene van Dulm** 17

Head of School of Health and Sport Science





# Ally Hislop

**Project Name:** Fundamental movement skill and mental wellbeing analysis Education Outside the Classroom programme

**Organisation:** Hawke's Bay Community Fitness Centre Trust



Hawke's Bay Community Fitness Centre Trust (HBCFCT) provides a range of health programmes for people in the community. Education outside the classroom (EOTC) is a programme run by HBCFCT which targets young people and offers a range of content including; physical literacy, movement exploration and character-building activities. I chose to run my project through the EOTC programme with Raun Makirere-Haerewa as my mentor.

My project included an analysis of the classes involved which included children aged 9 - 13. General ability to perform fundamental movement skills (FMS) and the understanding and impact of sport and exercise on the children's mental wellbeing were analysed. Data was gathered through a customized analysis sheet, observation and a questionnaire. These areas were targeted as I believe children should be able to perform FMS and have positive experiences with sport and exercise so that they have confidence with participating as they get older.

The project uncovered a range of positive factors and gave an understanding on children's knowledge with sport and exercise. Gathered data highlighted the positive and negative feelings children have towards exercise and how those working in the industry could make physical activity more appealing for children. Data from the FMS analysis indicated areas of improvement which were collated and used to design an activity booklet for the organization to use. Being involved with the EOTC programme has been a positive experience which has solidified my passion of working with young people and emphasizing the importance of participating in sport and exercise.









# Brad Cate

**Project:** Re-learning how to stand. Physical disabilities no longer a barrier to achieving goals

**Organisation:** ENLIVEN, working out of Rowan House

*enliven*  
A PRESBYTERIAN SUPPORT SERVICE

My placement was with ENLIVEN, working out of Rowan house, where they are assisting elderly and people living with disabilities. This service enables these people to live more independently by encouraging and supporting physical, mental, and social wellbeing.

I worked alongside two individuals, one wheelchair bound with cerebral palsy, the other who struggled with daily tasks due to weight issues.

This project was to assess current ability in individuals to be capable of standing up, identify the physiological needs of the individuals to help them succeed in progressing this ability, and through one-on-one sessions adapt training exercises to foster growth in this area. The culmination being a set of designed exercises any level can implement to aid in their personal growth.

Successes identified were significant muscular strength increases, ability to stand up repetitively in succession, higher levels of confidence, ability to hold themselves in a standing position and more control over transitioning from seated to standing position. Individually assessed daily and weekly milestones were set to pave the way for those successes. The lack of equipment designed for this purpose and proven exercises in this space meant adapting what the clients had on hand to create effective training exercises.

Utilising the sit to stand transitioning equipment, a series of exercises have now been created to foster growth in sit to stand goals for clients with physical disabilities.





# Gary Lowe

**Project:** Creating coaching resources across a variety of sporting codes at a female secondary school

**Organisation:** Napier Girls' High School

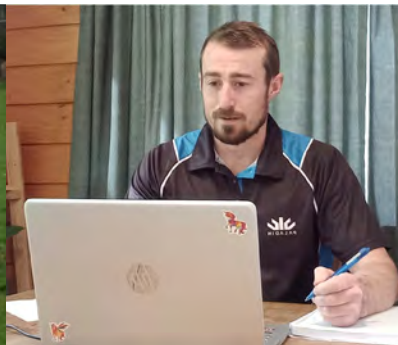


Napier Girls' High School has recognised the need to support and enable their coaches to be most effective in their roles. They have approximately 30 different sports on offer to their female students and most of their coaches are volunteers, with several being parents of a student at the school.

Coaching sport can be a difficult role to take on, particularly for volunteer or parent coaches. Young athletes rely heavily on their coach's expertise and knowledge of the sport for their own development. The aim of this project was to provide Napier Girls' High School with relevant, useful, and usable coaching handbooks for each of the sporting codes provided by the school. During this project I worked with Jo Owen (head of sport at Napier Girls' High School), existing school coaches, contacted local sporting representatives, and reviewed literature to identify what information was necessary for each sporting guide.

The result was the creation of a unique set of coaching guides, relevant to individual sporting codes on offer by the school, and specific to coaching teenaged females. These guides included information on the rules, structure, and positions specific to these sports, examples of drills and skills, methods for structuring training sessions, contacts for local mentors, and places for further information. Tips for coaching young female athletes were also included, to ensure the guides catered to the specific needs of the school.

This placement allowed me to work with a high standing Hawke's Bay School, to provide a significant contribution to their sporting department, and further enable future development of our sports coaches and subsequently our athletic youth.







# Hannah Pugh

**Project:** Nutritional Data Analysis of Educational Facilities in Hawke's Bay

**Organisation:** Nourishing Hawke's Bay - He wairua tō te kai



NOURISHING HAWKE'S BAY  
HE WAIRUA TŌ TE KAI

Nourishing Hawke's Bay (NHB) is a research program that focuses on improving food environments and the wellbeing of children in Hawke's Bay. NHB is a collaborative program that involves researchers from The University of Auckland and EIT including project co-ordinator Pippa McKelvie-Sebileau.

My project was analysing and scoring nutrition policies of schools and early learning services throughout Hawke's Bay. I compared the nutrition policies of educational facilities against an analysis tool that measures the strength of different policy aspects such as providing nutrition education for students and staff, and the application of nutrition standards for canteens. After scoring 40 policies, I then analysed the data to determine whether decile rating, student roll number, and the location of schools (urban or rural) impacts the strength score of their nutrition policy. The purpose of this was to reveal to NHB what areas children in Hawke's Bay are most at risk for poorer nutrition and wellbeing. However, the analysis surprisingly showed that none of these factors influenced the strength of school nutrition policies. These findings suggest that children from schools varying in size and location in Hawke's Bay have similar nutrition and wellbeing needs.

This placement taught me how to communicate more effectively because I had minimal in-person interaction with NHB as the entirety of my project was done independently, from my laptop. Working with NHB has been a rewarding opportunity that has allowed me to broaden my knowledge and experience in an area that I am passionate about.







# Madie Holmes

**Project:** Basketball skills development programme for primary school children

**Organisation:** Basketball Hawkes Bay



This placement with Basketball Hawke's Bay, involved delivering a skills development programme to primary school children. The aim was to develop the children's fundamental skills of basketball. A resource was also created for coaches to implement this programme in their own teams, providing coaches with the knowledge and skills to support their own training.

This project was delivered to year 1-4 students, with two venues available at both Napier and Hastings. The sessions were delivered to year 1-2 and year 3-4, to ensure that the children were gaining skills specific to their age and abilities. The sessions were planned and delivered with a particular skill focus each week to enable progression of knowledge and skill.

Skills testing was used as a form of measuring the success of the programme delivery, the testing demonstrated positive results in breaking the fundamental skills of basketball down. Observation was made of the participants prior to delivering the sessions to gain baseline skill level, this helped me to develop appropriate sessions.

A barrier that I encountered when delivering this project was the varying participation, making it difficult to plan sessions. To provide greater participation levels it would be beneficial to deliver this programme as part of the primary school basketball competition.

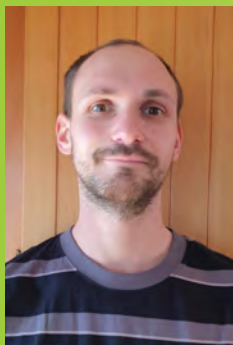
This project gave me knowledge and experience in leading younger groups of children, I was able to develop my coaching experiences in a different area. The delivery of this project taught me a lot about organization and professional communication skills with children and adults.











# Mikal Hales

**Project:** Increase sport performance in young athletes through nutritional education

**Organisation:** N Cubed



N Cubed is an organisation established in 2020 by Marieke Flatt, a registered dietician with a Masters in Dietetics from the University of Auckland. Based in Hawke's Bay, N Cubed focuses on working with athletes of all sports, ages, and genders and aims to create awareness and help athletes achieve their goals with meal plans and suggestions of diet changes specific to an athlete's sport. Nutrition generally gets left behind when athletes are training, with strength and conditioning taking the spotlight.

Initiating my project, I contacted Karamu High Schools sports coordinator Tom Blake. Working with six of the school's top athletes, both male and female, I assessed the levels of nutritional education among the athletes and assessed basic anthropometric levels, performance, and diet. Reporting back to the athletes with a review of their diets compared to the science and recommended diet changes based on each individual's sport to improve performance.

Over eight weeks, I visited the school several times to present the athletes with nutritional information, such as the importance of carbohydrates, meal periodisation and adequate energy levels based on their body composition and activity levels. Results showed the athletes' stress levels decreased, times of tiredness disappeared or dropped, willingness to train increased, performance levels based on personal indications improved, and athletes began eating higher quality diets overall. I achieved my goal of reaching out to young athletes to teach the importance of nutrition within their sport and future sporting careers and improve their performance.







# Rangatira Fox

**Project:** A quantitative approach to understand and improve the physiological demands required of aspiring police officers

**Organisation:** Eastern District Police

Law enforcements have the role of managing public safety, enforcing laws and maintaining public safety. The New Zealand Eastern District Police (NZEDP) are responsible for providing law enforcement in the Hawke's Bay and Gisborne districts. My industry project involved working with Physical Education Officer, Rebecca Tegg of the Eastern District Police to provide fitter, stronger and healthier police recruits.

Within this industry I was able to provide a training programme that was specific to improving the physiological attributes required of the Physical Appraisal Test (PAT). To measure performance, a pre and post test was taken. The test included a 2.4km run time, vertical jump height, maximal push ups and grip strength. Due to the increased volume of training for most subjects, it was also important to identify any increases/ decreases in bodyfat percentages.

Prior to completing the PAT, bodyfat percentages were taken to identify what effects the programme had on physical conditioning. The PAT measures were then taken to give an overall score based on their results.

Results of the test saw improvements across all subjects, ranging from a two minute improvement in run time to the push ups increasing by nine repetitions. Overall, assisting the NZEDP was beneficial for helping me to understand the test and procedures of the PAT and what type of training should be applied to improve scores in the PAT. This placement has provided me with the ability of being able to write a goal specific training programme.











# Ondene van Dulm

Head of School of Health and Sport Science

PhD, MA, Bachelor of Speech Therapy & Audiology

Originally from South Africa, Dr Ondene van Dulm arrived in the Bay in 2015, joining EIT as an ESOL teacher in 2016. She later worked as an Education Advisor, until joining the School of Health and Sport Science as Head of School in June 2020. With a tertiary teaching and research background in linguistics and child language development, and experience in developing academic programmes across a range of subject areas, Ondene's vision for the School is to continually innovate to deliver programmes that are fit for purpose and tailored to the needs of the region. Ondene greatly admires the students' achievements reflected in this booklet - these projects reflect their potential as sport and exercise science graduates to have an enormously positive effect on the lives of a range of people in the community.



Te Kura Kaupapa Hauora, Hākinakina  
*School of Health and Sport Science*

**If you've been inspired by the projects and want to get involved,  
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