

# Using Sport Science to Improve Classroom Performance



Unlocking Peak Performance
Through Peak Preparation

# The Problem

# Are your students:

- □ Struggling to concentrate?
- □ Fidgety and restless?
- □ Lacking in time-management skills?
- Distracted easily?
- □ Cramming the night before exams?
- □ Not reading exam questions properly?
- Struggling to connect concepts to real-world applications?
- Demonstrating knowledge gaps in the PF studies curriculum?



# The Solution



Education sessions with elite sports professionals that improve performance using advanced, proven sport science principles.

Dr Sacha Fulton was able to discuss the relationship between energy demands and nutritional requirements of physical activity... as well as the use of performance-enhancing drugs in a real and relevant way. The students were able to clearly make the link from theory to real-life with Dr Fulton's examples and wealth of knowledge having been immersed in the sporting world. Dr Fulton did not take long to pick up on the student's passions in the room and work this into her examples to ensure the presentation was engaging and to enable the students to understand these critical concepts for their upcoming examinations.

Hayley Holtham

Senior School Sports and Co-curricular Coordinator at Tranby College

Sacha provided great enthusiasm and passion towards exercise physiology. The presentation allowed the students to further understand exercise physiology concepts and in particular how they can be further applied to practical contexts, a very worthwhile experience and something I would highly recommend.

Liam Merigan

Curriculum Team Leader Health and Physical Education K-12 at St Brigid's College

Having Sacha present to my Year 12 ATAR Physical Education Studies students in preparation for their written exams was exceptionally informative. The students found it valuable. Sacha went through a variety of multiple-choice, short and extended questions from past ATAR exams. She interacted well with each student when they responded to questions and were made to feel safe to share their answer. Sacha was able to refine the accuracy and precision of what they said or thought in a scientific manner. Highly recommended!"

Sandra Botica

Health and Physical Education Teacher at St Mary's Anglican Girls' School

# Schools We've Worked With..



PEAK



































Give your students the opportunity to learn from a Doctor of Sport Science with over 15 years of experience working with Olympic and Paralympic athletes, such as Eamon Sullivan (Olympic Champion and World Record Holder), Lauren Mitchell (World Champion) and Katrina Porter (Paralympic Champion).

- ✓ ACCREDITED SPORT SCIENTIST
- ✓ PREPARATION SPECIALIST
- ✓ ELITE MINDSET SPEAKER
- ✓ WORKSHOP FACILITATOR
- ✓ TRAINER & WELLNESS COACH
- ✓ PERFORMANCE STRATEGIST

Dr Sacha Fulton is the owner of Peak Preparation, a Sport Science consulting business for sub elite and elite athletes in Perth, Western Australia. Sacha is passionate about sport and helping athletes unlock their potential to reach their goals.

Sacha completed her PhD in 2008 with Swimming Australia and the Australian Institute of Sport. She worked concurrently as the Sport Scientist for the Australian Paralympic Swimming team, accompanying them to the Beijing Paralympic Games in 2008 and the London Paralympic Games in 2012. In 2009 Sacha gained employment at the Western Australian Institute of Sport. She worked with the Institute for over nine years assisting in the athletic improvement of Olympic and aspiring Olympic hopefuls.

Sacha is a keen athlete herself having represented Australia at the IM triathlon World Championships in Kona, Hawaii and completing the Rottnest Island Channel crossing on five occasions. Sacha is an adventure enthusiast and is a keen traveller within Australia and overseas.

Sacha enjoys working with high school students and helping them unlock their potential both on the sporting field and in the classroom. She believes that how an elite athlete prepares for competition is no different to how a student can prepare for exams.

OBJECTIVE	YEAR 11	YEAR 12	ALLYEARS	SCHOOL ATHLETES	LEADERSHIP GROUPS	TEACHERS
CONTENT REVISION	Physiology ATAR Biomechanics ATAR	Physiology ATAR Biomechanics ATAR				
EXAM PREPARATION		Physiology ATAR Biomechanics ATAR	Exceptional Exam Preparation			
PROFESSIONAL DEVELOPMENT			Nutrition & Cognitive Function Exercise & Cognitive Function Sleep & Cognitive Function	Sports Science Education Modules	Leadership Course	Individual or Group Consults

# **Content Revision for Year 11 and 12**

Revision sessions will cover ATAR PE Studies Physiology and Biomechanics coursework, including:

## Physiology ATAR

- Environmental conditions: implications of preparing and performing in heat, humidity, altitude and cold
- Relationship between energy demands and nutritional requirements of physical activity: pre competition, during competition and recovery
- Performance enhancing drugs: anabolic steroids, stimulants and protein supplements
- Training Programs Designed to improve performance
- Energy Systems and Recovery

#### Biomechanics ATAR

- Biomechanical principles, concepts and laws of motion
- Analysis of movement
- Application of biomechanical principles to improve the quality of movement.
- Laminar and Turbulent Flow
- Drag
- Bernoulli's Principle
- Torque
- Angular Momentum
- 1st, 2nd and 3rd Class Levers
- Momentum
- Conservation of Momentum
- Impulse
- · Coefficient of Restitution

# **ATAR Exam Preparation and Question Revision**

Students will walk away from the session with an improved understanding of the ATAR PE Studies Physiology and Biomechanics coursework, and know how to:

- Read exam questions
- Structure an answer
- Use examples
- Work out the marking allocation

# **Content Revision for All Years**

Develop student's understanding of the effects of nutrition, exercise and sleep on cognitive function, and ultimately performance, both inside and outside of the classroom.

The session will cover:

- The foundations of nutrition
- · Nutrition as fuel for performance
- Food terminology
- The role of vitamins and minerals
- Tackling hydration
- The Glycaemic Index
- Saturated and unsaturated fats
- Sugar and salt
- Healthy snacks
- Nutrition and cognitive function
- Caffeine

## Nutrition & Cognitive Function | Exercise & Cognitive Function

The session will cover:

- What is exercise
- · The foundations of exercise
- Forms of exercise
- Benefits of exercise: Physical, Mental and Social
- Nutrition, exercise and cognition
- Exercise, dehydration and cognition
- Exercise and decision making

## Sleep & Cognitive Function

The session will cover:

- What is sleep?
- The brains behind sleep research
- Importance of sleep
- Stages of sleep
- Lack of sleep
- Ideal sleep
- Improving sleep

# **Exam Preparation for All Years**

How an Olympic athlete trains to perform on the world stage is no different to how a school student should be preparing for their final school exams.

Our 'Exceptional Exam Preparation' presentation helps students to develop habits and practices that are conducive to studying well now and into the future, and covers such topics as:

- Sleep
- Breaks
- Exercise
- Nutrition
- Hydration
- Snacks



# **Education Modules for School Athletes**

Education is knowledge and knowledge is power. Prepare your athletes for training and competition with confidence.

- Module 1 Environmental Conditions (2 parts): Preparing for hot and humid conditions
- Module 2 Nutrition and Hydration (7 parts): Keeping pace with seat rates
- Module 3 Recovery (5 parts): Hydrotherapy principles and practices
- Module 4 Sleep (3 parts): Consequences of sleep deprivation
- Module 5 Travel (4 parts): In-flight management of travel stress
- Module 6 Understanding Physiology (4 parts): Body's circulatory and respiratory systems as an essential basis for exploring performance potential
- Module 7 Electronic Devices: The importance of unplugging from electronic devices
- Module 8 Considerations of the Female Athlete: The female athlete triad
- Module 9 Ergogenic Aids (6 parts): Supplements and sports foods

# **Leadership Course**

Help your students to understand the foundations of leadership and develop a thorough understanding of what it takes to achieve a leadership mindset through practical applications from a sporting perspective.

The course will cover the following areas:

- What is leadership?
- What are the values that leaders possess?
- What actions govern leaders?
- Leadership challenges
- Goal setting
- Communication



# Professional Development Opportunities for Teachers

Increase your knowledge of how sport scientists work with elite athletes.

Dr Sacha Fulton's physiology expertise and life experience will ensure an exciting and informative Professional Development opportunity that teachers will remember for a long time. Sessions can be tailored specifically to your needs and can cover topics such as:

- An introduction to ergogenic aids in elite sport
- · Building an Olympic Champion
- The science behind monitoring training loads
- Altitude and its effect on the human body
- Silent contributors to injury, illness and performance
- Travel tips for athletes
- The female athlete triad





# **ACTIVITY** INCLUSIONS

#### ATAR PE STUDIES PHYSIOLOGY / BIOMECHANICS

Content Revision (All Years)

Exam Preparation (Year 12)

1 x 90-minute session

2 x 90-minute session (back-to-back)

Up to 35 attendees, larger groups available on request

#### **EXAM PREPARATION**

Exceptional Exam Preparation (All Years)

1 x 90-minute session

2 x 90-minute session (back-to-back)

Up to 100 attendees, larger groups available on request

#### PROFESSIONAL DEVELOPMENT

Nutrition/Exercise/Sleep & Cognitive Function (All Years)

1 x 90-minute session

2 x 90-minute session (back-to-back)

Up to 35 attendees, larger groups available on request

## Sports Science Education Modules

Contact us to tailor a package to suit your needs

#### Leadership Course

Half or full-day packages are available.

Contact us to tailor a package to suit your needs

#### Teachers

Two-hour teachers workshop, 6 – 10 attendees

Packages and presentations can be tailored upon request. All fees are inclusive of GST. Bulk purchase discounts apply, contact us for further information.

# Find Out More

Improve student and teacher performance using proven sport science principals.

Get in touch with us today to enquire about a customised package for your school, based on your needs and target outcomes.

