

# High Performance Athlete Training and Testing Packages

High Performance Training Centre



Bond University's High Performance Training Centre located at the Bond Institute of Health and Sport, Robina, provides elite sporting organisations a range of award winning fitness and recovery facilities, as well as targeted athlete testing and training packages, highly tailored to individual or team needs. The facilities available at the Centre are listed below.

## GYM

- 560m<sup>2</sup> strength and conditioning gym and training facility
- Hammer strength and iron edge equipment (8 lifting platforms)
- 185m<sup>2</sup> change room and bath room facilities

# POOL

- Four lanes x 25m heated indoor pool
- Lane 1 and 2 are standard FINA depth
- Lane 4 and 5 have four flat platforms for rehab at approximately 5m intervals from 1.35m at shallow end to 2.0m at the deep end

# **RECOVERY POOLS**

- Pool 1: Cold walk-through, 15m x 1.5m x 1.35m, run at 14 degrees
- Pool 2: Cold Plunge, 7m x 1.5m x 2m, run at 14 degrees
- Pool 3: Warm Spa, 7m x 1.5m x 2m, run at 38 degrees
- Plunge and spa pool temps can be adjusted with 48 hours' notice

#### ALTITUDE CHAMBER

- Hypoxic (simulate altitude to Base Camp Mt Everest approx. 5,300m). Can simulate heat as well
- 60m<sup>2</sup> 10 person
- 2 treadmills / 3 wattbikes / Concept 2 rowing ergometers

# OTHER FACILITIES

- Sauna and steam rooms
- · Conference facilities and meeting rooms with audio-visual
- Kitchen, breakout spaces, private outdoor BBQ
- Laboratory testing including, VO2max, lactate profile, power testing
- Outdoor turfed and lined surface (65m x 25m)



# PACKAGES, TRAINING AND TESTING OPTIONS

# VO2MAX / LACTATE PROFILE TEST

VO2max - Step Test (Gas Analysis) and Lactate Thresholds (Bike, Run, Kayak, Rowing)

**Cost:** \$300 1 hr test, plus setup and pack down (3 - 3.5hrs)

Lactate Thresholds (no gas analysis) (Swim, Bike, Run, Kayak, Rowing) **Cost:** \$250 1 hr test, plus setup and pack down (3 - 3.5hrs)

VO2max (maximal oxygen uptake) is the maximum amount of oxygen that can be taken up and used per minute. It is a measure of aerobic fitness and an indicator of the endurance capacity of an athlete. VO2max may be increased with training and therefore by undertaking assessments of VO2max, athletes are able to track changes in their aerobic fitness in response to training. The VO2max / lactate profile test involves an incremental exercise test to exhaustion on either a wattbike, treadmill, rowing or kayak ergometer. Measures of oxygen uptake, heart rate and blood lactate will be taken during the test. Following the test an athlete will receive a detailed report showing their test results including their VO2max, lactate thresholds, heart rate data and aerobic training zones based on heart rates and power outputs or speeds. This information can be used in prescribing future training sessions.

#### LACTATE PROFILE TEST ONLY (NO GAS ANALYSIS)

The same testing protocols as the VO2max / lactate profile test will be used without measures of oxygen uptake. Heart rate and lactate measurements will be taken at each step of the incremental test and used to determine lactate thresholds and aerobic training zones. Following the test an athlete will receive a detailed report of their test results including lactate thresholds, heart rate data and aerobic training zones based on heart rates and power outputs or speeds.

# FIELD TESTING

#### **Options:**

Yo-Yo Intermittent Recovery / Endurance Test, Multistage Fitness Test, Vertical Jump, Strength Testing (push ups - pull ups) Abdominal Strength and more **Cost:** \$150 per hour + Staff Accredited Sport Scientist: \$75 per hour Strength and Conditioning Specialist: \$50 per hour Student: \$20 per hour

A wide variety of field based tests can be used to assess the performance of team sport athletes and are a valuable time efficient option to test a large number of athletes in an efficient manner.

The tests establish a baseline for your athletes and squads that can be re-measured on the field to monitor athlete status on an ongoing basis. These tests can be conducted at the High Performance Training Centre, with most being able to be repeated at your home ground or court if required.



Below are some of the tests available that can be included in a battery of tests specific to your sport and requirements.

- 10 5 5 10 agility
- T Test
- 5-0-5
- Illinois agility
- Y Test
- Vertical Jump Double and single
- Broad Jump Double and single
- 10m 20m 40m sprint times
- 1.2km shuttle
- 0 50m x 3 time recorded and on 90 seconds repeat, record and repeat
- 10m 20m 30m 40m 50m: repeat 3 times on 3 minutes
- Squat and bench, bench pull projected 1RMs
- Chin ups to failure
- Push ups to failure or in 1 minute
- Sit ups to failure or in 1 minute
- Height / weight
- BIA Bond Analysis
- Medicine ball side wall throws 4kg 6kg
- Yo-Yo Endurance
- Yo-Yo Intermittent
- Reactive strength drill
- Sit and reach
- 100m timed swim 3 repeats
- Total under water distance effort

# BODY COMPOSITION ASSESSMENTS

<b>Skinfolds:</b> Approximately 15 minutes per player	<b>Cost:</b> Staff on shift: \$20 per test Team: \$150 per hour
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The assessment of body composition is important for athletes to monitor physique adaptations and changes in body fat and muscle mass in response to training. Body composition can be assessed via skinfold measurements or by using the BodPod.

**Skinfold measurements:** A qualified anthropometrist will take skinfold measurements across several different sites of the body using skinfold calipers. The sum of all skinfold measurements will be reported as well as an estimation of body fat percentage.



#### BODPOD

Body Fat / Lean Body Mass

**Cost:** \$50 per person or 2 for \$80 Less Qual operator: 5 minutes + results Team rates: \$40 per head for 5+

The BodPod is an air displacement plethysmograph which measures whole-body density to determine body composition, including fat-free mass, fat mass and body fat percentage. The athlete will sit motionless inside the BodPod for a couple of minutes and the air displaced is used to determine their body composition.

#### ALTITUDE TRAINING

Initial consultation for altitude (30 minutes) prior to commencing altitude training	<b>Cost:</b> \$50
2 x week for 6 weeks (1 hour) package Min: 5 Max: 10 Supervised by an Accredited Sport Scientist	Cost: \$240 each package

Altitude / hypoxic training is widely used by athletes to improve performance. The reduction in partial pressure of oxygen at altitude increases the demands on the body during exercise. Over time, physiological adaptations may occur which can lead to a higher level of performance compared to training at sea level alone. Bond University has a purpose built altitude chamber which allows athletes to train at 3,000m above sea level. This can be used as an additional training stimulus for athletes or may be used prior to an altitude excursion to prepare for the altitude environment. Group sessions and packages are available at discount rates.

#### HEAT TRAINING

Initial consultation for heat training (30 minutes) prior to commencing	<b>Cost:</b> \$50
2 x week for 6 weeks (1 hour) package Min: 5 Max: 10 Supervised by an Accredited Sport Scientist	<b>Cost:</b> \$240 each package

Heat training is commonly used by athletes in preparation for competition in a hot environment. Under hot conditions performance may be compromised due to an increase in thermal load. By exercising in a hot environment on a regular basis, the body acclimatises to the heat by increasing skin blood flow, increasing sweat rates, which reduces body core temperature and the overall cardiovascular strain. Consequently, the negative effects on performance are reduced. The heat chamber and sauna at Bond University can be used by athletes to gain physiological adaptations associated with heat acclimation. Group sessions and packages are available at discount rates.

# **RECOVERY SESSIONS**

#### Pool, Recovery Pools, Sauna, Steam Room

**Cost:** \$125 per hour Student Supervision: \$20 per hour

Recovery is an important part of athlete preparation. Several strategies are used by athletes to enhance the recovery from training. Hydrotherapy techniques such as cold water immersion and contrast water therapy protocols are reported to reduce inflammation and reduce muscle soreness post training, allowing athletes to recover faster. The recovery facilities available at Bond University include hot and cold plunge pools, a sauna and a steam room to allow athletes to maximise their recovery from training. Each session will be supervised by an Accredited Sport Scientist. Group sessions and packages are available at discount rates.

# STRENGTH AND CONDITIONING SESSIONS

Teams: 10+	<b>Cost:</b> \$200 per hour \$150 per hour delivery + \$50 program
Individual:	Cost: \$75 per hour

The Bond University High Performance Training Centre is an NSCA 'Strength of America' certified athlete training facility. The Centre is staffed by two full time ASCA Level 3 Master Strength and Conditioning Coaches, both with professional National and International training experience across a wide variety of sports. All equipment and training aids on site meet the highest international standards with height power cages and lifting platforms forming the nucleus of the weight training area.

Our main lifting area boasts air-conditioning, non-slip, high density, rubber flooring, 9m ceilings with both natural sky-lighting, and high quality down lighting. The High Performance Training Centre has successfully hosted international rugby, baseball and golf athletes and national rugby, AFL, NRL, A-league and rugby union teams in training camps. The outdoor field surface is of the highest standard and 65m x 25m in dimensions. Our field area is line marked and flood lit to provide the best possible conditions for all visiting teams and athletes.

#### NUTRITION SUPPORT

The Bond University Nutrition and Dietetic team, located at the Bond Institute of Health and Sport are available as a support option for team meetings, program supplementation and recovery strategies, administration, research, technology trials and newsletters.

## MEET THE EXPERTS

#### **Dr Annette Eastwood**

#### Honorary Adjunct Assistant Professor Bond University PhD in Exercise Physiology

Annette is a former Senior Physiologist with the Australian Institute of Sport and Triathlon Australia. She has worked with many of Australia's elite triathletes and coaches preparing for major international competitions including the Rio Olympic Games 2016 and 3 World Triathlon Championships (2014 - 2016 inclusive). Currently a physiologist at Somerset College and a Senior Teaching Fellow at Bond University, Annette brings over 15 years' experience working in elite sport in Australia as well as experience in conducting athlete testing and monitoring.

#### **Glenn Corcoran**

# High Performance Training Centre Facilities Manager

Glenn's experience includes working with athletes and teams for World Cups, World Championships, under 20's Junior World Championships, Oceania and National medal winners for the following sports: mountain bike, netball, Australian Women's and Premier Men's Rugby, track and field, Australian fencing, badminton and consulting to China Football and Beijing Sports University. Glenn's qualifications include: Master of Exercise Science (Strength & Conditioning), Bachelor of Exercise Science (Rehabilitation), Certified Strength & Conditioning Specialist - NSCA, Registered Strength & Conditioning Coach\* Emeritus - NSCA, Level 3 Strength & Conditioning Coach & Life member - ASCA, Master Coach - Professional Coaching Accreditation Scheme and ASADA Level 2 Anti-Doping / Ethics Compliant. He currently is the Manager at the Bond Institute of Health and Sport's High Performance Training Centre.

#### **Rick Martin**

#### High Performance Training Centre Strength and Conditioning Coordinator

Rick previously worked in High Performance Sport: Philippines Olympic Committee, China Basketball, Australian Institute of Sport, Queensland Ambulance Service, kayak squads, and teams on the Gold Coast including Gold Coat Blaze, National Basketball League and The Southport School. His qualifications include: Level 3 ASCA Master PCAS Coach, Diploma of Fitness, ACE Registered Personal Trainer (Gold Certified), Level 2 Sports Trainer and ASADA Level 2 Anti-Doping / Ethics Compliant. Rick is currently working at the Bond Institute of Health and Sport's High Performance Training Centre as the Strength and Conditioning Coordinator.



# To enquire now, contact

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