



Triathlon Northern Territory Academy Program

Overview

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INTRODUCTION

The Triathlon Northern Territory (TNT) Academy program is an athletic development program designed to provide every participant the opportunity to build capability in all areas associated with progressing along a pathway of sporting excellence. It is aligned with the Northern Territory Institute of Sport (NTIS) Coach Development Program (CDP).

NTIS Coach Development Program (CDP)

The NTIS CDP is designed for coaches who are actively developing their skills and abilities to coach junior and youth athletes and adheres to the philosophy that our first responsibility to these athletes, as adults who administer a sport, is to create a positive developmental experience that increases the likelihood of 'life-long involvement in sport'. This philosophy aligns with the Foundation, Talent, Elite, Mastery (FTEM) model of athlete development (Figure 1) endorsed for the Australian sporting system as a whole including Sport Australia and the Australian Institute of Sport.



Figure 1: FTEM model of Athlete Development

The CDP consists of 5 athlete development Pillars which are not only considered essential components of training programs to optimise lifelong involvement in sport but also increase the likelihood of junior and youth athletes progressing along the sporting excellence pathway.

1. Holistic Athlete Development
2. Guiding the Journey
3. Skill Mastery
4. Confidence and Resilience

5. Physical Competence

The NTIS CDP is designed to facilitate a thorough understanding of, and the ability to apply and align coaches' programs with theory, philosophies and concepts associated with the 5 pillars and the development of children and teens (6-19yrs – typically F1 to T3-4) holistically through their sporting journey.

Program Alignment with the NTIS CDP

It is well documented that triathlon is a late specialisation sport, necessitating a focus, during the developmental years (6-19yrs), on high quality all round athletic/physical development, and excellence in sports skills, prior to specialisation. Furthermore, it is well documented that there is very little or no correlation between junior competition results at any level and progression to higher levels in sport, especially for those sports where performance is measured in grams, metres, or seconds i.e. Triathlon and all of its sub disciplines. Nevertheless and not unlike a lot of other sports, the National pathway system for triathlon bases selection decisions for progression down the sporting excellence pathway almost exclusively on junior competition results. Every sport is essentially the same: the winners, the junior champions, the higher performers are identified as the future sports stars, and then trained as such. For some; the young athletes with superior physical development, superior skills and movement quality, combined with physical and mental maturity this is appropriate, for the majority however, it is not and driven by the anxiety of coaches, parents and athletes chasing immediate results. Shortcuts in the development process inevitably occurs. The by-product of this system is that almost 100% of young athletes do not progress past the late stages of junior participation. They carry major physical, technical, and psychological limitations along their journey resulting in being over fatigued, burnt out, or injured and lack the motivation to continue within the sport. This is 'early specialisation' and 'fast tracking' where young athletes are pushed towards the next competition with capacity building training. Late bloomers and the athletes born in the latter half of the year are often excluded and are usually the first to lose interest and drop out.

The TNT Academy program is aligned with the NTIS CDP and focuses on developing an athlete's 'capability' in the physical qualities, motor patterns and skills associated with elite level sports performance not building 'capacity' in performance. The principles of progressive overload are applied to build 'capacity' as and when capability is progressively achieved. The program aims to progress participants towards mastery in: strength and stability of posture; fundamental and sport specific movement patterns and skills and; in a lifestyle that supports progression in life, and down the sporting excellence pathway. This may take some athletes 4 years and some 12 years, everyone is different. TNT respects the process of biological maturation that governs the developmental journey of each participant and employs a patient long term approach to inspire their long term involvement in the sport.

TNT ACADEMY PROGRAM

The TNT academy provides all participants the opportunity to develop attributes required to win Olympic and World championship gold medals as an adult. This is achieved firstly by knowing what are the physical, psychological, behavioural, technical, tactical competencies of Olympic and World champion athletes now and in future versions of the sport. Secondly it is achieved by knowing what those opportunities need to look like for each individual participant in the program that inspires a long term involvement in the sport*. This is how long the journey takes to achieve such proficiency and regardless of whether an athlete reaches the pinnacle, efforts to continue to guide their journey and foster their commitment to improve in the sport, is an assumed contributor to the development of virtuous character traits as adults.

Life-long Involvement in Sport and Physical Activity

The quality of experiences associated with physical activity and the likelihood of a participant enjoying them and being inspired to stay active is often determined by the motivational climate created by the parent, teacher or sports coach. This relies heavily on satisfying three key psychological needs: autonomy, competence and relatedness.

- **Autonomy** is feeling that you have control over your own actions.
- **Competence** is having a perception that you possess adequate ability.

Relatedness is having a sense that you belong (to the group, coach or sport).

The satisfaction of all three psychological needs (autonomy, competence and relatedness) is required to engender a positive motivational climate that encourages effort, persistence, enjoyment, satisfaction, prolonged engagement with sport and, critically, enhanced self-confidence within and outside of the sporting domain.

* Whilst well intended, 'life-long involvement in triathlon' maybe an unachievable outcome for any one participant. There are many factors contributing to participation and retention of children and youth in sport, many of which are out of control of the sport coach/parent. The point to note is that the underpinning intention of the TNT program is to ensure children and youth aren't driven away from the sport due to a focus on competition outcomes and performance at a time when they aren't developmentally capable of adapting positively to it. It is assumed that if TNT are successful at providing exposure to the right level of challenge at the right stage of development for each individual athlete, from an ethical stand point, the chances of that child becoming/remaining a sport participant/physically active adult will be enhanced.

Program Specifics

Swimming, cycling and running skills development is at the core of the sports specific content in the TNT program. It is delivered in a periodised format that is consistent with that defined in Long Term Athlete Development (LTAD) theory as defined in the table below.

| | Preparation Phase | | | Pre Comp | | | Comp | | |
|---------|-------------------|----|----|----------|----|----|------|----|----|
| Age | G | S | C | G | S | C | G | S | C |
| 10 - 14 | 80 | 15 | 5 | 70 | 20 | 10 | 60 | 25 | 15 |
| 15 - 17 | 70 | 20 | 10 | 60 | 25 | 15 | 50 | 30 | 20 |

Table 1: % Distribution of: General Sports Skills Development (G), Specific Sports Skills Development (S), and Competition Skills (C) training for Junior Athletes – (adapted and modified from Dick, 1980)

The accompanying annual plan highlights the progression through the different skill phases throughout the year. Coaching of the sports specific skills is against specific technical models in each discipline which evidence suggests are associated with optimal force production, economy of movement, and injury prevention.

Cycling Skills Development

TNT has a comprehensive cycling skills development program for development level athletes. It aligns with the Swiss Technical Cycle Skills Development model and runs during the School terms 1, 2, 3, and 4. It has a different skills focus in each term.

The cycle leg in ITU triathlon events is no longer a time trial, it is a cycle race on short multi loop technical circuits.

Figure 2 is a good example of a modern Junior World Championship Course. In one 5km circuit there are five 180° U-turns and ten 90° turns. This is a half hour, high speed, bunch cycling race with 60 turns and accelerations. Developing young triathletes to excel (eventually as an elite athlete) in this type of racing requires more than competing in Darwin or Alice Spring Cycling Club criterium racing. Systematic development of the bike handling and competition skills associated with track cycling sprint events, scratch races, elimination races, and points score racing are all indicated, as too MTB and BMX racing and skills development.

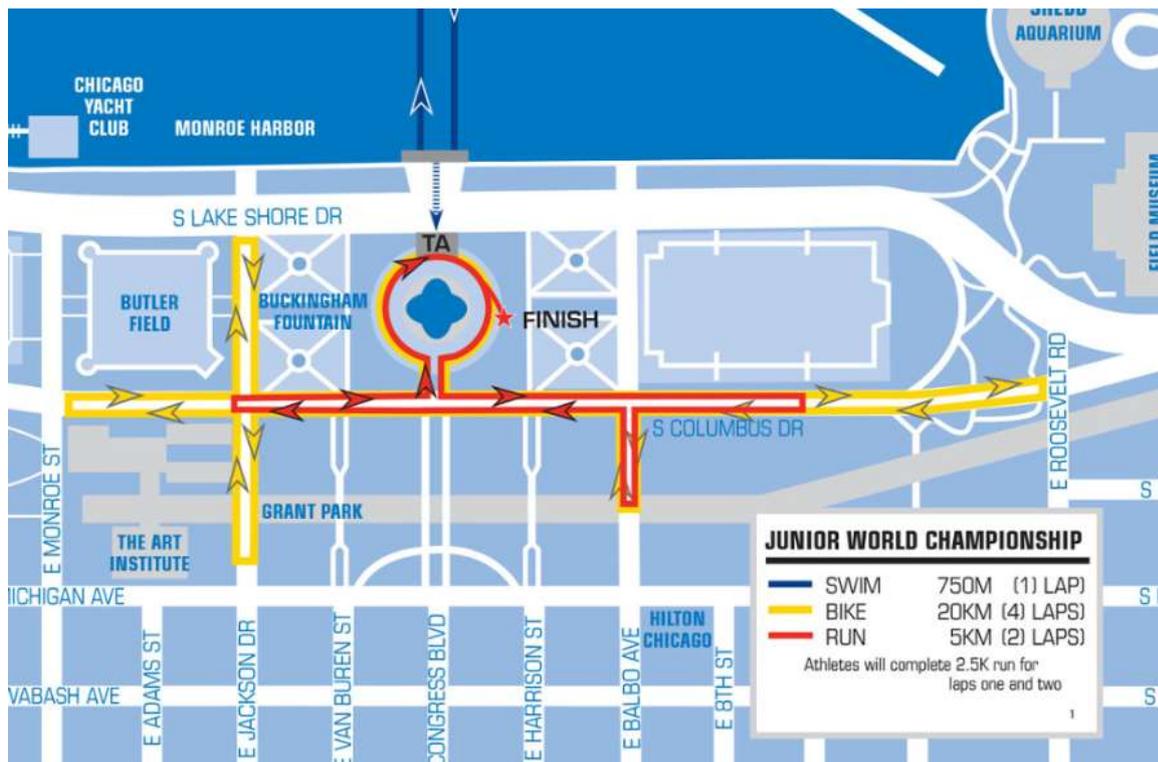


Figure 2: Example of a Modern Junior World Championship Triathlon Course

Running Skills Development

The running program is an all year program of two or three sessions per week. This is a skills development program and the coaching of running technique is against a model of running that optimises the coordinated use of the muscle and tendon properties in the feet, calves, hamstrings, lateral hip muscles, back and abdominals. Being taught correct running technique beginning with sprinting then moving to jogging and striding, is an essential athletic development and injury prevention experience for every junior athlete, regardless of sport and/or athletic ability.

Swimming Skills Development

The swimming program runs in the wet season in terms 1 and 4 and consists of one or two sessions per week at a range of locations including the Darwin Ski Club Pool, Lake Alexander, the Wave Pool and Water front Lagoon. Swimming skills includes the development of all strokes with the 'Loping' version freestyle swimming the primary technical model.

Physical Competence Development

For athletes to be technically competent (skilled), they have to be physically competent. The qualities that should be developed in all junior athletes relate to mobility and relative and reactive strength, power and control in the fundamental movements that underpin skill development in any sport especially those requiring endurance.

Every participant is assessed in all areas of their development (physical, psychological, behavioural, technical and tactical) throughout the year in weekly training and development activities including camps and their progression is monitored.

Competition

Exposure to appropriate levels of competition at each stage of a young athlete's development is essential for building social skills, life skills (away from home), confidence and resilience, and testing the quality of movement/skills in a competitive environment. Participants are gradually exposed to competitive experiences in training sessions through games such as 'The Coolest Kid', 'Spiders and Flies', and other activities designed

to expose each participant to an appropriate amount of both successful/winning and unsuccessful/losing experiences. The aim of this is to have all participants, irrespective of their maturational, relative, and training age, reason to themselves.....'I may not always win, but if I try my best to work out how to win, I'll have a chance of winning'.

With the above end goal in mind, there are different levels of 'official competition' within the program. The TNT pathway manager selects competitions that are appropriate to the developmental level of each child/athlete against the competition readiness formula below.

State Level Competitions

The three levels of competition within the Northern Territory are:

Club Competition → Development Camp Competition → NT Junior Triathlon Championships and Kids Tri

It is important that all young athletes have a sense of belonging in the competition they are exposed to. Exposing young athletes to competition that is beyond their level of competence and or competitiveness does not promote that sense of belonging and there is no amount of 'well done', 'you did a fantastic job', 'great effort' that will rescue that situation.

This situation arises when parents/coaches want their children/athlete to be successful and making an NT Team and or going to interstate competition is what sport is all about. For some it probably is, for most it is not.

NT Junior Triathlon Championships and Kids Triathlon (April each year)

This event is for anyone aged 5-19 years of age. Open to Triathlon NT members and non-members.

Events and Categories: Kids Tri - U7, U9, U11 and 12-15 participation.

There are three races for each category and the distances are age and competency level appropriate. Races two and three are handicapped.

U7 - 25m swim – 350m cycle - 50m run

U9 - 35m swim – 500m cycle – 80m run

U11 and 12 - 15 Participation - 50m swim -1000m cycle -100m run

NT Junior Triathlon Championship: Youth = 12-15 years

Junior = 16-19 years

There are three races for each category and the distances are the same for both categories.

Youth and Junior - 100m swim – 2000m cycle - 200 m run

NT Athletics Championships

Each year TNT enter a team in the NT Athletics Championships in August/September. This event is not a club level participation event that is run locally so considerable skill competency is a pre-requisite for entry.

Interstate Competition Opportunities (Cycle Skills)

Each year the TNT academy program provides two interstate development opportunities for selected athletes to test their cycle skills at higher level competitions. These events are not club level participation events that are run locally so considerable skill competency is a pre-requisite for entry.

Early December – Thredbo Cannonball MTB Camp

This is a MTB skills development camp that involves flying to Canberra and driving to Thredbo to train for and race in the various events associated with the Thredbo Cannonball MTB festival.

Late December Early January - Victorian Christmas Carnivals. (Track Cycling)

This opportunity involves racing in back to back track carnivals in Ballarat, Bendigo, Shepparton, and Wangaratta including 4 short track cycling events per day. Accommodation is arranged at Scout Camps in each location/ region.

Cost is approximately \$1000-\$1500 and \$800-\$1000 per athlete for each opportunity respectively and includes airfares accommodation, land transport, event entry and food.

This may seem expensive to some however, these are very affordable interstate sports trips and costs are covered easily with early planning, fund raising, and adherence to holistic development by encouraging teenagers to earn a wage throughout the year whilst being involved in the program.

Competition Readiness Formula

Table 2 provides competition readiness table highlighting the swim, cycle and run times that would indicate if a youth category athlete is of an appropriate standard to progress into National Junior Triathlon events. Achieving these target times is the result of the TNT coaching/athlete development philosophy that prioritises athletes achieving technical skill competency relative to the respective technical models of the disciplines as opposed to prioritising capacity building to achieve target times at the expense of technical skill competency. How athletes behave in response to accountabilities associated with their commitment to physical and other components of their development are also considered when deciding what developmental opportunities (competition opportunities or otherwise) need to be provided for participants to facilitate their progression.

| Division Category | | Event | Time |
|-------------------|---------|----------|--------|
| Swim | | | |
| Men | Youth P | 200 m | 2:20.5 |
| | Youth D | 200 m | 2:30.1 |
| Woman | Youth P | 200 m | 2:29.1 |
| | Youth D | 200 m | 2:39.3 |
| Cycle | | | |
| Men | Youth P | 500 m * | 37.5 |
| | Youth P | 2000 m * | 2:30.0 |
| | Youth D | 500 m * | 39.0 |
| | Youth D | 2000 m * | 2:38.0 |
| Woman | Youth P | 500 m * | 41:00 |
| | Youth P | 2000 m * | 2:47.0 |
| | Youth D | 500 m * | 42.0 |
| | Youth D | 2000 m * | 2:52.0 |
| Run | | | |
| Men | Youth P | 800 m | 2:11.8 |
| | Youth D | 800 m | 2:20.8 |
| Woman | Youth P | 800 m | 2:27.7 |
| | Youth D | 800 m | 2:37.7 |

Table 2: Competition Readiness formula. * = Hand held standing start. P = Potential to Progress to the TA National Development Camp. D = Suitable to participate at the TA National Junior events as a development opportunity.

TNT Academy Camp Program

The primary purpose of the three (per annum) NTIS Triathlon Academy camps is coach education and development. Coaches learn by coaching so the camps provide a perfect platform for coaches to learn about and be mentored on the delivery of high quality holistic athletic development. Holistic development refers to the development of an athlete's physical, technical, tactical, psychological, and cognitive qualities. Below are the camp dates and a colour coded list of the modules of tuition delivered to the athletes throughout the year.

Camp Dates

- Camp 1** *Term 1 School Holidays April* - Intro to physical development and running skills.
This camp incorporates the NT Junior Triathlon Championships. The draft Athlete Workbook with schedule accompanies this document.
- Camp 2** *Term 2 School Holidays June/July* - Cycle Skills Camp
- Camp 3** *Term 3 School Holidays October* - Swim Skills Camp

Tuition Delivered in Camps

All Camps Camp 1 Camp 2 Camp 3

Technical skill

- General Athletic Proficiency
- Run technique and agility
- Swim Technique. Pool and open water.
- Cycle ABC skills.

Specialist Skills

- Speed Development skill in swimming, running and cycling.
- Swim: M 1:08/100m F 1:16/100m
- Run: M 17.7s/100m (5.7 m/s – Max Target 10 m/s)
F 20.0s/100m (5 m/s – Max Target 7.67 m/s)
- Cycling: Cadence E >150 Max >200

Tactical Skills

- Proficiency in bunch swimming, cycling and running.

Physiological Development

- Sport Specific Programming

Sports Psychology

- Sleep and Relaxation.
- Creativity, Cognitive flexibility
- Excellence
- Resilience,
- Team work
- Personal Presentation and Speaking
- Performance Profile
- Time Management

- Education and Career management

Nutrition

- Hydration.
- Basic Nutrition Requirements for general health.
- Energy Expenditure V Energy Intake.
- Training and Racing Nutrition. Planning.

Sports Medicine

- FMS
- Injury Prevention and Management
- Recovery Techniques

Strength and conditioning

- Physical Competency Development

Sports Science

- LAM
- Skills testing and Analysis

Camp Details

Cost of the camp each year is approximately \$300 per athlete.

Registration is via an online registration portal.

Minimum age for attending athletes is 12 years.

Athletes are required to sign and abide by a code of conduct.

Photos from previous camps:

https://www.facebook.com/pages/Triathlon-NorthernTerritory/543265842350389?sk=photos_stream

Other Camp Videos:

<https://www.youtube.com/watch?v=zKW7s8RZD2Q>

<https://www.youtube.com/watch?v=6fJ6Vt2BCpM>

<https://www.youtube.com/watch?v=gdW20Zvklb4>

<https://www.youtube.com/watch?v=N9ZpSlz-76A>

If you have any questions please contact Triathlon NT Development Manager.

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Triathlon Australia

All programs for TNT Academy athletes are monitored by the Academy program coaches and overseen by the TNT Pathway Manager.

Triathlon Australia support the TNT academy program philosophy and their efforts to address the problem of the number of junior athletes that lack the skills to progress along the sporting excellence pathway of Triathlon.

For further information contact Triathlon Australia's National Performance Centre Head Coach, Dan Atkins.

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