

World Triathlon Athlete Development Camp Curriculum

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Introduction

The World Triathlon Athlete Development Model has been specifically designed to provide National Federations (NFs) with current information about athlete selection and development as a framework.

The identification of athletes with the potential to compete at the highest level and to the best of their ability in triathlon allows NFs to use the available resources properly. It also helps in the process of designing the optimal strategy to achieve the best results. The identification process assumes that elite athletes can be selected based on some existing characteristics.

However, the multi-dimensionality of sports performance and the variability of competencies needed to be a top athlete create an environment where the number of variables able to fit an explanatory model of future performance is enormous, and in some cases hard to identify at the point when selections may be being made, leading to the possibility of future high-performing athletes being excluded from the process too early.

The World Triathlon Development Camp provides the necessary information to identify the success factors in the sport of triathlon, and also highlights the essential characteristics needed by athletes aspiring to compete at the highest level of the sport.

It is important to note that it is not the aim of the programme to dismiss any athlete but to help to establish realistic and achievable goals according to each athlete's capabilities and characteristics.

Overview

The programme of the camp is based on the principle of providing extensive background reading, practical tools and resources. All the content is supported by the latest scientific sport's research. All the content available is referenced with scientific articles and papers; in addition, further readings have been recommended in each book so the participants can enlarge their knowledge in each area.

The content of the program is summarised in the following sections:

- Athletes' robustness assessment
- Athletes' physiological profile
- Physical maturity
- Biomotor Abilities

Target Audience

It is strongly advised to have completed the level 2 course in order to join this camp due to the high level of content linked to sports science.

- Coaches

World Triathlon Level 1 and Level 2 Certified Coaches and ACEP accredited coaches, or coaches with academic/sport certification in coaching. World Triathlon will check these cases individually and work with the Continental Confederation and the respective National Federation to define a pathway for these coaches to be integrated with the World Triathlon Coaches Pathway.

- Athletes

Youth and Junior athletes (Age 15-19 years)

Learning Outcomes

As the World Triathlon Athlete Development Model is a detailed and described catalogue of approaches and methods that should be performed, together with the conditions under which these should be performed and also the standard of performance expected, after completing this camp participating NF professionals should be able to set up their own athlete development programs or pathways.

An NF professional who has completed the training is expected to be able to implement, monitor and oversee an athlete development program. NFs must understand and consider all the areas involving the selection of athletes and have the ability to identify those with enough potential to compete at the highest level of the sport, ensuring they will have a positive long-term effect on participant development and engagement within the sport. It is also vital that any selection at any point of the development program is not aimed at the exclusion of those who are not showing the highest potential at that moment. NFs need to make sure to keep athletes within their development programs and work with them according to their potential.

After completing this camp, coaches and athletes should be able to:

Coaches KPI's

- Become familiar with the Youth Physical Development Model (YPD) and the Athletes Development Model.
- Understand the many factors that define (can show as) talent.
- Understand the many various types of talents that can result in an athlete becoming a top performer.
- Understand the holistic, non-linear, non-prescriptive approach of athlete development.
- Have an overview of the group of professionals that can facilitate an athlete development program (parents, coaches, medical personnel, physio-therapists, nutritionists, etc.).

- See the athlete development pathway as a full learning progress with the different stages from entering the sport, through youth and junior development, onto U23 and elite potential with all the characteristics and requirements of the different stages.
- Ability to establish an interpretation of the World Triathlon Athlete Development Model with regards to National Federation status/opportunities/resources.
- Complete a functional movement/robustness screening process.
- Be able to measure the rate of Maturation.
- Create an athletes' physiological profile.
- Master the process of data collection and interpretation.
- Find out athletes' stages of development.
- Better understand their athletes by highlighting their strengths and weaknesses.

Athletes KPI's

- Understand the principles of how you train.
- Develop an understanding of race preparedness, managing expectations and understanding racing.
- Have a basic understanding about physiology and the physiological requirements to compete at elite level.
- Have an awareness and understanding of Programme benchmarking data.
- Understand your strengths and weaknesses and propose strategies to improve your areas of development.
- Review a decision good or bad, learn and move on (plan/do/review).
- Bring your own ideas to coaching discussions.
- Understand the physical robustness assessment and understand its impact on injuries.

Supporting Resources

The content is supported by the [World Triathlon Education & Knowledge Hub](#), which contains all the information (written) required to establish a successful athlete development program. Also, a section called "tools and resources" can be found within the framework. World Triathlon has developed documents, apps (under construction) and spreadsheets from the written content to support the process of athlete development during the practical sessions. With all the content provided, coaches should be able to develop their coaching knowledge and skills and establish a tailored athlete skill-development program.

For more details, please contact World Triathlon Development at development@triathlon.org.

Eligibility

The following criteria must be met in order to register for the camp. NFs must send a coach along with the athletes.

- Athletes

Youth Athletes (15-17 yrs)

Youth athletes who sign up for the camp MUST have competed in at least one national championship. The registration form must be submitted with the race results.

Junior Athletes (18-19 yrs)

The camp requires junior athletes to have participated in at least one international event before registering. It is required to submit the registration form together with the competition results.

- Coaches

Coaches attending the camp are required to fulfil one of the following criteria:

- Coaches have successfully completed and revalidated their World Triathlon Level 1 or Level 2 Certification each year.
- They have been certified from one of the World Triathlon Accreditation Coach Education Programs (ACEP).
- They have a Higher Education Accreditation.

Note: World Triathlon might propose or suggest a coach to join the camp.

Coaches' roles and responsibilities

The following responsibilities and commitments are expected of coaches attending the camp:

- Be open-minded and ready to learn.
- Be ready to work in a team environment.
- Respect everyone's opinions.
- Promote the execution of safe and correct practice.
- Be professional and accept responsibility for your actions.
- Make a commitment to providing a quality service to the participants.
- Contribute to the developments of the sport in your country
- Plan the delivery of the camp sessions so they meet the needs of the group and objectives outlined.
- Recognise and accept when it is appropriate to refer a participant to another coach.
- Practice in an open and transparent fashion that encourages others to contribute to or learn from your knowledge and experience.
- Engage in self-analysis and reflection to identify your personal development needs.
- Seek ongoing development opportunities to refine your coaching skills and update your knowledge.
- Avoid taking on any responsibilities for which you are not prepared or competent.
- Make sure you accurately reflect the degree of training or accreditation you possess.
- Be familiar with [World Triathlon's Safeguarding Policy](#) and handle this as a priority.

Ratio coach/athletes

The coach-to-athletes ratio needs to allow coaches to effectively coach, assist, and develop all the camp participants efficiently and equally.

The following coaching ratios specify a maximum ratio that will guarantee a secure and effective coaching session. However, if the coach feels competent and confident handling a different ratio within the suggestions, certain adjustments can be made.

The recommended ratio coach for a skill development camp is 1:3

Selection process

To be eligible for selection to the World Triathlon Development Camp athletes must:

- Be an active member in good standing with their NF.
- Fill and submit the application eight (8) weeks prior to the camp.
- Meet the "Selection Standards".

Selection Panel

Composition of the Selection Panel:

- Continental Coordinator / Representative
- Camp Facilitator(s) - (Head coach)
- World Triathlon Development Representative

Parental consent

(only the Parents of an Athlete **under sixteen (16) years old** need to fill in the consent). Link to the file:

<https://docs.google.com/document/d/1Q5fcFg08J1V0XX4zUpekMJYZcHgKAbe/edit>

Timeline for enrolment

Application:	eight (8) weeks prior to the camp
Selection:	seven (7) weeks prior to the camp
Selection announcement to NFs:	six (6) weeks prior to the camp

Equipment required

Athletes are required to bring all relevant equipment and clothing for training.

- Swim: Pull buoy, fins, 2 pairs of goggles, swim cap, paddles
- Bike: Bike, helmet (no cracked helmets), bike shoes, pump, spare tubes, tyre levers. Not mandatory but desirable a heart rate monitor and a power meter device.
- Run: 2 pairs of running shoes (one with elastic laces), sunscreen, hat, sunglasses

Coaches are required to bring all relevant equipment and clothing for training.

- Stopwatch
- Notebook (paper) with pen/pencil
- Tablet or laptop computer (preferably)
- Waterproof camera (not mandatory)

Facilities requirements

- 25m swimming pool
- Parking lot or a safe area to practise bike handling skills
- Running track
- Gym
- Smart trainers with power meter

Selection standards

The following times will be used as selection standards to select the athletes for the camp.

	Swim				Run				
	50m		400m		60m	1000m		3000m	
Youth Male	00:32	00:36	04:45	05:30	<00:10	03:10	03:40	≈12:00	
Youth Female	00:34	00:38	04:55	05:40	<00:10	03:40	04:10	≈13:00	
	50m		400m		100m		1000m		5000m
Junior Male	00:26	00:32	04:35	05:00	00:13	00:14	03:00	03:10	≈18:00
Junior Female	00:28	00:34	04:40	05:10	00:14	00:15	03:15	03:35	≈19:00

Pre-camp activities

Readings	Task
Athlete Development Model	
Athletes' robustness assessment	Build your Athlete's robustness assessment tools Run an athlete's robustness assessment
Athletes' profiling	Athlete's profile
Physiological Attributes	Develop a physiological profile
Testing and benchmarking, CSS, Power Profile, Run test	Carry out a Swim, Bike, Run test and set the training zones
Rules, Ranking and Qualification Criteria	
Biomotor Abilities	
Thinking outside the box	

Camp content

	Coach Level	Athletes' category	Duration	Content	Equipment	Coaches' KPIs	Athlete's KPIs
Athlete Development	Level 1 Level 2	Youth Junior	5-7 days	Athletes' robustness assessment Athletes' physiological profile (Swim, Bike, Run) CSS Power Profile MAV test Physical maturity Biomotor Abilities	Stopwatch Video Cameras Measure tape *power meter"	Become familiar with the Youth Physical Development Model (YPD). Understand the many factors that define (can show as) talent. Understand the many various types of talents that can result in an athlete becoming a top performer. Understand the holistic, non-linear, non-prescriptive approach of athlete development. Have an overview of the group of professionals that can facilitate an athlete development program (parents, coaches, medical personnel, physiotherapists, nutritionists, etc.) See the athlete development pathway as a full learning progress with the different stages from entering the sport, through youth and junior development, until U23 and elite potential with all the characteristics and requirements of the different stages. Ability to establish an interpretation of the World Triathlon Athlete Development Model with regards to National Federation status / opportunities / resources. Complete a functional movement/robustness screening process. Be able to measure the rate of Maturation. Create an athletes' physiological profile.	Understand the principles of how you train Have a basic understanding about physiology and the physiological requirements to compete at elite level. Have an awareness and understanding of Programme benchmarking data Understand your strengths and weaknesses and propose strategies to improve your areas of development Review a decision good or bad, learn and move on (plan/do/review) Bring your own ideas to coaching discussions. Understand the physical robustness assessment and understand its impact on injury.

						Master the process of data collection and interpretation Find out athletes' stage of development Better understand their athletes by highlighting their strengths and weaknesses	
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*not mandatory but desirable

Schedule

	Development Camp - Athlete Development Camp						
	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Session 1	Athletes' robustness assessment and PHV* test	CSS test	Power Profile Test*	Running test (MAV or University of Montreal test)	Bike Session Based on the test results, select a type of workout aimed to improve the athlete's weaknesses	Swim Session - Athlete lead: Based on the test results, select a type of workout aimed to improve the athlete's weaknesses	Run Session - Athlete leads Based on the test results, select a type of workout aimed to improve the athlete's weaknesses
Post Session 1	Coaches and athletes analyse the athletes' robustness assessment results, identify the APHV and set an action plan based on these areas that needs to be developed.	Coach/athlete to analyse the results, set the training zones and identify strengths and weaknesses	Coach/athlete to analyse the results, create the power profile, set zones and identify strengths and weaknesses	Coach/athlete to analyse the results, create the running profile, set zones and identify strengths and weaknesses	Athlete/coach session reflection Using the power data, guide the athlete and help them to understand the workout file and explain the "whys" of the session	Athlete/coach session reflection Athlete leads the session reflection, coach only support and provides additional feedback	Athlete/coach session reflection Athlete leads the session reflection, coach only support and provides additional feedback
Session 2	Swim Session (pre test activation)	Bike session (pre test activation)	Run session (pre test activation)	Swim Session: Based on the test results, select a type of workout aimed to improve the athlete's weaknesses	Run Session Based on the test results, select a type of workout aimed to improve the athlete's weaknesses	Bike session - Athlete lead	Camp Wrap-up
Post Session 2	Coaches explain the test procedure to the athletes and the goal of the test	Coaches explain the test procedure to the athletes and the goal of the test	Coaches explain the test procedure to the athletes and the goal of the test	Session reflection. Was the goal achieved? Did the athlete swim at the given paces?	Athlete/coach session reflection Athlete leads the session. Provide feedback and analyse the workout. The coach guides and provides the	Athlete/coach session reflection. Athlete leads the session reflection, coach only support and provides additional feedback	

					necessary feedback and explanations		
Session 3		Developing training sessions. Coaches and athletes design the following training sessions: Aerobic endurance, Anaerobic Threshold, for swim, bike and run	Developing training sessions. Coaches and athletes design the following training sessions: Anaerobic power, anaerobic capacity for swim, bike and run	Webinar: Physiological Profiles		Webinar: Physiological requirements in triathlon	
Session 4 (Athletes)	Task Terminology quiz			Task Analyse your Physiological profile and list all the areas you have to develop further		Task Develop an action plan: Where am I and where do I want to go?	

*If athletes are unable to use a power meter, a bike handling skills test will be substituted.

*PHV test must be performed only with youth athletes