

# **World Triathlon Skill Development Camp Curriculum**

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## Introduction

The multi-dimensionality of sports performance and the variability of competencies needed to be a top athlete creates an environment where the number of variables able to fit an explanatory model of future performance is enormous.

Movement economy is a key parameter of aerobic fitness, and it is determined by various combined physiological and biomechanical characteristics of an athlete.

The World Triathlon Skill Development Camp has been specifically designed to provide participants with current information about motor skill development, biomechanics, and the specific triathlon-related skills needed to compete at the highest level.

The camp's objective is to provide coaches and participants with the information and understanding necessary to design individualised training programs. With a first-class technical approach, participants will be given the tools they need to enhance and perfect more effective movement patterns. It is also expected that athletes and coaches will be better able to construct specialised race plans due to greater race skill knowledge and intelligence quotient as a result of this increased knowledge and comprehension of the sport's requirements.

## 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 research in sport. All the content available is referenced with scientific articles and papers; in addition, further reading has 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:

- Athlete profiling
- Athlete robustness assessment
- Technical profiles (swim, bike, run, T1-T2)
- Video analysis
- Specific drills
- Economy of movement
- Motor skills and skill development
- Fundamental Motor skills for triathlon
- Race analysis

# Target Audience

## 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 one by one 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

The camp has numerous important learning objectives. Coaches and their athletes participate in the camp together in order to achieve simultaneous practice-based development. The camp participants are expected to be able to implement, monitor and oversee an athlete skill development program. Coaches and athletes must understand and consider all areas involving the process of motor skill development and have the ability to identify the athletes' strengths and weaknesses, ensuring they develop a long-term plan aimed at maximising the athletes' economy of movement.

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

## Coaches' KPIs

- Complete a functional movement/robustness screening process
- Create an athletes' technical profile
- Prescribe the exercises aimed to develop an athlete's technique flaws
- Analyse a choice, whether good or bad, learn from it, and make a positive change (plan/do/review).
- Bring their own ideas to coach/facilitator discussions
- Seek to engage their coaching and support team
- Actively go through a process of training and race evaluation and reviewing

## Athletes' KPIs

- Engage with the coaching team
- Request information and be confident making decisions
- To not be afraid to make mistakes and to learn from them
- Have a basic understanding of the learning cycle (plan/do/review)
- Actively go through a process of training and race evaluation and review
- Explain the need for mobility, flexibility and activation drills and have included them within their programme

## 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](mailto:development@triathlon.org).

## Eligibility

The following criteria must be met in order to register for the camp. It is mandatory for NFs to send a coach along with their 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 or link to the relevant webpage.

- **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 or link to the relevant webpage.

### Coaches

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

- Successfully completed and revalidated a World Triathlon Level 1 and Level 2 Certification each year
- Certified from one of the World Triathlon Accreditation Coach Education Program (ACEP)
- Hold a Higher Education Accreditation

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

### Application form:

<https://docs.google.com/document/d/1QHDJjPS6DakNUND9U5OxXPUCUXnQosO/edit#>



## 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.
- Recognize 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 on-going 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-athlete 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 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 coach-to-athlete ratio 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 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).

Parental consent - Online version

<https://docs.google.com/document/d/1Q5fcFg08J1V0XX4zUpekMJlYZcHgKAbe/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
- 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)
- Measure tape

## Facilities requirements

- 25m swimming pool
- Parking lot or a safe area to practise bike handling skills
- Running track
- Gym
- Stadiometer

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



## Camp content

Camp	Coach certification	Athlete category	Duration	Content	Equipment	Coaches' KPIs	Athlete's KPIs
<b>Skill development</b>	Level 1	Youth Junior	5-7 days	Athletes' profiling Athletes' robustness assessment Technical profiles (swim, bike, run, T1-T2) Video analysis Drills Economy of movement Motor skills Skill development Fundamental Motor skills for triathlon Race analysis	Video Cameras Stopwatch Measure tape	Complete a functional movement/robustness screening process Create an athletes' technical profile Prescribe the exercises aimed to fix athlete's flaws Review a decision good or bad, learn and move on (plan/do/review) Bring their own ideas to coaching discussions Seek to engage your coaching and support team Actively go through a process of training and race evaluation and reviewing	Engage with the coaching team Request for information and be confident making decisions Not be afraid to make mistakes and to learn from them Have a basic understanding of the learning cycle (plan/do/review) Actively go through a process of training and race evaluation and reviewing Explain the need for mobility, flexibility and activation drills and have included them within their programme

## Pre-camp activities

<b>Readings</b>	<b>Task</b>
Athletes' robustness assessment	Build your Athlete's robustness assessment tools Run an athlete's robustness assessment
Athletes' profiling	Athlete's profile
Technical Profiles	Build your Swim, Bike, Run, T1-T2 Technique Analysis Sheet
Skill development and motor skills	
Video analysis	Run a Video analysis in one of the disciplines
Thinking outside the box	

## Schedule

	<b>World Triathlon Skill Development Camp - Tentative Schedule</b>						
	<b>Day 1</b>	<b>Day 2</b>	<b>Day 3</b>	<b>Day 4</b>	<b>Day 5</b>	<b>Day 6</b>	<b>Day 7</b>
<b>Session 1</b>	Swim Stroke Video Analysis	Swim session Fixing swim stroke flaws	Gait analysis assessment	Run Session Fixing Running mistakes	Swim session Skill development New approach	Swimming session Athlete leads coach support	Run session Athlete leads coach support
<b>Post Session 1</b>	Coaches and athletes analyse the video, create a technical profile and agree on 2-3 flaws they need to fix.	Post swim session reflection	Coaches and athletes analyse the video, create a technical profile and agree on 2-3 flaws they need to fix.	Post run session reflection		Post swim session reflection	
<b>Session 2</b>	Bike Handling Skills Assessment	Bike session Fixing bike handling skills flaws	T1 - T2 assessment	Transition Session Fixing T1 and T2	Brick session: Different approaches to coaching	Bike session Athlete leads coach support	Camp Wrap up
<b>Post Session 2</b>	Coaches and athletes analyse the video, create a technical profile and agree on 2-3 flaws they need to fix.	Post bike session reflection	Coaches and athletes analyse the video, create a technical profile and agree on 2-3 flaws they need to fix.				
<b>Session 3</b>	Developing training sessions. Coaches and athletes design the upcoming sessions and exercises needed to perform to fix the spotted flaws. Swim - Bike	Workshop: Fundamental Motor skills for triathlon	Developing training sessions. Coaches and athletes design the upcoming sessions and exercises needed to perform to fix the spotted flaws Run - T1 and T2	Athletes' Workshop: Drills Find 2 exercises for each of the disciplines aimed to improve your technique flaws  Coaches' Workshop: Consider a different way of structuring your skill development	Session reflection.  Swapping roles: The athlete leads.  Athlete develop the session with the support of the coach and provide different exercises aimed to improve his/her technique flaws	Swapping roles: The athlete leads.  Athlete develop the session with the support of the coach and provide different exercises aimed to improve his/her technique flaws  Run	

				sessions for swimming and transition.	Swim - Bike		
<b>Session 4 (Athletes)</b>	Reading, video or task  (i.e. Watch race footage and spot some technique mistakes during the swim, bike or run leg as well as T1-T2)	Reading, video or task		Reading, video or task	Reading, video or task	Reading, video or task	