

Physiology of Triathlon Youth and Juniors

Curriculum Document
March 2021

1. Introduction

To provide a new learning opportunity to coaches, World Triathlon Development is pleased to introduce an E-course on the Physiology of Triathlon specifically addressing youth and juniors.

By going into the details of the topic, this course will give coaches the information and tools needed to improve their knowledge in this field and to properly develop youth and junior athletes on the path to become elites. At the end of the online course participants who successfully complete all the modules, tasks and attended the webinars will receive an attendance certificate.

2. Target audience

The target audience of the course are coaches working with youth and juniors actively on a day-to-day basis. As the course discusses a narrow topic, it is aimed at certified coaches with both theoretical knowledge and practical coaching experiences under their belts.

Successful completion requires each participant to dedicate 4-6 hours every week throughout the course for self study, webinar participation and submission of on-line tasks.

3. Overview

Selected participants are required to refresh their knowledge of terminology related to the topic of the course. Their first assignment is to pass a checking of knowledge quiz before getting access to the first webinar which discusses the topic in detail. This is to ensure that each participant is starting from the same understanding of basic concepts and underpinning knowledge and also to check commitment in terms of investing time and effort. The ones who do not pass this quiz are cut off from the course.

During the 6 weeks of the courses coaches are required to self-study prior each weekly webinar, participate in not less than 4 out of 6 webinars and complete post-webinar tasks and assignments. Therefore the course has its own pace in terms of the weekly to-dos, but at the same time coaches are allowed to progress according to their own schedules with limited flexibility in webinar attendance which is very difficult to set up in a way that perfectly fits all.

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

- **Introduction**

This section discusses the basics of sport science from a holistic approach including components of fitness, human systems and physiological attributes, paediatric exercise physiology, and physical maturity.

- **Biomotor abilities**

Following the basics it is time to discuss the biomotor abilities. Young athletes develop at a different rate and it is key for coaches to properly understand the impact biomotor abilities have on athletic performance.

- **Structuring training**

The section discusses some of the key ideas and principles that will be of use to coaches when creating individual training sessions or training programs - again focusing on youth and juniors.

4. How to use the approach and contents of the “Physiology of Triathlon - Youth and Juniors” course?

The course is aiming to be a reminder and reference guideline that coaches can refer to from time to time regarding the specificities of working with youth and junior athletes, who are on their ways to become elites. A healthy and enjoyable path is something that can lead to growing into a world class athlete over time and it's up to the coach to shape this pathway with carefully building up the athlete considering age-specific and individual capacities. Coaches must not forget that this is a gradual process, of which it's easy to lose focus especially when the coach is working with more age groups.

5. Learning Outcomes

This course provides basic and useful practical sports science information that provide coaches working with youth and junior athletes with scientific-based information to successfully develop their sport potential while minimising the risk of injury and overtraining.

Participants will learn the fundamentals of paediatric exercise physiology and applied physiology of youth and junior athletes.

6. Supporting Resources

The content is mainly presented using our e-learning platform, the [World Triathlon Education Hub](#), which contains pre-course tasks and on-course material broken down into weekly portions. Participants are required to prepare on their own studying these. As the course progresses, scheduled but still self paced learning is supported by weekly webinars, where coaches have the option to get a deeper insight into the weekly topics and ask their questions which should arise during their preparations. These webinars are recorded and will be added to the e-learning platform for future reference.

The Education HUB also presents weekly quizzes to participants to check their understanding and expected progress. Proceeding to following chapters is only possible after the successful completion of these.

Coaches attending the course have the option to discuss topics on the forum of the Education HUB. Facilitators keep an eye on this and answer any questions that require guidance or advice. Participants are encouraged to interact here with each other and have the option to revisit this community at any later stage if they successfully complete the course.

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