



## COACHES' LEVEL 4 COURSE (SCCR)

created within the project

**“European system for training of sport climbing coaches and route setters”**

**622818-EPP-1-2020-1-CZ-SPO-SCP**





## DISCLAIMER

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## Key objectives

The purpose of this course is to strengthen coaches' expertise and give them the opportunity to build their career path. Graduates of this program will then be important experts for national federations in their building of a national base of sport climbers and coaches.

### AIMS:

- To offer sport-specific coaching education at highest performance level.
- To offer a state-of-the-art research-based and high-performance programme for active elite coaches.
- To create a platform and a network of coaches and researchers to exchange ideas and best practices.

## Course design

The course is arranged in 4 blocks, starting with a course introduction. Followed by:

- Block 1: Analysis, planning and training
- Block 2: Athlete Health and wellbeing
- Block 3: The competitive athlete
- Block 4: Coach development.

Specific content within the course is designed to be adaptable to the latest advancements in climbing research, hot topics within the international competition scene and latest developments in the applied practice of climbing coaching. In response to Sport Climbing's inclusion in the Olympic Games, the area of climbing research and practice is undergoing rapid development, therefore, it is important to disseminate and showcase new advancements which have direct impacts on coaching and athletic training within the coaching community. Each edition of the course will, therefore, vary slightly in content within the blocks.

The learning outcomes within the blocks are also designed to allow flexibility of interpretation by the expert or lecturer delivering each session. So, whilst the basis of the course is reproducible (i.e. the blocks and general topic areas), variations due to the delivery, will maintain the progression and development of knowledge of the candidates from year to year, and hence the sustainability of the course. One ambition is for candidates from the course to share this knowledge within their National Federations and at this level, the knowledge is by no means static. Therefore, it is intended that National Federations will continually educate their highest level coaches through this system.

A course coordinator(s) of future editions should come from both a sports science & coaching academic/research environment and an elite coaching practice environment in order to put together a cutting-edge multi-disciplinary



programme. This will be done in consultation with the IFSC Coaches' Commission members to ensure relevance within the current elite coaching scene.

Key aspects of the course are to complement existing knowledge and be evidence-based. Candidates will be exposed to scientific articles presenting recent advancements in knowledge. Sessions will be organised in a way to maximise knowledge exchange and discussion of the topics in terms of practical application in their specific personal coaching setting as well as integration at a national level.

Each session has clearly defined learning outcomes and supporting reference material (see appendix 1). Sessions will be delivered both by distance (~2hour video calls) and during two on-site meetings. Details of the schedule are below. At the completion of the course, candidates will be assessed. As this is a pilot course, the assessment will include an evaluation questionnaire and live feedback session where participation in feedback for the development of the course will be the primary measure. A summative assessment of knowledge gained in accordance with the learning outcomes will be via an online test, where a grade of 50% or more will be required to achieve course certification. The combined use of a feedback session and a summative assessment was chosen to provide a measure of the effectiveness of the course delivery in relation to the aims and highlight changes or improvements needed in the development of the course for future use.

## Prerequisites/selection of candidates

Candidates for this pilot course will be nominated by the National Federations of the Erasmus+ project nations. Two positions per Federation, and if two candidates are nominated, at least one should be a female coach. They should have experience coaching athletes at the national and international level and have completed coach education courses at level 1 or Climbing For All or similar from their NF or have equivalent knowledge.



## Timetable 2023

Topic	Lecturer	Delivery	Date & time
Course introduction: Sustainable coaching	Emma Hawke, Göran Kenttä	Online	24/08/23 16:00 – 18:30
<b>BLOCK 1: Analysis, planning &amp; training</b>			
Initial state of the athlete & testing	Jiří Baláš, Michail Michailov	Onsite: Prague	1-3/09/23 09:00 – 17:00
Training and performance science	Jiří Baláš, Michail Michailov	Onsite: Prague	1-3/09/23 09:00 – 17:00
Injury prevention and management	Magdalena Terlecka	Onsite: Krakow	14-15/10/23 09:00-16:30
Movement analysis – perspective: health and injury	Magdalena Terlecka	Onsite: Krakow	14-15/10/23 09:00-16:30
Movement analysis – perspective: motor learning	Udo Neumann	Onsite: Krakow	14-15/10/23 09:00-16:30
Routesetting for coaches	Marcin Wszolek	Onsite: Krakow	14-15/10/23 09:00-16:30
<b>BLOCK 2: Athlete Health and wellbeing</b>			
RED-S	Samo Rauter	Online	07/09/23 17:00 – 19:00
Proactive recovery strategies	Jiří Baláš	Online	14/09/23 17:00 – 19:00
Planning and periodisation	Nicolay Stein, Reino Horak	Online	20/09/23 13:00 – 15:00
Athlete monitoring & athlete wellness	Aukje de Vrijer	Online	03/10/23 09:30-11:30
<b>Block 3: The competitive athlete</b>			
Athlete dual career & retirement	Emma Hawke	Online	05/10/23 10:00 – 12:00
Individualisation of competition tactics	Emma Hawke	Online	19/10/23 10:00 – 12:00
<b>Block 4: Coach Development</b>			
IFSC organisation and sport commissions	Maddie Dunn	Online	12/10/23 10:00 – 11:00
Team management	Jan Bloudek	Online	12/10/23 11:00 – 12:00
Green policy & sport	Miha Raušl	Online	26/10/23
Communication and media	Václav Hanslík	Online	01/11/23
Team leadership	Jan Bloudek	Online	08/11/23 15:00 – 17:00
<b>Assessments</b>			
Course evaluation questionnaire		Online	Available from 23/11/23 – 14/11/23
Live feedback discussion	Silvia Verdolini, Emma Hawke	Online	23/11/23 14:00 – 15:00
Online test		Online	Available from 06/11/23 – 12/11/23



## Lecturers 2023

Those working within the framework of this course, in 2023, are:



**Jiří Baláš, Assoc. Prof., Exercise physiology and climbing performance, Czech Republic**

Jiří is an Associate Professor in exercise physiology with a special interest in diagnostics of limiting factors of performance and recovery. He is lecturing at the Faculty of Physical Education and Sport in Prague within Outdoor Sport Department. He has been involved in performance sport specific testing of Czech national climbing and mountaineering team for 15 years. He is affiliated with Climbro, a private company who provides hangboards with integrated force sensors and mobile application for climbing specific training.



**Emma Hawke, PhD, Exercise physiology and coaching science, Sweden**

Emma is a senior lecturer and researcher at Dalarna University in Sweden. She has a PhD in Exercise Physiology, specialised in muscle adaptations to training. Emma leads an education programme at Dalarna University aimed at educating climbing coaches, as well teaching on a general sport coaching programme. As a national team coach for the Swedish Climbing Federation, Vice Chair on the IFSC Coaches Commission, an ex-international competition climber, and part of a Swedish Olympic Committee project to develop female leaders and coaches, Emma is very passionate about climbing. With the rapid evolution and professionalisation of our sport in the recent period, coaching and the development of highly educated, effective coaches are her main professional focus areas.



**Göran Kenttä, PhD, Sports psychology and sustainable coaching, Sweden**

Göran is a lecturer at The Swedish School of Sport and Health Sciences and head of sport psychology for the Swedish Sport Confederation. He is also an adjunct professor at the School of Human Kinetics at the University of Ottawa. His research, academic role, and applied practice have a strong connection to elite sport, high performance coaching and mental health.



**Michail Michailov, Prof., Training science, Bulgaria**

Michail is a Professor at the National Sports Academy in Bulgaria where he teaches Theory and Methodology of Sports Training. He is interested in scientific support in elite sport and has served at the Directorate of Control and Management of Sports Preparation, Ministry of Physical Education and Sports, Sofia, Bulgaria. Michail is a dedicated researcher of rock climbing performance and physiology. He has published scientific articles on climbing and two books about sport training. Michail assists the Bulgarian sport climbing team with sport-specific work capacity diagnostics and methodological advice. In collaboration with Associated Professor Jiri Balas, Michail developed an advanced device and a methodology for comprehensive performance assessment of finger strength, endurance and local muscle aerobic and anaerobic capacity in climbers.



**Udo Neumann, Climbing technique, Germany**

Udo is an accomplished athlete and coach with a diverse background in sports. He has excelled in track and field, kayaking, and sport climbing, achieving regional and national championships. With extensive coaching experience, Udo has worked with performing arts, circus arts, and kayak white water clubs, earning numerous world and continental titles. He is an author of multiple books, including "Performance Rock Climbing," and has an active YouTube channel focused on climbing improvement. Currently, he conducts workshops, camps, and coaches athletes and coaches worldwide, including for the Olympic Solidarity DNSS IFSC developmental program and Hong Kong climbing federation.



**Miha Raušl, Sustainability and sports, Slovenia**

Miha is an independent consultant in the field of sports marketing and sustainability. He has worked with a number of sports brands and associations, with work ranging from UEFA to the Slovene Olympic Association and the Slovene Alpine Association. Prior to his proficiency in sports marketing and sustainability, he worked in an FMCG multinational, a national media outlet and in the creative industry. With more than 15 years of work with brands and the sports sector, he now combines his experience to help organisations, brands and products transition into a more sustainable work model. He is certified in "Circular Economy and Sustainability Strategy" by Judge Business School, University of Cambridge





**Samo Rauter, PhD, Exercise science and performance, Slovenia**

Samo received his PhD in kinesiology from the Faculty of sport at the University of Ljubljana. He is an assistant professor at the Faculty of Sport and currently also tests elite athletes at the Institute of Sport. His research interests include several sports science aspects, especially endurance sports.



**Nicolay Stein, PhD, Training science, Norway**

Nicolay is an avid rock climber and climbing researcher based at the Western Norway University of Applied Sciences, campus Bergen. His primary research focus so far has been on training interventions for climbing and he holds a PhD in climbing specific training and testing procedures.



**Magdalena Terlecka, Physiotherapy, Poland**

Magdalena has collaborated with Korona Sports Club, Avatar, Cube and Mood- climbing centers as a physiotherapist and S&C Coach. Since 2015, she has been working with youth athletes and participated in coach education.



**Aukje de Vrijer, PhD, Athlete monitoring, Netherlands**

Aukje is a sport scientist with a keen interest in exercise physiology and biomechanics. She completed her Master's degree in human movement sciences at the VU University in Amsterdam and obtained her PhD in exercise physiology at the University of Verona. Specialising in sports performance technology, she has worked at the Olympic Training Centre in The Netherlands supporting the elite athletes of TeamNL. Aukje is a speed skating coach and currently works as a freelance sport science consultant in the Netherlands.



**Marcin Wszolek, Routesetting, Poland**

Marcin has been regularly routesetting for the biggest international competitions Since 2012. He was chief routesetter for many IFSC World Cups in lead and boulder and 4 times chief setter for the IFSC Youth World Championship.



**Václav Hanslík, Communication and Media, Czech Republic**

Václav is the Director of Communications of the leading Czech football club FC Viktoria Plzeň. He focuses on communication, marketing, CSR and working with fans in the role of SLO. He has extensive experience in organising international matches within the UEFA Champions League. During his career, he has also worked in the private sphere in marketing or HR marketing. He graduated in German Studies and Media Studies at the Faculty of Arts and the Faculty of Social Sciences of Masaryk University in Brno and in Journalism at the Faculty of Science of Charles University in Prague.



Reino Horak, coach, Norway

Jan Bloudek, Leadership and management, Czech Republic

Maddie Dunn, IFSC organisation, Italy

## Communication

Course information will be distributed to candidates initially via National Federations, and once selected to the course, communication will be via email and a Whatsapp group. Webinars will be held on teams and recordings shared via the World Climbing Academy platform. Course materials such as lecture pdfs and reading materials will be shared via a link uploaded on the platform. Personal data will be handled in accordance with current legislations (Data Protection Regulations, GDPR).



## Course content

PDFs of lectures are attached in an accompanying folder. Links to webinar recordings are available on the World Climbing Academy platform.

Block	Topic	Content description	Learning outcomes	Notes
<b>BLOCK 1: Analysis, planning &amp; training</b>	Initial state of the athlete & testing	<ol style="list-style-type: none"> <li>General introduction to diagnostics (1 h) <ol style="list-style-type: none"> <li>General testing theory, validity and reliability, standardization</li> <li>Tests of biologicals climbing performance factors (body composition, strength, endurance, flexibility)</li> </ol> </li> <li>Practical workshop on strength and endurance testing (4 h).</li> <li>Interpretation of tests' results, external and internal factors affecting tests' results - discussion (2h)</li> <li>Using near infrared spectroscopy in testing and training: new approaches to determine muscle oxidative capacity and to control exercise intensity – workshop (2h)</li> </ol>	<ul style="list-style-type: none"> <li>To describe biological factors of performance and their indicators.</li> <li>To become familiar with the general theory of testing and performance monitoring and evaluation.</li> <li>To understand the standardization process of physical tests and its importance.</li> <li>To be able to conduct measurements for receiving feedback on the effectiveness of the training through climbing specific tests for performance diagnostics.</li> <li>To correctly interpret test results and take decisions for optimizing training.</li> </ul>	<p>Lectures and practical sessions in testing lab in Prague</p> <p>Plus self-study</p>
	Training and performance science	<ol style="list-style-type: none"> <li>General introduction training principles (1 h) <ol style="list-style-type: none"> <li>structure and limiting factors of climbing performance</li> <li>workload characteristics in climbing</li> </ol> </li> </ol>	<ul style="list-style-type: none"> <li>To be aware of the structure of performance limiting factors in climbing.</li> </ul>	<p>Lectures and practical sessions in testing lab in Prague</p>



		<ul style="list-style-type: none"> <li>c. internal and external methods to control intensity in climbing</li> <li>d. training methods (strength, power, endurance...)</li> </ul> <ol style="list-style-type: none"> <li>2. Training methods in climbing – practical workshop and discussion on the methods for strength and endurance training in climbing and the physiological effects of various combinations of load intensity and duration (4h)</li> <li>3. Optimal directing of the training load – possibilities for assigning the training load parameters according to the training goal, climbing specificity and individual characteristics of the climber (4 h)</li> </ol>	<ul style="list-style-type: none"> <li>• To understand the specificity of the workload and physiological responses during climbing.</li> <li>• To be able to assign intensity and duration for improving different motor abilities and physiological functions.</li> <li>• To describe possibilities for controlling training intensity using objective and subjective methods.</li> <li>• To be able to describe various training means and methods and their effect.</li> <li>• To understand the role of genetic predispositions for performance.</li> </ul>	Plus self-study
	<p>Injury prevention and management</p> <p>Movement analysis – perspective: health and injury</p>	<ol style="list-style-type: none"> <li>1. General introduction to overuse injuries in climbing (1 hr):               <ol style="list-style-type: none"> <li>a) definitions and types of injuries and the common climbing-specific causes.</li> <li>b) differences between trauma and overuse and highlight the basic mechanisms of tissue adaptation and degeneration.</li> <li>c) recognising intrinsic and extrinsic factors of overuse injuries</li> </ol> </li> <li>2. Approaches to training (1.5 hr):               <ol style="list-style-type: none"> <li>a) Role of training errors, selection of training tools and biomechanical factors.</li> <li>b) Training plan design and inclusion of regeneration strategies and units</li> </ol> </li> </ol>	<ul style="list-style-type: none"> <li>• To discuss the causes of overuse injuries.</li> <li>• To understand healing time and “return to sport” time frame expectations.</li> <li>• To understand the role of periodisation and general physical preparedness in injury prevention.</li> <li>• To be able to recognise red flags in repeated movements</li> <li>• To understand the role of pain in training</li> <li>• To be aware of how to conduct a basic range of motion screen</li> </ul>	



		3. Health and injury perspective on movement analysis – how to recognise appropriate movements, optimising kinetic chain via general fitness and movement competencies, understand the role that pain plays in movement and training, basic screening in relation to injury including validated questionnaires for early recognition of problems (2 hr).	<ul style="list-style-type: none"> <li>To understand basic stability and strength assessment in the context of injury</li> </ul>	
	Movement analysis – perspective: motor learning	<ol style="list-style-type: none"> <li>1. Introduction to motor control and feedforward and feedback mechanisms in relation to climbing skill acquisition (2 hr).</li> <li>2. Sensorimotor integration, coordination and timing and their importance in complex movements in climbing (1 hr)</li> <li>3. Motor learning theories and their relation to climbing (1 hr).</li> <li>4. Factors which influence motor learning in the context of climbing – individual differences, feedback and knowledge of results, practice variability and distribution (2 hr)</li> <li>5. Transfer of learning, motor imagery and mental practice (2 hr)</li> </ol>	<ul style="list-style-type: none"> <li>To be aware of the principles of motor control and motor learning in climbing.</li> <li>To discuss principles of movement coordination, temporal and spatial aspects of movement and factors which influence movement timing in climbing examples.</li> <li>To be able to describe and discuss examples of activities to maximise skill acquisition and motor learning in climbing.</li> </ul>	Emphasis on group discussion and exploring concept integration in climbing during a practical session
	Route-setting for coaches	<ol style="list-style-type: none"> <li>1. Introduction to the IFSC Routesetting guidelines from a practical context (45 min).</li> <li>2. Characteristics of walls and chief routesetters in preparation for a specific competition (30 min)</li> <li>3. Group discussion of (2,5 hr): <ol style="list-style-type: none"> <li>a) new trends in bouldering competitions</li> </ol> </li> </ol>	<ul style="list-style-type: none"> <li>To discuss how the implementation of IFSC routesetting guidelines contributes to fair and challenging competitions.</li> </ul>	



		<ul style="list-style-type: none"> <li>b) differences in styles of routes by comparing two different routesetters</li> <li>c) examples of the distribution of styles and difficulties in a boulder round.</li> </ul>	<ul style="list-style-type: none"> <li>To discuss practical approaches that coaches can take to maximise specificity of training according to guidelines and trends in routesetting.</li> </ul>	
<b>BLOCK 2:</b> <b>Athlete Health and wellbeing</b>	Relative energy Deficiency in Sport (RED-S)	<ol style="list-style-type: none"> <li>Energy metabolism &amp; low energy availability</li> <li>Monitoring in sport               <ol style="list-style-type: none"> <li>Methods for assessing low energy availability</li> <li>Performance-related parameters</li> </ol> </li> <li>The performance effect of low energy availability</li> <li>Problem-solving of LEA in different sports disciplines – climbing (2h plus self study)</li> </ol>	<ul style="list-style-type: none"> <li>To describe relative energy deficiency in sport.</li> <li>To describe methods of monitoring of energy availability.</li> <li>To formulate possible problem-solving of LEA in different sports disciplines – climbing</li> </ul>	
	Proactive recovery strategies	<ol style="list-style-type: none"> <li>Overview of evidence-based recovery studies in climbers (self-study)               <ol style="list-style-type: none"> <li>Muscle cooling, compression, active recovery, kinesio-taping</li> </ol> </li> <li>Online workshop – practical use of different recovery strategies in macro- and mesocycles (2h)</li> </ol>	<ul style="list-style-type: none"> <li>To describe physiological principles of muscle cooling, tissue compression and active recovery</li> <li>To apply different recovery strategies in climbing training and in competitions</li> <li>To formulate possible adverse effects of muscle cooling, compression, and active recovery on subsequent performance or on chronic muscle adaptation</li> </ul>	



	Planning and periodisation	<ol style="list-style-type: none"> <li>1. A brief overview of the concept of periodisation <ol style="list-style-type: none"> <li>a. Why periodise</li> <li>b. Different types of periodisation</li> </ol> </li> <li>2. Potential approaches to climbing periodisation</li> <li>3. How different approaches may favour specific adaptations (2 hr plus self-study)</li> </ol>	<ul style="list-style-type: none"> <li>• Describe general elements of periodisation and different approaches</li> <li>• Be aware of challenges with periodisation in climbing</li> <li>• Describe how to adapt periodisation plans to different goals and athletes</li> </ul>	
	Athlete monitoring & athlete wellness	<ol style="list-style-type: none"> <li>1. General introduction to athlete monitoring (self-study 2h)</li> <li>2. Online seminar and discussion on daily monitoring and implementation in climbing practice (1-2h)</li> </ol>	<ul style="list-style-type: none"> <li>• To understand the importance for monitoring athletes to improve athlete performance and wellbeing.</li> <li>• To describe the different performance factors that can be monitored.</li> <li>• To explain the difference between internal and external load.</li> <li>• To be able to interpret monitoring data and identify early signs of overtraining/injuries</li> <li>• To be familiar with the different available methods for monitoring.</li> <li>• To know how to implement daily monitoring into training practice.</li> </ul>	





Block 3: The competitive athlete	Athlete dual career & retirement	<ol style="list-style-type: none"> <li>1. Introduction to the concept and current status of dual career. <ol style="list-style-type: none"> <li>a. Preparation of a case study example for discussion during workshop (self-study 6h) Guidelines will be provided.</li> </ol> </li> <li>2. Group discussion and workshop aimed at: <ol style="list-style-type: none"> <li>a. discussing the issues around the dual career environment in elite climbing</li> <li>b. reflecting on practical ways the coach can make an impact on their own local or national dual career environment (2 h).</li> </ol> </li> </ol>	<ul style="list-style-type: none"> <li>• To discuss the importance of the development and facilitation of dual career opportunities for athletes.</li> <li>• To discuss barriers and limitations to a dual career environment in the current elite climbing setting.</li> <li>• To reflect on and discuss how coaches can facilitate and support the development of a dual career environment at a national, club or personal level.</li> </ul>	Focus on group discussion and reflections on development of own coaching practice
	Individualisation of competition tactics	<p>This session will be conducted as a group discussion forum aimed at sharing current practice and developing ideas within this largely undocumented but crucial topic area. Inspiration will be taken from what we know about developing tactical knowledge in other sports. Prior to the live online session, coaches should read the supporting material, reflect on the topics in relation to how they impact competition tactics and come to the session prepared to share and discuss. (Preparation 6h, group discussion 2h).</p> <p>Topics for discussion will include:</p> <ol style="list-style-type: none"> <li>a. Tactical knowledge</li> <li>b. Decision making &amp; visual perception.</li> <li>c. Pacing, work/rest patterns.</li> <li>d. Tactical periodisation of training.</li> </ol>	<ul style="list-style-type: none"> <li>• To discuss the tactical aspects of competition climbing.</li> <li>• To discuss how tactical competition strategies are linked to athlete's physical characteristics, technical and psychological skills.</li> <li>• To reflect on and discuss methods for optimising tactical competition skills.</li> </ul>	Focus on group discussion and reflections on development of own coaching practice



<h2>Block 4: Coach Development</h2>	<p>Sustainable coaching</p>	<p>High performance coaching is a demanding profession, and with the addition of sport climbing in the Olympics, federations and coaches are facing a new level of professional expectation on their performance. This opening session for the course will focus on the wellbeing of the coaches, outlining the importance of creating an environment which fosters sustainability of coach wellbeing. The challenges and potential applications for practice will be discussed, setting the scene for the remainder of the course. Prior to the session, coaches should read the supporting material and reflect on the questions below. (Preparation 4h, group discussion 2h).</p> <p><i>Use the accompanying material to inspire your self-reflection on the following questions:</i></p> <ol style="list-style-type: none"> <li>1. What is your personal, or close colleagues, experience of stress and burnout in the coaching environment?</li> <li>2. What factors do you feel contribute to coaching-related stress? (For example, workplace organisation and conditions, job security and salary issues, work-life balance, stereotypical culture within climbing, performance pressure and expectations, high seasonal workload, inter-personal relationships, accessible continued education....).</li> </ol>	<ul style="list-style-type: none"> <li>• To discuss the importance of creating an environment which fosters sustainable coach performance and wellbeing.</li> <li>• To reflect on and discuss the barriers, challenges, and opportunities for a sustainable coaching environment from the perspective of coach wellbeing.</li> </ul>	<p>Opening session the course</p>
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		<ol style="list-style-type: none"> <li>Conversely, what factors are in place that help with managing and coping with coaching-related stress?</li> <li>What challenges and barriers do you face when managing self-care in your coaching environment?</li> <li>How can we create a more sustainable environment on a personal, local, national, and international level?</li> </ol>		
	IFSC organisation and sport commissions	<p>This session is designed as an information session for coaches to highlight the role of the IFSC and the ways in which IFSC, National Federations and coaches can work collaboratively.</p> <ol style="list-style-type: none"> <li>Brief history of the IFSC</li> <li>What is an International Federation – role and responsibilities</li> <li>Structure of IFSC</li> <li>Objectives of IFSC <ol style="list-style-type: none"> <li>Events and competitions</li> </ol> </li> <li>Olympic/Paraolympic sport perspectives</li> <li>Agenda 2020+5</li> </ol>	<ul style="list-style-type: none"> <li>To understand the IFSC's structure, functions, and impacts in the realm of global sport climbing governance.</li> </ul>	



	Management, leadership and teamwork	<ol style="list-style-type: none"> <li>1) Management and leadership <ol style="list-style-type: none"> <li>a) Changes over time: understanding of events, the speed of change, the visibility of the future</li> <li>b) Function and role as instruments of coordination</li> <li>c) Leadership styles, situational leadership</li> <li>d) Stages of personal development</li> </ol> </li> <li>2) Individual skills needed for management <ol style="list-style-type: none"> <li>a) Goal setting</li> <li>b) Delegation</li> </ol> </li> <li>3) Team leadership <ol style="list-style-type: none"> <li>a) Team process and principles</li> <li>b) Conflicts and negotiation</li> <li>c) Team leadership and team development stages</li> </ol> </li> </ol>	<ul style="list-style-type: none"> <li>• To understand the changing role of the manager in the period of frequent changes that lead to the need for deeper cooperation of individual specialists.</li> <li>• To clarify the process of how to develop and lead people from the position of a manager.</li> <li>• Reflect on the main management skills for working with individuals.</li> <li>• To be aware of the basic principles of teamwork and the necessary skills and contexts for leading teams</li> </ul>	
	Green policy & sport	<p>A look into the future: sports, sustainability and climate change</p> <ol style="list-style-type: none"> <li>1) <i>The wide overview</i> <ol style="list-style-type: none"> <li>a) The world in terms of climate change</li> <li>b) What are the key problems we need to address</li> <li>c) How sports are/will be affected</li> <li>d) How climbing is/will be affected</li> <li>e) Carbon: the lowest (and meanest) common denominator</li> <li>f) Tackling a big problem with small steps</li> </ol> </li> <li>2) <i>Sports may hold the key</i> <ol style="list-style-type: none"> <li>a) The role and responsibility of sports in the climate action arena</li> </ol> </li> </ol>	<ul style="list-style-type: none"> <li>• To understand what an objective assessment of the climate emergency is on a wider scale</li> <li>• To discuss the role of sports and climbing in particular</li> <li>• To understand the importance of carbon dioxide in the global climate crisis</li> <li>• To discuss leveraging the power of sports for public awareness and athlete (or organisation) image</li> <li>• To assess one's personal carbon imprint</li> </ul>	



		<ul style="list-style-type: none"> <li>b) The big 4: sourcing &amp; waste, mobility, events and workforce (what is their toll on the environment?)</li> <li>c) A champion for the environment (athlete's personal advocacy for climate action)</li> <li>d) Calculating your own CO2 imprint (using a calculator for getting a better view on your personal environmental toll).</li> </ul>	<ul style="list-style-type: none"> <li>• To address ways of lowering ones personal carbon imprint</li> <li>• To be aware of how industry benchmarks in sports organizations play a role in climate action</li> </ul>	
	Communication and media	<ul style="list-style-type: none"> <li>1) Media today and in the past</li> <li>2) Trends in sports and communication</li> <li>3) Building a communication plan for a sport team</li> <li>4) What and where is the key</li> <li>5) Communication rules in sport</li> <li>6) Crisis communication</li> </ul>	<ul style="list-style-type: none"> <li>• To understand the role of communication and media in the context of sports and sports perception</li> <li>• To be aware of how to use different communication channels in sport, including traditional media, social media, press conferences and direct communication</li> <li>• To understand the importance of clear and effective communication from different perspectives, such as athlete public persona, press management, crisis communication.</li> </ul>	



## Course evaluation

The course evaluation was performed in two stages. Firstly, with the candidates and organisers of the course. The purpose of the evaluation was to gather feedback from the candidates to assess the effectiveness of the course and to identify areas for improvement and development for future editions. An online questionnaire was used to gather anonymous feedback, as well as a videocall discussion.

The second stage of the evaluation was conducted at the IFSC Sport Commissions meeting in Torino in December 5, 2023. The course outcomes were presented followed by discussions within the Coaches' Commission in relation to selection criteria, additional topics, network opportunities and sustainability.

In general, candidates felt the course was very good and met their expectations. All candidates acknowledged that participating in the course stimulated their curiosity in areas they had not been exposed to before and inspired them to get deeper into topics they found particularly interesting.

They appreciated the short and intense structure of the course, as it fits well within the competition season.

The open discussion sessions and networking opportunities were greatly appreciated and considered as the most insightful and useful parts of the course.

Thoughts on selection criteria to attend the course included ensuring candidates were national level coaches working with 'athletes'. This pilot group was small (8, of which 6 passed the assessment) and increasing the number to around 20 would allow better discussions and exchanges between coaches. It was also suggested that the course be available to coach educators within National Federations.

The assessment process was also discussed. The feedback session was used as part of the assessment to involve the candidates in the development of the course. The summative assessment gave valuable insight into the effectiveness of the sessions for developing their ability to assimilate research to best practice. It was clear that an appropriate knowledge and experience level needs to be part of the selection criteria. The majority of candidates encouraged the concept of adopting a project, case study or reflection-style assessment.



Areas for improvement include:

- Scheduling of sessions well in advance to aid organisation of work commitments
- Communication directly with candidates rather than through National Federations once selected for the course
- Language proficiency of the lecturers
- Content/delivery of some sessions needs reviewing – availability of international experts was restricted somewhat due to requirements of the Erasmus+ project and how resources were able to be allocated.

Areas for development:

- LMS to allow uploading of documents linked to sessions.
- More opportunities for online interaction and discussion
- Maximise opportunities for practical sessions.
- Increased input from high-level coaches to share experience and challenges they face in modern coaching through forum discussions.
- Topics to include: advanced sport nutrition, talent ID and management, advanced anatomy and applied physiology, design of sessions to work on common movement problems, competition manipulation, anti-doping updates, Safe sport update, mental preparation and competition psychology.
- Development of assessment to feasibly evaluate assimilation of knowledge into practice and create added value for National Federations.



## Future directions

The collaboration between the Erasmus+SCCR project and the IFSC has seen the development and launch of the World Climbing Academy virtual hub for IFSC educational activities. It is a great example of optimisation of resources and aligning an EU project with the visions and strategic plan of an international sporting organisation to ensure sustainability into the future.

From the IFSC website:

Michael Cary, Deputy Managing Director of [World Academy of Sports](#), said:

**“IT IS VERY RARE TO HEAR OF SUCH AN EFFECTIVE COLLABORATION; BEING ABLE TO ALIGN PROJECTS FOR THE BENEFIT OF BOTH PARTIES IS NOT COMMON. IT IS A CREDIT TO SPORT CLIMBING TO HAVE SUCH STRONG COLLABORATION.”**

### What is the purpose of future coach education courses?

One of the key development goals of the IFSC is to deliver high quality and sustainable education programmes for coaches and national federations. Therefore, the purpose of future courses based off this pilot (and the SCCR education model) is to globally raise the level of coaches in sport climbing.

Groundwork is now in place and running for coaching clinics for national federations without any coach development programmes. The SCCR project has provided the basis for the development of higher level courses, including the frameworks for the development of a Youth Athlete Coach course and a Climbing for All coach course, which can be aligned to, and complement the varying systems that many national federations already have.

### What level and structure are appropriate?

As described previously, many National Federations have coach education programmes. However, higher level courses, level 4 (and in some countries, level 3) are not climbing specific. Most National Federations require elite level coaches to attain Level 4, however they are almost exclusively delivered by the NOC and are for generalised sport. Therefore, this course caters for the high-end climbing specific knowledge, even for developed nations, and facilitates a network for sharing latest evidence-





based coaching advancements. Recognition as a Level 4 certification by individual NOC's could be a future consideration.

Course sustainability is also linked to the flexibility in the content, as discussed previously. A dynamic and continually updated and topical content provides incentives for individual coaches and importantly, National Federations to nominate coaches and coach educators for the course.

The IFSC will appoint a project manager who will oversee content planning (in consultation with the Coaches' Commission), scheduling, recruitment of experts, guest coaches and lecturers, content quality moderation, ensure adequate language competence of lecturers, assessment design and implementation.

### Delivery and assessment considerations

IFSC aims to deliver the course annually, in the main off-season of the international competition calendar (Sept – March). To align with the universality and membership goals of the 2020-2028 Strategic Plan, it is planned to make the course available to nominations from all member federations. A large portion of the course is run by distance, but the practical components give the candidates valuable networking and hands-on learning opportunities. In consideration of cost and environmental impacts, the on-site meeting will be offered either in conjunction with a competition on the international calendar (that coaches will likely be attending) or as continental editions (e.g. Asia 2025, Americas 2026, Australasia 2027 etc). Course budgets are currently being planned within the Development funding allocation and will be submitted in late January 2024.

In consideration of the course feedback, all general and theoretical knowledge will be delivered as pre-recorded lectures. All live sessions will be focussed discussions or seminar/workshops aimed at interactive engagement and knowledge exchange within the specific topic and it's application in coaching practice.

The aims of the course are to develop individual coach knowledge through the ability to critically assimilate state-of-the-art research into practice, as well as facilitating networking and knowledge exchange. This includes dissemination of knowledge back to the National Federations. Therefore, the assessment should create added value for the National Federations. The course assessment will be developed into two parts, with clear criteria to facilitate a feasible and sustainable evaluation approach. Part one will involve a project in collaboration with the National Federation, which can be done individually or as a group/pair. Assessment will be conducted according to clear criteria via peer-review and in conjunction with the National Federation. Part two will involve a self-reflection journal in relation to each block, focussing on current practice and strategies for implementing changes or developments in the candidates own coaching practice.



### Selection requirements for candidates

To ensure the candidates and National Federations will benefit from the course, candidates will be selected according to these criteria:

- Must be nominated or endorsed by NF to participate.
- Must have a minimum of one year of coaching an elite athlete, be currently coaching an elite athlete, and be attending or have the intention of attending international competitions.
- Completion of national level coach qualification equivalent to Climbing For All or Climbing for All, and NOC Level 3 or equivalent coaches course or demonstrate appropriate leadership and pedagogical skills and theoretical knowledge.
- Provide a motivation letter and CV.
- Must have certificates in First Aid & CPR, ADEL WADA Coach True, Safeguarding Athlete welfare, attendance at international competitions.

### Requirements for educators

Educators and experts will be selected according to these criteria:

- Extensive knowledge and skills in the particular field through experience, research (education) and/or profession.
- Competence to facilitate discussions linking the implications of research findings/theoretical knowledge to real-world coaching practice.
- English language competency minimum of CEFR B2 or equivalent demonstrated proficiency.



## Additional outputs

- Creation of a platform for coaches to share knowledge on recurrent topics and questions related to the IFSC/Continental competition series (Included in the 2024 IFSC development budget)
- Coach network within the World Climbing Academy – all course participants will retain access to the network. (Included in the 2024 IFSC development budget)
- Submission to include an 'Applied Coaching' session within the International Rock Climbing Research Association (IRCRA) congress 2025. Aimed at coaches rather than researchers to address the gap between research and practice and create networking opportunities.
- Collaborative pre-season training camp, Teneriffe, April 2024 (Slovakian team initiative for national team athletes and coaches from the SCCR pilot).