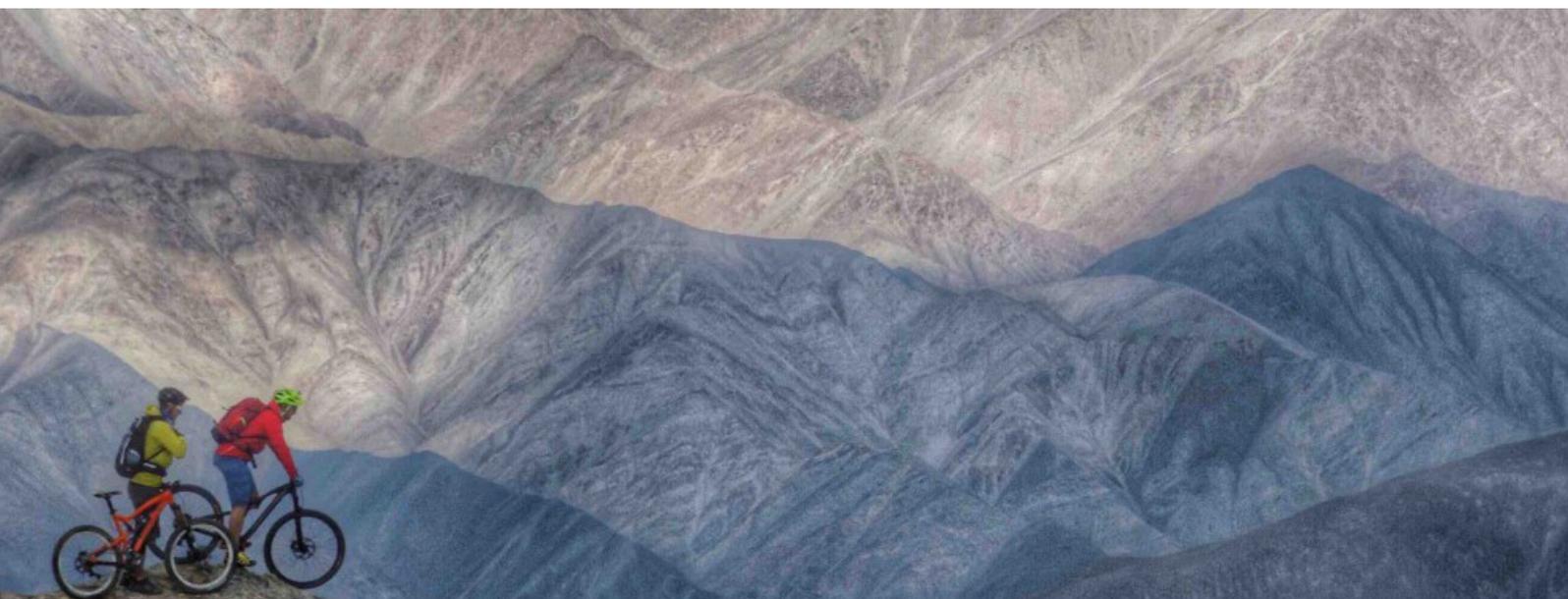


CAPS MTB



Creating a European Professional Standard for Mountain Bike Instructor-Guides



D3.2a - CAPSMTB detailed training content



Co-funded by the
Erasmus+ Programme
of the European Union

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Qualification:

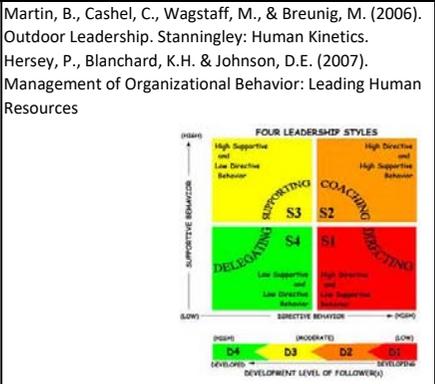
SKILL (Subject)	Teaching hours: EO MTBInG standard	DETAILS (if needed)	Obligatory Content within subject	Recommended content within subject	Resources (more detailed resources found in the specific drobox folder)	Students should be able to (during training and/or evaluation):
1) Safety management and Risk assessment						
	28	First Aid and Rescue Management		Basic Life Support - (practice with full face helmets) Emergency Management Emergency Numbers/Summoning emergency services Role of the MTB Guide in emergency situation Organising the Accident site Awareness of own behaviour Organisation workflow First Aid Principles Mountain Rescue protocol - coordinates, apps etc	Isaac, J. (2013). Outward Bound Wilderness First Aid handbook. Rowman & Littlefield. Guilford, Connecticut. REC approved first aid courses.	Use the techniques to effectively deal with an emergency in a remote mountainous environment
	2	Basic weather		BEFORE: Knowledge of where to obtain and interpret weather forecasts. How the weather forecast influences, planning, decision making and safety aspects for the mountain bike guide. DURING: Interpreting weather during a ride- cloud types indicating storms etc. Specific factors indicating weather change - barometric pressure. Dangers associated with different weather types	Petit manuel de météo en montagne - Jean-Jacques Thillet Auteur - 2009 - Editions Glénat	Pre-ride: explain where to obtain weather informatin for an area: forecast AND history Interpret an isobaric weather map for the area, explaining its implications for the days weather Integrate this information into a 3x3 risk management plan, explaining how the weather (past and future) might affect other factors During ride: identify different cloud types and weather conditions (wind strength, direction, 0 degree isotherm), especially those that might indicate a deterioration in weather: cumulonimbus, altocumulus nimbostratus, cirrus, cirrostratus, altostratus Explain how a barometric altimeter can help in anticipating changes in the weather
	2	Bike + equipment check		Bike: Check bike for most common dangers. Wheels/axles tight and no play, brakes work, gears work, headset tight, suspension working. (M-check) Understanding of why this is important and should be carried out. Personal: medicinal background; state of mind. Equipment check - appropriate helmet/pads, essential spares, essential food/water, essential clothing, tools. Why this is important. Guide's pack: contents		Demonstrate a bike check and any repairs/adjustments resulting from it Collect relevant pre-ride information from riders Carry an appropriate pack (including contents) for guiding, depending on environment and clients. Relate these choices to a 3x3 risk assessment.

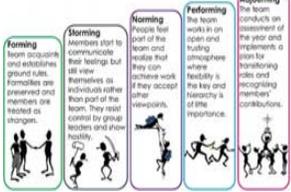
	18	Safety management/risk assessment and mountain safety		<p>Relationship between trail difficulty (technical and physical) and riding skills/fitness.</p> <p>How best to estimate the guests skills relevant to the terrain</p> <p>Know your group - riding (technical + physical), medical history, food requirements (vegan etc), professional skills (re. emergency)</p> <p>Adapting the route as you go to suit time available and guests' physical and mental conditions</p> <p>The most important safety relevant technique tips - list</p> <p>Importance of reconnaissance</p> <p>Recognising mistakes</p> <p>Dealing with mistakes - protocol</p> <p>Safety measures which can be taken at the start of a trail</p> <p>Riding with the "Guests Eyes"</p> <p>Trail riding with judgement</p> <p>Difficult/dangerous segments</p> <p>Steps&Drops</p> <p>Adaptations of 3x3 (Werner Munter) and Graphical Reduction (avalanche safety) have been adapted to provide useful decision making tools for guides working in alpine terrain with guests. These form an important part and function as an umbrella to cover other topics in the area.</p>	Erpelding, M.A. & Harrison, G. (2012). <i>Outdoor Program Administration, practices and principles</i> . Human Kinetics. Leeds.	Develop and discuss 3x3 risk assessment for a ride/tour, including discussion of how risk factors have been reduced.
2) Mechanics	8	Basic Mechanic Skills (Trailside Repair)		<p>Puncture Repair, Repair Tube/Replace Tube</p> <p>Replace Brake Pads</p> <p>Repair Broken Chain</p> <p>Buckled Wheel</p> <p>Broken Shifter Cable</p> <p>Simple repairs on the trail which could be expected on any tour.</p> <p>What to carry - list</p> <p>Tips and skills from pros</p>		Effectively use these techniques on the trail.
	12	Bike Setup/workshop maintenance		<p>Suspension Setup</p> <p>Strip bike to frame and re-assemble</p> <p>Bleed hydraulic brakes</p> <p>Cockpit Setup</p> <p>Seat Height Adjustment</p> <p>Gear Indexing</p> <p>e-bike specifics</p> <p>knowledge of component compatibility, standards etc</p>		Demonstrate these techniques in the workshop and discuss them, particularly with reference to rider safety and skills progression.
3) Orientation and navigation						

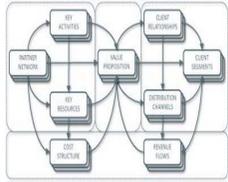
	15	map technique (not rely on GPS)		<p>Introduction to map types and scales. The map key/legend - meanings Methods to relocate oneself on map - using map and compass Knowledge of symbols, scale, contour lines, woodland, clearings, waterways, etc... reading from map Basic Compass theory Route planning from map Estimate Steepness/Distance/Ride time from map Judge trail segment based on map Road/Trail classification... Main road, secondary road, hiking path etc. Different map types across Europe (+ coordinate systems) Altimeters</p>		<p>Discuss and demonstrate the information that can be collected from a map before a tour - estimate ride time, steepness, distance. Integrate this information into a risk assessment.</p>
	15	Use of GPS/new technology		<p>How GPS works Terminology - routes, tracks, waypoints etc Limitations Localisation based on GPS Advantages/Disadvantages of using routes Software for mapping routes Resources (apps, websites) for finding routes GPS as a Reconnaissance Tool Practical GPS use</p>		<p>Discuss and demonstrate the use of gps enabled devices before, during and after rides.</p>
	20	Orienteering practice on the terrain		<p>Relocalisation based on map + compass Knowledge of symbols, scale, contour lines, woodland, clearings, waterways, etc... reading from map Basic Compass usage Route visualisation from map Estimate Steepness Memorise passages - make notes, identify turn points, stop points etc. Judge trail segment based on map (exercise to determine if possible) Estimate distance and ascent while underway Road/Trail classification... Main road, secondary road, hiking path etc. Exercise to show understanding of basic map techniques Finding orienteering markers OFF the marked trail Practical GPS use - follow a route</p>		<p>Demonstrate a relocation, using map and compass, to an accuracy of 100m. Ideally this is integrated into an emergency scenario. Navigate an 'orienteering' type course, finding specific waypoints within a time limit. Follow a section of (unknown) trail using only notes prepared from a map (ie without the map itself).</p>

4) Tour / Route planning and logistics - PLANNING	20	Theory - research on destination		<p>Plan - Preparation - Guide</p> <p>Client knowledge - what info to collect: EO-MTBInG standard client information form</p> <p>Planning Tools - Map (1:25000), Photos, Tourist Panorama Maps, Google Earth, Tourist Information, Forums...</p> <p>Up-to-date info e.g. floods, storms (fallen trees) etc</p> <p>Distance/Ascent/Time (Naismith's rule?)</p> <p>Knowledge of area - geology, fauna, temperature</p> <p>Technical Difficulty</p> <p>Reco - Does it match up to the time/difficulty plan?</p> <p>Make Changes</p> <p>Risk Assessment form</p> <p>Understanding how to behave on the tour</p> <p>Escape plans</p> <p>Easier/shorter options</p> <p>Emergency access plans</p> <p>road access</p> <p>drinking water</p> <p>mobile phone coverage</p> <p>hospitals/health centres</p> <p>bike shops</p> <p>discover and integrate specific clients needs (realms of experience, arousal and flow principles, psychological needs (SDT).</p>	<p>Head, A. & Laar, M. (2013). Mountainbiken. Alpin Lehrplan 7. Deutscher Alpen Verein. BLV</p> <p>check dropbox document: Some good references for Theories and Models relating to MTB Instructor-Guiding</p>	<p>Demonstrate the skills to plan a tour, including a risk assessment.</p>
PREPERATION	20	in the field - plan, recon, guide		<p>Importance of reconnaissance ride</p> <p>Plan route from map as group - Do Reco ride as group (map skills, blind guiding exercise)</p> <p>collect information for risk assessment: (list)</p> <p>Try options</p> <p>Examine escape points</p> <p>Late back procedure</p>		<p>Perform a reconnaissance tour and integrate information collected into the above tour plan and risk assessment.</p>
5) Tour / route leading techniques (theory + practice) - GUIDE THE TOUR	20			<p>Guiding Techniques - Front, Back, In the Middle, Freestyle, Signpost Method... Other ideas Discuss pros and cons</p> <p>Communication techniques: guide-to-guide, guide-to-client</p> <p>Radios v's phones</p> <p>Coping with guests of different skills levels/fitnesses/desires</p> <p>Briefings - evening briefing, pre-ride briefing, trail-head briefing</p> <p>Warm Up</p> <p>Difficulty relative to group members</p> <p>In-situ skills coaching</p> <p>Route choice for group</p> <p>Return to base</p> <p>Adjust tour to specific clients needs (realms of experience, arousal and flow principles, psychological needs (SDT).</p>	<p>Head, A. & Laar, M. (2013). Mountainbiken. Alpin Lehrplan 7. Deutscher Alpen Verein. BLV</p> <p>check dropbox document: Some good references for Theories and Models relating to MTB Instructor-Guiding</p>	<p>Guide a tour, either with other students or, preferably, with 'live' clients.</p>
6) Advanced teaching knowledge (theory and practice)						

	14	Learning Styles : visual, oral kinematic		understanding learning styles and producing teaching styles to enhance learning identifying learning styles, development of activities that suit different styles, connecting teaching styles to learning preferences	Three different ways of explaining learning styles : https://bit.ly/2pztQ0M http://bit.ly/2T32a6u http://bit.ly/2Ewvy8p Retrieved from the world Wide Web on Decembre 27th 2016	Demonstrate ability to integrate different learning preferences into skills sessions
	14	Pedagogical Styles : variety of styles		practise using full spectrum of teaching styles: from command style to self learning and the full range in between... exercice - plan teaching same skill with 2 different styles	Mosston. M. (2016). Spectrum of Teaching Styles. Retrieved from the world Wide Web on Decembre 27th 2016. http://www.spectrumofteachingstyles.org/index.php	Demonstrate ability to integrate different teaching styles into skills sessions - delivering sessions in reproductive and productive styles. Demonstrate an understanding of Mosston's spectrum of styles.
	20	Different client profiles : age, ability, handicap		- psycho-pedagogy of child development - the different publics and their characteristics: early childhood, childhood, adolescence, adults, seniors - the various forms of handicap (mental, motor, sensory, visual, auditory, cognitive)	Manuel de l'éducateur sportif - Thill, Thomas, Caja - 1999 - Editions VIGOT Biologie du Sport - Weineck - 1998 - Editions VIGOT	Plan teaching sessions for clients of different ages and abilities. Relate differences in teaching plans to learning styles and risk assessment.
	15	Basic biomechanics Knowledge		- human anatomy - mobility in space (axes, planes, movements ...) - the principles of mechanics (forces, energies ...) - the representation in segments (kinogram) - ie. draw a schematic diagram of a body performing a technique and show where forces are acting to perform the technique. - the functioning of the bicycle (using the gears, the geometry of a bicycle) - biomechanics applied to cycling (eg static equilibrium, dynamic equilibrium, in particular in corners ...)		Demonstrate an understanding of the principles of biomechanics demonstrate a theoretical understanding of how the following skills are performed: safely getting off (and on) the bike in steep terrain riding steep (≥ 45 degrees) slopes high speed cornering (from flat corners through to berms), slow speed switch back cornering, braking, pumping the bike for momentum, basic jumping (table top 2-3m in length), off-camber traverses, drop offs ≥ 1m, step-ups ≥ 50cm, manuals (min 2 bike lengths), pedal wheel lifts (min 2 bike lengths), bunny hop ≥ 30cm, lateral bunny hop, using rear wheel lift to turn ≥ 45 degrees.
	15	Analysis of technical movement in MTB techniques		understanding principles of acceleration, slowing down, aplying and unloading pressure and changing direction. Connecting this to elements of timing, amplitude, direction and dynamic of movement.	Head, A. & Laar, M. (2013). Mountainbiken. Alpin Lehrplan 7. Deutscher Alpen Verein. BLV Piloter son VTT - Bertrand RABATEL - 2012 - Editions GLÉNAT	Effectively teach the following techniques: safely getting off (and on) the bike in steep terrain riding steep (≥ 45 degrees) slopes high speed cornering (from flat corners through to berms), slow speed switch back cornering, braking, pumping the bike for momentum, basic jumping (table top 2-3m in length), off-camber traverses, drop offs ≥ 1m, step-ups ≥ 50cm, manuals (min 2 bike lengths), pedal wheel lifts (min 2 bike lengths), bunny hop ≥ 30cm, lateral bunny hop, using rear wheel lift to turn ≥ 45 degrees.

7) Interpersonal Leadership Skills						
	5	Communication Skills		<p>Learn the basics of successful Communication Awareness of Body language and verbal communication Develop clear communication techniques Getting attention position group how to stand where to look how to talk - slow, loud, clear different scenarios - skills, traffic, river crossing etc skills - be nice safety - be firm and clear Can be practised with a presentation (film it) to a group</p>		Demonstrate effective communication during a skills teaching session
	5	Motivation of clients	<p>Realms of Experience Optimal Arousal Flow/Peak Experience Self Determination Theory basic ingredients to enhance clients experience; stimulation vs performance; challenge vs ability; Intrinsic & Extrinsic motivation; Basic psychological needs of people in learning processes: Autonomy, Competence and Relatedness</p>	 <p>Source: Pine and Gilmore (1999, p. 30) http://www.slideshare.net/mickstravellin/the-experience-economy-experience-realms Deci, E., & Ryan, R. (2002). Handbook of self-determination research. Rochester. University of Rochester Press</p>		Demonstrate and discuss understanding of these principles and apply them to planning and leadership of a tour/skills teaching program.
	5	conflict management	<p>Recognise conflicts and learn tools for conflict management Understand own strengths and weaknesses and how to use them to your advantage Importance of effective communication Introduction, Understanding the situation, clarification of the needs of both sides, search for a solution, make a decision Effect of leadership styles Tuckmans stages of group development Application of conflict management - between clients, with other users (walkers, hunters, farmers)</p>			Demonstrate and discuss understanding of these principles and apply them to planning and leadership of a tour/skills teaching program.
	5	Leadership roles	<p>Situational leadership techniques - understand and usage Leadership styles: Telling, Selling, Participating, Delegating; Group Maturity: incompetence or unwillingness; inability but willing; able, but unconscience of ability; able and willing Understand the decision making process Development of decision making tools - 1+ Self Awareness Awareness of Others Selective Awareness - Problems Adair's Action Centered Leadership model (Team, Task, Individual)</p>	<p>Martin, B., Cashel, C., Wagstaff, M., & Breunig, M. (2006). Outdoor Leadership. Stanningley: Human Kinetics. Hersey, P., Blanchard, K.H. & Johnson, D.E. (2007). Management of Organizational Behavior: Leading Human Resources</p>		Demonstrate and discuss understanding of these principles and apply them to planning and leadership of a tour/skills teaching program.

	10	Group dynamics & Social physiology		Learn the phases of a group (Tuckman): forming, storming, norming, performing, adjourning; and relationship with leaderships roles Influencing the formation of a group Roles of the Participants Role of the guide		Demonstrate and discuss understanding of these principles and apply them to planning and leadership of a tour/skills teaching program.
8) Wellbeing + Physiology	5	basic sports physiology		(choose your own reference textbook) Why it's important for MTB How to avoid problems What to do if there is a problem		Demonstrate and discuss understanding of these principles and apply them to planning and leadership of a tour/skills teaching program.
	5	Nutrition/hydration knowledge for MTB		(Choose your own reference textbook) Why it's important for MTB How to avoid problems What to do if there is a problem		Demonstrate and discuss understanding of these principles and apply them to planning and leadership of a tour/skills teaching program.
9) Knowledge about Environment and Culture						
	4	Sustainability /environmental impact		local issues /considerations eg soil type, fragile ecosystems, many trail users, rain, protected areas, Other land uses and users - hunting, bird watching	IMBA Europe Mountain Bikers Foundation www.mbf-france.fr	Incorporate these considerations into the planning or a tour
	1	bike culture		Brief history of MTB and riding styles		
10) Legal Issues	7					
		liability		Varies in each country BUT EO-MTBInG standards of working conduct (in development), safety procedures etc WHAT SHOULD A GUIDE DO DAY-TO-DAY This will rely on standardising: skills, trail difficulty and terms (speed etc) Your national rules concerning: Civil and Statutory Laws Liability Insurance Criminal Vs Private charges Criminal Law, Negligence, Gross Negligence, Duty of Care Contract Law Terms & Conditions, Legal Disclaimers and their Legal Value		
		trail access		Trail access in your country (where can bikes go) Summary of trail access across Europe		Demonstrate an understanding of national trail access laws and where to go to obtain international information
		traffic laws		Traffic Laws (crossing roads, riding in groups on the road, left or right side of road)		Demonstrate an understanding of national trail access laws and where to go to obtain international information
		group size/mtb specific regulations		MTB specific regulations in your country (guide:client ratio etc) Summary of MTB specific regulations across Europe		Demonstrate an understanding of national regulations affecting MTB instruction/guiding and where to go to obtain international information
		working with kids		is there mandatory training in your country? (called Child Protection Training in Britain)		
	4	european legislation		Combine information from all member countries to form a European resource		

11) Business skills	15	product development/planning		Develop a business canvas with own business model/idea Product Creation - cost of production - definition of the selling price - concept of profitability Budget - creation of a provisional budget - estimated investment cost	Shooter, W., Sibthorp, J., & Paisley, K. (2009). Outdoor Leadership skills: A Program Perspective, Journal of Experiential Education, 32-1. 	Demonstrate these skills, usually by planning and delivering a live commercial tour/skills training program with clients
	10	marketing		Market analysis and observation How to market your business Social media Industry relations PR	Osterwalder A. & Pigneur, Y. (2010). Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. John Wiley & Sons Inc. Hoboken. 	Demonstrate these skills, usually by planning and delivering a live commercial tour/skills training program with clients
	10	accounting		How to run your own business: doing accounts Creating invoices taking payments - online, card machine, cash, paypal, cheques Paying tax legal structure (ltd company etc) cash flow loans	Erpelding, M.A. & Harrison, G. (2012). Outdoor Program Administration, practices and principles. Human Kinetics. Leeds.	Demonstrate these skills, usually by planning and delivering a live commercial tour/skills training program with clients
Riding Performance (can be integrated into other workshops)	12	technical skills		Actual riding level defined in the final European exam (low speed, high speed skills) These skills can be practised throughout the training courses (eg reciprocal coaching between students) "Basics of piloting at low speed on varied terrain (position, look, trajectory, pedal-braked, on-road, trajectory, choice of the gear ...) crossing of the different terrains (roots, mud, sand, pierrier ...) the different climbing techniques braking crossings (without speed / low speed / with speed) use the terrain to gain safety and speed (pumping, taking support, winding, etc.) jumps"	Piloteur son VTT - Bertrand RABATEL - 2012 - Editions GLÉNAT Lopes, B. & McCormack, L. (2011). Mastering Mountainbike Skill. Human Kinetics. Leeds.	safely getting off (and on) the bike in steep terrain riding steep (≥ 45 degrees) slopes high speed cornering (from flat corners through to berms), slow speed switch back cornering, braking, pumping the bike for momentum, basic jumping (table top 2-3m in length), off-camber traverses, drop offs ≥ 1m, step-ups ≥ 50cm, manuals (min 2 bike lengths), pedal wheel lifts (min 2 bike lengths), bunny hop ≥ 30cm, lateral bunny hop, using rear wheel lift to turn ≥ 45 degrees.
	0	endurance		Specified in final European exam. Candidates are expected to regularly ride >1000m vertical metres/day over the course of their training.		

TOTAL TEACHING HOURS	361				
TOTAL INTERNSHIP HOURS	200				
TOTAL EO-MTBIg HOURS					