

Mountain Bike 1



Photo: Kaiteriteri MTB Park

Scope and Syllabus

With the support of:



NZOIA™ Mountain Bike 1

Scope

Mountain Bike 1 Profile

The NZOIA Mountain Bike 1 is able to:

- Demonstrate mountain biking on *MTBNZ Grade 4 (Advanced) trails
- Carry out on-trail bike maintenance and repairs
- Role model and promote accepted environmental practices
- Lead and manage groups mountain biking
- Apply effective safety management
- Teach mountain bike skills sessions
- Engage clients in positive learning experiences

Scope

The holder of this qualification can organise, instruct and guide clients in the mountain bike skills required for a positive experience on trails up to and including MTBNZ Grade 3.

The NZOIA Mountain Bike 1 can teach intermediate mountain bike skills on MTBNZ Grade 3 or below terrain.

*The [MTBNZ Grading System](#) can be found on the Department of Conservation website

Prerequisites

Be a current Registered Member of NZOIA

Be 20 years old or over

Hold a current First Aid Certificate

Have the following experience as evidence in a log book:

Total experience – at least 100 hours of riding on a variety of tracks and mountain bike areas including;

Personal experience – at least 60 hours mountain bike experience on MTBNZ Grade 3 and 4 trails including at least 20 rides on Grade 4 trails

Instructional experience – at least 40 hours leading a group on MTBNZ Grade 3 of which at least 20 of these hours are skills instructing or coaching sessions

The prerequisite experience requirements are minimums, extra days are recommended so that a broad range of experience is gained. Experience will include co-instructor/guiding or working as an assistant instructor/guide.

Registration and Revalidation

Registration and revalidation with NZOIA provide proof of currency for NZOIA qualification holders.

Progressing to NZOIA Mountain Bike 2

As the NZOIA Mountain Bike 1 gains more experience, they can progress to gaining the NZOIA Mountain Bike 2 qualification. The steps they can follow include:

- Gaining the experience outlined in the NZOIA Mountain Bike 2 prerequisites
- Attending an NZOIA Mountain Bike 2 training course
- Working with an NZOIA Mountain Bike 2 holder

Syllabus

Assessment Notes

The syllabus outlines what the content of the assessment will include and gives an idea of what assessment tasks the candidate will be asked to complete. All judgements on how the candidate meets the syllabus must be based on current good practice and industry standards.

Assessors use three types of direct evidence to judge a candidate's competency:

- Written questions assignment
- Questioning and discussion
- Observation of practical tasks

Technical Competence

1. Describe the development of mountain biking and discuss contemporary issues

The candidate will understand and show awareness of:

- 1.1** The development of mountain biking (MTB) as a sport and current developments and trends
- 1.2** The MTB Code
- 1.3** Mountain bike track grading systems
- 1.4** Ethics and current issues in the MTB environment
- 1.5** Legislation relevant to MTB instruction and guiding

2. Demonstrate knowledge, care and appropriate use of mountain bikes, equipment and clothing

The candidate will:

- 2.1 Have knowledge about the range and types of mountain bikes commonly used in New Zealand including, but not limited to; frame design, wheel size, suspension, pedals, bar width, stem length, advantages and/or limitations
- 2.2 Be able to provide advice about what to look for when purchasing a mountain bike appropriate for the intended riding type/style
- 2.3 Have knowledge about mountain bike equipment commonly used in New Zealand including; the types, characteristics, advantages, limitations, cost, care, maintenance and storage of a range of mountain bike equipment e.g. helmets, gloves, footwear, pumps, tyres, suspension forks
- 2.4 Have knowledge about tools/repairs kit carried while mountain biking
- 2.5 Role model the use of equipment that is in good condition and well maintained
- 2.6 Carry and wear clothing and footwear that is appropriate for the terrain, season and weather, and demonstrate an understanding of the principles of layering
- 2.7 Be able to impart knowledge about appropriate clothing and equipment to clients

3. Demonstrate mountain bike care, maintenance and on-trail repairs

The candidate will demonstrate and/or discuss how to do the following repairs or bike maintenance:

- 3.1 Suspension setup and adjustment
- 3.2 Adjustment of disc brakes including; brake barrel adjustment and replacement of brake pads
- 3.3 Adjustment of gears/gear indexing and replacing a broken shifter cable
- 3.4 Repair a broken chain
- 3.5 Repair a puncture and replace an inner tube
- 3.6 Knowledge of appropriate tyre pressures
- 3.7 Spoke repair and basic wheel truing
- 3.8 Adjusting a headset
- 3.9 Improvised emergency repairs and adjustments as required e.g. straightening a bent disc rotor or wheel, jury rigging a broken derailleur

4. Demonstrate personal mountain bike skills on MTBNZ Grade 3 and 4 trails

The candidate will demonstrate controlled and safe mountain biking on MTBNZ Grade 4 trails, including managing a group of peers.

The candidate will demonstrate the following role model mountain bike skills (i.e. making good visual images suitable for clients to learn from) on MTBNZ Grade 3 trails (some skills may also be required to be demonstrated on flat or easy terrain as part of the assessment of a candidates personal riding skill):

- 4.1 Climbing and descending on technical terrain including; body position and balance
- 4.2 Cornering including counter steering and rotation
- 4.3 Switchbacks; slow, tight turns
- 4.4 Trail scanning
- 4.5 Maintaining a chosen line on technical (rooty/rocky/uneven) terrain
- 4.6 Braking without skidding on loose terrain
- 4.7 Efficient cadence and effective use of gears

- 4.8 Rolling small jumps and drops e.g. trail features including but not limited to table top jumps and drop offs
- 4.9 Standing front and rear wheel lifts
- 4.10 Seated front wheel lift using pedal stroke (basic wheelie)

5. Demonstrate navigation skills

The candidate will demonstrate:

- 5.1 Knowledge and use of maps and mapping apps commonly used for mountain biking in New Zealand
- 5.2 Estimating distance and time, and describing the route for a given section of a ride
- 5.3 Determining present position on a map using natural features only

The Environment

6. Apply weather interpretation and forecasting skills

The candidate will:

- 6.1 Analyse synoptic weather maps and make a general forecast about future weather; wind direction and speed, temperature and precipitation
- 6.2 Evaluate the potential impact of the forecast on the planned activity

7. Role model and promote accepted environmental practices, and demonstrate knowledge of a given mountain bike area

The candidate will:

- 7.1 Demonstrate and/or describe the responsibilities to land owners and other users, including access protocols
- 7.2 Role model principles of kaitiakitanga, including awareness of and respect for, the tikanga and kawa of local iwi and hapu
- 7.3 Demonstrate knowledge about clubs, organisations and trail building in the area
- 7.4 Provide education on natural history, flora and fauna as appropriate
- 7.5 Role model and promote the Mountain Bikers Code
- 7.6 Role model and promote the principles of Leave No Trace

Group Management and Leadership

8. Plan and prepare for a mountain bike day trip

The candidate will prepare a written plan for a mountain bike day trip (of approximately 4-5 hours duration) which outlines:

- 8.1 The aims, objectives and purpose of the ride
- 8.2 A logical sequence of teaching progressions

- 8.3** Consideration of clients e.g. age, fitness, culture
- 8.4** Route information including; maps, estimated distances and times, emergency and alternative routes
- 8.5** Risk and hazard identification and management
- 8.6** Any consent or access issues
- 8.7** How to get weather information
- 8.8** Clothing and equipment list for both individuals and the group including any tools, repair kit or emergency equipment to be carried
- 8.9** A list of suggested foods for clients to help them bring balanced, nutritious food that will meet their energy requirements
- 8.10** Intentions information, communications and emergency contacts

9. Lead and manage a group on a mountain bike ride

The candidate will demonstrate the following, with a group on MTBNZ Grade 3 trails:

- 9.1** Selecting an appropriate ride for the group
- 9.2** Pre-ride bike set up, checks and adjustments
- 9.3** Pre-ride equipment checks
- 9.4** Preparing and briefing the group including setting ground rules, roles and responsibilities, disclosure of any relevant medical conditions, what to do if the instructor/guide becomes incapacitated
- 9.5** Managing time appropriately in relation to the activity/ride plan and conditions
- 9.6** Effective management of a group including pacing, monitoring and managing clients riding behaviour, speed control, riding communication system, keeping the group together and a system for accounting for everyone
- 9.7** Managing and monitoring clients' physical and emotional wellbeing including their nutritional and hydration needs
- 9.8** Assessing rider ability and adapting ride as required
- 9.9** Establishing rapport and using a leadership style appropriate to the group
- 9.10** Organise and motivate group/individuals on a mountain bike ride

10. Apply effective safety management

The candidate will:

- 10.1** Be familiar with the use of and can describe the advantages and limitations of different methods of communication in a mountain bike environment e.g. VHF/ UHF radio, cell phone, satellite phone, GPS tracker, PLB
- 10.2** The ability to access and apply weather information as appropriate for a planned session or trip and observing any changes in clouds, temperature and wind direction to anticipate weather conditions
- 10.3** Have a first aid kit and be able to deal with first aid situations as required
- 10.4** Carry an appropriate form of navigation/location awareness during a given mountain bike ride
- 10.5** Carry tools, repair kit and emergency equipment appropriate for a given mountain bike ride

- 10.6** Demonstrate awareness of the risks and appropriate risk management strategies during a given mountain bike ride and the ability to adjust plans when required
- 10.7** Describe procedures used in the event of an accident or injury in the group, group member separated from the group
- 10.8** Understand the Outdoor Safety Code
- 10.9** Describe procedures/group management techniques for riding a short section of road with clients
- 10.10** Take reasonably practicable steps to eliminate or minimise the effect of significant risks for self and others
- 10.11** Demonstrate safe practices and good judgement and decision making

Instruction

11. Prepare and deliver teaching sessions on terrain up to MTBNZ Grade 3

The candidate will:

- 11.1** Develop aims based on knowledge of clients
- 11.2** Plan a logical sequence of teaching progressions
- 11.3** Select and prepare a suitable location for client's success
- 11.4** Use clear demonstrations and explanations
- 11.5** Use a range of teaching skills and methods
- 11.6** Provide opportunities for clients to practice
- 11.7** Deliver feedback that is timely and specific
- 11.8** Maintain a positive learning environment
- 11.9** Demonstrate the ability to teach a range of mountain bike skills which may include but is not limited to; climbing and descending, cornering, trail scanning, braking, efficient cadence and effective use of gears, riding position and balance, drops, basic pumping, confidence and judgement.
- 11.10** Using a variety of activities to achieve learning e.g. games, drills

12. Teach trail riding skills

The candidate will teach trail riding skills on MTBNZ Grade 3 trails, including:

- 12.1** Selecting a suitable training site/ride
- 12.2** Preparing and delivering a safe, well managed and positive learning experience
- 12.3** Identifying how to use trail features
- 12.4** Identifying and avoiding hazards
- 12.5** Trail riding strategies, including choosing safe and efficient lines