



Board/Authority Authorized Course Framework Template

School District/Independent School Authority Name:	School District/Independent School Authority Number (e.g. SD43, Authority #432): SD8
Developed by: Jake Middleditch	Date Developed: 2017 May
School Name: L.V. Rogers	Principal's Name: Tamara Malloff
Superintendent Approval Date (for School Districts only):	Superintendent Signature (for School Districts only):
Board/Authority Approval Date:	Board/Authority Chair Signature:
Course Name: Sustainable Cycling Development (Mountain Biking)	Grade Level of Course: 10
Number of Course Credits: 4	Number of Hours of Instruction: 120

Board/Authority Prerequisite(s): None

Special Training, Facilities or Equipment Required:

Training: PMBIA (Professional Mountain Bike Instructors Association) OFA level 3 or equivalent Wilderness First Aid certification.

Facilities: Bicycle mechanics shop, Classroom, Outdoor access

Equipment: Full Suspension Mountain Bike in good repair, full face helmet, body armor (knee and arms), padded back pack with listed equipment, recommended neck brace.

Course Synopsis: In the past few years, there has been an organized Provincial interest in growing the job potential of Mountain Biking and this has resulted in Provincial competitions, races, and Championships offered throughout B.C. This course develops: recreational, competitive, and potential career opportunities in the field of mountain biking. Recently, there have been several post-secondary programs structured directly around Mountain Biking tourism and sustainable practices as a career. Contained within course programming are: skill development, wilderness first aid, grant application writing and implementation, bike mechanics, sustainable trail design/construction and maintenance, physical

conditioning, and leadership/guiding skills. This program will serve as an introduction to the huge variety of career opportunities within the field of adventure tourism. This course would cover all elements and facets of learning about, and participating in, the sport and career of mountain biking.

Goals and Rationale: Nelson is a world renowned destination for adventure tourism. Among the many areas of recreational and adventure based activities and tourism are: mountain biking, climbing, camping and backpacking, skiing, fishing, and a plethora of other opportunities. Nelson and area currently offers in excess of 180 mountain biking and multi-use trails and trail networks. The annual ridership and use of Nelson's trails exceeds that of the skier usage at the world renowned Whitewater Ski Hill. As such, the dollars generated by sustainable environmental tourism in the area directly connected to cycling can be seen as one of the premier industries in our community. The cycling opportunities in the Nelson area are of such high caliber and quality that we are proud to be a part of the development of two time World Champion Kurt Sorge, in addition to many Professional level riders that are seen to be at the pinnacle of development of the sport of cycling. The Nelson area is home to many Eco-based tourism operations. The cycling tours and facilities provide meaningful employment and increased access to the area. Due to the extremely high numbers of users within local trail networks development and maintenance of environmentally sustainable trail networks is key to the continued enjoyment of high quality opportunities found within the Nelson area. The proper design of trail networks and constant mitigation of proper construction techniques, erosion management, repair, and general maintenance are directly connected to the sustainability of the recreational access and usage of local trail networks. Grant application and project implementation are essential to the sustainability of resource access and management. Local organizations including, but not limited to, Columbia Basin Trust, Fortis, Nelson Cycling Club and local businesses, have expressed significant interest in sustainable development of our local area's resources. For example, CBT has slated 4.5 million dollars for the development of youth programming. As such, grant writing, application, and implementation drives and sustains development opportunities.

Skill development is integral to rider participation and enjoyment. As ability increases, so does opportunity. Potential careers, competition, increased access, confidence, and lifelong enjoyment of sport and physical activity are all directly connected to the development of skills and competencies. Physical conditioning is of great importance to the lifelong enjoyment of sport. Balance, strength, and flexibility all serve to improve enjoyment and ability.

There are a myriad of employment opportunities offered with the fields of cycling, tourism, mechanical proficiency and sustainable development of resource management. Local businesses and community organizations have expressed great interest in working together with this program, both in terms of support and potential employment opportunities. Furthermore, many post-secondary institutions are now offering Adventure Base Tourism courses specific to the cycling industry. This course seeks to provide students with a broad skill set that furthers access, enjoyment, sustainability, employment, and future educational opportunity directly connected to the field of mountain biking and eco-tourism.

Aboriginal Worldviews and Perspectives:

Declaration of First People's Principles of Learning:

- Mountain Biking and guiding supports the development of self in support of connecting with others through shared experiences.
- Learning is embedded in memory, history and shared story.

- Leading and coaching groups involves learning from mentors and those in the leadership role.
- Leadership can be shared and is unique to each person, situation, and experience.

Declaration of Aboriginal Worldviews and Perspectives:

- Recognizing the importance of visitors experience, and views and incorporating that knowledge into our own world views and skill sets.
- Recognizing the importance and connectedness of natural systems and how we may interact in a sustainable fashion.
- Group explorations are deeply connected to building relationships both with those involved and community.
- Community involvement/engagement
- Experiential Learning
- Local focus
- Learner centered

BIG IDEAS

<p>Community and Planning</p> <p>Collaboration with user groups and needs provides quality development of sustainable resources</p>	<p>Safety and First Aid</p> <p>Understanding safe practices and risk management is greatly complimented by First Aid training</p>	<p>Mountain Biking Skills</p> <p>Foundational skill development increases ability and enjoyment of sport, fitness and opportunity</p>	<p>Leadership</p> <p>Development of leadership skills is ongoing</p>	<p>Mechanics and Repair</p> <p>Increasing mechanical knowledge and ability promotes a deeper understanding and accessibility</p>
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Learning Standards

Curricular Competencies	Content
<p><i>Students are expected to do the following:</i></p> <p>Unit 1 Community and Planning : Students will work in partnerships researching possible trail creation and development opportunities. Grant proposals, and funding requests designed to create and maintain trail-riding opportunities within the Nelson area. Grants will be created by student partnerships and submitted to the appropriate organizations. Proposals will be evaluated on: detail contained within the proposal and the attention to the multiple needs and user groups that enjoy the trail networks. The Nelson Cycling Club has offered a partnership that will join the efforts of the students within the program with the needs and agreements of the community.</p>	<p><i>Students are expected to know the following:</i></p> <p>Curriculum Organizer: Grant writing, proposals, maintenance plans: <i>It is expected that students will:</i></p> <ul style="list-style-type: none"> • Identify possible areas of development/maintenance/repair in collaboration with Nelson Cycling club development plan • Explore the area in question and hang flagging outlining the proposed trail/repair/maintenance project <p>Curriculum Organizer –Identify key elements requiring funding.</p> <p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> • Identify the individual elements and budgets needed for the specific proposal and grant request • Cost the material and supply list needed to complete the proposed improvements

Unit 2: Safety Protocols and Training

Standard First Aid and remote evacuation Training

Students will receive basic first aid training specific to wilderness environments. This will be directed toward shock management, injury treatment and extraction to further care. Assessment will be connected to successful completion of the First aid unit. This unit will run before any riding takes place to ensure all members have adequate skills to assist in the event of injury. Students will receive Standard First Aid certificate upon completion of this unit.

Unit 3: Riding Skill development:

This course seeks to increase both skills and confidence pertaining to riding mountain bikes. Contained within the skill set of mountain biking are: Body position, balance, cornering, proper braking techniques, pedaling efficiency and a multitude of additional skills and knowledge. The instructor will provide weekly seminars on riding skills and these will be supplemented by seminars and clinics provided by local Pro riders. Skills will be evaluated and revisited, with the intention of consistently increasing ability, confidence, and mastery of specific skill sets.

Curriculum Organizer – Create and write the Grant Proposal/Request

It is expected that students will:

- Create/write a detailed Grant Proposal/Request
- Outline the multiple user groups that will benefit from the proposed improvements
- Outline and itemize costs of implementation and scheduled maintenance/repair needed to ensure sustainable enjoyment and use of proposed improvements

Curriculum Organizer – Safety

It is expected that students will:

- Demonstrate knowledge of Standard First Aid protocols and wilderness first-aid evacuation
- Construct a personal first-aid kit
- Identify the value of items in their personal first-aid kit
- Demonstrate an awareness of outdoor safety situations

Curriculum organizer-Skill development

It is expected that students will:

- Develop proper body position over a variety of terrain
- Understand balance and be able to shift balance points to increase traction and stability
- Understand fundamentals and advanced cornering techniques
- Increase pedaling efficiency and power
- Assess and mitigate risk through a collection of skills to increase ability and enjoyment of riding

Unit 4: Environmental Sustainability/Trail Building and maintenance:

Students will participate in the process of creating and maintaining trails in the local riding areas. Students will be taught the methods of proper sustainable trail construction. This includes: construction techniques, drainage, compaction, corner construction, and bridge building. Students will be a part of the development and maintenance program of the Nelson Cycling Club. Every year Nelson has more visitors for cycling than Whitewater has skier visits. Therefore, the tremendous value of proper trail development and maintenance is easily seen from both the perspective of recreational users and by the community in terms of revenue generation of tourist dollars. Students will be evaluated on all aspects of the building and maintenance projects: quality of build, maintenance plans, future development possibilities.

Unit 5: Physical Conditioning

Students will participate in strength, balance and flexibility training with the intention of maximizing performance and mitigating and reducing possible injuries. Evaluation and assessment will measure improvements in performance and charting of student goals throughout the term.

Unit 6: Mechanics

Students will have weekly bike repair seminars. Repairs include: replacement of parts, general maintenance, and proper setups.

Understand and apply the laws of riding both on and off-road

Curriculum Organizer: Development

It is expected that students will:

- Identify areas suitable for development and maintenance
- Understand sustainable trail development
- Manage and minimize erosion and environmental impact
- Manage drainage

Curriculum Organizer: Trail construction techniques

- Understand soil compaction and the significance of using appropriate construction techniques for the area of development
- Design and build quality and lasting features including but not limited to: bench cut, berms, and bridges

Curriculum Organizer: Strength, balance and flexibility

It is expected that students will:

- Develop a basic understanding of human anatomy
- Understand and participate in exercises that build, strength, balance, and flexibility pertaining to the sport of mountain biking
- Build conditioning to enhance performance and reduce/rehabilitate injury

Curriculum Organizer: Basic Bicycle Mechanics/repair

It is expected that students will:

- Identify tire and tubes that need repairing

Additional to the weekly repair seminars, local mechanics have offered to volunteer their time to teach specific modules pertaining to the specific components that require frequent maintenance. Students will be assessed on their mechanical proficiencies and trouble-shooting abilities.

Unit 7: Leadership Skills

Students will be required to plan and lead a group ride. The group ride will include: route selection, route finding, risk assessment, expectations of conduct, and possible first aid interventions. Students will be assessed on the completeness of their plan, leadership skills, and successful completion of student led ride.

- Determine the cause(s) of the flat of damage
- Repair tubes/ tires using the proper tools
- Describe the steps required to true a wheel and the equipment/tools required
- Name the components of the different types of brake systems
- Identify a bike with an unsafe braking system
- Describe the proper steps of the brake adjustment process
- Identify the parts of a headset
- Adjust/maintain and repair a headset
- Identify the parts of front and rear derailleurs

Make adjustments to front and rear derailleurs to ensure smooth and accurate shifting

Curriculum organizer: Group leadership skills

It is expected that students will:

- Prepare an outline detailing the proposed ride
- Assess risks and possible areas of concern during proposed rides
- Prepare expectations of conduct for the proposed ride
- Outline possible first aid interventions and supplies needed for the student led ride

Curriculum organizer: Environmental Stewardship

It is expected that students will:

- Identify user groups and develop maintenance plans with all user groups and their respective interests
- Seek sustainable development opportunities that increase access for multiple user groups
- Promote healthy activities that increase access and reduce impact on the environment

Additional Opportunities:

Due to the extremely high level of interest and support from the local cycling community, motivated students will have the abilities and connections to seek summer employment and possible careers connected to adventure tourism and development. Within our local community, there are many biking guiding outfits, bike stores, trail development teams, and maintenance plans in place that can offer short or long-term employment opportunities. This course seeks to provide both the knowledge and skills required to successfully participate in fields of cycling, adventure tourism, recreational enjoyment, environmental sustainability, and stewardship of multi-user group recreational opportunities.

Big Ideas – Elaborations

Community and Planning: Collaboration with user groups and needs provides quality development of sustainable resources

Sample Questions to support inquiry with students:

- 1) How do proper practices ensure the most possible opportunity for the most user groups when developing trail networks?
- 2) What key elements must be considered to ensure effective management plans?
- 3) What is the purpose of consulting, and working in concert with, established groups and ministries?

Safety and First Aid: Understanding safe practices and risk management is greatly complimented by First Aid training

Sample Questions to support inquiry with students:

- 1) How can a guide maximize his or her effectiveness to provide a safe and secure experience with a group?
- 2) What is the importance of proper safety training and equipment during any guided experience?
- 3) What is the importance of planning when organizing a group activity?

Mountain Biking Skills: Foundational skill development increases ability and enjoyment of sport, fitness and opportunity

Sample Questions to support inquiry with students:

- 1) How does body position affect stability?
- 2) What skills can be combined to create strong cornering mechanics?
- 3) How is center of mass related to stability in steep terrain?

Leadership: Development of leadership skills is ongoing

Sample Questions to support inquiry with students:

- 1) What qualities should a leader possess to ensure a safe experience in the outdoors?
- 2) How does risk management ensure a safer experience in a group setting?
- 3) What is the importance of regular stops and checks while participating in a group activity?

Mechanics and Repair: Increasing mechanical knowledge and ability promotes a deeper understanding and accessibility

Sample Questions to support inquiry with students:

- 1) What is the purpose of regular maintenance and repair?
- 2) How does the state of repair of your bike affect your riding experience?

Curricular Competencies – Elaborations

Grant writing, proposals, maintenance plans:

- 1) How can we identify projects/trails that are in need of maintenance?
- 2) What constitutes a sound management plan?
- 3) What is the importance of creating and following a management plan?
- 4) How do we ensure monies are being allocated to the correct project elements?
- 5) What elements should be contained within a sound development plan?
- 6) How can we ensure multiple user groups have their specific needs addressed in a newly constructed or restored trail network?
- 7) How does trail material dictate the types of trails constructed?

Safety

- 1) Why is safety/first aid training essential for those guiding groups in an outdoor setting.
- 2) Why is a complete and restocked first aid kit needed?
- 3) Why is awareness key in the mitigation of risk?
- 4) Why is specific importance placed on safety protocol?
- 5) What is the significance of planning for all scenarios that may present during an activity?

Skill development

- 1) Why is proper body position so important to develop over a variety of terrain?
- 2) How does shifting balance affect traction and stability?
- 3) What are the fundamentals of advanced cornering techniques?
- 4) How can cadence affect pedaling efficiency and power?
- 5) How does trail scanning mitigate risk?

Strength, balance and flexibility

- 1) Why is importance placed on flexibility, strength and balance during any activity?
- 2) Why is understanding anatomy key to ensuring decreased instances of injury?
- 3) How can conditioning affect our ability to recover from injury or activity?
- 4) Why is flexibility so important in the reduction of injury?
- 5) How does improving core strength affect riding ability?

Basic Bicycle Mechanics/repair

- 1) What are the various tire related mechanical failures that may occur on a bike?
- 2) What tools and steps would be required when truing a wheel?
- 3) What are the part and function of a braking system?
- 4) How can brake setup affect ride quality of any bike?
- 5) How does the rear derailleur operate?
- 6) What settings are easily adjusted when out on the trail?

Empty content area for elaborations.

Recommended Instructional Components:

Organizational Structure: Unit Descriptions

Unit	Title	Time
Unit 1	Grant Writing	15 hours
Unit 2	Standard First Aid and Evacuation	15 hours
Unit 3	Environmental Sustainability/ Trail Building and Maintenance	16 hours
Unit 4	Riding Skill Development	42 hours
Unit 5	Physical Conditioning	12 hours
Unit 6	Mechanics	15 hours
Unit 7	Leadership Skills	5 hours
	Total Hours	120 Hours

Recommended Assessment Components:

Unit 1: Grant proposal writing

Learning Outcome	Exceeds Expectations 5	Meets Expectations 4	Somewhat meets expectations 3	Minimally Meets expectations 2	Does not yet meet expectations 1
Identify possible areas of development/maintenance/repair in collaboration with Nelson Cycling club development plan	Clearly identified area follows Nelson cycling club development plan.	Identified area of development plan within the scope of the NCC plan	Identified area of development but project falls somewhat outside of the NCC development plan	Identified area of development needs significant revision to meet the scope of NCC plan	Does not meet the requirements of the NCC development plan. Project redesign or relocation required
Ministry of Environment requirements	Acknowledges and adheres to requirements laid out by Ministry of Environment. Identifies drainage, habitat and impacts with no revision necessary	Adheres to most of the requirements outlined by MOE, minor adjustments needed to accurately address drainage, habitat and impacts	Adjustments need to be made to several areas of concern outlined by MOE guidelines and recommendations	Significant adjustments need to be made to meet the areas of concern outlined by MOE	Does not meet the requirements outlined by MOE. Project redrafting required
Meets recreational opportunities of multiple user groups	Considers multi-user group needs and recreational opportunities in a balanced fashion	Considers multi-user groups with bias towards one group	Considers multi-user groups with significant bias towards one group	Considers more than one user group but revisions needed to include additional groups	Does not acknowledge the needs of any other group seeking recreation in the outlined area of development
Build plan and project costs	Detailed outline of every element of the building/project costs	Outlines the key areas of projects costs. Minor revision.	Outlines most of the project costs. Revisions needed	Outlines some of the project costs. Revisions and reconsiderations needed	Does not address the specific costs adequately. Significant redrafting needed
Outline of scheduled maintenance plan	Clearly Expresses maintenance schedule	Outlines maintenance schedule	Outlines maintenance schedule but with some gaps	Identifies some elements of maintenance	Does not successfully identify areas of maintenance

Unit 2: Basic first aid, remote evacuation, risk assessment

Learning Outcome	Exceeds Expectations 5	Meets Expectations 4	Somewhat meets expectations 3	Minimally meets expectations 2	Does not yet meet expectations 1
Basic First Aid Theory	Passes theoretical exam with 100%	Passes theoretical exam with +90%	Passes theoretical exam with +80%	Passes theoretical exam with +70%	Does not meet minimal theoretical passing grade. Repeat
Basic First Aid Practical	Passes theoretical exam with 100%	Passes theoretical exam with +90%	Passes theoretical exam with +80%	Passes theoretical exam with +70%	Does not meet minimal practical passing grade. Repeat
Risk Assessment	Identifies every risk present in the situation. Clearly outlines appropriate risk management	Identifies most potential hazards with appropriate risk management	Identifies most key risks. Risk management may be insufficient or inappropriate	Identifies some potential hazards. Risk management may be insufficient or inappropriate	Does not sufficiently identify key hazards. Risk management is inadequate
First Aid Kit	Kit contains every necessary item as well as unforeseen needs. Always carried and maintained	Kit contains every necessary item. Always carried and maintained.	Kit contains most necessary items. Always carried and maintained	Kit may be missing minor items or items are not identified adequately. Always carried	Kit may be missing major items or forgotten when out in the field.

Unit 3: Rider skill development

Learning Outcome	Exceeds Expectations 5	Meets Expectations 4	Somewhat Meets Expectations 3	Minimally Meets Expectations 2	Does Not Yet Meet Expectations 1
Develop proper body position over a variety of terrain types	Always displays proper body position over all terrain types	Displays proper body position over most terrain types	Displays proper body position most of the time over some terrain types	Sometimes displays proper body position over terrain types	Does not yet demonstrate proper body position
Understand balance points integral to maintaining stability.	Demonstrates understanding of balance points and is able to fluidly shift between the to increase and maintain stability	Understands balance points and shifts between them to maintain stability	Understands balance points in most situations, but balance may become unstable in some situations	Sometimes understands balance points. Balance becomes unstable during basic shifts between balance points	Does not yet understand balances points and is often unstable.
Cornering stability	Can corner at high speeds with mastery of cornering dynamics.	Can corner at speed with fluidity.	Can corner with confidence and control.	Can corner but control is lacking or unbalanced.	Does not yet demonstrate control during cornering.
Rules of conduct for bicycles/ cycling responsibility code	Always demonstrates adherence to the cycling code of conduct and is considerate of all users.	Closely adheres to cycling responsibility code.	Displays knowledge of cycling responsibility code with minor breaks in etiquette.	Understands most areas of the cycling responsibility code. Minor breaks in etiquette.	Does not yet understand the responsibility code. May cause unsafe situations or major breaks in etiquette.

Unit 4: Trail Building Techniques

Learning Outcome	Exceeds Expectations 5	Meets Expectations 4	Somewhat Meets Expectations 3	Minimally Meets Expectations 2	Does Not Yet Meet Expectations 1
Understanding Soil sorting and compaction	Finding zones for development with appropriate soil types for building throughout the entire building area	Finding zones with appropriate soils in most of the building areas.	Finding zones with some appropriate soils. Soils may need to be carried or moved for building plans	Finding areas that require significant effort needed to relocate appropriate soils	Selected areas unsuitable for building or those requiring unreasonable efforts to relocate soils
Understanding types of construction and when and where they are appropriately used	Always correctly identifies correct building practices and able to identify key build types including: bench cut, corner berms, bridging	Correctly identifies correct building practices and able to identify key build types including: bench cut, corner berms, bridging	Sometimes identifies correct building practices and able to identify key build types including: bench cut, corner berms, bridging	Needs support to identify correct building practices and able to identify key build types including: bench cut, corner berms, bridging	Does not understand and or cannot demonstrate correct building practices and unable to identify key build types including: bench cut, corner berms, bridging
Habitat and impact assessment	Always identifies appropriate impact mitigation. Identifies manages and adapts planning to avoid sensitive habitat and species.	Identifies appropriate impact mitigation. Identifies manages and adapts planning to avoid sensitive habitat and species.	Identifies appropriate impact mitigation most of the time. Identifies manages and adapts planning to avoid sensitive habitat and species most of the time.	Sometimes identifies appropriate impact mitigation. Identifying shifts in planning and practice to avoid sensitive habitat and species needs support.	Does not adequately identify appropriate impact mitigation. Does not adequately manage and adapt planning to avoid sensitive habitat and species.

Unit 5: Strength, Flexibility, Conditioning
 Self-Assessment and Goal Charting

Goal/baseline	Evaluation #1	Evaluation #2	Evaluation #3	Evaluation #4	Final Self Assessment
Strength: 3 elements you plan on charting throughout the semester 1 _____ 2 _____ 3 _____ Consider both reps and duration	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____
Flexibility: 3 goals you plan on charting throughout the semester. 1 _____ 2 _____ 3 _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____
Conditioning: 3 goals you plan on charting throughout the semester. 1 _____ 2 _____ 3 _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____	1 _____ _____ _____ 2 _____ _____ _____ 3 _____ _____ _____

Unit 6: Mechanics

Modularized checklist. Students will demonstrate mastery in the following repair modules.

Module	Demonstrated mastery: Use check or X to mark each attempted module. When module is passed as indicated by the check proceed to the next repair module.
Identify tire and tubes that need repairing	
Determine the cause(s) of the flat of damage	
Repair tubes/ tires using the proper tools	
Describe and demonstrate the steps required to true a wheel and the equipment/tools required	
Name the components of the different types of brake systems	
Identify a bike with an unsafe braking system	
Describe and demonstrate the proper steps of the brake adjustment process	
Identify the parts of a headset	
Adjust/maintain and repair a headset	
Identify the parts of front and rear derailleurs	
Make adjustments to front and rear derailleurs to ensure smooth and accurate shifting	

Unit 7: Leadership

Students will be required to plan and lead a group ride. The group ride will include: route selection, route finding, risk assessment, expectations of conduct, and possible first aid interventions. Students will be assessed on the completeness of their plan, leadership skills, and successful completion of student led ride.

Learning Outcome	Exceeds Expectations 5	Meets Expectations 4	Somewhat meets Expectations 3	Minimally Meets Expectations 2	Does Not Yet Meet Expectations 1
Preparation of a detailed itinerary of the group ride	Selected ride is of ideal length and ability level for the group, reasonable timeline, highly organized	Selected ride is of appropriate length and ability level for the group, reasonable timeline, well organized	Selected ride is of appropriate length and ability level for the group, reasonable timeline, organized. Some revision needed	Selected ride is may be slightly inappropriate in length and ability level for the group, somewhat unreasonable timeline, lacks sound organization. Extensive revision needed	Selected ride is inappropriate in length and ability level for the group, unreasonable timeline, lacks sound organization. Redrafting needed
Risk Assessment and expectations of conduct and first aid protocols	Clearly outlines risks and acceptable conduct in every element of the planned ride. First aid interventions and duties are clearly defined in a detailed fashion	Outlines risks and acceptable conduct in most elements of the planned ride. First aid interventions and duties are defined	Outlines risks and acceptable conduct in some elements of the planned ride. First aid interventions and duties are loosely defined. Revision needed	Outlines risks and acceptable conduct in few elements of the planned ride. First aid interventions and duties are not clearly defined. Extensive revision needed.	Does not adequately outline risks and acceptable conduct in most elements of the planned ride. First aid interventions and duties are not defined. Redrafting required

Learning Resources:

PMBIA level 1 and 2 course material: Fundamental Skill Development and Mastery

GMBN Skill Tutorial and drills

Gerick Cycle and Sacred Ride: Mechanic seminars

Red Cross Standard First Aid Manual and Course

Video and playback equipment for feedback and evaluative purposes

Full bicycle mechanics shop and tools

Physical Conditioning Seminar by SPT.

Additional Information:

Riding Zones and Trail Profiles:



Trail Profiles:

Trail Name	Location	Trail Description
Eli Simm	3 entrances. Ranging 20 min, 30 min, 45 min in climbing time. Trails accessed via the Mt. Station Reservoir road. Muster station is the Kiosk in the Mt. Station parking area.	Intermediate/Blue trail. Trail is an intermediate single track. With clearly visible resting/muster spots along the length of the ride. All stunts and jumps will be off limits during the riding blocks as clearly outlined in preride meetings/planning
Osso Express	1 entrance 30 min climbing time. Trails accessed via the Mt. Station Reservoir road. Muster station is the Kiosk in the Mt. Station parking area.	Intermediate/Blue trail. Trail is an intermediate single track. With clearly visible resting/muster spots along the length of the ride. All stunts and jumps will be off limits during the riding blocks as clearly outlined in preride meetings/planning
Smiling Budha	Reached via descending Osso Express. Trails accessed via the Mt. Station Reservoir road. Muster station is the Kiosk in the Mt. Station parking area.	Intermediate/Blue trail. Trail is an intermediate single track. With clearly visible resting/muster spots along the length of the ride. All stunts and jumps will be off limits during the riding blocks as clearly outlined in preride meetings/planning
Expresso	Reached after a 30 minute climb Trails accessed via the Mt. Station Reservoir road. Muster station is the Kiosk in the Mt. Station parking area. via the main access road.	Beginner/Intermediate/Blue trail. Trail is a flowing beginner/intermediate single track. With clearly visible resting/muster spots along the length of the ride. All stunts and jumps will be off limits during the riding blocks as clearly outlined in preride meetings/planning

Frog Jam/Log Jam/Toe Jam	Reached after 45-90 minutes of climbing. Trails accessed via the Svoboda road. Muster station is the Kiosk in the Svoboda parking area.	Network of Beginner/Intermediate rides that braid together at points. Resting and muster spots will be at each intersection on the trail network.
Lefty	Morning Mountain Recreational Area. Muster station is the Kiosk in the Morning Mt. parking area. 30 Minute climb	Beginner/Intermediate. Smooth flow trail with shaped berms and smooth track. Meeting/rest stops are at every trail crossing. All Jumps are off limits on riding days as clearly outlined in preride meeting.
Turnstiles	Morning Mountain Recreational Area. Muster station is the Kiosk in the Morning Mt. parking area. Reached after 55 minute climb	Beginner/Intermediate. Smooth flow trail with shaped berms and smooth track. Meeting/rest stops are at every trail crossing and designated rest stops. All Jumps are off limits on riding days as clearly outlined in preride meeting.
Bottoms up and Upper Bottoms	Morning Mountain Recreational Area. Muster station is the Kiosk in the Morning Mt. parking area. Reached after 55 minute climb	Up and down tracks. Beginner. No manmade hazards. Smooth and well maintained double track.