

Hiking Leader

Lesson Plans and Instructor Schedule

Summer Day Trip
Summer Multi-day Trip
Winter Day Trip

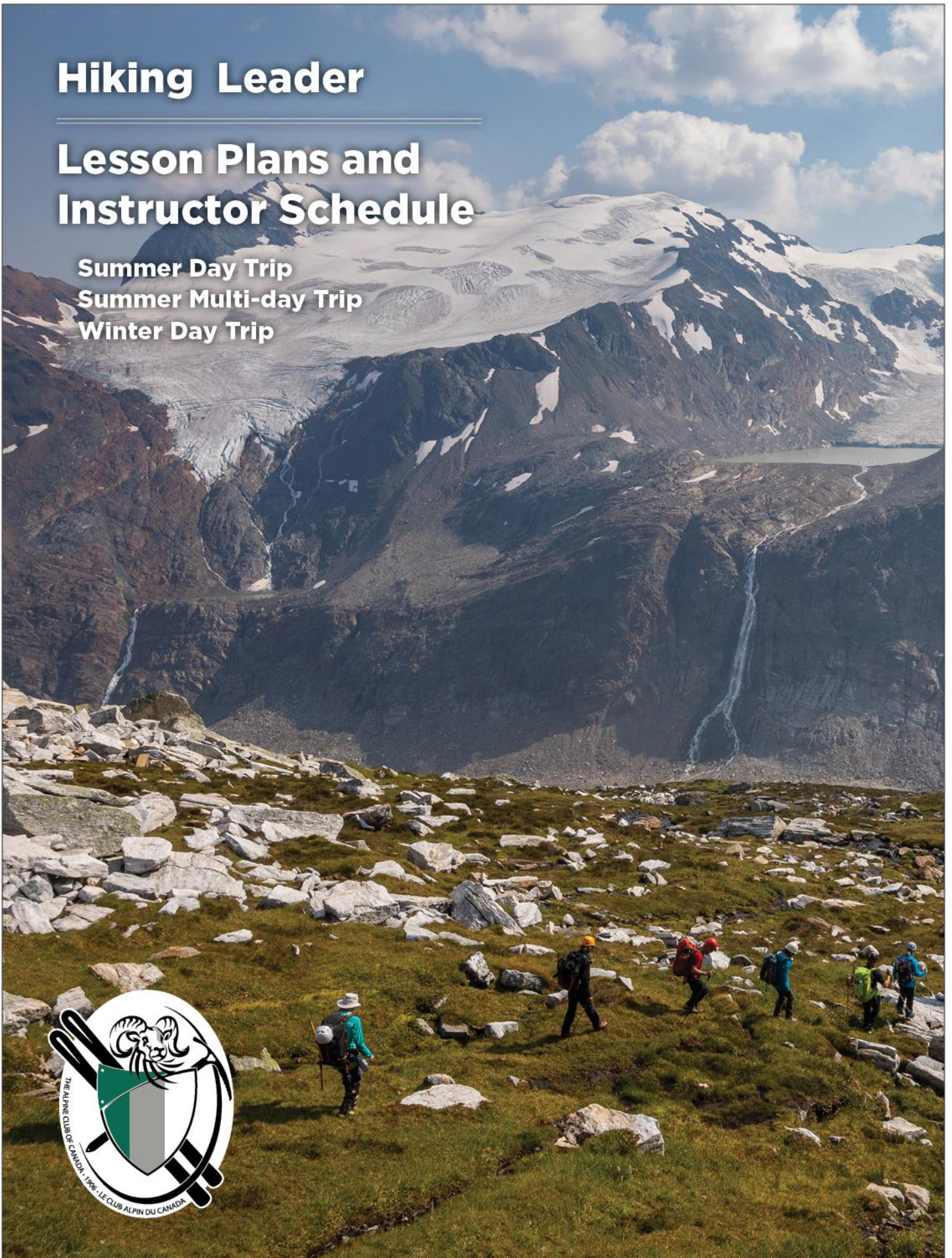


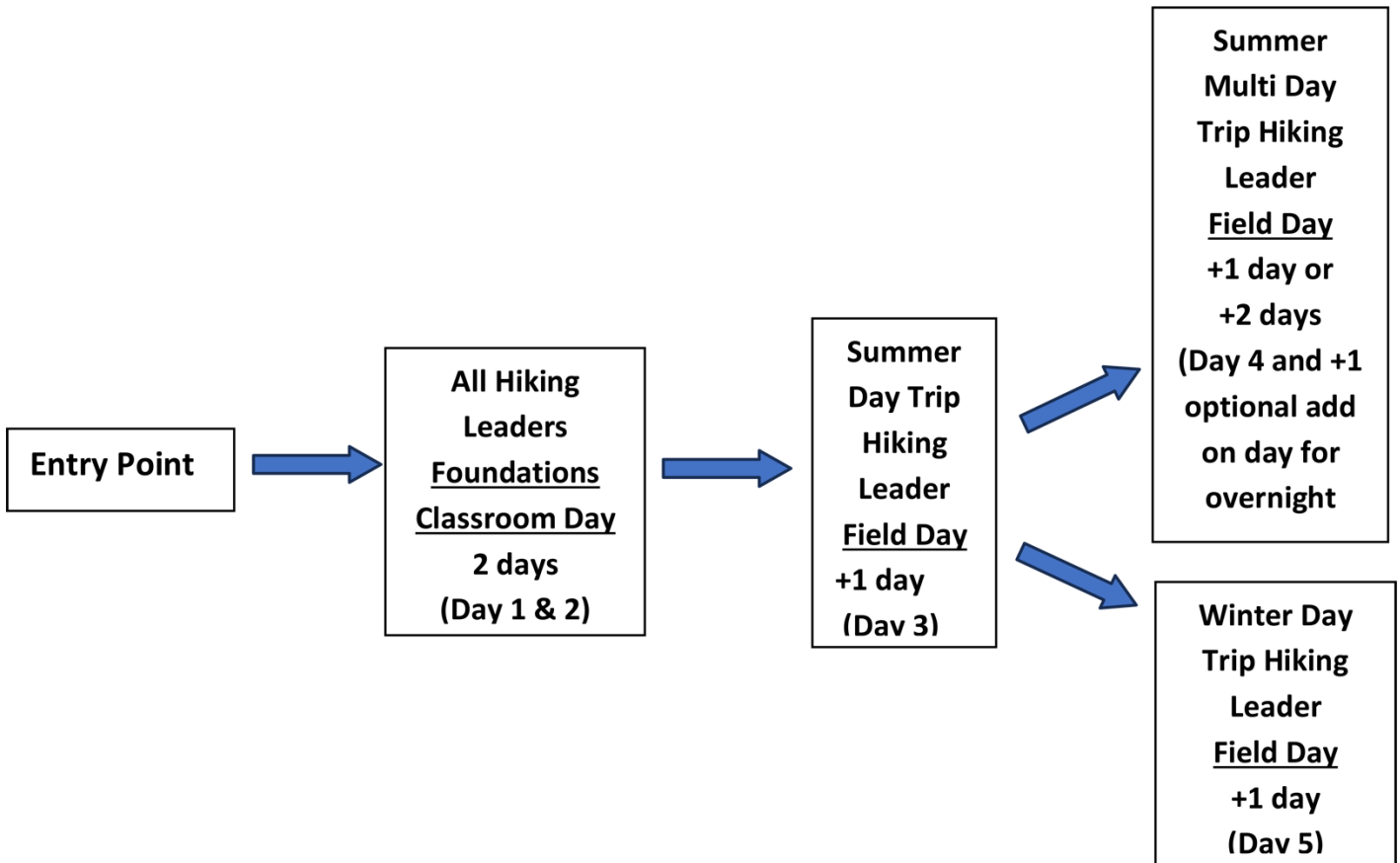
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Instructor Schedule

The Hiking Leader Training Program has three components (Summer Day Trip Hiking, Summer Multi-day Trip Hiking, Winter Day Trip Hiking). The first two classroom days are common to all three types of hiking leader. The first two days are spent in the classroom (with applied exercises) to set a baseline of common knowledge. Days 3, 4 and 5 are spent in the field. The Day Trip Hiking Leader completes Day 3. The Summer Multi-day Trip Hiking Leader completes Days 3 and 4, which are best combined into an overnight trip, but can be completed as two separate day trips. The Winter Day Trip Hiking Leader completes Days 3 and 5.

Hiking Leader Flowchart



Summer Day Trip Hiking Leader = 3 days
Summer Multi-Day Trip Hiking Leader = 4 or 5 days
Winter Day Trip Hiking Leader = 4 days

First Two Days - Classroom

Day 1 – Design and Preparation

A full classroom day broken into morning, afternoon and evening topics (approx. 8 hrs. total)

Morning: (3 hrs.) plus breaks

- Designing a Hiking Outing
 - Greetings and Course Introduction
 - Waiver Administration
 - Pre-Trip Planning
 - Wilderness Terrain
 - Developing Pre-Trip Communications

Afternoon: (3 hrs.) plus breaks

- Preparing Participants for a Hiking Outing
 - Coordinating and Communicating with Participants
 - Pre-Trip Risk Assessment
 - Gathering Weather Information
 - Clothing and Equipment

Evening: (2 hrs.) plus breaks

- Delivery of Hiking Outing
 - Principles of Group Management
 - Risk Management

Day 2 – Wilderness Ethics and Navigation

A full classroom day broken into morning, afternoon and evening topics (approx. 8 hrs. total)

Morning: (3 hrs.) plus breaks

- Wilderness Ethics and Ecology
 - Principles of Low Impact Travel
 - Wildlife Issues
 - Interpretive Skills

Afternoon: (3 hrs.) plus breaks

- Navigation Skills
 - Topographic Maps
 - Compass
 - Altimeter
 - GPS
 - Whiteout/Greenout Navigation

Day 3 – On-Trail Travel Skills and Emergency Response

A full field day (8 hours)

- On-Trail Travel Skills
 - Group Management
 - Pacing
 - Navigation
 - Movement skills
- Hazard management
 - Weather
 - Wildlife
 - Water Crossings in Summer
 - Principles of water crossing
 - Water crossing techniques
- Emergency Response
 - Performing First Aid
 - Emergency Communications

Day 4 – Multi-day Travel Skills

A full field day and overnight camp (8 hours)

Note: This is best combined with Day 3 On-Trail Travel Skills

- Off-Trail Travel Skills
 - Group Management
 - Navigation
 - Route selection
 - Movement skills
 - Off-trail
- Camping
 - Types of Shelters
 - Site Selection & Preparation
 - Meal Preparation for a Summer Environment
 - Fires

Day 5 – Winter Skills

A full field day (8 hours)

- On-Trail Winter Travel Skills
 - Navigation
 - Movement skills
 - Use of snowshoes and cleats
- Winter Hazard management
 - Weather
 - Clothing and equipment
 - Cold injuries
 - Emergency Response
 - Water Crossings in Winter
 - Principles of water crossing
 - Water crossing technique

Day 1	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
1 AM	Greeting & Course Intro	LP 1	Ch. 1 Ch. 3	Classroom	<ul style="list-style-type: none"> Welcome Emergency & Local contact numbers Course Agenda / Schedule Competencies and Assessment Waivers and ACC waiver delivery process 	<ul style="list-style-type: none"> Model course start Provide overview of course competencies Allow students to get to know each other Administer waivers according to ACC policies Gather relevant participant information (i.e. medical forms, waivers etc.) 	A3, E2	Visual media Lecture Group interaction	30
1 AM	Pre-Trip Planning Overview	LP 2	Ch. 1 Ch. 2 Ch. 3	Classroom	<ul style="list-style-type: none"> Introduce and model the planning and decision making process Model the completion of a Trip Plan 	<ul style="list-style-type: none"> Establish trip objectives and participant requirements Describe local rules and regulations Screen trip participants Determine group size and leader/participant ratios Plan trip logistics Plan meals 	A1, A2, A3, A5, D4, F1, F3	Lecture Visual media Group interaction Group exercise	65
1 AM	Trip plan for Hiking Terrain	LP 3a	Ch. 1	Classroom	<ul style="list-style-type: none"> Plan a route 	<ul style="list-style-type: none"> Select routes and alternatives Use route information as a tool to assist in planning trips Develop a contingency plan 	A4	Lecture Visual media Group interaction	60
Lunch Break									

Day 1	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
1 PM	Risk communication with Participants (pre-trip)	LP 4	Ch. 1 Ch. 2 Ch. 3	Classroom	<ul style="list-style-type: none"> Effectively communicate pertinent trip details to the trip participants Gather relevant participant information Complete a pre-trip risk assessment Assess hazards prior to departure 	<ul style="list-style-type: none"> Communicate trip details to participants Seek feedback from participants Communicate with participants to determine their risk propensity 	A6, C1, A2	Lecture Visual media Group interaction	55
1 PM	Clothing and Equipment	LP 5a	Ch. 1 Ch. 2	Classroom	<ul style="list-style-type: none"> Manage clothing and equipment 	<ul style="list-style-type: none"> Coach participants on outdoor clothing & layering for summer Coach participants on equipment 	B3, F3	Lecture Visual media Group interaction	30
1 PM	Weather Gathering Information	LP 6	Ch. 2	Classroom	<ul style="list-style-type: none"> Introduce basic weather concepts that are relevant to summer backcountry travel Review how weather affects alpine terrain (and hazard) Integrate weather forecasts into the planning process 	<ul style="list-style-type: none"> Explain the basic concepts of weather Describe basic weather patterns Identify and interpret weather forecast information Monitor the weather 	C1, C2	Lecture Visual Media Group Interaction Group Exercises	70

Dinner Break

Day 1	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
1 EV	Group Management	LP 7	Ch. 3	Classroom	<ul style="list-style-type: none"> Describe the principles of group management 	<ul style="list-style-type: none"> Account for group dynamics in managing a wilderness group Describe several strategies to resolve simple conflicts 	D1, D6, D7	Lecture Visual media Group interaction	60
1 EV	Risk Management	LP 8	Ch. 1 Ch. 3	Classroom	<ul style="list-style-type: none"> Describe the principles of risk management 	<ul style="list-style-type: none"> Identify factors that compromise group safety in order to enable mitigating action Recognize personal limitations Describe strategies to maintain situational awareness Create an evacuation plan Identify wildlife hazards to enable mitigating action Identify wilderness objective hazards to enable mitigating action Describe when to use personal protective equipment 	D2, E1, E3, E4, E5, E7, E8	Lecture Visual media Group interaction	60

Day 2	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
2 AM	Wilderness Ethics and Ecology	LP 9	Ch. 4	Classroom	<ul style="list-style-type: none"> Describe low impact travel and waste management techniques 	<ul style="list-style-type: none"> Discuss access and ethics issues Describe low impact backcountry travel Use basic interpretive skills to enhance the knowledge of ecology and history Describe local wildlife issues to participants 	G1, G2, G3, G4	Lecture Visual Media Group Interaction	180
Lunch Break									
2 PM	Navigation	LP 10a	Ch. 5	Classroom	<ul style="list-style-type: none"> Demonstrate on-trail navigation skills 	<ul style="list-style-type: none"> Apply knowledge of terrain to facilitate route-finding Use topographic maps Interpret map features to terrain, and terrain to map features Use a compass Account for magnetic declination Resect positions Use an altimeter to aid in navigation Use a GPS for navigation Navigate in a whiteout/greenout Prepare a route card 	H1, H2, H3, H4, H5, H6	Lecture Visual Media Group Interaction Classroom Table Top Exercises	130

Day 3	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
3 AM	Movement Skills	LP 11a	Ch. 7	Field	<ul style="list-style-type: none"> Describe movement skills for on-trail summer travel 	<ul style="list-style-type: none"> Demonstrate uphill and downhill movement skills 	J1	Demonstration Group interaction	50
3 AM	Emergency Response	LP 12	Ch. 9	Field	<ul style="list-style-type: none"> Effectively respond to emergencies in a summer day hiking setting 	<ul style="list-style-type: none"> Apply basic summer survival skills Perform basic wilderness first aid Plan for emergency communications Use emergency communications devices 	L1, L2, L3, L4	Demonstration Group interaction	120
Lunch Break									
3 PM	Water Crossings in Summer	LP 13a	Ch. 8	Field	<ul style="list-style-type: none"> Safely cross rivers and lakes in summer 	<ul style="list-style-type: none"> Assess water hazard management Demonstrate water crossing techniques 	U1	Demonstration Group interaction	60
3 PM	Navigation	LP 15a	Ch. 5	Field	<ul style="list-style-type: none"> Demonstrate on-trail navigation skills 	<ul style="list-style-type: none"> Apply knowledge of terrain to facilitate on-trail route-finding. Use topographic maps. Interpret map features to terrain, and terrain to map features. Use a compass. Use an altimeter to aid in navigation. Use a GPS for navigation. Use a route card. 	H1, H2, H3, H4, H5, H6	Demonstration Group interaction	100

Day 1	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
1 AM	Greeting & Course Intro	LP 1	Ch. 1 Ch. 3	Classroom	<ul style="list-style-type: none"> • Welcome • Emergency & Local contact numbers • Course Agenda / Schedule • Competencies and Assessment • Waivers and ACC waiver delivery process 	<ul style="list-style-type: none"> • Model course start • Provide overview of course competencies • Allow students to get to know each other • Administer waivers according to ACC policies • Gather relevant participant information (i.e. medical forms, waivers etc.) 	A3, E2	Visual media Lecture Group interaction	30
1 AM	Pre-Trip Planning Overview	LP 2	Ch. 1 Ch. 2 Ch. 3	Classroom	<ul style="list-style-type: none"> • Introduce and model the planning and decision making process • Model the completion of a Trip Plan 	<ul style="list-style-type: none"> • Establish trip objectives and participant requirements • Describe local rules and regulations • Screen trip participants • Determine group size and leader/participant ratios • Plan trip logistics • Plan meals 	A1, A2, A3, A5, D4, F1, F3	Lecture Visual media Group interaction Group exercise	65
1 AM	Trip plan for Hiking Terrain	LP 3b	Ch. 1	Classroom	<ul style="list-style-type: none"> • Plan a route 	<ul style="list-style-type: none"> • Select routes and alternatives • Use route information as a tool to assist in planning trips • Develop a contingency plan 	A4	Lecture Visual media Group interaction	60
Lunch Break									

Day 1	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
1 PM	Risk communication with Participants (pre-trip)	LP 4	Ch. 1 Ch. 2 Ch. 3	Classroom	<ul style="list-style-type: none"> Effectively communicate pertinent trip details to the trip participants Gather relevant participant information Complete a pre-trip risk assessment Assess hazards prior to departure 	<ul style="list-style-type: none"> Communicate trip details to participants Seek feedback from participants Communicate with participants to determine their risk propensity 	A6, C1, A2	Lecture Visual media Group interaction	55
1 PM	Clothing and Equipment	LP 5b	Ch. 1 Ch. 2	Classroom	<ul style="list-style-type: none"> Manage clothing and equipment 	<ul style="list-style-type: none"> Coach participants on outdoor clothing & layering for summer Coach participants on equipment for multi-day trips 	B3, F3	Lecture Visual media Group interaction	55
1 PM	Weather Gathering Information	LP 6	Ch. 2	Classroom	<ul style="list-style-type: none"> Introduce basic weather concepts that are relevant to summer backcountry travel Review how weather affects alpine terrain (and hazard) Integrate weather forecasts into the planning process 	<ul style="list-style-type: none"> Explain the basic concepts of weather Describe basic weather patterns Identify and interpret weather forecast information Monitor the weather 	C1, C2	Lecture Visual Media Group Interaction Group Exercises	70
Dinner Break									

Day 1	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
1 EV	Group Management	LP 7	Ch. 3	Classroom	<ul style="list-style-type: none"> Describe the principles of group management 	<ul style="list-style-type: none"> Account for group dynamics in managing a wilderness group Describe several strategies to resolve simple conflicts 	D1, D6, D7	Lecture Visual media Group interaction	60
1 EV	Risk Management	LP 8	Ch. 1 Ch. 3	Classroom	<ul style="list-style-type: none"> Describe the principles of risk management 	<ul style="list-style-type: none"> Identify factors that compromise group safety in order to enable mitigating action Recognize personal limitations Describe strategies to maintain situational awareness Create an evacuation plan Identify wildlife hazards to enable mitigating action Identify wilderness objective hazards to enable mitigating action Describe when to use personal protective equipment 	D2, E1, E3, E4, E5, E7, E8	Lecture Visual media Group interaction	60

Day 2	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
2 AM	Wilderness Ethics and Ecology	LP 9	Ch. 4	Classroom	<ul style="list-style-type: none"> Describe low impact travel, camping and waste management techniques 	<ul style="list-style-type: none"> Discuss access and ethics issues Describe low impact backcountry travel and camping practices Use basic interpretive skills to enhance the knowledge of ecology and history Describe local wildlife issues to participants 	G1, G2, G3, G4	Lecture Visual Media Group Interaction	180
Lunch Break									
2 PM	Navigation	LP 10b	Ch. 5	Classroom	<ul style="list-style-type: none"> Demonstrate off-trail navigation skills 	<ul style="list-style-type: none"> Apply knowledge of terrain to facilitate route-finding Use topographic maps Interpret map features to terrain, and terrain to map features Use a compass Account for magnetic declination Resect positions Use an altimeter to aid in navigation Use a GPS for navigation Navigate in a whiteout/greenout Prepare a route card 	H1, H2, H3, H4, H5, H6	Lecture Visual Media Group Interaction Classroom Table Top Exercises	180

Day 3	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
3 AM	Movement Skills	LP 11b	Ch. 7	Field	<ul style="list-style-type: none"> • Describe movement skills for off-trail summer travel 	<ul style="list-style-type: none"> • Demonstrate uphill and downhill movement skills 	J1	Demonstration Group interaction	80
3 AM	Emergency Response	LP 12	Ch. 9	Field	<ul style="list-style-type: none"> • Effectively respond to emergencies in a summer multi-day hiking setting 	<ul style="list-style-type: none"> • Apply basic summer survival skills • Perform basic wilderness first aid • Plan for emergency communications • Use emergency communications devices 	L1, L2, L3, L4	Demonstration Group interaction	120
Lunch Break									
3 PM	Water Crossings in Summer	LP 13a	Ch. 8	Field	<ul style="list-style-type: none"> • Safely cross rivers and lakes in summer 	<ul style="list-style-type: none"> • Assess water hazard management • Demonstrate water crossing techniques 	U1	Demonstration Group interaction	60

Day 4	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
4 AM	Navigation	LP 15b	Ch. 5	Field	<ul style="list-style-type: none"> Demonstrate navigation skills 	<ul style="list-style-type: none"> Apply knowledge of terrain to facilitate route-finding Use topographic maps Interpret map features to terrain, and terrain to map features Use a compass Account for magnetic declination Resect positions Use an altimeter to aid in navigation Use a GPS for navigation Navigate in a whiteout/ greenout 	H1, H2, H3, H4, H5, H6	Demonstration Group interaction	150
Lunch Break									
4 PM	Camping Skills	LP 14	Ch. 6	Field	<ul style="list-style-type: none"> Demonstrate the principles of camping and shelter construction 	<ul style="list-style-type: none"> Prepare a tent or camping site Describe the principles of low impact site selection above and below tree line Demonstrate meal preparation Collect water Demonstrate the principles of sleeping systems Demonstrate fire lighting skills Demonstrate the principles of emergency shelters Demonstrate the principles of kitchen design 	I1, I2, I3, I4, I5, I6, I7, I8	Demonstration Group interaction	240

Day 1	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
1 AM	Greeting & Course Intro	LP 1	Ch. 1 Ch. 3	Classroom	<ul style="list-style-type: none"> Welcome Emergency & Local contact numbers Course Agenda / Schedule Competencies and Assessment Waivers and ACC waiver delivery process 	<ul style="list-style-type: none"> Model course start Provide overview of course competencies Allow students to get to know each other Administer waivers according to ACC policies Gather relevant participant information (i.e. medical forms, waivers etc.) 	A3, E2	Visual media Lecture Group interaction	30
1 AM	Pre-Trip Planning Overview	LP 2	Ch. 1 Ch. 2 Ch. 3	Classroom	<ul style="list-style-type: none"> Introduce and model the planning and decision making process Model the completion of a Trip Plan 	<ul style="list-style-type: none"> Establish trip objectives and participant requirements Describe local rules and regulations Screen trip participants Determine group size and leader/participant ratios Plan trip logistics Plan meals 	A1, A2, A3, A5, D4, F1, F3	Lecture Visual media Group interaction Group exercise	65
1 AM	Trip plan for Hiking Terrain	LP 3c	Ch. 1	Classroom	<ul style="list-style-type: none"> Plan a route 	<ul style="list-style-type: none"> Select routes and alternatives Use route information as a tool to assist in planning trips Develop a contingency plan 	A4	Lecture Visual media Group interaction	60
Lunch Break									

Day 1	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
1 PM	Risk communication with Participants (pre-trip)	LP 4	Ch. 1 Ch. 2 Ch. 3	Classroom	<ul style="list-style-type: none"> Effectively communicate pertinent trip details to the trip participants Gather relevant participant information Complete a pre-trip risk assessment Assess hazards prior to departure 	<ul style="list-style-type: none"> Communicate trip details to participants Seek feedback from participants Communicate with participants to determine their risk propensity 	A6, C1, A2	Lecture Visual media Group interaction	55
1 PM	Clothing and Equipment	LP 5c	Ch. 1 Ch. 2	Classroom	<ul style="list-style-type: none"> Manage winter clothing and equipment 	<ul style="list-style-type: none"> Coach participants on outdoor clothing & layering for winter Coach participants on winter equipment (snowshoes and cleats) 	B3, F3	Lecture Visual media Group interaction	45
1 PM	Weather Gathering Information	LP 6	Ch. 2	Classroom	<ul style="list-style-type: none"> Introduce basic weather concepts that are relevant to summer backcountry travel Review how weather affects alpine terrain (and hazard) Integrate weather forecasts into the planning process 	<ul style="list-style-type: none"> Explain the basic concepts of weather Describe basic weather patterns Identify and interpret weather forecast information Monitor the weather 	C1, C2	Lecture Visual Media Group Interaction Group Exercises	70

Dinner Break

Day 1	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
1 EV	Group Management	LP 7	Ch. 3	Classroom	<ul style="list-style-type: none"> Describe the principles of group management 	<ul style="list-style-type: none"> Account for group dynamics in managing a wilderness group Describe several strategies to resolve simple conflicts 	D1, D6, D7	Lecture Visual media Group interaction	60
1 EV	Risk Management	LP 8	Ch. 1 Ch. 3	Classroom	<ul style="list-style-type: none"> Describe the principles of risk management 	<ul style="list-style-type: none"> Identify factors that compromise group safety in order to enable mitigating action Recognize personal limitations Describe strategies to maintain situational awareness Create an evacuation plan Identify wildlife hazards to enable mitigating action Identify wilderness objective hazards to enable mitigating action Describe when to use personal protective equipment 	D2, E1, E3, E4, E5, E7, E8	Lecture Visual media Group interaction	60

Day 2	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
2 AM	Wilderness Ethics and Ecology	LP 9	Ch. 4	Classroom	<ul style="list-style-type: none"> Describe low impact travel and waste management techniques 	<ul style="list-style-type: none"> Discuss access and ethics issues Describe low impact backcountry travel Use basic interpretive skills to enhance the knowledge of ecology and history Describe local wildlife issues to participants 	G1, G2, G3, G4	Lecture Visual Media Group Interaction	180
Lunch Break									
2 PM	Navigation	LP 10c	Ch. 5	Classroom	<ul style="list-style-type: none"> Demonstrate on-trail winter navigation skills 	<ul style="list-style-type: none"> Apply knowledge of terrain to facilitate route-finding Use topographic maps Interpret map features to terrain, and terrain to map features Use a compass Account for magnetic declination Resect positions Use an altimeter to aid in navigation Use a GPS for navigation Navigate in a whiteout/greenout Prepare a route card 	H1, H2, H3, H4, H5, H6	Lecture Visual Media Group Interaction Classroom Table Top Exercises	130

Day 3	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
3 AM	Movement Skills	LP 11c	Ch. 7	Field	<ul style="list-style-type: none"> Describe movement skills for on-trail winter travel 	<ul style="list-style-type: none"> Demonstrate uphill, downhill and traversing movement skills 	J1	Lecture Demonstration Group interaction	90
3 AM	Navigation	LP 15c	Ch. 5	Field	<ul style="list-style-type: none"> Demonstrate on-trail winter navigation skills 	<ul style="list-style-type: none"> Apply knowledge of terrain to facilitate route-finding Use topographic maps Interpret map features to terrain, and terrain to map features Use a compass Use an altimeter to aid in navigation Use a GPS for navigation Navigate in a whiteout/greenout 	H1, H2, H3, H4, H5, H6	Demonstration Group interaction	100
Lunch Break									

Day 3	Lesson Name/Description	LP#	Chapter	Location	Goals	Objectives	DACUM	Method	Time (min)
3 PM	Emergency Response	LP 12	Ch. 9	Field	<ul style="list-style-type: none"> Effectively respond to emergencies in a winter day hiking setting 	<ul style="list-style-type: none"> Apply basic winter survival skills Perform basic wilderness first aid Plan for emergency communications Use emergency communications devices 	L1, L2, L3, L4	Demonstration Group interaction	120
3 PM	Water Crossings in Winter	LP 13b	Ch. 8	Field	<ul style="list-style-type: none"> Safely cross rivers and lakes in winter 	<ul style="list-style-type: none"> Assess water hazard management Demonstrate ice and snow bridge crossing techniques 	K2	Demonstration Group interaction	45

Lesson Plan 1: Greeting & Course Introduction (30 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>Welcome – introduce self, instructor team</i></p>
<p>Objective: 2 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Collect a list of emergency and local contact numbers. • Review the course agenda and schedule. • Review the core competencies and assessment procedure. • Complete an ACC waivers delivery process. <p>Pre-test: 4 minutes</p> <p><i>Quick check in of entry points for participants – levels of expertise</i></p>

Participatory learning: 22 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
7 min	Course agenda	<i>Model course start. Introduce instructor(s) and highlight their background(s) and experience. Review the course agenda and structure.</i>	<i>Watch, listen and ask questions.</i>	
5 min	Competencies	<i>Provide overview of course competencies</i>	<i>Watch, listen and ask questions.</i>	Visual media Lecture
5 min	Meet and greet	<i>Allow students to get to know each other.</i>	<i>In pairs – interview and present your partner to the group.</i>	Group interaction
5 min	Waivers	<i>Administer waivers according to ACC policies.</i>	<i>Read and sign waiver.</i>	Waivers, pens

Summary/Closure: 1 minute

[Link to LP 2 Pre-trip Planning Overview](#)

Lesson Plan 2: Pre-Trip Planning Overview (65 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>Eric Shipton, Himalayan explorer is quoted as saying “Any worthwhile expedition can be planned on the back of an envelope.” This session will delve into the planning process and is likely to need more than an envelope.</i></p>
<p>Objective: 2 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Develop a trip plan that includes trip logistics and meals. • Integrate weather forecasts into the planning process. • Complete a pre-trip risk assessment. • Model the completion of a Trip Plan. • Develop an emergency response plan.
<p>Pre-test: 4 minutes</p> <p><i>Who has planned a hiking trip? How many days? Summer or winter?</i></p>

Participatory learning: 55 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
15 min	Develop the outline of a trip plan	<i>Introduce and model the planning and decision-making process.</i>	<i>Establish trip objectives. Plan trip logistics.</i>	Group interaction
10 min	Complete a pre-trip risk assessment	<i>Describe local rules and regulations. Assess the land management and access issues. Screen trip participants & select ratios.</i>	<i>Watch and listen.</i>	
15 min	Create a pre-trip communication plan	<i>Determine how and what to communicate to the participants.</i>	<i>Watch and listen.</i>	Examples of clothing and equipment
15 min	Develop an emergency response plan	<i>Introduce and model the planning and decision-making process.</i>	<i>List the resources needed.</i>	Group interaction

Summary/Closure: 3 minutes

Review required clothing and equipment.

Prepare for the completion of the full trip plan.

Lesson Plan 3a: Trip Plan for Summer Day Hiking Terrain (60 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>Tell a story that relates to the importance of terrain selection</i></p>
<p>Objective: 1 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Select routes and alternatives (considering length, terrain, weather). • Use hiking guidebooks and web resources as tools to assist in planning trips. • Create a clothing and equipment list appropriate for the trip. <p>Pre-test: 5 minutes</p> <p><i>What tools do you use to analyze terrain?</i></p>

Participatory learning: 50 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
20 min	Route selection	<i>Describe key components of summer day hiking route selection.</i>	<i>Watch, listen and ask questions.</i>	Projector
30 min	Plan a summer day hiking trip	<i>Give an example. Determine travel distance and elevation gain/loss, trail conditions Coach participants.</i>	<i>Plan the route.</i>	Guide books Maps Internet resources

Summary/Closure: 3 minutes

Review key elements of terrain selection.

Lesson Plan 3b: Trip Plan for Summer Multi-day Hiking Terrain (60 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>Tell a story that relates to the importance of terrain selection</i></p>
<p>Objective: 1 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Select routes and alternatives (considering length, terrain, weather). • Use hiking guidebooks and web resources as tools to assist in planning trips. • Create a clothing and equipment list appropriate for the trip. <p>Pre-test: 5 minutes</p> <p><i>What tools do you use to analyze terrain?</i></p>

Participatory learning: 50 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
20 min	Route selection	<i>Describe key components of summer multi-day hiking route selection.</i>	<i>Watch, listen and ask questions.</i>	Projector
30 min	Plan a multi-day hiking trip	<i>Give an example. Determine travel distance and elevation gain/loss, campsite locations, water sources. Coach participants.</i>	<i>Plan the route.</i>	Guidebooks Maps Internet resources

Summary/Closure: 3 minutes

Review trip details.

Review key elements of terrain selection.

Lesson Plan 3c: Trip Plan for Winter Day Hiking Terrain (60 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>Tell a story that relates to the importance of terrain selection</i></p>
<p>Objective: 1 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Select routes and alternatives (considering length, terrain, weather). • Use hiking guidebooks and web resources as tools to assist in planning trips. • Create a clothing and equipment list appropriate for the trip. <p>Pre-test: 5 minutes</p> <p><i>What tools do you use to analyze terrain?</i></p>

Participatory learning: 50 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
20 min	Route selection	<i>Describe key components winter day hiking route selection.</i>	<i>Watch, listen and ask questions.</i>	Projector
30 min	Plan a winter day hiking trip	<i>Give an example. Determine travel distance and elevation gain/loss, trail conditions. Coach participants.</i>	<i>Plan the route.</i>	Guidebooks Maps Internet resources

Summary/Closure: 3 minutes

Review key elements of terrain selection.

Lesson Plan 4: Risk Communication with Participants (pre-trip) 55 minutes

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>Story about importance of information sharing.</i></p> <p><i>Has anyone ever not been completely truthful about pre-trip information?</i></p>
<p>Objective: 1 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Describe trip details. • Provide feedback to trip leader. <p>Pre-test: 4 minutes</p> <p><i>What are the most important things that you need to know about the trip?</i></p> <p><i>What are the most important things that your trip leader needs to know about you</i></p>

Participatory learning: 45 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
15 min	Risk communication	<i>Describe importance of information sharing.</i>	<i>Watch, listen and ask questions.</i>	Lecture Visual media
15 min	Trip details	<i>Effectively communicate pertinent trip details to the trip participants.</i>	<i>Watch, listen and ask questions.</i>	Group interaction
15 min	Participant information	<i>Gather relevant participant information.</i>	<i>Watch, listen and ask questions.</i>	Group interaction

Summary/Closure: 4 minutes

Review trip details.

Stress the importance of communication if anything changes.

Lesson Plan 5a: Summer Day Trip - Clothing and Equipment (30 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute <i>There is no bad weather, only poorly equipped hikers.</i></p>
<p>Objective: 1 minutes By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Prepare clothing and equipment appropriate for the trip. <p>Pre-test: 5 minutes <i>What do you have / prefer for clothing and equipment?</i></p>

Participatory learning: 20 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
5 min	Layering	<i>Demonstrate layering principle.</i>	<i>Watch, listen and ask questions.</i>	Clothing
5 min	Layering	<i>Coach participants on outdoor clothing & layering for summer day trips.</i>		
5 min	Equipment	<i>Demonstrate equipment.</i>	<i>Watch, listen and ask questions.</i>	Equipment
5 min	Equipment	<i>Coach participants on equipment selection.</i>		

Summary/Closure: 3 minutes

Review clothing and equipment list.

Lesson Plan 5b: Summer Multi-day Trip Clothing and Equipment (55 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>There is no bad weather, only poorly equipped hikers.</i></p>
<p>Objective: 1 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Prepare clothing and equipment appropriate for the trip. <p>Pre-test: 5 minutes</p> <p><i>What do you have / prefer for clothing and equipment?</i></p>

Participatory learning: 45 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
5 min	Layering	<i>Demonstrate layering principle.</i>	<i>Watch, listen and ask questions.</i>	Clothing
5 min	Layering	<i>Coach participants on outdoor clothing & layering for summer.</i>		
20 min	Equipment	<i>Demonstrate equipment.</i>	<i>Watch, listen and ask questions.</i>	Equipment
10 min	Equipment	<i>Coach participants on equipment selection.</i>		
5 min	Equipment Maintenance and repair	<i>Demonstrate the contents of a basic repair kit</i>		

Summary/Closure: 3 minutes

Review clothing and equipment list.

Note that weight and bulk of clothing and equipment become more important on longer trips as there is a finite amount of space in the pack and typically a finite amount of energy available to carry it.

Lesson Plan 5c: Winter Day Trip - Clothing and Equipment (45 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>There is no bad weather, only poorly equipped hikers.</i></p>
<p>Objective: 1 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Prepare clothing and equipment appropriate for the trip. <p>Pre-test: 5 minutes</p> <p><i>What do you have / prefer for clothing and equipment?</i></p>

Participatory learning: 35 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
5 min	Layering	<i>Demonstrate layering principle.</i>	<i>Watch, listen and ask questions.</i>	Clothing
10 min	Layering	<i>Coach participants on outdoor clothing & layering for winter day trips.</i>		
15 min	Equipment	<i>Demonstrate equipment. Types of snowshoes and cleats</i>	<i>Watch, listen and ask questions.</i>	Equipment
5 min	Equipment	<i>Coach participants on equipment selection.</i>		

Summary/Closure: 3 minutes

Review clothing and equipment list.

Lesson Plan 6: Weather Gathering Information (70 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>You cannot change the weather, so you need to learn to adapt as the weather changes.</i></p>
<p>Objective: 2 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Explain the basic concepts of weather. • Describe basic weather patterns for the area to be used. • Identify and interpret weather forecast information. • Integrate weather forecasts into the planning process. • Analyze how weather affects above treeline terrain (and hazard). <p>Pre-test: 3 minutes</p> <p><i>How do you get your weather information?</i></p>

Participatory learning: 60 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
30 min	Basic weather forecasting	<p><i>Describe</i></p> <ul style="list-style-type: none"> • Atmospheric pressure • Cloud formations • Warm and cold fronts • Lifting mechanisms • Jet stream • 500 mb charts 	<p><i>Watch, listen and ask questions.</i></p>	<p>Lecture</p> <p>Visual media</p>
30 min	Current weather	<p><i>Demonstrate online resources.</i></p> <p><i>Evaluate current conditions and the impact on terrain.</i></p>	<p><i>Watch, listen and ask questions.</i></p>	<p>Lecture</p> <p>Visual media</p>

Summary/Closure: 4 minutes

Review key concepts and basic weather patterns.

Lesson Plan 7: Group Management (60 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>Have you ever been angry at, disappointed or let down, by a group member?</i></p>
<p>Objective: 2 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Describe the principles of group management. • Describe several strategies to resolve simple conflicts. • Account for group dynamics in managing a mountaineering group. <p>Pre-test: 2 minutes</p> <p><i>How do you deal with a diversity of needs and expectations within a group?</i></p>

Participatory learning: 50 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
20 min	Leadership Styles	<i>Discuss various leadership styles. Discuss and describe situational leadership.</i>	<i>Watch, listen and ask questions.</i>	Lecture Visual media
15 min	Group Dynamics	<i>Account for group dynamics in managing a mountaineering group.</i>	<i>Discuss previous group situations.</i>	Flipchart
15 min	Conflict Resolution	<i>Facilitate a discussion of sources of conflict. Describe several strategies to resolve simple conflict.</i>	<i>Discuss of sources of conflict. Discuss resolution strategies.</i>	Flipchart

Summary/Closure: 5 minutes

Emphasize the need for open and honest communication to manage group dynamics.

Lesson Plan 8: Risk Management (60 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>Do you always know when you are at risk?</i></p>
<p>Objective: 5 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Identify factors that compromise group safety in order to enable mitigating action. • Identify wildlife hazards to enable mitigating action. • Describe when to use personal protective equipment. • Recognize personal limitations in summer/winter travel. • Describe strategies to maintain situational awareness (SA). • Create an evacuation plan.
<p>Pre-test: 5 minutes</p> <p><i>Who has dealt with an emergency evacuation? What were the factors that led to the emergency?</i></p>

Participatory learning: 45 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
15 min	Hazard identification	<i>Facilitate hazard analysis.</i>	<i>Identify factors: wildlife, terrain, snow and ice conditions, weather.</i>	Flipchart
15 min	Human Factors	<i>Describe situational awareness.</i>	<i>List methods of maintaining situational awareness. Recognize personal limitations.</i>	Flipchart
15 min	Evacuation	<i>Facilitate an evacuation plan.</i>	<i>Create an evacuation plan.</i>	Flipchart

Summary/Closure: 4 minutes

Reinforce the need for constant vigilance through a high level of situational awareness.

Lesson Plan 9: Wilderness Ethics and Ecology (180 minutes)

Instructor Note: This lesson plan can be delivered as multiple smaller sessions

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>Are wilderness ethics important?</i></p>
<p>Objective: 2 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Discuss access and ethics issues. • Use basic interpretive skills to enhance the knowledge of ecology and history. • Describe local wildlife issues. • Describe low impact travel and waste management techniques. • Describe low impact backcountry travel and camping practices. (Multi-day Trip Leader) <p>Pre-test: 3 minutes</p> <p><i>What is your favourite plant and animal? Why?</i></p>

Participatory learning: 170 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
30 min	Access and ethics issues	<i>Facilitate discussion.</i>	<i>Discuss current issues.</i>	
60 min	Low impact practices	<i>Facilitate discussion.</i>	<i>List and describe low impact practices.</i>	Flipchart
60 min	Interpretive skills	<i>Describe basic interpretive skills.</i>	<i>Watch, listen and ask questions.</i>	Lecture Visual media
20 min	Wildlife issues	<i>Facilitate discussion.</i>	<i>Discuss current issues.</i>	

Summary/Closure: 4 minutes

Reinforce the concept of ACC hiking groups as stewards of the land.

Lesson Plan 10a: Navigation – On-trail, day trip (130 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>How many times have you been lost or geographically embarrassed?</i></p>
<p>Objective: 3 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Apply knowledge of terrain to facilitate route-finding within a trail system. • Use topographic maps. • Interpret map features to terrain, and terrain to map features. • Use a compass. • Account for magnetic declination. • Resect positions. • Use an altimeter to aid in navigation. • Use a GPS for navigation. • Prepare a route card.
<p>Pre-test: 1 minutes</p> <p><i>Assess previous experience with map and compass.</i></p>

Participatory learning: 120 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
45 min	Maps	<p><i>Describe topo maps.</i></p> <p><i>Describe contours.</i></p> <p><i>Demonstrate how to interpret map features to terrain, and terrain to map features.</i></p>	<p><i>Watch, listen and ask questions.</i></p> <p><i>Practice grid references.</i></p> <p><i>Practice map to terrain and vice versa.</i></p>	<p>Lecture</p> <p>Visual media, terrain photos, maps</p>
15 min	Compass	<p><i>Describe compass features and uses.</i></p> <p><i>Describe magnetic declination.</i></p> <p><i>Demonstrate taking bearings from map to terrain and vice versa.</i></p> <p><i>Demonstrate resection using: 2 or 3 bearings, altimeter, physical feature.</i></p>	<p><i>Use a compass.</i></p> <p><i>Calculate magnetic declination.</i></p> <p><i>Practice taking bearings.</i></p> <p><i>Practice resections.</i></p>	<p>Visual media, compass</p>

10 min	Altimeter	<i>Demonstrate altimeter use.</i>	<i>Watch, listen and ask questions</i>	Altimeter
30 min	Route Card	<i>Facilitate the creation of a route card for on-trail hiking. Calculate travel distances and times.</i>	<i>Create a route card. Use travel time estimates.</i>	Group work
10 min	GPS	<i>Describe the integration of multiple tools.</i>	<i>Watch, listen and ask questions.</i>	Lecture Visual media
10 min	Digital tools	<i>Demonstrate Google Earth, Phone Apps.</i>	<i>Watch, listen and ask questions.</i>	Computer and smart phone

Summary/Closure: 5 minutes

Review integration of tools into a navigation system/process.

Lesson Plan 10b: Navigation — Off-trail multi-day trip (180 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>How many times have you been lost or geographically embarrassed?</i></p>
<p>Objective: 3 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Apply knowledge of terrain to facilitate off-trail route-finding. • Use topographic maps. • Interpret map features to terrain, and terrain to map features. • Use a compass. • Account for magnetic declination. • Resect positions. • Use an altimeter to aid in navigation. • Use a GPS for navigation. • Navigate in a whiteout/greenout. • Prepare a route card.
<p>Pre-test: 1 minutes</p> <p><i>Assess previous experience with map and compass.</i></p>

Participatory learning: 170 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
45 min	Maps	<p><i>Describe topo maps.</i></p> <p><i>Describe contours.</i></p> <p><i>Demonstrate how to interpret map features to terrain, and terrain to map features.</i></p>	<p><i>Watch, listen and ask questions.</i></p> <p><i>Practice grid references.</i></p> <p><i>Practice map to terrain and vice versa.</i></p>	<p>Lecture</p> <p>Visual media, terrain photos, maps</p>
45 min	Compass	<p><i>Describe compass features and uses.</i></p> <p><i>Describe magnetic declination.</i></p> <p><i>Demonstrate taking bearings from map to terrain and vice versa.</i></p> <p><i>Demonstrate resection using: 2 or 3 bearings, altimeter, physical feature.</i></p>	<p><i>Use a compass.</i></p> <p><i>Calculate magnetic declination.</i></p> <p><i>Practice taking bearings.</i></p> <p><i>Practice resections.</i></p>	<p>Visual media, compass</p>
10 min	Altimeter	<p><i>Demonstrate altimeter use.</i></p>	<p><i>Watch, listen and ask questions</i></p>	<p>Altimeter</p>

45 min	Route Card	<i>Facilitate the creation of a route card for whiteout or greenout navigation. Describe how to navigate around obstacles. Describe dead reckoning.</i>	<i>Create a route card. Use travel time estimates.</i>	Group work
10 min	GPS and altimeter	<i>Describe the integration of multiple tools.</i>	<i>Watch, listen and ask questions.</i>	Lecture Visual media
15 min	Digital tools	<i>Demonstrate Google Earth, Phone Apps.</i>	<i>Watch, listen and ask questions.</i>	Computer and smart phone

Summary/Closure: 5 minutes

Review integration of tools into a navigation system/process.

Lesson Plan 10c: Navigation – On-trail winter day trip (130 minutes)

Learning Domain – Cognitive

(Classroom)

<p>Bridge-in: 1 minute</p> <p><i>How many times have you been lost or geographically embarrassed?</i></p>
<p>Objective: 3 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Apply knowledge of terrain to facilitate route-finding on-trail in winter. • Use topographic maps. • Interpret map features to terrain, and terrain to map features. • Use a compass. • Account for magnetic declination. • Resect positions. • Use an altimeter to aid in navigation. • Use a GPS for navigation. • Navigate in a whiteout/greenout. • Prepare a route card. <p>Pre-test: 1 minutes</p> <p><i>Assess previous experience with map and compass.</i></p>

Participatory learning: 120 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
45 min	Maps	<p><i>Describe topo maps.</i></p> <p><i>Describe contours.</i></p> <p><i>Demonstrate how to interpret map features to terrain, and terrain to map features.</i></p>	<p><i>Watch, listen and ask questions.</i></p> <p><i>Practice grid references.</i></p> <p><i>Practice map to terrain and vice versa.</i></p>	<p>Lecture</p> <p>Visual media, terrain photos, maps</p>
15 min	Compass	<p><i>Describe compass features and uses.</i></p> <p><i>Describe magnetic declination.</i></p> <p><i>Demonstrate taking bearings from map to terrain and vice versa.</i></p> <p><i>Demonstrate resection using: 2 or 3 bearings, altimeter, physical feature.</i></p>	<p><i>Use a compass.</i></p> <p><i>Calculate magnetic declination.</i></p> <p><i>Practice taking bearings.</i></p> <p><i>Practice resections.</i></p>	<p>Visual media, compass</p>

10 min	Altimeter	<i>Demonstrate altimeter use.</i>	<i>Watch, listen and ask questions</i>	Altimeter
30 min	Route Card	<i>Facilitate the creation of a route card for winter on-trail navigation.</i>	<i>Create a route card. Use travel time estimates.</i>	Group work
10 min	GPS	<i>Describe the integration of multiple tools.</i>	<i>Watch, listen and ask questions.</i>	Lecture Visual media
10 min	Digital tools	<i>Demonstrate Google Earth, Phone Apps.</i>	<i>Watch, listen and ask questions.</i>	Computer and smart phone

Summary/Closure: 5 minutes

Review integration of tools into a navigation system/process.

Lesson Plan 11a: Movement skills – On-trail summer (50 minutes)

Learning Domain – Psych-motor

(Field)

<p>Bridge-in: 1 minute</p> <p><i>Who has tripped on a crack in the sidewalk? Why?</i></p>
<p>Objective: 2 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> Describe movement skills for on-trail summer travel. <p>Pre-test: 2 minutes</p> <p><i>How is hiking different from walking on the sidewalk?</i></p>

Participatory learning: 40 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
20 min	Summer on-trail travel	<p><i>Describe how varying trail conditions impact movement skills.</i></p> <ul style="list-style-type: none"> Mud Roots Rocks 	<i>Watch, listen and ask questions.</i>	Lecture Visual media
20 min	Uphill and downhill movement skills	<p><i>Uphill travel – use smaller steps. Ensure full weight transfer occurs.</i></p> <p><i>Downhill travel – land with a heel strike and slight compression of the knee to avoid the development of knee pain.</i></p>	<i>Watch, listen and ask questions.</i>	

Summary/Closure (5 min)

Proper footwear and careful consideration of trail conditions are the primary factors in summer on trail movement skills.

Lesson Plan 11b: Movement skills – Off-trail summer (80 minutes)

Learning Domain – Psych-motor

(Field)

<p>Bridge-in: 1 minute</p> <p><i>Who has tripped on a crack in the sidewalk? Why?</i></p>
<p>Objective: 2 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> Describe movement skills for off-trail summer travel. <p>Pre-test: 2 minutes</p> <p><i>How is hiking different from walking on the sidewalk?</i></p>

Participatory learning: 70 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
20 min	Summer off-trail travel	<p><i>Describe how varying off-trail conditions impact movement skills.</i></p> <ul style="list-style-type: none"> Deadfall Boulder fields Talus Scree 	<p><i>Watch, listen and ask questions.</i></p>	<p>Lecture</p> <p>Visual media</p>
20 min	Uphill and downhill movement skills	<p><i>Uphill travel – use smaller steps. Ensure full weight transfer occurs.</i></p> <p><i>Downhill travel – land with a heel strike and slight compression of the knee to avoid the development of knee pain.</i></p>	<p><i>Watch, listen and ask questions.</i></p>	
20 min	Tracksetting	<p><i>Describe efficient tracksetting techniques</i></p> <ul style="list-style-type: none"> Switchbacks Uphill Downhill 	<p><i>Watch, listen and ask questions.</i></p>	
10 min	Pacing	<p><i>Describe proper pacing and use of breaks.</i></p>	<p><i>Watch, listen and ask questions.</i></p>	

Summary/Closure: 5 minutes

Off-trail travel typically requires a variety of movement skills.

Lesson Plan 11c: Movement skills – On-trail winter (90 minutes)

Learning Domain – Psych-motor

(Field)

<p>Bridge-in: 1 minute</p> <p><i>Who has tripped on a crack in the sidewalk? Why?</i></p>
<p>Objective: 2 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> Describe movement skills for on-trail winter travel. <p>Pre-test: 2 minutes</p> <p><i>How is hiking different from walking on the sidewalk?</i></p>

Participatory learning: 80 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
20 min	Winter on-trail travel	<p><i>Describe how varying trail conditions impact movement skills.</i></p> <ul style="list-style-type: none"> <i>Snow</i> <i>Ice</i> 	<i>Watch, listen and ask questions.</i>	<p>Lecture</p> <p>Visual media</p> <p>Snowshoes</p> <p>Ice cleats</p>
30 min	Snowshoes	<p><i>Demonstrate fitting and use of snowshoes.</i></p> <ul style="list-style-type: none"> <i>Flat ground</i> <i>Uphill</i> <i>Downhill</i> <i>Hard snow</i> <i>Traverses</i> <i>Ski poles</i> 	<i>Watch, listen and ask questions.</i>	
30 min	Ice cleats	<p><i>Demonstrate fitting and use of ice cleats.</i></p> <ul style="list-style-type: none"> <i>Flat ground</i> <i>Uphill</i> <i>Downhill</i> <i>Traverses</i> <i>Ski poles</i> 	<i>Watch, listen and ask questions.</i>	

Summary/Closure: 5 minutes

Proper footwear and careful consideration of trail conditions are the primary factors in summer on-trail movement skills.

Lesson Plan 12: Emergency Response (120 minutes)

Learning Domain – Psych-motor

(Field)

<p>Bridge-in: 1 minute</p> <p><i>Who has dealt with a real accident?</i></p>
<p>Objective: 2 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> Effectively respond to emergencies in a hiking setting. <p>Pre-test: 2 minutes</p> <p><i>What level of wilderness first aid training do you have?</i></p>

Participatory learning: 110 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
30 min	Wilderness first aid	<i>Review advanced first aid principles.</i>	<i>Watch, listen and ask questions.</i>	Lecture Demonstration
45 min	Wilderness first aid scenarios	<i>Deliver scenarios.</i>	<i>Respond to scenarios.</i>	Group interaction
15 min	Emergency communications	<i>Demonstrate forms of emergency communications.</i> <i>Describe what you would communicate in an emergency.</i>	<i>Practice forms of emergency communications.</i>	Lecture Demonstration
20 min	Survival skills	<i>Demonstrate basic survival skills.</i>	<i>Watch, listen and ask questions.</i>	Lecture Demonstration

Summary/Closure: 5 minutes

One hopes to never need or use these skills, but they must be at a high level, so constant practise is needed.

Lesson Plan 13a: Water Crossings in Summer (60 minutes)

Learning Domain – Psych-motor

(Field)

<p>Bridge-in: 1 minute</p> <p><i>How deep does a water crossing need to be, to pose a hazard?</i></p>
<p>Objective: 2 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Demonstrate water crossing techniques for rivers in summer. <p>Pre-test: 2 minutes</p> <p><i>Who has crossed moving water that was knee deep? What about hip deep?</i></p>

Participatory learning: 50 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
10 min	Water hazard management	<i>Describe water hazards.</i>	<i>Watch, listen and ask questions.</i>	Lecture Demonstration
10 min	Water hazard management	<i>Demonstrate hazard assessment.</i>	<i>Watch, listen and ask questions.</i>	Lecture Demonstration
15 min	Water crossing techniques	<i>Demonstrate above water crossing techniques.</i> <ul style="list-style-type: none"> • <i>Log crossing</i> • <i>Boulder hopping</i> • <i>Downstream safety</i> 	<i>Practice above water crossing techniques.</i>	Group interaction Wet gear Poles, rope
15 min	Water crossing techniques	<i>Demonstrate in water crossing techniques.</i> <ul style="list-style-type: none"> • <i>Solo</i> • <i>Group</i> • <i>Downstream safety</i> 	<i>Practice in water crossing techniques.</i>	Group interaction Wet gear Poles, rope

Summary/Closure: 5 minutes

Reinforce that crossing moving water is potentially hazardous and must be treated with care. Avoidance is often a preferred strategy. Walking up or down stream for an hour to a bridge may be a better option.

Lesson Plan 13b: Water Crossings in Winter (45 minutes)

Learning Domain – Psych-motor

(Field)

<p>Bridge-in: 1 minute</p> <p><i>How strong does a snow or ice bridge need to be before it is no longer a hazard? How do you know how strong it is?</i></p>
<p>Objective: 2 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Demonstrate water crossing techniques for rivers and lakes in winter. <p>Pre-test: 2 minutes</p> <p><i>Who has crossed ice or snow bridges above moving water?</i></p>

Participatory learning: 35 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
10 min	Winter water hazard management	<p><i>Describe winter water hazards.</i></p> <ul style="list-style-type: none"> • Creeks with open water • Ice bridges • Snow bridges • Lakes 	<p><i>Watch, listen and ask questions.</i></p>	Lecture Demonstration
10 min	Winter water hazard management	<p><i>Demonstrate hazard assessment.</i></p>	<p><i>Watch, listen and ask questions.</i></p>	Lecture Demonstration
15 min	Winter water crossing techniques	<p><i>Demonstrate winter water crossing techniques.</i></p>	<p><i>Practice water crossing techniques.</i></p>	Group interaction Wet gear Poles, rope

Summary/Closure: 5 minutes

Reinforce that crossing snow or ice bridges over moving water is potentially hazardous and must be treated with care. Avoidance is often a preferred strategy. Walking up or down stream for an hour to a bridge may be a better option. The consequence of cold-water immersion in a winter environment is severe.

Lesson Plan 14: Camping Skills (half day – 4 hours)

Learning Domain – Psych-motor

(Field)

<p>Bridge-in: 1 minute</p> <p><i>People’s experience with their first wilderness overnight varies from “comfortable” to “barely survived”.</i></p>
<p>Objective: 4 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Demonstrate the principles of LNT camping and shelter construction. <p>Pre-test: 5 minutes</p> <p><i>Assess participants’ camping experience.</i></p>

Participatory learning: 225 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
10 min	Site selection	<i>Coach site selection.</i>	<i>Use LNT principles to select a site. Prepare a camping site.</i>	Backcountry campsite
60 min	Meal preparation	<i>Coach meal preparation.</i>	<i>Demonstrate the principles of kitchen design. Demonstrate meal preparation, grey water disposal and food storage.</i>	Food, stoves, fuel, pots
15 min	Water	<i>Ensure water source preservation.</i>	<i>Collect water.</i>	Water sacs and bottles
60 min	Camp preparation	<i>Coach camp set-up.</i>	<i>Demonstrate the principles of tents and sleeping systems.</i>	Tents, sleeping bags and mattresses
25 min	Fires	<i>Ensure safety.</i>	<i>Demonstrate fire lighting skills.</i>	Fire pan, fire starter
25 min	Human Waste	<i>Demonstrate latrine techniques.</i>	<i>Construct a latrine. Use Wag Bags.</i>	Wag bags
30 min	Emergency shelters	<i>Demonstrate the principles of emergency shelters.</i>	<i>Construct an emergency shelter.</i>	Guide’s tarps

Summary/Closure: 5 minutes

Ensure that the camp set up, use, and take down are conducted with Leave No Trace principles.

Lesson Plan 15a: Navigation – On-trail day trip (100 minutes)

Learning Domain – Psych-motor

(Field)

<p>Bridge-in: 1 minute</p> <p><i>How many times have you been lost or geographically embarrassed?</i></p>
<p>Objective: 3 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Apply knowledge of terrain to facilitate on-trail route-finding. • Use topographic maps. • Interpret map features to terrain, and terrain to map features. • Use a compass. • Use an altimeter to aid in navigation. • Use a GPS for navigation. • Use a route card.
<p>Pre-test: 1 minute</p> <p><i>Assess previous experience with map and compass.</i></p>

Participatory learning: 90 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
45 min	Maps	<i>Interpret map features to terrain, and terrain to map features.</i>	<i>Practice map to terrain and vice versa.</i>	Maps
20 min	Compass	<i>Demonstrate taking bearings from map to terrain and vice versa.</i>	<i>Use a compass.</i> <i>Practice taking bearings.</i>	Compass
15 min	Route Card	<i>Use a route card.</i>	<i>Use travel time estimates.</i> <i>Record travel time actuals</i>	Group work
10 min	GPS and altimeter	<i>Integrate multiple tools.</i>	<i>Use a GPS and altimeter</i>	

Summary/Closure: 5 minutes

Review integration of tools into a navigation system/process.

Lesson Plan 15b: Navigation – Off-trail multi-day trip (150 minutes)

Learning Domain – Psych-motor

(Field)

<p>Bridge-in: 1 minute</p> <p><i>How many times have you been lost or geographically embarrassed?</i></p>
<p>Objective: 3 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Apply knowledge of terrain to facilitate off-trail route-finding. • Use topographic maps. • Interpret map features to terrain, and terrain to map features. • Use a compass. • Account for magnetic declination. • Resect positions. • Use an altimeter to aid in navigation. • Use a GPS for navigation. • Navigate in a whiteout/greenout. • Use a route card.
<p>Pre-test: 1 minute</p> <p><i>Assess previous experience with map and compass.</i></p>

Participatory learning: 140 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
45 min	Maps	<i>Interpret map features to terrain, and terrain to map features.</i>	<i>Practice map to terrain and vice versa.</i>	Maps
45 min	Compass	<i>Demonstrate taking bearings from map to terrain and vice versa.</i> <i>Demonstrate resection using: 2 or 3 bearings, altimeter, physical feature.</i>	<i>Use a compass.</i> <i>Practice taking bearings.</i> <i>Practice resections.</i>	Compass
40 min	Route Card	<i>Use a route card for whiteout or greenout navigation.</i>	<i>Use travel time estimates.</i> <i>Record travel time actuals</i> <i>Navigate around obstacles.</i> <i>Use dead reckoning.</i>	Group work
10 min	GPS and altimeter	<i>Integrate multiple tools.</i>	<i>Use a GPS and altimeter</i>	

Summary/Closure: 5 minutes

Review integration of tools into a navigation system/process.

Lesson Plan 15c: Navigation – On-trail winter trip (100 minutes)

Learning Domain – Psych-motor

(Field)

<p>Bridge-in: 1 minute</p> <p><i>How many times have you been lost or geographically embarrassed?</i></p>
<p>Objective: 3 minutes</p> <p>By the end of the lesson, participants will:</p> <ul style="list-style-type: none"> • Apply knowledge of terrain to facilitate on-trail winter route-finding. • Use topographic maps. • Interpret map features to terrain, and terrain to map features. • Use a compass. • Use an altimeter to aid in navigation. • Use a GPS for navigation. • Navigate in a whiteout/greenout. • Use a route card. <p>Pre-test: 1 minutes</p> <p><i>Assess previous experience with map and compass.</i></p>

Participatory learning: 90 minutes

Timing	Component	Actions of the instructor	Actions of the participant	Resources
45 min	Maps	<i>Interpret map features to terrain, and terrain to map features.</i>	<i>Practice map to terrain and vice versa.</i>	Maps
20 min	Compass	<i>Demonstrate taking bearings from map to terrain and vice versa.</i>	<i>Use a compass. Practice taking bearings.</i>	Compass
15 min	Route Card	<i>Use a route card for whiteout or greenout navigation.</i>	<i>Use travel time estimates. Record travel time actuals Navigate around obstacles.</i>	Group work
10 min	GPS and altimeter	<i>Integrate multiple tools.</i>	<i>Use a GPS and altimeter</i>	

Summary/Closure: 5 minutes

Review integration of tools into a navigation system/process.

