

LOCALLY DEVELOPED COURSE OUTLINE

Winter Travel 25-3

Submitted By:
Grande Yellowhead Public School Division
No. 77

Submitted On:
Mar. 4, 2013

Board Motion

Motion Conclusion

Motion Date

Mar. 4, 2013

Motion Number

Motions

Please find attached the signed board motion for Winter Travel.

Course Basic Information

Course Name	Winter Travel 25
Credit Number	3
Hours of Instruction	62.50 hrs
Implementation Dates	9/1/2013 - 8/31/2016
Proposal Type	Extension
Development Type	Developed
Designed Grade Level	Grade 11

<p>Course Description</p>	<p>This course was developed by GYPSED#77 in partnership with Parks Canada and covers the following five major topics centered on winter travel; Hazard Awareness and Mitigation, Ecological Integrity, Historical Importance, Skill development with Specialist Technology and Equipment and Appreciation and Value for the Mountain Parks Environment.</p> <p>GYPSED#77 believes in providing students with experiential education to strengthen ties to the surrounding communities and agencies thus increasing student's skills, and providing its students with possible future opportunities within the workforce.</p> <p>In taking this course, students will have the opportunity to become engaged thinkers by identifying problems or goals to be addressed. They will develop leadership skills by working collaboratively to creatively solve real life issues. They will demonstrate how they exemplify the qualities of an Ethical Citizen by taking personal responsibility to be an adaptable and engaged team builder. Students will develop an understanding of various safety issues involving avalanches, elemental and terrain hazards, and utilization of a variety of snow safety equipment.</p> <p>The structure of this course includes pre and post immersion learning through video conference technology. It will immerse students in experiential education in Alberta's National Parks and provide exposure to role models and experts from diverse perspectives.</p>
<p>Course Prerequisite</p>	<p>Winter Travel 15</p>

Philosophy

The Winter Travel 25 course was built on GYPSD's philosophy that education needs to be focused on the learner and on building student competencies. This course is founded on the principles of experiential education through the integration of knowledge, active learning, and reflection. To achieve this, we take advantage of the expertise, terrain, and resources, (such as the Visitor Safety Response Team), afforded in the National Parks of Canada and the Marmot Learning Centre. The overarching aim of the Winter Travel program is to provide gateway opportunities for youth; opportunities that stimulate life-long learning and connect students in tangible ways with our landscape, thus invoking an entrepreneurial spirit for preserving our natural habitats while taking into account the safety issues that surround travel in winter and in mountainous terrain. Our youth will be called upon to think critically and explore creative solutions that adapt to changing conditions where our natural resources are concerned. The Winter Travel courses provide a positive blending of GYPSD's educational goals and objectives with Parks Canada's goals of informing more people about responsible use of the National Park's natural setting to foster ethical citizenship and safe travel in winter for future generations.

Rationale

The Winter Travel courses have been developed in partnership with GYPSD#77 and The Palisades Centre, located in Jasper National Park, within the Grande Yellowhead Public School Division. This course provides students with the opportunity and background knowledge to safely experience firsthand, the natural recreational areas they have available to them in their own local communities. It enables students to experience local terrains and explore new opportunities. The objectives of this course are to build winter travel and navigation skills, an understanding of winter ecosystems, and enhance leadership skills within a context of critical thinking. The progressive pedagogy of this course includes physical activity in the natural world as a means to enhance learning and activate ethical citizenship.

Learner Outcomes

Winter Travel 25 embodies the principles of place-based education. It has been developed for implementation at the Parks Canada Palisades Stewardship Education Centre in Jasper National Park. Students following this course will be engaged in video-conference team teaching and learning provided by the expertise of the Palisade's Educational Director and his staff as well as their GYPSD teacher. They will be required to participate in and complete instructional material prior to their immersion experience. There will also be post immersion activities and course material to complete. Students will gain greater understanding of safety during winter travel / risk management, use of snow safety equipment, minimization of elemental and terrain hazards, and mountain recreation. They will work collaboratively to share their knowledge and skills with a diverse audience and identify innovative problem solving approaches.

During the Immersion component of this course, to encourage a culture of teamwork, empathy, and ethical citizenship, youth will share meals and communal living spaces. They will be expected to work collaboratively in an effort to build caring, cooperative and respectful relationships that value diversity. They will initiate discussions that lead to genuine interaction and encourage innovative ideas that demonstrate diverse perspectives.

The pre, immersion and post elements of this course are delivered in partnership with GYPSD#77, The Palisades Centre staff from Parks Canada, as well as other community organizations.

General Outcomes

- 1 Students will demonstrate understanding of potential hazard awareness and mitigation in mountain recreation activities.**
- 2 Students will understand and communicate ecological integrity as it relates to the long term functioning of protected lands.**
- 3 Students will recognize the historical importance for Alberta and Canada of the Rocky Mountain natural region.**
- 4 Students will apply a variety of specialist technology and/or equipment to understand, collaborate, communicate, and to enhance skill development.**
- 5 Students will develop understanding that demonstrates an appreciation and value for the mountain parks environment.**

Specific Learner Outcomes

1 Students will demonstrate understanding of potential hazard awareness and mitigation in mountain recreation activities.	15-3 25-3 35-3
1.1 Display recognition of potential terrain hazards methods of avoidance.	X
1.2 Identify strategies of viable risk mitigation.	X X
1.3 Critically asses hazards and worst case scenarios.	X
1.4 Demonstrate basic hazard awareness (hypothermia, frostbite, getting lost, etc.)	X
1.5 Explain how to mitigate these hazards, including the use of appropriate clothing, weather forecasting, route planning, basic shelter building, emergency communication	X
1.6 Select resources and develop innovative responses to hazard simulations and emerging hazard situations.	X
1.7 Demonstrate an understanding of terrain element hazards.	X
1.8 Distinguish between potential terrain hazards (recognition and avoidance options).	X
1.9 Investigate potential disruptions that address uncertainty in winter travel.	X
1.10 Demonstrate hazard mitigation through the assessment of "worst case scenarios".	X
1.11 Investigate possible contingency plans that confidently address the issues during winter travel.	X
1.12 Understand avalanche awareness.	X
1.13 Understand and apply avalanche avoidance	X
1.14 Demonstrate proficient individual and group based self-propelled winter travel skills including the identification of cotdown and catchment features.	X
1.15 Demonstrate appropriate simulated emergency responses for winter travel.	X

1.16 Evaluate, use, and manage the information gathered including weather, avalanche forecasts and terrain conditions when planning winter travel.	X
1.17 Justify decisions and opinions in a clear, logical way.	X
1.18 Communicate an understanding of situational leadership and followership.	X
1.19 Demonstrate leadership in scene management scenarios.	X
1.20 Provide teams with direction and organization.	X
1.21 Adapt to various roles and responsibilities.	X
1.22 Responsibly assess plans of action and challenge or affirm actions.	X
1.23 Identify terrain element hazards and strategies of risk mitigation. (Recognition and avoidance options.	X
1.24 Demonstrate critical thinking skills in the context of advanced planning and pre-emptive emergency response.	X
1.25 Demonstrate group management techniques through effective planning, packing and active participation including de-brief at an individual and group level.	X

2 Students will understand and communicate ecological integrity as it relates to the long term functioning of protected lands.	15-3 25-3 35-3
2.1 Identify and understand the features of natural environments.	X
2.2 Identify and understand cultural and ecological considerations/issues of the environments.	X
2.3 Identify and understand the human and wildlife adaptations for use in winter environments.	X X
2.4 Demonstrate understanding of the specific concepts associated with winter travel and avalanche awareness (i.e. Ecology of terrain evaluation, nature and formation of	X
2.5 Evaluate the ecological impacts of winter recreation.	X
2.6 Justify opinions about winter travel and ecological integrity in a clear and logical way considering the impact on others.	X

2.7 Identify and understand the features of natural environments they visit including associated cultural and ecological considerations/issues.	X
2.8 Demonstrate an understanding of mountain recreational activities and their impact on habitat ecology.	X
2.9 Interpret the features of natural environments they visit including associated cultural and ecological	X

3 Students will recognize the historical importance for Alberta and Canada of the Rocky Mountain natural region.	15-3 25-3 35-3
3.1 Examine the local historical evolution of mountain recreation to present day.	X
3.2 Identify and understand the trends of mountain recreation and the sustainability for future generations.	X
3.3 Compare and contrast how recreational equipment has changed over the years and what implications the changes have had on safety, volume of use and backcountry access.	X
3.4 Reflect on and display an ability to appreciate multiple perspectives (cultural, historical, environmental and economic) that influence recreational winter travel in the Rocky Mountain Natural Region.	X

4 Students will apply a variety of specialist technology and/or equipment to understand, collaborate, communicate, and to enhance skill development.	15-3 25-3 35-3
4.1 Display responsible active participation; leadership, followership and collaborative skills.	X
4.2 Display familiarity with basic winter trip planning tools (route cards, elevation profiles).	X
4.3 Demonstrate digital and technological fluency through the use of transceivers, GPS units and online resource tools.	X
4.4 Display familiarity with basic snow safety equipment (transceiver, shovel, probe).	X
4.5 Demonstrate basic winter travel skills, (turning, stopping, group management), while snowshoeing, downhill and cross country skiing.	X

4.6 Demonstrate awareness of basic Ski Patrol rescue, safety equipment, and resources (weather station, Avalauncher, first aid station and emergency response sled).	X
4.7 Demonstrate effective management of group and personal equipment (selection, use and care).	X X
4.8 Demonstrate with confidence the proper use of basic winter trip planning tools (route cards, elevation profiles).	X
4.9 Demonstrate proficiency in applying avalanche awareness skills, including formation and release factors, terrain traps, Avalanche Terrain Exposure Scale.	X
4.10 Apply GPS configuration and map to field and field to map relationship when planning and identifying location.	X
4.11 Develop increased proficiency with basic winter travel skills while snowshoeing, downhill and cross country	X
4.12 Display proficiency with snow safety equipment (transceiver, shovel, probe, inclinometer, crystal card).	X
4.13 Demonstrate the ability to navigate and lead a group in varied terrain.	X
4.14 Display appropriate use and application of snow safety equipment (transceiver, shovel, probe, inclinometer,	X
4.15 Demonstrate familiarity with terrain ratings, forecast information and field indicators. (i.e. integration of multiple information sources).	X
4.16 Understand Parks Canada avalanche terrain rating system.	X
4.17 Demonstrate independent winter travel skills while snowshoeing and back country skiing.	X
4.18 Display competence with winter trip planning tools (objective plans, nutrition plans, escape routes, emergency procedures).	X
4.19 Demonstrate an ability to describe and discriminate between navigation tools and methods.	X

5 Students will develop understanding that demonstrates an appreciation and value for the mountain parks environment.	15-3 25-3 35-3
5.1 Understand and explain the value of healthy living through independent outdoor activities.	X

5.2 Communicate an understanding of the need and value of developing physical, emotional and mental competency.	X
5.3 Reflect on the acquisition of lifelong physical literacy skills such as snowshoeing, downhill and cross country skiing.	X
5.4 Increase resiliency through perseverance in real world learning contexts.	X
5.5 Develop personal and collaborative responsibility for appropriate use of mountain park environment.	X
5.6 Communicate an appreciation for wilderness and interdependence.	X
5.7 Appropriately and ethically display an appreciation for mountain recreation as a lifetime pursuit.	X
5.8 Explain the value of healthy living through independent outdoor activities.	X
5.9 Display effectively, an understanding of the need and value of developing physical, emotional, and mental	X
5.10 Demonstrate the ability to apply a variety of group management techniques.	X
5.11 Understand multiple perspectives in the implementation of plans for winter travel.	X
5.12 Display active participation, leadership and followership skills.	X
5.13 Communicate and justify an appreciation for wilderness and interdependence.	X
5.14 Appropriately and ethically, display an appreciation for mountain recreation as a lifetime pursuit.	X
5.15 Compare and contrast the Rocky Mountain regions and Coast Mountain regions including implications of weather, avalanche forecasts and terrain. conditions.	X
5.16 Develop team resilience through listening, describing, demonstrating and peer coaching.	X
5.17 Develop a personal conservation ethic.	X
5.18 Build effective working teams and community through collaboration, communication, integrity, trust and	X
5.19 Communicate an understanding of the need and value of developing physical, emotional and mental competency.	X

5.20 Develop personal and collaborative responsibility through shared experiences.	X
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Facilities or Equipment

Facility

This course had been designed to take place at the Parks Canada Palisades Stewardship Education Centre and the Marmot Learning Centre in Jasper National Park. It is a component of a multi-agency program and its successful implementation has required a significant investment in staff, facilities and equipment. The Parks Canada Palisades Stewardship Education Centre and Marmot Learning Centre are unique facilities that afford this opportunity for Alberta youth.

Equipment

Specialist equipment required for this course includes a residential facility and outdoor equipment, such as snowshoes, snowboard or downhill skis, cross country skis, avalanche transceivers, shovels and probes, winter gear, GPS units, GIS software and computers.

Learning Resources

Parks Canada Palisades Stewardship Education Centre

A major portion of this course has been designed to be delivered at the Palisades Stewardship Education Centre in Jasper National Park. The Palisades has a multitude of resources that will be used, from maps to field guides to snow shoes, and cross country skis in an immersive multi-day experiential education setting. In addition to being available to assist with the delivery of this course on site during the Immersion component, the experts at the Palisades will be available to assist with the video-conference teaching and learning.

Palisades course-specific resource package for Winter Travel 25. See http://thepalisadescentre.ca/index.php/2012-03-14-21-45-32/documents/cat_view/17-course-info-for-teachers/18-wintertravel

Texts & Multimedia

A dozen more turns – Canadian Avalanche Association

Map it First and other GIS software will be used, along with GPS units and a variety of student handouts and other resources.

Various websites and videos will be used during the course.

Others

Identification of Controversial or Sensitive Course

As with all GYPSD field trips, the program is covered under divisional insurance (see letter of support) and field trip policy AP260 guidelines are adhered to. Beyond GYPSD policy, the field components are operated inside Jasper National Park. We are therefore bound to meet or exceed custodial group regulations and this course meets or exceeds the highest standards of care.

Each year in Western Canada there are fatalities due to avalanches. Education programs such as this that operate in very carefully managed terrain, with appropriately trained experts contribute positively to hazard awareness and develop students' capacity to recognise risk and mitigate harm.

Identification of Safety Components

As with all GYPSD field trips, the program is covered under divisional insurance and field studies policy AP260 guidelines are adhered to. Beyond GYPSD policy, the field components are operated through the Palisades Stewardship Education Centre inside Jasper National Park. We are therefore bound to meet or exceed custodial group regulations; this course meets or exceeds the highest standards of care.

For specific information about the Risk Management Protocols for the Palisades Centre, see

http://www.thepalisadescentre.ca/index.php/2012-03-14-21-45-32/documents/cat_view/30-centre-of-excellence/35-quality-assurance

There is significant public interest in reconnecting youth to nature and custodial youth groups in outdoor environments. We believe that this program will contribute to the public dissemination and development of best practices in the risk-managed context of certified guides, visitor safety response systems and predetermined terrain.

Physical injury could occur as a result of students engaging in outdoor activities. Students could experience emotional difficulties as a result of being away from home.

Factors (vulnerability, dangers, hazards)

People

Youth may have limited personal exposure to outdoor lake and river environments.

Equipment

Equipment malfunctions could result in students exposed to danger from the elements.

Environment

Extreme weather conditions could lead to personal injury (such as hypothermia).

Normal conditions strategy

People

Participants will be lead by expert, professionals with qualifications and experience in leading recreation activities.

Students will be emotionally support by GYPSD and PC staff.

The screening process will ensure that all participants can swim with a personal flotation device.

Equipment

Careful maintenance and replacement of all specialist equipment will be practiced.

Environment

Daily whether check will be made, with alternate activities planned as necessitated by inclement conditions.

Emergency conditions strategy

People

Qualified first aid staff will be on site at all times. If necessary EMS will be summoned by telephone or VHF radio.

Equipment

Reserve back up equipment will be on hand, with trained professionals on site for

*recreation activities.
If necessary EMS will be summoned by telephone or VHF radio.*

*Environment
If needed the program will be suspended or rescheduled with students returned to the school.
If necessary EMS will be summoned by telephone or VHF radio.*

**Standards
Policies / Guidelines**

*GYPSD filed trip policy AP260 will be followed.
Parks Canada Custodial group framework will be followed.
Parents and students will be briefed.*

Industry standards

Parks Canada custodial groups standards will be followed, certified personnel will be provided by Parks Canada as required.

Skills required by leaders / guides

GYPSD staff will assume a 'loco parentis' role with all specialist leaders and guides provided by Parks Canada.

**Final Decision on implementing activity
Accept or reject?**

Accept

Comments

This program carries with it an element of risk. Experts manage those risks in a professional manner. GYPSD does not consider the risks inherent in this program to be above or beyond the accepted norm for high school field trips.

GYPSD reserve the right to postpone or cancel parts of the program due to inclement weather or other factors at the discretion of the principal.

Significant Overlap with Provincial Curriculum

There are no significant overlaps, this course is distinct in its learning context and is delivered through the extensive use of outside expertise and practical application in real world settings. Further, it is the conceptual pluralism model of applied science and recreation that sets this program apart.

Mapping concepts in the social studies program could be confused with some of the general outcomes of this program. However we believe that the targeted specific learning objectives of this course provide a discrete focus, much as the single sciences (Biology, Physics, and Chemistry) are quite different when compared to the general Science 10 course.

Assessment

A variety of assessment tools will be used to measure student achievement in this course.

- Pre-Immersion Assignments & Engagement: 30% of final mark
- Immersion Assignments & Engagement: 60% of final mark
(attendance & participation in activities mandatory)
- Post-Immersion Assignments & Engagement: 10% of final mark

These courses encourage and expose students to a variety of career and occupational paths. Through connection with role models from avalanche specialist public safety officers to mountain guides and ski patrol, students will develop an understanding of a range of job options. Those students who successfully complete the full program will gain a first aid certificate, CAA Avalanche Safety Training Level 1 (AVI 1), CAA Avalanche First Response Training, IGA Jasper Online Basic Certification.

The following sample rubrics will be used to assess student performance.

Peer presentations - Depth of ideas presented

4
3
2
1

Students demonstrate a thorough understanding of key concepts. Issues are dealt with in depth.

Students demonstrate a good understanding of key concepts.

Students demonstrate a general understanding of key concepts.

Students indicate a lack of conceptual understanding. Issues are dealt with at a superficial level and/or in isolation.

Winter Travel Descriptions & Vocabulary - Completeness

4
3
2
1

Students have completed all parts of the assignment. Definitions are accurate and concise. It is tidy and easy to read and will serve well for reviewing.

Students have completed all parts of the assignment. Definitions are accurate. It is mostly tidy and easy to read and will serve well for reviewing.

Students have completed all parts of the assignment. Definitions are mostly accurate. It is not tidy and easy to read and will be difficult to use for reviewing.

Students have not completed all parts of the assignment. Definitions are not accurate. It is not easy to read and will be difficult to use for reviewing.

Engagement - Quality & Quantity of Dialogue / Ideas Shared

4
3
2
1

Students always demonstrate a willingness to share ideas on key concepts. Issues are dealt with in depth. Relevant connections to past experiences and prior knowledge are often made. In-class activities are always completed.

Students demonstrate a willingness to share ideas on key concepts. Issues are sometimes dealt with in

depth. Connections to past experiences and prior knowledge are made. In-class activities are always completed. Students sometimes demonstrate a willingness to share ideas on key concepts. Issues are not often dealt with in depth. Connections to past experiences and prior knowledge are not always relevant. Some in-class activities are completed. Students indicate an unwillingness to share ideas on key concepts. Issues are dealt with at a superficial level. In-class activities are not completed.

Course Evaluation and Monitoring

Implementation for assessment of this course will be administered through the Education Director, Palisades Stewardship Education Centre under the direction and guidance of the Assistant Superintendent for GYPSD#77.

Appendix I

1 PSEC RM Protocols March 2013 2.pdf

2 Winter Travel Rubric 25.docx

Appendix II

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