SAULT COLLEGE

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE:	Trail Construction and Facility Maintenance		
CODE NO. :	NRT 260	**SEMESTER:**	3
PROGRAM:	Adventure Recreation and Parks		
AUTHOR:	Brian Anstess		
DATE:	May 2014	**PREVIOUSLY DATED:**	Aug. 2013
APPROVED:	'Colin Kirkwood'		May 2014
	CHAIR		**DATE**
TOTAL CREDITS:	4		
PREREQUISITE(S):	None		
HOURS/WEEK:	4		

I. COURSE DESCRIPTION:

Trails have had a huge and historical impact on transportation, travel, tourism and recreation in Canada. Never has this been more evident than now. The Trans Canada Trail is unifying the nation, while recreationists portage across parks, and urban cyclists find safe routes to work. A mixture of Art and Science, understanding the fundamentals of trail sustainability is an essential area of expertise for Adventure Recreation and Parks students. This course will examine the foundations of trails from organization and advocacy to the hard skills involved with building and maintenance.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Understand the many types of trails, and their importance to parks, tourism, recreation, transportation and the economy.

   Potential Elements of the Performance:

   - Identify user communities and potential conflicts
   - Learn about economic impacts of trails through an number of case studies
   - Consider the value and impacts of various user groups including motorized and non-motorized
   - Compare and contrast urban and forest / rural trail networks

   This will constitute 10% of the course grade.

2. Recognize the importance of organization and advocacy to a community of trail users.

   Potential Elements of the Performance:

   - Identify various trail advocacy organizations
   - Understand the importance of advocacy
   - Consult with relevant stakeholders
   - Join and participate with a local trails group

   This will constitute 10% of the course grade.

3. Understand the many complex elements behind trail layout and design.

Potential Elements of the Performance:

- Consider the community of users to select appropriate route and materials
- Use sustainable trail building fundamentals to evaluate soil characteristics and topography to determine suitability for trail construction
- Identify positive areas on the landscape for structures amenities, lookouts and destinations
- Understand applicable legislation, and appropriate permission from private landowners
- Evaluate potential hazards to safety and the environment
- Consider suitable materials for construction
- Evaluate relevant accessibility considerations
- Use pertinent software

This will constitute 20% of the course grade.

4. Safely use tools and work as part of a team to build and maintain a trail.

Potential Elements of the Performance:

- Choose the right tools for the job, demonstrate safe use, and tool maintenance
- Wear appropriate PPE
- Practice the fundamental elements of trail sustainability including respect for flora and fauna
- Use various methods for erosion control
- Evaluate need for trail reconstruction

This will constitute 20% of the course grade.

5. Use appropriate tools to build and maintain Trail Structures and amenities.

Potential Elements of the Performance:

- Develop an understanding of the various types of trail amenities, their purpose, cost and maintenance.
- Understand the significance of trailhead structures choose an appropriate design and layout
- Evaluate stream crossings and build bridges and boardwalks over wet areas

- Use appropriate signage and markers to aid with navigation, indicate difficulty, and explain relevant information

This will constitute 20% of the course grade.

6. Effectively digitize trail routes and produce meaningful, accurate maps.

Potential Elements of the Performance:

- Use a GPS, map and compass to log trails
- Use relevant software including Google Earth Pro and Arc Map to make a variety of maps illustrating trailheads, trails, and points of interest.

This will constitute 20% of the course grade.

III. TOPICS:

1. The economic and social impacts of trails
2. Organization, advocacy and fundraising
3. Trail layout and design
4. Trail building fundamentals
5. Trail structures, and signage
6. Risk management, liability and insurance
7. Trail maps

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

All required materials will be made available online, on reserve, or in class.

V. EVALUATION PROCESS/GRADING SYSTEM:

Assignments	60%
Participation	20%
Final Test	20%
	100 %

The following semester grades will be assigned to students:

Grade	Definition	*Grade Point Equivalent*
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	0.00

CR (Credit)	Credit for diploma requirements has been awarded.
S	Satisfactory achievement in field /clinical placement or non-graded subject area.
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.
NR	Grade not reported to Registrar's office.
W	Student has withdrawn from the course without academic penalty.

VI. SPECIAL NOTES:

Attendance:
Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.