

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



**SAULT
COLLEGE**

COURSE OUTLINE

COURSE TITLE: INVASIVE SPECIES MANAGEMENT

CODE NO. : NET 302 **SEMESTER:** 6

PROGRAM: NATURAL ENVIRONMENT TECHNOLOGIST

AUTHOR: RYAN NAMESPETRA

DATE: Jan 2012 **PREVIOUS OUTLINE
DATED:**

APPROVED: "B.Punch"

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	CHAIR	DATE
TOTAL CREDITS: 3		

PREREQUISITE(S):

HOURS/WEEK: 3

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**For additional information, please contact Brian Punch, Chair, Environment and Design
School of Technology and Natural Resources
(705) 759-2554, Ext. 2681**

I. COURSE DESCRIPTION:

This course is designed to give students an understanding of the management of invasive species in Canada. In this course students will learn to identify common invasive species in Ontario and Canada, along with each species' native range, preferred habitat, introduced range, vector for introduction and impacts on its new home. This course also introduces students to the positive and negative effects of species introductions, along with the reasons for those introductions. Students will learn of measures used to mitigate the spread of invasive species to new areas, along with techniques, such as Integrated Pest Management, developed to control invasive species after their arrival. As part of this course students will be required to plan and participate in field activities or surveys related to invasive species.

II. LEARNING OUTCOMES AND ELEMENTS OF PERFORMANCE:

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

1. **Explain and distinguish between alien and native invasive species. Also discuss modes of introduction for invasive species.**

Potential Elements of the Performance:

- Discuss common terminology related to Invasive Species Management
- Understand differences between invasive species and exotic species
- Understand life history and behavioural characteristics which allow species to successfully establish in new locations
- Outline potential vectors used by species to invade new areas

2. **Demonstrate knowledge of impacts imposed by invasive species on native species, communities, and biodiversity.**

Potential Elements of the Performance:

- Discuss general impacts of invasive species
- Understand changes in complex communities and ecosystems caused by invasive species
- Understand changes in general ecology and habitat of invaded areas
- Discuss how biodiversity is negatively impacted by invasive species

3. **Demonstrate knowledge of preventative measures to mitigate transfer of invasive species. Along with selected programs, legislation and policies for the prevention and control of alien species introductions**

Potential Elements of the Performance:

- Discuss methods used to mitigate the spread of invasive species
- Discuss governmental and non-governmental programs used to educate the public about the control of invasive species
- Review general policies created by federal and provincial agencies to mitigate the initial introduction and spread of invasive species in Ontario and Canada

4. **Research and explain control and eradication methodologies for designated invasive species.**

Potential Elements of the Performance:

- Discuss specific invasive species in Canada that currently have management protocols / strategies in place
- Research agencies involved and general methodologies used to control / eradicate the above species
- Discuss reasons why it is difficult to totally eradicate an undesirable species from a given location
- Discuss the use of Integrated Pest Management as a useful tool in managing invasive species

5. **Research and discuss habitat rehabilitation methodologies following eradication of invasive species.**

Potential Elements of the Performance:

- Understand how habitats can be rehabilitated after the control of an invasive species
- Discuss negative impacts of some control methodologies on habitat health
- Discuss governmental, private and public agencies committed to habitat rehabilitation

6. **Participate in a field survey related to invasive species.**

Potential Elements of the Performance:

- Each student will be required to participate in field studies.
- Students will organize and gather all required equipment for the chosen field survey.
- Sault College Technologists will assist students in the preparation and gathering of required resources.

III. TOPICS:

Note: These topics sometimes overlap several areas of skill development and are not necessarily intended to be explored in isolated units or in the order below

1. Introduction to Invasive Species
2. Impacts of Invasive Species
3. Mitigation of invasive species transfers/transportation
4. Management methodologies used for invasive species
5. Habitat rehabilitation following control efforts.
6. Programs and legislation related to invasive species.

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

NONE

V. EVALUATION PROCESS/GRADING SYSTEM:

Tests & Assignments	60%
Participation	<u>40%</u>
	100%

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	<i>Grade Point Equivalent</i>
A+	90 – 100%	
A	80 – 89%	4.00
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.	

IV. 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. *It is the departmental policy that once the classroom door has been enclosed, the learning process has begun. Late arrivers will not be granted admission to the room.*

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Prior Learning Assessment:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question. Please refer to the Student Academic Calendar of Events for the deadline date by which application must be made for advance standing.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.

Substitute course information is available in the Registrar's office.

Disability Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

Communication:

The College considers **Learning Management System (LMS)** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of this communication tool.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. A professor/instructor may assign a sanction as defined below, or make recommendations to the Academic Chair for disposition of the matter. The professor/instructor may (i) issue a verbal reprimand, (ii) make an assignment of a lower grade with explanation, (iii) require additional academic assignments and issue a lower grade upon completion to the maximum grade “C”, (iv) make an automatic assignment of a failing grade, (v) recommend to the Chair dismissal from the course with the assignment of a failing grade. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Student Portal:

The Sault College portal allows you to view all your student information in one place. **mysaultcollege** gives you personalized access to online resources seven days a week from your home or school computer. Single log-in access allows you to see your personal and financial information, timetable, grades, records of achievement, unofficial transcript, and outstanding obligations. Announcements, news, the academic calendar of events, class cancellations, your learning management system (LMS), and much more are also accessible through the student portal. Go to <https://my.saultcollege.ca>.

Electronic Devices in the Classroom:

Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. With the exception of issues related to accommodations of disability, the decision to approve or refuse the request is the responsibility of the faculty member. Recorded classroom instruction will be used only for personal use and will not be used for any other purpose. Recorded classroom instruction will be destroyed at the end of the course. To ensure this, the student is required to return all copies of recorded material to the faculty member by the last day of class in the semester. Where the use of an electronic device has been approved, the student agrees that materials recorded are for his/her use only, are not for distribution, and are the sole property of the College.

Tuition Default:

Students who have defaulted on the payment of tuition (tuition has not been paid in full, payments were not deferred or payment plan not honoured) as of the first week of *March* will be removed from placement and clinical activities. This may result in loss of mandatory hours or incomplete course work. Sault College will not be responsible for incomplete hours or outcomes that are not achieved or any other academic requirement not met as of the result of tuition default.

Students are encouraged to communicate with Financial Services with regard to the status of their tuition prior to this deadline to ensure that their financial status does not interfere with academic progress.

VII. COURSE OUTLINE ADDENDUM:

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