SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE: Software For Fish And Wildlife

CODE NO. : NRT 2010   **SEMESTER:** 3

PROGRAM: Fish and Wildlife Technician

AUTHOR: Don Hall, Mike Luck

DATE: June 02   **PREVIOUS OUTLINE DATED:** Aug 01

APPROVED:

_____   _____
                                 DEAN   **DATE**

TOTAL CREDITS: 2

PREREQUISITE(S): EDP 122

LENGTH OF COURSE: 16 WKS

TOTAL CREDIT HOURS: 32

I.   COURSE DESCRIPTION:

This course is intended to build on computer skills acquired in earlier courses by covering software designed specifically for fisheries and wildlife biology and management. Students will gain a deeper understanding of global positioning systems, file management and fish and wildlife applications for presentation managers. Use of spreadsheets to format and analyze field data is covered in some detail. Software specific to fish and wildlife management such as Ontario Deer Model, population modeling software, and aquatic/terrestrial ecosystem assessment programs will be included. Students are assumed to be competent in the use of word processors.

II.   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1.   ***Use the Global Positioning System to determine UTM coordinates and to navigate on water-bodies and in forested areas.***

    Potential Elements of the Performance:
    - Understand the functional elements of a specific GPS unit.
    - Use a GPS unit to determine UTM coordinates in the field.
    - Use a GPS unit along with a compass to navigate in an outdoor field setting.

    This learning outcome will count for approximately 10% of the final mark

2.   ***Manage diskettes and files using Windows Explorer.***

    Potential Elements of the Performance:
    - Develop a structured approach to managing files and folders
    - Open the Windows Explorer
    - Create folders
    - Copy files between folders
    - Move files between folders
    - Save files to appropriate folders
    - Delete files and folders

    This learning outcome will count for approximately 10% of the final mark

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3. ***Use a presentation manager to design an effective fish and wildlife related computer-based slide presentation.***

 Potential Elements of the Performance:
 - Choose an appropriate fish and wildlife related theme
 - Storyboard an effective presentation
 - Use text, graphics and charts to create an effective presentation

 This learning outcome will count for approximately 15% of the final mark.

4. ***Effectively use current software applications specific to fish and wildlife management.***

 Potential Elements of the Performance:
 - Gain an understanding of specialized software used by government agencies such as:
   - Ontario Deer Model
   - Deercamp
   - Fishnet
   - Creelsys

 This learning outcome will count for approximately 15% of the final mark.

5. ***Use a spreadsheet to format and present scientific data related to fish and wildlife applications.***

 Potential Elements of the Performance:
 - Analyze field notes to determine formatting and analysis needs.
 - Load field data from tally sheets or from hand-held computers onto spreadsheets
 - Use formatting features to present data in an effective, professional manner.
 - Work with dates and times in an effective manner.
 - Use scientific notation in data analysis
 - Use sorting, filtering functions, formulas and other spreadsheet features to effectively analyze scientific data

 This learning outcome will count for approximately 30% of the final mark.

6. ***Design and use a single-table database to store data collected during lake or stream surveys.***

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Potential Elements of the Performance:
- A design an effective table to store data, using appropriate data types
- load data into table

This learning outcome will count for approximately 5% of the final mark

7. ***Use database queries to effectively isolate useful information from lake/stream survey or urban tree survey databases.***

Potential Elements of the Performance
- examine data to determine what useful information it contains
- design queries appropriate to the task at hand

This learning outcome will count for approximately 5% of the final mark

8. ***Use a database report generator to concisely and professionally present data from a single-table database***.
Potential Elements of the Performance

- examine data available to determine what information should be displayed
- use a database report generator to design and print concise, professional reports

This learning outcome will count for approximately 5% of the final mark

9. ***Use a database manager to design effective, professional data entry forms.***

Potential Elements of the Performance

- examine field notes to determine best layout for data entry form
- use a database form generator to design an effective, professional data entry form

This learning outcome will count for approximately 5% of the final mark

III. TOPICS:
1. Global Positioning Systems
2. Windows Explorer
3. Fish and Wildlife Applications for Presentation Software
4. Spreadsheets for Fish and Wildlife – Data Presentation and Analysis
5. Specialized Fish and Wildlife Software
6. Database Software for Fish and Wildlife

IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:

1. At least 4-IBM formatted 1.44Mb high density diskettes
2. Other materials will be provided as handouts

V.   EVALUATION PROCESS/GRADING SYSTEM:

Tests	55%
Assignments	45%
Total	100%

Note: There will be two unit tests; students must achieve a grade of at least 60% in both unit tests. If the student has passed at least one of the two unit tests, a rewrite may be allowed in the unit not passed

The following semester grades will be assigned to students in postsecondary courses:

Grade	Definition	Grade Point Equivalent
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see *Policies & Procedures Manual - Deferred Grades and Make-up*).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has been impossible for the faculty member to report grades.	

Notes:
- Attendance is very important. Attendance will be recorded one way or another, in every class.
- Students may be assigned an "R" grade early in the course for unsatisfactory performance.
- Students should bring at least one blank diskette to every class
- Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.

VI.   SPECIAL NOTES:

Special Needs:
If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

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.

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.

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

VII.   PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the instructor.

VIII.   DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.