

ENFORCEMENT AND WILDLIFE MANAGEMENT  
COURSE NAME  
FOR 338-6  
COURSE NUMBER

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: ENFORCEMENT AND WILDLIFE MANAGEMENT

Code No.: FOR 338-6

Program: FISH AND WILDLIFE TECHNOLOGY

Semester: VI

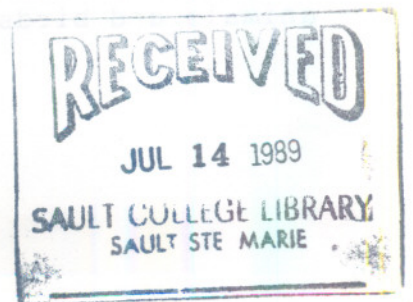
Date: JUNE 1989

Author: H. A. COOPER

New: \_\_\_\_\_ Revision: X

APPROVED: [Signature]  
Chairperson

July 10/89  
Date



ENFORCEMENT AND WILDLIFE MANAGEMENT  
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CALENDAR DESCRIPTION:

An advanced level course combining theoretical and practical aspects of game and fish legislation and enforcement, as well as other wildlife management tools. Topics include comprehensive study of major acts and regulations and enforcement procedure; biology of important wildlife species; the role of harvesting fish and game; habitat improvement for upland game birds, small game and big game mammals, furbearers and waterfowl; population manipulation; management of protected areas; predator and nuisance species control; and the role of effective public relations in resource management.

METHOD OF ASSESSMENT (GRADING METHOD):

Students will be assessed on the basis of the following:

Term tests (3)	45%
Practical tests every second week in labs	40%
-Enforcement problems	-Parasites and diseases
-Habitat improvement	-Firearm anatomy & handling
-Mammal and bird anatomy	-Mammals, skull & fur i.d.
-Waterfowl whole specimens, wings and in flight	
-Bird, amphibia, and reptilia i.d.	
Reports - 3 technical style reports	15%
- position paper	
- species biology and management	
	100%

GRADING:

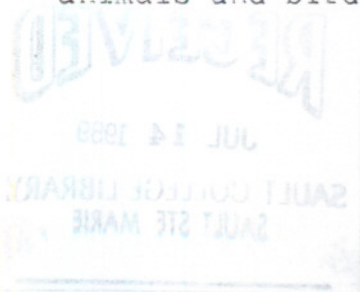
For practical tests:

For all else:

- A+ = 95%+ consistently
- A = 90 - 94%
- B = 85 - 89%
- C = 80 - 84%

- A+ = 85%+ consistently
- A = 80 - 84%
- B = 70 - 80%
- C = 60 - 69%

\*\* Students must achieve 100% competence in furbearers, game animals and birds, waterfowl and waterfowl wing identification.



TOPIC #	HOURS	TOPIC DESCRIPTION	REFERENCES
			(SEE LIST)
I	4	INTRODUCTION TO AND SCOPE OF COURSE	
		- goals and objectives of game management	
		- principles of management	(1) Ch. 1-5
		- tools and techniques	(2) Ch. 1-2
		- factors influencing future management	(8)
II	5	THE ROLE OF HARVESTING FISH AND GAME	
		- objectives of hunting, trapping & fishing	
		- methods of regulating harvests	
		- sustained yield concept	
		- opposition to and alternatives to harvesting	(2) Ch. 14
III	22	LEGISLATION AND ENFORCEMENT	
		- need for enforcement	
		- authority for legislation	(4)
		- types of offences & regulations	
		- rights of private citizens	
		- rules of evidence	
		- power and technique to search, arrest, take statements	
		- procedure for enforcing provincial and Federal offences	
		- record taking & public relations of officers	
		- courtroom procedure	
IV	8	BIOLOGY & REQUIREMENTS OF GAME SPECIES	
			(7)
		- biological requirements & limiting factors affecting important game spp.	(9)
			(10)
			(11)
			(12)

TOPIC #	HOURS	TOPIC DESCRIPTION	REFERENCES
V	12	HABITAT IMPROVEMENT	
		- methods of enhancing the habitat of:	(2) Ch. 7,8,9 (8)
		a. Upland Game Species	(3)
		- planting	
		- release & rejuvenation of food plants	(1) p. 329
		- artificial feeding	
		- types of cover and their improvement	
		b. Wetland Improvements for Furbearers, Waterfowl, Non-game spp.	(14)
		- water level control	
		- potholes and their formation	
		- wetland farming	
		- other types of enhancement	
		Specific habitat enhancement techniques for important wildlife species	
VI	6	POPULATION MANIPULATION	
		- artificial propagation of game spp.	(2) Ch. 17
		- introduction of exotic game spp. - potential and problems	
		- case studies - successes and failures	
VII	4	ESTABLISHING PROTECTED AREAS	
		Role and Short-comings of	(2) Ch. 15
		- refuges and reserves	
		- preserves	
		- sanctuaries	
		- management areas and wilderness areas	
VIII	6	PREDATOR AND NUISANCE SPECIES CONTROL	
		- principles of predator-prey relationships	(2) Ch. 13
		- types and extent of predator damage	
		- methods of control by non-lethal methods	
		- legislation for nuisance spp. control	
IX	4	PUBLIC RELATIONS AS A MANAGEMENT TOOL	
		- role of public relations	(2) Ch. 20
		- extension roles	
		- contentious issues related to P-R	

TOPIC #	HOURS	TOPIC DESCRIPTION	REFERENCES
X	3	NON-GAME WILDLIFE MANAGEMENT - endangered and threatened spp. - significance and management of non-game wildlife	

TEXTS:

- (1) Schemnitz, S. S., 1980. Wildlife Management Techniques Manual. The Wildlife Society, Washington, D.C. 686 pp.
- (2) Robinson, W. L. and E. G. Bolen, 1984. Wildlife Ecology and Management. Collier MacMillan Canada Inc. 478 pp.
- (3) U.S. Forest Service. 1969. Wildlife Habitat Improvement Handbook. U.S.D.A. Washington. 200 p.
- (4) Assorted Acts and Regulations

SUGGESTED READINGS:

- (5) The Journal of Wildlife Management - 1966-1986. LRC.
- (6) Transactions of N. A. Wildlife and Resources Conf. - 1971-1985. LRC.
- (7) O.M.N.R. publications on Wildlife spp.
- (8) Giles, R.H., Jr. 1978. Wildlife Management. Freeman & Co. San Francisco. 416 pp.
- (9) Kortright, F. H., 1967. Ducks, Geese and Swans of N.A. Stackpole, Penn. 476 pp.
- (10) Rue, L.L. III, 1980. Fur-Bearing Animals of North America. Crown publ., N.Y. 343 pp.
- (11) Ibid, 1978. The Deer of North America. Crown publishers, N.Y. 463 pp.
- (12) Schmidt, J. L., and D. L. Gilbert. 1978. Big Game of North America. W.M.I. Stackpole, Penn. 494 pp.
- (13) Readings in Wildlife Conservation. 1974. The Wildlife Society, 722 pp.
- (14) Linde, A.F., 1969. Techniques for Wetland Management. Department of Natural Resources, Madison, Wisconsin. 156 pp.

ENFORCEMENT AND WILDLIFE MANAGEMENT - PERFORMANCE OBJECTIVES

**UNIT I: INTRODUCTION**

At the completion of this unit, the student will be able to:

1. State and explain
  - 8 principles of game management
  - 7 major management tools
  - 8 factors that future resource planners must consider

**UNIT II: ROLE OF HARVESTING**

At the completion of this unit, the student will be able to:

1. State the objectives and rationale for harvesting resources.
2. Describe how harvest numbers may be regulated for sustained yield management.
3. State the arguments that the many persons opposed to hunting, trapping or fishing use.

**UNIT III: LEGISLATION AND ENFORCEMENT**

At the completion of this unit, the student will be able to:

1. Differentiate between
  - Federal and Provincial offences
  - summary conviction, indictable, and dual procedural offences, giving examples of any of these
2. Solve case studies with respect to enforcement procedure, demonstrating mastery of:
  - a. the use and contents of major Acts (including the Game and Fish, Fisheries Act, Migratory Bird Conv. Act, etc.)
  - b. the officer's powers and authority
  - c. record-taking
  - d. collecting usable evidence, seizures, statements
  - e. completion of proper enforcement forms and courtroom behaviour

**UNIT IV: BIOLOGY AND RELATED MANAGEMENT OF GAME**

At the completion of this unit, the student will be able to:

1. Describe biology, habitat, limiting and compensating factors, life history and value of any major game spp. covered.

**UNIT V: HABITAT IMPROVEMENT**

At the completion of this unit, the student will be able to:

1. Describe the methods and rules for planting of game food or cover plant species.
2. State objectives of water level control, and design a control device for a given water course to achieve these objectives.
3. Describe four types of improvements to protective cover and five methods of improving nesting cover.
4. Demonstrate on a sketch six methods of improving the habitat of any wetland area for fur-bearers or waterfowl.
5. Differentiate between rejuventation and release operations, giving benefits, drawbacks and examples of each.
6. State five advantages and five disadvantages of the artificial feeding of any game species.
7. Describe the habitat requirements and guidelines for habitat improvement for moose, deer, bear, hare and grouse spp., as well as other game and fur bearer spp. as assigned.

**UNIT VI: POPULATION MANIPULATION**

At the completion of this unit, the student will be able to:

1. Describe the use of population manipulation as a management tool.
2. Describe the reasons and methods for translocating game spp.
3. Describe the seven major potential problems and benefits of exotic game spp.

UNIT VI: BIOLOGY AND RELATED MANAGEMENT OF GAME

At the completion of this unit, the student will be able to:

**UNIT VII: ESTABLISHING PROTECTED AREAS**

At the completion of this unit, the student will be able to:

1. Describe the role and short-comings of the protected areas listed in the course outline.

At the completion of this unit, the student will be able to:

**UNIT VIII: PREDATOR AND NUISANCE SPECIES CONTROL**

At the completion of this unit, the student will be able to:

1. State eight principles of predator-prey relationships, and apply these principles to the ecological role of predators in the ecosystem.
2. State the major methods of humane predator and nuisance species control, and state the advantages and disadvantages of each.

At the completion of this unit, the student will be able to:

**UNIT IX: PUBLIC RELATIONS AND RESOURCE MANAGEMENT**

At the completion of this unit, the student will be able to:

1. Outline the features of an effective public relations program.
2. Submit an acceptable position paper on a topic dealing with a contentious issue related to resource management, ensuring that the principles of a good public relation program are met, in a technical style.

UNIT VI: POPULATION MANIPULATION

At the completion of this unit, the student will be able to:

1. Describe the use of population manipulation as a management tool.
2. Describe the reasons and methods for translocating game species.
3. Describe the seven major potential problems and benefits of captive game spp.



### LABORATORY COMPETENCY

In addition to the above objectives, the student must be able to achieve an accumulated grade of 80% in the following laboratory-related material:

1. Mammal and bird anatomy.
2. Mammalian and bird identification and classification.
3. Waterfowl identification from whole specimens or wings.
4. Reptile and amphibian identification.
5. Parasite and disease diagnosis.
6. Mammal skull and fur identification.
7. Firearm anatomy and handling.
8. Enforcement problems with practical test.
9. 100% competency is required for identification of common game, fur-bearer and waterfowl species.

The following format would be acceptable for the report.

I.	Introduction
II.	Species Status and Distribution
III.	Limiting and Compensating Factors Critical to Management.
(NOTE: Do not repeat your species biology material unless it is critical to your plan.)	
IV.	Harvest Manipulation
V.	Regulation and Enforcement
VI.	Public Enhancement
VII.	Direct Population Manipulation
VIII.	Establishing Protected Areas
IX.	Predator/Prey Species Control
X.	Public Relations
XI.	Summary and Recommendations for Ontario.

for each of the management practices listed above, there should be an adequate description of how each will affect your species and how the management practice can be most effectively carried out. References must be included in a bibliography.

Written Assignments:

A. Species Biology paper: Each student will select or have assigned an important avian or mammalian wildlife species (or more than one species with similar life histories.) For this (these) species, they will summarize the biological life history and habitats. This may be done in chart form for this report. Maximum length of the report is 3 to 4 pages. The material collected here will be presented to the class for study purposes.

Due Date: after about 3 weeks from the beginning of the semester. The exact date will be announced.

See the attached summary sheet for materials that must be covered.

B. Game Management Plan: For the same species, the student will prepare a more comprehensive management plan, reviewing the present state of the art in managing that particular species. Although the Ontario management picture should be emphasized, information from all provinces and other countries should also be incorporated into your report.

The following format would be acceptable for the report.

- I. Introduction
- II. Species Status and Distribution
- III. Limiting and Compensating Factors Critical to Management.  
(NOTE: Do not repeat your species biology material unless it IS critical to your plan.)
- IV. Harvest Manipulation
- V. Legislation and Enforcement
- VI. Habitat Enhancement
- VII. Direct Population Manipulation
- VIII. Establishing Protected Areas
- IX. Predator/Nuisance Species Control
- X. Public Relations
- XI. Summary and Recommendations for Ontario.

For each of the management practices listed above, there should be an adequate description of how each will affect your species and how the management practice can be most effectively carried out. References must be included in a bibliography.

C. Position Paper:

The wildlife management field brings up some highly controversial issues on a regular basis, and generally a lot of press coverage and public relation funds are devoted to one side or the other of the topic.

Each student will research one of these "hot" topics and present:

- a) arguments for BOTH SIDES of the issue, based on research.
- b) an intelligent summation with the student's position on the issue. This report will be in correct technical style, and submitted to the instructor before March 1. Approximate length: 4 to 5 typed pages.

Suggested topics include:

1. The seal hunt.
2. Leg-hold traps for terrestrial mammals.
3. Native rights and privileges with respect to hunting/fishing.
4. The Wild Rice Harvesting Act.
5. The Ontario Hunter Safety Training Program. Is it adequate?
6. Bounty systems for nuisance spp.
7. Selective harvests for moose or deer. Should we have them?
8. The wildlife resource. Should it revert back to the landowner as in Europe?
9. The new emphasis on predator (esp. wolf) control.
10. More strict gun control. Is it justified?
11. Solutions to the bear problem in parks.
12. Should steel shot replace lead shot?
13. Should hunters require written permission to hunt private land?
14. Snowmobiles should be banned from game-inhabited areas.
15. Preserve shooting to eliminate access problem and excessive hunting pressure on crown lands.
16. Any other approved topic.

Late penalties for ALL REPORTS:

Penalty for first week: 1 mark (out of 10) per weekday.

Reports more than 1 week late will receive a "0" value, but must be submitted in a satisfactory form to complete the course.

Reports more than 3 weeks late: "R" grade on entire course.

TENTATIVE LABORATORY SCHEDULE

Week #

1. Mammal and bird dissection and anatomy.
2. Test on anatomy. Waterfowl wing I.D.
3. Test on wings. Mammal identification from slides, study skins.
4. Skull and fur identification.
5. Test on mammals, skulls and furs. Songbird identification.
6. Game bird, shore bird and raptor identification.
7. Term test #1. Finish bird identification.
8. BREAK WEEK.
9. Test on birds. Parasites and diseases of wildlife.
10. Complete diseases of wildlife.
11. Parasite and disease case test. Private enterprise research.
12. Work on private enterprise assignment (2 weeks?)
13. Reptile and amphibia identification.
14. Review, final test.
15. Field trip to courthouse to view enforcement procedures in Court.  
(To be scheduled when convenient or when applicable cases are on docket.)