# OFFICE OF THE VICE-PRESIDENT, ACADEMIC

### **MEMORANDUM**

To:

Senate

From:

J. M. Munro, Chair

Senate Committee on Academic Planning

Subject:

School of Resource and Environmental Management

(SGSC Reference: Mtg. of Oct. 31/94, SCAP 94-61b

Mtg. of Mar. 20/95, SCAP 95-19)

Date:

April 10, 1995

Action undertaken by the Senate Graduate Studies Committee and the Senate Committee on Academic Planning, gives rise to the following motion:

## **Motion:**

"that Senate approve and recommend approval to the Board of Governors as set forth in S.95 - 29, the proposed

i) New course MRM 643 - 5 Environmental Conflict and Dispute Resolution

J.M. Muno

- ii) Change to calendar entry for graduate program
- iii) Change to description of Co-operative Education
- iv) Add section on Tourism under Co-operative Education calendar entry
- v) Add heading to Master Program calendar entry
- vi) Change to list of requires courses for MRM Degree
- vii) Change to list of elective courses."

### For Information:

Acting under delegated authority of Senate, the SGSC has approved the following course revisions:

Change of title and description: MRM 601, 602, 631 Change of description: MRM 610, 613, 647, 671, 690, 699

Change of title: MRM 664

### NEW GRADUATE COURSE PROPOSAL FORM

## CALENDAR INFORMATION:

Department: School of Resource and Environmental Management

Course Number: MRM 643

Title: Environmental Conflict and Dispute Resolution

**Description**: This course examines theoretical aspects of conflict and dispute resolution in natural resource management settings and is designed to assist students in understanding the nature of environmental conflict and the role of environmental dispute resolution (EDR) techniques.

Credit Hours: 5

Vector:4-1-0

Prerequisite(s) if any: No

## **ENROLLMENT AND SCHEDULING:**

Estimated Enrollment: 10 When will the course first be offered: Offered as a special topics course in 93-3 and 94-3. Will be offered for the first time as a regular course

in 96-1.

How often will the course be offered: Every other year

## JUSTIFICATION:

Environmental dispute resolution is a growing discipline both in an academic and applied setting. In Canada, public demands for a more participatory democratic process have redefined they way resource and environmental managers address issues such as land use planning, environmental impact assessments and land claims. This course is designed to provide students with both the theoretical and technical skills necessary to participate in and run these types of processes. No similar course is offered at a graduate level at Simon Fraser University.

### **RESOURCES:**

Which faculty member will normally teach the course: Pamela Wright or sessional

What are the budgetary implications of mounting the course: No additional resources needed. The course has been offered as a special topics course twice already.

Are there sufficient library resources (append details): Yes — The library currently receives the major relevant journals and has a number of other texts and resources that are useful to students. These have been sufficient to date when the course has been offered as a special topics. No additional resources are anticipated.

## Appended:

- a) Outline of the course
- b) An indication of the competence of the Faculty member to give the course.
- c) Library resources

Senate: Date:	
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Faculty Graduate Studies Committee: Falue Laus Date: Ja	~7, 1975
pproved: Departmental Graduate Studies Committee: Ralell M. Paten Date: 5:	Jan, 1995

**FACULTY OF** APPLIED SCIENCES

### **MRM 643**

## ENVIRONMENTAL CONFLICT AND DISPUTE RESOLUTION

## INSTRUCTOR - Pam Wright

#### DESCRIPTION

This course is designed to assist students in understanding the nature of environmental conflict and the role of alternative dispute resolution (ADR) techniques in resolving environmental disputes. The course will examine theoretical aspects of conflict and dispute resolution in natural resource management and will be practically oriented such that students develop skills in determining: when alternative dispute resolution is appropriate; designing a process for dispute resolution; evaluating the success of the process; and participating in the process.

### **OBJECTIVES**

Upon successful completion of the course the student will be able to:

- analyze the theoretical basis of natural resource conflicts
- examine the role of dispute resolution within the larger framework of shared decision-making, consensus building techniques, and multi-stakeholder working groups
- identify the appropriate application of dispute resolution techniques
- design a process for environmental dispute resolution
- develop a framework for evaluating the success of dispute resolution efforts

### **FORMAT**

The format of the class will consist of three main parts: discussion of readings, skills practicums, and application of theory and skills to actual cases. Roughly half of class time will be used in skills practicums. A number of guest speakers will provide insight into specific environmental disputes in B.C. as well as discuss the incorporation of alternative dispute resolution with other resource management practices and processes.

## **ASSUMPTIONS**

Since this course addresses the topic of shared decision-making, you will be expected to play an active role in consensus decision-making (under the framework of the course objectives) about course progress, activities, and evaluation. Class participants will be responsible for making consensus recommendations to the course facilitator. Successful completion of the class will be dependent on the groups ability to come to consensus decisions.

Additionally, as this class is designed to have a substantial practical skill component and since the recognized way of developing these skills is through role playing -- students will be expected to be active and interested participants in these processes.

### **GRADES**

Grades will be assigned based on contributions to class discussions, cases prepared and practicums. Details of all class assignments will be distributed within the first two weeks of class.

- 1. <u>ADR Management Exercise</u>: Students will examine and propose methods by which resource management agencies or organizations have or could incorporate elements of ADR into everyday resource management decision making whether involving internal or external stakeholders. The class will coordinate these individual assignments so that each student's component can be combined as chapters into a larger booklet [20%].
- 2. <u>Major Case</u>: Students will be responsible for analyzing, writing, and presenting one live case on citizen participation in a B.C. ADR process. While full details will be presented in class, this assignment will require students to interview citizen participants as well as process coordinators/conveners. This material will be used to develop a case book/training protocol for citizen participants. Details are being finalized with the client organization for this material. Students will be expected to relate the applied material to the theoretical information discussed or read for class. Portions of this assignment will be due throughout class. A draft and final written paper as well as a presentation to the client will be required [40%].
- 3. <u>Practicums</u>: The practicum portion of the course will provide students with an opportunity to practice, demonstrate, and be critiqued on the application of dispute resolution skills. Critiquing and evaluation will be conducted by both the instructor as well as student participants in the practicums. Students should expect to actively and creatively participate in a variety of simulations including role playing in order to practice skills [40%].

### **TEXTS**

Amy, Douglas. <u>The Politics of Environmental Mediation</u>. 1987. New York, N.Y.: Columbia University Press.

Crowfoot, J.E., and J. M. Wondolleck. 1990. <u>Environmental Disputes: Community Involvement in Conflict Resolution</u>. Washington, D.C.: Island Press.

Fisher, Roger and William Ury. 1991. Getting to Yes: Negotiating Agreement Without Giving In. New York, N.Y.: Penguin Books.

Readings Package (distributed in class approx. \$25.00)

### **GRADING SCALE**

Α 4.00 95%-100% 3.67 90%-94% Α-3.33 85%-89% B+ 3.00 80%-84% В 75%-79% B-2.77 2.00 70%—74%

IN ORDER TO ENSURE FAIR COMPARISONS AMONG STUDENTS, AND TO BE CONSISTENT WITH THE UNIVERSITY POLICY, DEFERRED GRADES ARE GIVEN ONLY UNDER EXTREME AND EXCEPTIONAL CIRCUMSTANCES SUCH AS ILLNESS OR DEATH IN THE FAMILY. A HEAVY WORKLOAD IS **NOT** A SUFFICIENT JUSTIFICATION FOR A DEFERRED GRADE. THERE ARE NO EXCEPTIONS TO THIS POLICY.

Secretary's Note: List of Selected Readings available on request

# W.A.C. BENNETT LIBRARY

## **MEMORANDUM**

IQ:

Randall Peterman,

Ralph Stanton,

**Collections Management** 

Graduate Studies Committee School of Resource and

Environmental Management

Subject:

MRM 643 - Environmental

Conflict and Dispute Resolution

Date:

From:

January 5, 1995

We accept your memorandum of January 4, 1995; there are no costs attached to this course.

K

# Memo

From:

Pam Wright

Centre for Tourism Policy and Research

School of Resource and Environmental Management

Simon Fraser University Burnaby, BC V5A 1S6 291*-57*78 /291-4968 (FAX)

To:

Date:

Re:

291-5778/291-4968 (FAX)
E-mail: Pamela\_Wright@sfu.ca

Randall Peterman, Chair, Graduate Studies Committee
School of Resource and Environmental Management

January 4, 1995

Rolph: Could you please let

US know if these revisions

MRM 643 Environmental Conflict and Dispute Resolution

are Ok?

course

outline

In response to Ralph Stanton's assessment of library requirements for MRM 643 I have examined the materials and made some revisions (see attached revised bibliography). Of from the the four books noted as absent from the catalogue, three have been removed (Talbot, Goldfarb and Cormick) and been replaced with more current or Canadian content (see, Dorcey, BCRTEE 1994 and 1991). The fourth book, Breaking the Impasse (Susskind and Cruikshank), is currently in the library (1987 edition). If a later edition is available it could be purchased as this is a fairly useful book.

Of the serials not in the collection, very few have regular articles revolving around this issue that are relevant to the topic. I would not suggest purchasing any of these, in particular the Columbia Journal of Environmental Law, as the few relevant articles could be put in a CanCopy package. Serials that regularly contain useful material, Natural Resources Journal, Policy Studies Journal, and Journal of Environmental Management are available at SFU.

I have revised the bibliography to reflect these changes and hope this memo answers any questions that may arise.

### **MEMORANDUM**

TO:

Dean of Graduate Studies

FROM:

Parveen Bawa

Associate Dean of FAS

DATE:

March 14, 1995

SUBJECT:

Calendar changes

SGSC approved calendar changes for REM dated October 3, 1994. Those changes were withheld from the Senate due to a small additional change required. That change was #5b on page 3 of the original document. The original document of October 3, 1994 and additional changes approved by FAS-GPC on March 14, 1995 are enclosed for consideration at the next SGSC meeting. Thank you very much.

Parveen Bawa

PB/jr

### SCHOOL OF RESOURCE AND ENVIRONMENTAL MANAGEMENT

### **MEMORANDUM**

TO:

Dr. Parveen Bawa

Associate Dean

FROM:

Randall M. Peterman, Chair

Graduate Studies Committee

School of Resource and Environmental Management

DATE:

March 13, 1995

SUBJECT:

Calendar changes for Resource and Environmental Management

Please find enclosed the final changes to the calendar entry for the School of Resource and Environmental Management. The FAS GSC previously approved the attached package of calendar changes dated 3 October 1994. We have recently made changes on page 3 of our earlier submission.

You may recall that the changes that we submitted to you in October were withdrawn just before they reached Senate in December. This was in part because of a potential change in our faculty, which has now been finalized. Marion McGinn suggested that rather than re-submit everything, we should just re-submit the section that we recently revised, which was on page 3 of our material dated October 1994. The attached page shows this revision.

The Senate Graduate Studies Committee will be meeting on Monday, March 20 and we would like these changes to be included on their agenda. Could you please schedule a meeting of the FAS Graduate Studies Committee as early as possible so that we can have these changes approved?

Thank you very much.

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Randall M. Peterman

### SCHOOL OF RESOURCE AND ENVIRONMENTAL MANAGEMENT

p.3. item 5. Change the list of Required Courses for the MRM Degree as follows:

Replace item 5 (b) in the material from October 1994 with:

Change: Replace Required Courses list on page 276 of the current SFU Calendar (1994-95) with this revised version.

Rationale: The faculty prefers this revised list of existing required courses to give the students more flexibility in planning their degree program.

Old I	<u>ist</u>	Wa	<u>ıs</u> :		
Dag	:	~4		 	^-

I	Required courses	
	MRM 601-5	Natural Resources Management I: Theory and Practice
	602-5	Natural Resources Management II: Advanced Seminar
1		Applied Population and Community Ecology
I		Economics of Natural Resources
		Applied Geomorphology and Hydrology
I		Law and Resources
		Regional Planning I (or 644-5 Public Policy Analysis and Administration)
1	698-3	Field Resource Management Workshop
l	699-10	Research Project
	New list	
I	Required courses	
	MRM 601-5	Natural Resources Management I: Theory and Practice
	611-5	Applied Population and Community Ecology
	621-5	Economics of Natural Resources
I	631-5	River Basin Analysis, Planning and Management
	801-5*	Principles of Research Methods and Design in Resource and Environmental Management
I	698-3	Field Resource Management Workshop
	699-10	Research Project
	one of either:	
	MRM 642-5	
	MRM 644-5	Public Policy Analysis and Administration

one of either:

MRM 602-5 Natural Resources Management II: Advanced Seminar, or

MRM 641-5 Law and Resources

The rest of the calendar changes proposed in October remain.

<sup>\*</sup> Students who entered REM during or prior to the fall 1994 semester and who have received credit for any one of MRM 601, 611, or 621 may not take MRM 801 for credit.

COPY

### SIMON FRASER UNIVERSITY

# SCHOOL OF RESOURCE AND ENVIRONMENTAL MANAGEMENT

### **MEMORANDUM**

TO:

Dr. Parveen Bawa

Associate Dean, FAS

FROM:

Dr. Randall M. Peterman, Chair

Graduate Studies Committee

School of Resource and Environmental Management

DATE:

October 3, 1994 ·

SUBJECT:

Calendar Changes 1994

Attached are the revised calendar changes from REM for the 1994 SFU calendar. These changes were discussed and approved at the FAS GSC meeting on September 27.

Randall M. Peterman

RMP/jr Attachment

## School of Resource and Environmental Management Changes for 1995-96 Calendar

 Change: Replace old description of the graduate program on page 275 with a slightly reorganized version. The page numbers below refer to the pages in the current SFU Calendar (1994-95).

Rationale: The new wording is organized better and makes our points more clearly. There is no substantial change otherwise.

## <u>Old</u>

The School of Resource and Environmental Management offers an interdisciplinary graduate program in the Faculty of Applied Sciences that leads to a professional Masters level degree in resource management (MRM degree). Under certain circumstances, doctoral programs may also be set up under special arrangements. Post-doctoral positions are also available. The school is designed for individuals with experience in private organizations or public agencies dealing with natural resources and the environment, or for recent graduates in various disciplines related to natural resources. From time to time, courses are scheduled in the evening or week-long blocks to permit students to complete courses on a part-time basis.

Effective management of natural resouces and the environment requires interdisciplinary skills as well as expentise in appropriate specialties. Problems in the management of lorest, fisheries, energy, wildlife, mineral, water, tourism and agricultural resources are intensifying as competing demands increase. Expentise in traditional resource disciplines is currently needed and will continue to be in demand. But such expents are more effective managers if their experience and background could be supplemented by an exposure to several disciplines involved in resource problems.

The purpose of the school is to meet this need for deeper and broader graduate training in natural resources. It is intended for individuals with undergraduate training and experience in fields such as biology, engineering, forestry and geology as well as business administration, economics, geography, planning and other social sciences. Students take an integrated sequence of courses in complementary fields, take further courses in their area of specialization and do a research project on a topic involving more than one traditional discipline. The aim is to give students increased familiarity and competence in understanding the natural dynamics of resources, strategies and techniques of natural resource planning and management, and the biological, physical, social, economic and institutional implications of resource decisions. Students also become familiar with various quantitative methods of analysis and aids to decision-making. This integrated, interdisciplinary emphasis has been part of the school since its inception in 1979.

In the field of natural resources, in particular, it is important that an academic program stress problem-solving and critical thinking rather than locus primarily on subject matter such as fisheries, economics or wildlife biology. To this end, the methods of integrating and synthesizing specialist approaches are stressed in the school.

Research by faculty and students is intended to evaluate the effectiveness of existing natural resource management policies and to develop new strategies where appropriate. These strategies often emerge from research into the biological dynamics of natural resources, of the institutional, social, economic or public policy aspects of their management. Researchers apply a range of approaches including cost-benefit analysis, simulation modelling, legal and institutional assessment frameworks, and social surveys to address critical and emerging natural resource management issues. The School of Resource and Environmental Management is primarily staffed by faculty who have a full time appointment. The courses, therefore, are designed specifically for resource and environmental management students. This full time faculty complement provides a strong focus and integration which significantly enhances the educational experience for graduate students. Considerable research is in direct collaboration with resource management agencies to ensure imentation of research results.

# Overview

The School of Resource and Environmental Management (formerly the Natural Resource Management Program) offers interdisciplinary graduate programs in resource and environmental management. The School grants three degrees: a masters degree (MRM) in resource management, a combined Masters degree in resource management and business administration (in cooperation with the Faculty of Business Administration), and a Ph.D. degree in resource and environmental management.

These degrees are designed for recent graduates from a range of disciplines and individuals with experience in private organizations or public agencies dealing with natural resources and the environment. Relevant disciplines of undergraduate training or experience include fields such as biology, engineering, chemistry, forestry, and geology, as well as business administration, economics, geography, planning and a variety of social sciences. The graduate programs provide training for professional careers in private or public organizations and preparation for further training for research and academic careers. Some courses are scheduled in the evening or week-long blocks to allow working

professionals to complete the program on a part-time basis. An optional co-operative education program permits students to work in a private organization or a resource management agency to gain first-hand experience.

The study and resolution of resource and environmental problems increasingly demand the type of applied interdisciplinary analysis that is the focus of the School of Resource and Environmental Management. Effective management of natural resources and the environment requires interdisciplinary skills and an appreciation of the principles and research findings in several fields as well as expertise in appropriate specialties. While proficiency in traditional resource disciplines will continue to be demanded, resource managers can be more effective and productive if such training is supplemented by focused attention on complementary disciplines.

The School of Resource and Environmental Management is designed to meet this need for interdisciplinary research and training. Students take an integrated sequence of courses in complementary fields, pursue further courses in their area of specialization in the School and throughout the university, and complete a research project on a topic involving more than one traditional discipline. The aim is to give students increased familiarity and competence in understanding the dynamics of natural resources, the strategies and techniques of natural resource and environmental planning and management, and the biological, physical, social, economic and institutional implications of resource decisions. Students also become familiar with various quantitative methods of analysis and aids to decision making. In the field of natural resources, in particular, it is important that an academic program stress problem-solving as well as creative and critical thinking skills rather than focus primarily on subject matter such as fisheries, economics, or forestry. To this end, the methods of integrating and synthesizing specialist approaches are stressed in the School.

The School of Resource and Environmental Management is primarily staffed by faculty who have a full-time appointment, unlike similar programs at most other universities. The courses, therefore, are designed specifically for resource and environmental management students. This full-time faculty complement provides a strong focus and integration that significantly enhances the educational experience for graduate students.

Research by faculty and students is intended to evaluate the effectiveness of existing natural resource management policies and where appropriate to develop alternatives. Innovative strategies often emerge from research into the biological dynamics of natural resources, or the institutional, social, economic or public policy aspects of their management. The emphasis in course materials and in the research programs of the School is not simply to identify and describe resource and environmental problems, but to better understand their causes and design acceptable solutions. Researchers apply a range of approaches including cost-benefit analysis, simulation modelling, legal and institutional assessment frameworks, and social surveys to address critical and emerging natural resource management issues on local, national, and international scales. Considerable research is done in direct collaboration with resource management agencies to facilitate implementation of research results.

A strong demand exists for graduates from the School of Resource and Environmental Management and this is forecasted to increase with the growing national and international interest in resource and environmental issues. Many graduates pursue further academic goals in leading doctoral programs. Graduates have been very successful in obtaining responsible management and research positions in public and private sector agencies and in obtaining academic appointments.

2. <u>Change</u>: Replace and move old description of Co-operative Education from p. 277 to just after the Overview section above.

Rationale: This section was out of sequence previously.

# Cooperative Education

REM's graduate Co-operative Education (Co-op) Program allows students to work in a governmental or private resource management organization to gain professional experience in applied problem solving. Resource Management Co-op students, because of their background, bring high-level skills to their positions. Participation in the Co-op program is optional but in many cases this type of professional employment can lead directly to a MRM 699 Research Project and to employment following graduation.

3. Change: Add this section on Tourism under the new Cooperative Education section.

Rationale: This section was unintentionally omitted previously.

## Tourism Research

In keeping with its multidisciplinary character, the School of Resource and Environmental Management plays a leading role in the operation of Simon Fraser University's Centre for Tourism Policy and Research. As an arm of the University, the Centre undertakes research, professional development seminars and workshops, and conducts planning and marketing research projects for public and private sector tourism organizations.

4. Change: On p. 276 the heading "Masters Program" should have added to it: "(MRM Degree)"

Rationale: This will distinguish the section from the one on the Joint MRM/MBA degree

- 5. Change the list of <u>Required</u> Courses for MRM Degree as follows:
  - (a) Change: Modify title of MRM 631-5 (See section #8 below)
    Old: Applied Geomorphology and Hydrology to
    New: River Basin Analysis, Planning, and Management

Rationale: The content of the course remains almost unchanged (see section #8 below) but the new title more accurately reflects the course's contents.

- (b) Change: Remove MRM 641-5, Law and Resources
  Rationale: REM faculty decided that this course is no longer necessary for all
  REM students, but it will likely remain a popular elective.
- (c) <u>Change:</u> Add to the list of required courses for the MRM degree MRM 801-5, Principles of Research Methods and Design in Resource and Environmental Management

<u>Rationale</u>: All REM students will be required to take this course in research methods.

NOTE: THE MRM 801-5 COURSE WAS APPROVED BY SENATE IN SENATE DOCUMENT S.94-40

6. Change to the list of <u>Elective</u> Courses as follows:

In Regional Resource Planning section

Change: Insert MRM 641-5, Law and Resources

Rationale: Although this course will no longer be required, it must remain an elective.

<u>Change:</u> Delete MRM 645-5, Resource Development Communities <u>Rationale</u>: This course has not been offered in several years.

<u>Change</u>: Delete MRM 615-3, Management of Aquaculture Resources <u>Rationale</u>: This course is already listed under the Fisheries Management section of the electives and does not belong here under Regional Resource Planning.

- 7. Instructions to typesetters: Insert the newly approved calendar entry for the Ph.D. degree found in Senate document S.94-40 after the end of the "Joint Masters in Natural Resource Management and Business Administration" section.
- 8. Changes to descriptions of contents of Graduate Courses

The following changes to descriptions of the courses are relatively minor. They more accurately describe the current contents of the courses than the old descriptions, which in some cases date back over 10 years. Changed words are shown in courier font like this.

Old name and description:

MRM 601-5 Natural Resources Management I: Theory and Practice. .Disciplinary and interdisciplinary theory and principles for natural resources analysis and planning

New name and description:

MRM 601-5 Natural Resource Management I: Theory and Practice. An overview of disciplinary and interdisciplinary theories and their practical application to analysis of natural resource and environmental planning.

Old name and description

MRM 602-5 Natural Resources Management II: Advanced Seminar. A review of selected policies, programs or institutions related to natural resources management. Prerequisite 8 required MRM courses or permission of instructor.

New name and description

MRM 602-5 Natural Resource Management II: Advanced Seminar. A professional group workshop course focusing on specific resource and environmental problems. (Prereq.: 8 MRM courses or permission of instructor).

Old description

MRM 610-5 Management of Contaminants in the Environment. Application of scientific methodology and concepts regarding pollutant behaviour and effects in environmental management.

New description

MRM 610-5 Management of Contaminants in the Environment. A study of environmental behaviour and toxic effects of chemical substances in the environment and the application of methodologies for their management.

Old description

MRM 613-5 Current Topics in Fisheries Management. Current methods of evaluation of fisheries management problems, with emphasis on the biological aspects; case studies of world fisheries. (Prereq.: MRM 611 and MRM 612 or permission of instructor).

New description

MRM 613-5 Current Topics in Fisheries Management. Models of fish population dynamics, methods of data analysis, and management in the context of uncertainty. Case studies of management of various world fisheries. In-depth exploration of selected current fisheries problems including extensive data analysis. Focus will be primarily on biological aspects of fisheries management while illustrating how these interface with economic, social and institutional concerns of managers. (Prereq.: MRM 611 and MRM 612 or permission of instructor).

Old title and description

MRM 631-5 Applied Geomorphology and Hydrology. A review of geomorphic and hydrologic principles; the morphology of drainage basins; selected case studies.

<u>New title and description</u> The new title and description of the course more accurately reflect the applied focus of this course.

MRM 631-5 River Basin Analysis, Planning, and Management. A review of geomorphic and hydrologic principles; the morphology of drainage basins and rivers; selected case studies of impact assessment and river restoration.

Old description

MRM 647-5 Parks and Outdoor Recreation Planning. This course will outline resource assessment, planning, and management methods related to parks and outdoor recreation.

New description

MRM 647-5 Parks and Outdoor Recreation Planning. This course examines a combination of both ecological and market-based resource assessment and planning techniques for conservation and use of parks, forests, and protected areas. Visitor behavior and management in recreation and protected areas settings will be examined.

Old title

MRM 664-5 Special Topics in Resource Management.

New title We do not have a Directed Studies course at present.

MRM 664-5 Directed Studies.

Old description

MRM 671-5 Forest Ecology. Principles of ecology of trees and forests applied to evaluation and management of forest ecosystems.

New description

MRM 671-5 Forest Ecology. Structure, function and development of forest ecosystems. Population, community, ecosystem and landscape approaches are used to enable students to understand the biology and management of forests in terms of the processes driving spatial and temporal dynamics.

Old description

MRM 690-0 Practicum I. First semester of work experience in the School of Resource and Environmental Management's Co-operative Education program.

New description

MRM 690-0 Practicum I. First semester of work experience in the School of Resource and Environmental Management's Co-operative Education program. (Prereq.: Students must have completed at least one semester's courses and permission of REM's Co-op Coordinator).

Old description

MRM 699-10 Research Project. A research project dealing with a specific problem problem in resource administration or allocation, resulting in the preparation of a formal paper and an oral defense.

New description

MRM 699-10 Research Project. A research project dealing with a specific interdisciplinary problem in resource management, administration or allocation. the study must result in the preparation of a formal paper and the presentation of a seminar.

## Add 3 new courses associated with Senate Document S.94-40 to p. 278 of the SFU Calendar.

MRM 801-5 Principles of Research Methods and Design in Resource and Environmental Management. Students will develop skills and insight into the design, implementation and analysis of interdisciplinary research in natural resource and environmental management. This will help prepare students to carry out their own research projects. (No prerequisites).

MRM 802-5 Institutional Design and Decision Making for Environmental Management.
Students will develop a sophisticated understanding of the institutional structure and methods of decision-making in natural resource and environmental management. This course complements material covered in a variety of master's level courses. (No prerequisites)

MRM 899 Ph.D. Thesis

9. <u>Change</u>: Add new course (proposed below) under the electives section of Regional Resource Planning: MRM 643, Environmental Conflict and Dispute Resolution. The course proposal form is attached.

<u>Rationale</u>: Many students in resource and environmental management need to obtain these skills to deal effectively with diverse interest groups.

calchg94

Oct. 4, 1994