

MGSISC Made in the MGSISC MADE i

2012-2013

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Note: Thr oughout this publication, "you" r efers to students newly admitted, eadmitted or returning to McGill.

# **Publication Information**

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- 1 About the McGill School of Evironment,page7
- 2 Mission of the Schoopage7
- 3 Revisions McGill School of Environment,page7
- 4 About the School (Undgraduate)page8
  - 4.1 Location,page8
  - 4.2 Administrative Of cers, page8
  - 4.3 Academic Staff page8
- 5 Admission, Rgistration, and Rgulations,page10
  - 5.1 Admission,page10
  - 5.2 Degree Requirementspage10
  - 5.3 Advising in the MSEpage11
  - 5.4 Important Information about Program Selectipage11
  - 5.5 Course Numbering System at McGiplage11
  - 5.6 Examination Rgulations,page11
  - 5.7 Courses Outside the StudenFaculty, page11
- 6 Overview of Programs Offered, page 12
- 7 Suggested Courses for Freshmen Studentse12
- 8 Minor in Environment,page12
  - 8.1 Bachelor of Arts (B.A.) Minor Concentration Exironment (18 credits) page 13
  - 8.2 Bachelor of Science (Agricultural and Vitronmental Sciences) (B.Sc.(AgvESc.)) or Bachelor of Science (B.Sc.)
    - Minor Environment (18 credits)page17
- 9 B.A. Faculty Program in Enironment,page21
  - 9.1 Ecological Determinants of Health in Society Domaiage22
    - 9.1.1 Bachelor of Arts (B.A.) Faculty Program Enironment Ecological Determinants of Health in Society (54 credits) ,page22
  - 9.2 Economics and the EarthErvironment Domainpage26
    - 9.2.1 Bachelor of Arts (B.A.) Faculty Program Enironment Economics and the Earth's Temment (54 credits), page 27
  - 9.3 Environment and Deelopment Domainpage29
    - 9.3.1 Bachelor ofArts (B.A.) Faculty Program Enironment Enironment and Deelopment (54 credits)page29
- 10 Bachelor of Arts and Science (B.A. & Sc.) Interculty Program in Enironment, page 33
  - 10.1 Bachelor of Arts and Science (B.A. & Sc.) Interfulty Program Erironment (54 credits)page33
  - 10.2 Bachelor of Arts and Science (B.A. & Sc.) Interculty Program in Sustainability cience and Society age 37
- 11 Major in Ervironment B.Sc.(Ag.Em.Sc.) and B.Scpage37
  - 11.1 Biodiversity and Conseation Domain.page38
    - 11.1.1 Bachelor of Science (Agricultural and Wellmonmental Sciences) (B.Sc.(Ag. ESc.)) or Bachelor of Science (B.Sc.) Major Entronment Biodiversity and Consention (63 credits) page 38
  - 11.2 Ecological Determinants of Health Domainage41
    - 11.2.1 Bachelor of Science (Agricultural and Wittonmental Sciences) (B.Sc.(Ag. ESc.)) or Bachelor of Science (B.Sc.) Major Evitronment Ecological Determinants of Health Cellular (63 credital) e42

- 11.2.2 Bachelor of Science (Agricultural and Vimonmental Sciences) (B.Sc.(Ag.VE8c.)) or Bachelor of Science (B.Sc.)- Major Evironment Ecological Determinants of Health Population (63 creditag) e45
- 11.3 Environmetrics Domainpage49
  - 11.3.1 Bachelor of Science (Agricultural and Weinonmental Sciences) (B.Sc.(Ag. WESc.)) or Bachelor of Science (B.Sc.) Major Entronment Entronmetrics (63 credits)page49
- 11.4 Food Production and ₩irronment Domainpage52
  - 11.4.1 Bachelor of Science (Agricultural and Wittonmental Sciences) (B.Sc.(Ag. WESc.)) or Bachelor of Science (B.Sc.) Major Evitronment Food Production and Evitronment (63 credits) page 53
- 11.5 Land Surface Processes and Vienon mental Change Domaipage 56
  - 11.5.1 Bachelor of Science (Agricultural and VEnnonmental Sciences) (B.Sc.(Ag. ESc.)) or Bachelor of Science (B.Sc.)-Major Enironment Land Sunfce Processes and VEnnonmental Change (63 credits) age 56
- 11.6 Renewable Resource Management Domaiage60
  - 11.6.1 Bachelor of Science (Agricultural and Wittonmental Sciences) (B.Sc.(AgvESc.)) or Bachelor of Science (B.Sc.) Major Entronment Renerable Resource Management (63 credital)
- 11.7 Water Environments and Ecosystems Domapage63
  - 11.7.1 Bachelor of Science (Agricultural and with monmental Sciences) (B.Sc.(Ag. E8c.)) or Bachelor of Science (B.Sc.) Major Entronment Water Environments and Ecosystems Biological (60 credits) ge63
  - 11.7.2 Bachelor of Science (Agricultural and Wintonmental Sciences) (B.Sc.(Ag. ESc.)) or Bachelor of Science (B.Sc.) Major Entronment -Water Entronments and Ecosystems -yellocal (63 credits) page 66
- 12 Major in Environment B.Sc.,page69
  - 12.1 Atmospheric Enironment and Air Quality Domain, page 69
    - 12.1.1 Bachelor of Science (B.Sc.) Major Emonment Atmospheric Enironment and Pair Quality (60 credits) page 69
  - 12.2 Earth Sciences and Economics Dompinge72
    - 12.2.1 Bachelor of Science (B.Sc.) Majorv Erronment Earth Sciences and Economics (66 credital) 972
- 13 Honours Program in Enironment,page74
  - 13.1 Bachelor of Arts (B.A.) Honours Evironment (60 credits) page 74
  - 13.2 Bachelor of Science (B.Sc.) Honours/Fonment (72 credits)page75
  - 13.3 Bachelor of Arts and Science (B.A. & Sc.) Honours vironment (60 credits) page 75
  - 13.4 Bachelor of Science (Agricultural and VEnonmental Sciences) (B.Sc.(Ag. ESc.)) Honours Enironment (69 credits) ,page76
- 14 Joint Honours Component **⊞r**onment,page76
  - 14.1 Bachelor of Arts (B.A.) Joint Honours Component Fronment (36 credits) page 77
- 15 Diploma in Environment,page78
  - 15.1 Diploma in Environment (30 credits)page78
- 16 Field Studiespage82

# 1 AbbMGISc b6En iven

McGill s Faculties of Agricultural and Emironmental Science Arts, Science, and Leahave forged a unique approach to the study of memment through the interfaculty, trans-disciplinary McGill School of Emironment (MSE).

The growth of technologyglobalizing economies, and rapid increase in populative had dramatic and signi cantveronmental impacts These changes have been accompanied by an increasing reness of the relationship between humanitact and the evironment. Extraormental problems range from local and short-term deadation through to the perturbation observer the entire globe and for manyears. The importance of human-veronment relations for evironmental and social well-being, and the consiple and con ict involved in extraormental analysis and decision making, requires a depth and breadth of knowledge. The MSE has deeloped its programs with the approach of introducing students to a broad range of ideas early in the program to provide a foundation and an openness upon which more specialized, disciplinate degree can be util.

# 2 Missisc b

The mission of the McGill School of **Eim**onment is:

to pro

#### Diploma in Environment

section 15.1Diploma in Environment (30 ordits)

# 4 AttaSc total by

The people and the programs of the McGill School of Informent are described in the following sections.

### 4.1 Lb

For advising, contact:

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Email: kathyroulet@mcgill.ca

Website:wwwmcgill.ca/mse

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21,111 Laleshore Road

Sainte-Anne-de-Bellæue, Quebec H9X 3V9

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Dean, Faculty of Agricultural and En vironmental Sciences

Dean, Faculty of Arts

Dean, Faculty of Law

Dean, Faculty of Science

**Dir ector** 

Associate Director, Graduate Affairs
Associate Director, Undergraduate Affairs

Associate Director, Nowsea

# Professors

Colin Chapman; B.Sc., M.A., Ph.D.(Altajþint appt. withAnthropology)

# Associate Pofessors

To be eligible for a B.Sc.(Ag.\( \text{ErrSc.} \)) degree, you must ful I all the aculty and program requirements as indicate (\( \text{Prior}\) drograms, Couses and University Regulations> Faculties & Shools> Faculty of Agricultural and Environmental Sciences Undergraduate>: Degree Requirements

To be eligible for a B.Sc. dece, you must ful I all the aculty and program requirements as indicated ringrams, Couses and University Regulations>

Students, after consulting with their adviser in their major program or concentration and the MSE Robigsemean declare their intention to do a Minor in Environment.

To obtain a Minor in Evironment, students must:

register for the Minor online, using Mineary

submit their program of courses alreadyetaland to be tath for the Minor in Enironment to the MSE PrograAdviser for approval (only courses at the 200 level and above will be approved);

pass all courses counted ward the Minor with a grade of C or higher,

complete 18 credits from the courses listed undertion 8.1Bachelor of Arts (B.A.) - Minor Concendation Environment (18 cerdits) or section 8.2 Bachelor of Science (Agricultat and Environmental Sciences) (B.Sc.(Egv.Sc.)) or Babelor of Science (B.Sc.) - Minor Veronment (18 cerdits) in this publication and which are not otherwise counted to the student's major program or concentration or a second minor program; and ensure that all 18 credits are takoutside the discipline or eld of the student's major program or concentration.

* Note: If WILD 415 is taken, 1 additional credit of complementary courses must keetak			
AGEC 231	(3)	Economic Systems & Griculture	
AGEC 333	(3)	Resource Economics	
AGEC 430	(3)	Agriculture, Food and Resource Polic	
AGEC 442	(3)	Economics of Internation Algricultural Development	
AGRI 210	(3)	Agro-Ecological History	
AGRI 411	(3)	Global Issues on Delopment, Food and Agriculture	
ANTH 206	(3)	Environment and Culture	
ANTH 212	(3)	Anthropology of Deelopment	
ANTH 339	(3)	EcologicalAnthropology	
ANTH 512	(3)	Political Ecology	
BREE 503	(3)	Water: SocietyLaw and Polig	
CIVE 433	(3)	Urban Planning	
ECON 205	(3)	An Introduction to Political Economy	
ECON 225	(3)	Economics of the Enironment	
ECON 326	(3)	Ecological Economics	
ECON 347	(3)	Economics of Climate Change	
ECON 405	(3)	Natural Resource Economics	
ENVB 437	(3)	Assessing Evironmental Impact	
ENVR 201	(3)	Society Environment and Sustainability	
ENVR 203	(3)	Knowledge, Ethics and <b>E</b> ironment	
ENVR 400	(3)	Environmenta∏hought	
GEOG 200	(3)	Geographical Persperentis:World Environmental Problems	
GEOG 210	(3)	Global Places and Peoples	
GEOG 216	(3)	Geograph of the World Economy	
GEOG 221	(3)	Environment and Health	
GEOG 300	(3)	Human Ecology in Geograph	
GEOG 301	(3)	Geograph of Nunavut	
GEOG 302	(3)	Environmental Management 1	
GEOG 303	(3)	Health Geograph	
GEOG 370	(3)	ProtectedAreas	
GEOG 382	(3)	Principles Earth Citizenship	
GEOG 403	(3)	Global Health and Enironmental Change	
GEOG 408	(3)	Geograph of Development	
GEOG 410	(3)	Geograph of Underdeelopment: Current Problems	
GEOG 508	(3)	Resources, People and WRor	
GEOG 530	(3)	Global Land and Vater Resources	
GEOG 551	(3)	Environmental Decisions	
MGPO 440	(3)	Strategies for Sustainability	
NRSC 221	(3)	Environment and Health	
NRSC 540	(3)	Socio-Cultural Issues Mater	
PHIL 230	(3)	Introduction to Moral Philosoph1	
PHIL 237	(3)	Contemporary Moral Issues	

PHIL 334	(3)	EthicalTheory
PHIL 343	(3)	Biomedical Ethics
PHIL 348	(3)	Philosophy of Law 1
POLI 211	(3)	Comparative Government and Politics
POLI 212	(3)	Government and Politics - DelopedWorld
POLI 227	(3)	DevelopingAreas/Introduction
POLI 345	(3)	International Oganizations
POLI 445	(3)	International Political Economy: Monetary Relations
POLI 466	(3)	Public Polig Analysis
PSYC 215	(3)	Social Psychology
RELG 270	(3)	Religious Ethics and the Einonment
RELG 340	(3)	Religion and the Sciences
RELG 370	(3)	Religion and Human Rights
RELG 376	(3)	Religious Ethics
SOCI 222	(3)	Urban Sociology
SOCI 234	(3)	Population and Society
SOCI 235	(3)	Technology and Society
SOCI 254	(3)	Development and Underwelopment
SOCI 386	(3)	Contemporary Social Mæments
URBP 201	(3)	Planning the 21st Century City
URBP 506	(3)	Environmental Polig and Planning
URBP 530	(3)	Urban Environmental Planning
WILD 415*	(2)	Consertation Law

## NtaGinal Te by

 $^{**}$  Note: you may take MIMM 211 or LSCI 230, bit not both; you may take ENVB 315 or BIOL 432, bit not both; you may take BIOL 308 or ENVB 305, but not both.

AGRI 340	(3)	Principles of EcologicaAgriculture
AGRI 435	(3)	Soil andWater Quality Management
ANSC 326	(3)	Fundamentals of Population Genetics
ANTH 311	(3)	Primate Behvaiour and Ecology
ARCH 375	(2)	Landscape
ARCH 377	(3)	Enegy, Environment and Buildings
ARCH 378	(3)	Site Usage
ATOC 215	(3)	Oceans/Weather and Climate
BIOL 240	(3)	Monteregian Flora
BIOL 305	(3)	Animal Diversity
BIOL 308**	(3)	Ecological Dynamics
BIOL 310	(3)	Biodiversity and Ecosystems
BIOL 342	(3)	Marine Biology
BIOL 418	(3)	Freshwater Invertebrate Ecology
BIOL 432**	(3)	Limnology
BIOL 436	(3)	Evolution and Society

BIOL 465	(3)	Conservation Biology
BREE 217	(3)	Hydrology and/Vater Resources
BREE 322	(3)	OrganicWaste Management
		Bio-Treatment of

MIMM 324	(3)	FundamentaVirology
NRSC 333	(3)	Pollution and Bioremediation
NRSC 340	(3)	Global Perspecties on Food
NRSC 510	(3)	Agricultural Micrometeorology
NRSC 514	(3)	Freshwater Ecosystems
PARA 410	(3)	Environment and Infection
PARA 515	(3)	Water, Health and Sanitation
PLNT 304	(3)	Biology of Fungi
PLNT 305	(3)	Plant Pathology
PLNT 358	(3)	Flowering Plant Dirersity
PLNT 426	(3)	Plant Ecophisiology
PLNT 460	(3)	Plant Ecology
SOIL 300	(3)	Geosystems
WILD 421	(3)	Wildlife Conservation

## 8.2 Berktősé(AbgEn iv ktőb) (B.Sa(AgEn v.Sa)) dBerktősé(B.Sa) - MitEn iv kt/18 bl

This 18-credit Minor is intended fora Eulty of Agricultural and Emironmental Science students an activity of Science students utility of Science students open to students from other faculties as well, acceptArts and Law.

#### AdiaNe

Consultation with the PrograAdviser for approval of course selection to meet program requirements is abblig Only courses at the 200/ket and above will be approved.

For information about the Minor in **Ein**onment, contact:

Ms. Kathy Roulet, MSE ProgramAdviser

Email: kathy.roulet@mcgill.ca Telephone: 514-398-4306

#### C†an yCra e(18 †a)

18 credits of complementary courses are selected as sollo

### 12 credits of MSE core courses:

Location Note: MSE core courses are taught at both McGillwerthown campus and at the Macdonald campus in Sainte-Anne-devibre who should register in Section 001 of an ENVR course that you plan to teak the Downtown campus, and in Section 051 of an ENVR course that you planeto tak the Macdonald campus.

ENVR 200	(3)	The Global Exironment
ENVR 201	(3)	Society Environment and Sustainability
ENVR 202	(3)	The Evolving Earth
ENVR 203	(3)	Knowledge, Ethics and <b>⊡</b> ironment
ENVR 400	(3)	Environmenta∏hought

6 credits of evironmentally related courses selected with the apploof the ProgramAdviser (at least 3 credits must be in social scienAdviser Courses is gien below.

### Sg gtCo eLts

The Suggested Course List is ided into two thematic categories: Social Sciences and Poliand Natural Sciences and dehnology

McGill UnivF 17

Most courses listed at the 300 de and higher has prerequisites.

GEOG 530	(3)	Global Land and Water Resources
GEOG 551	(3)	Environmental Decisions
MGPO 440	(3)	Strategies for Sustainability
NRSC 221	(3)	Environment and Health
NRSC 540	(3)	Socio-Cultural Issues Mater
PHIL 230	(3)	Introduction to Moral Philosoph1
PHIL 237	(3)	Contemporary Moral Issues
PHIL 334	(3)	EthicalTheory
PHIL 343	(3)	Biomedical Ethics
PHIL 348	(3)	Philosophy of Law 1
POLI 211	(3)	Comparative Government and Politics
POLI 212	(3)	Government and Politics - DelopedWorld
POLI 227	(3)	DevelopingAreas/Introduction
POLI 345	(3)	International Oganizations
POLI 445	(3)	International Political Economy: Monetary Relations
POLI 466	(3)	Public Policy Analysis
PSYC 215	(3)	Social Psychology
RELG 270	(3)	Religious Ethics and the Einnonment
RELG 340	(3)	Religion and the Sciences
RELG 370	(3)	Religion and Human Rights
RELG 376	(3)	Religious Ethics
SOCI 222	(3)	Urban Sociology
SOCI 234	(3)	Population and Society
SOCI 235	(3)	Technology and Society
SOCI 254	(3)	Development and Undervlelopment
SOCI 386	(3)	Contemporary Social Mæments
URBP 201	(3)	Planning the 21st Century City
URBP 506	(3)	Environmental Polig and Planning
URBP 530	(3)	Urban Ewironmental Planning
WILD 415*	(2)	Conservation Law

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 $<sup>^{\</sup>star}$  Note: you may tak LSCI 230 or MIMM 211, bt not both; you may takBIOL 432 or ENVB 315, bt not both; you may takBREE 217 or GEOG 322, but not both; you may takENVB 430 or GEOG 201, bt not both; you may takBIOL 308 or ENVB 305, bt not both.

AGRI 340840W (3) Principles of EcologicaAgriculture

BIOL 240	(3)	Monteregian Flora
BIOL 305	(3)	Animal Diversity
BIOL 308*	(3)	Ecological Dynamics
BIOL 310	(3)	Biodiversity and Ecosystems
BIOL 342	(3)	Marine Biology
BIOL 418	(3)	Freshwater Invertebrate Ecology
BIOL 432*	(3)	Limnology
BIOL 436	(3)	Evolution and Society
BIOL 465	(3)	Conservation Biology
BREE 217*	(3)	Hydrology andWater Resources
BREE 322	(3)	OrganicWaste Management
BREE 518	(3)	Bio-Treatment ofWastes
BTEC 502	(3)	Biotechnology Ethics and Society
CHEE 230	(3)	EnvironmentalAspects ofTechnology
CHEM 212	(4)	Introductory Oganic Chemistry 1
CHEM 281	(3)	Inorganic Chemistry 1
CHEM 462	(3)	Green Chemistry
CIVE 225	(4)	Environmental Engineering
CIVE 323	(3)	Hydrology andWater Resources
CIVE 550	(3)	Water Resources Management
ENTO 340	(3)	Field Entomology
ENVB 210	(3)	The Biophysical Environment
ENVB 301	(3)	Meteorology
ENVB 305*	(3)	Population & Community Ecology
ENVB 315*	(3)	Science of InlandVaters
ENVB 410	(3)	Ecosystem Ecology
ENVB 415	(3)	Ecosystem Management
ENVB 430*	(3)	GIS for Natural Resource Management
		The Global En

GEOG 470	(3)	Wetlands
LSCI 230*	(3)	Introductory Microbiology
MICR 331	(3)	Microbial Ecology
MIME 308	(3)	Social Impact of echnology
MIME 320	(3)	Extraction of Enegry Resources
MIMM 211*	(3)	Introductory Microbiology
MIMM 214	(3)	Introductory Immunology: Elements of Immunity
MIMM 323	(3)	Microbial Physiology
MIMM 324	(3)	FundamentaVirology
NRSC 333	(3)	Pollution and Bioremediation
NRSC 340	(3)	Global Perspecties on Food
NRSC 510	(3)	Agricultural Micrometeorology
NRSC 514	(3)	Freshvater Ecosystems
PARA 410	(3)	Environment and Infection
PARA 515	(3)	Water, Health and Sanitation
PLNT 304	(3)	Biology of Fungi
PLNT 305	(3)	Plant Pathology
PLNT 358	(3)	Flowering Plant Diversity
PLNT 426	(3)	Plant Ecophisiology
PLNT 460	(3)	Plant Ecology
SOIL 300	(3)	Geosystems
WILD 421	(3)	Wildlife Conservation

# 9 B.A. Fight in the six fan

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The B.A. Faculty Program has twocomponents: Core and Domain. Students violituree steps in their give program.

- 1. Core: The Core consists of four introductory courses and one intermediatedurse where students a were ested to the different approaches, perspecties, and world views that will help them agin an understanding of the compity and con icts that underlie most vinonmental problems. Through the core program, students growing the connes of their invalidual views of environment.
- 2. Domain: Domains provide a trans-disciplinary study of a particular theme or component of **vtherem**ent. You can choose to folloone of three domains within the B.A. &culty Program in Enfronment:

Ecological Determinants of Health in Society

Economics and the Earth's VErronment

Environment and Deelopment

3. Senior Core and Researh: In the two senior courses of the core, students will apply the general and specialized by the general and specialized by the program to the analysis of some speci c, contemporarily problems.

To obtain a B.A. Eculty Program in Enironment, students must:

register in a domain online, using Minarv

satisfy the co- and/or prerequisites for the program (Calculus and a Basic Science course);

pass all courses counted wards the Eculty Program with grade of C or higher,

con rm that their course selection satis es the required components of the MSE core and their chosen domain, and that the complementary courses approved courses in their chosen domain; and

ENVR 200	(3)	The Global Emironment
ENVR 201	(3)	Society Environment and Sustainability
ENVR 202	(3)	The Evolving Earth
ENVR 203	(3)	Knowledge, Ethics and <b>E⁄ir</b> onment
ENVR 301	(3)	Environmental Research Design
ENVR 400	(3)	EnvironmentalThought

Сө	Cpin	уСо	e SëRe	cHPr∮s	(3	Ħ

Only 3 credits will be applied to the programmera credits will count as eleves.

AEBI 427	(6)	Barbados Interdisciplinary Project
AGRI 519	(6)	Sustainable Deelopment Plans
ENVR 401	(3)	Environmental Research
ENVR 451	(6)	Research in & hama

## C(an yCra e(33 ))

33 credits of complementary courses are chosen as/follo

18 credits of Fundamentals, maximum 3 credits from care category

9 credits from ListA

6 credits from List B

## Fth

18 credits of Fundamentals (3 credits from eachgcate):

HteEn	iv ten		
GEOG 221		(3)	Environment and Health
NRSC 221		(3)	Environment and Health
Htelfn	þ		
GEOG 403		(3)	Global Health and Exironmental Change
GEOG 493		(3)	Health and Evironment in Africa
PARA 410		(3)	Environment and Infection
HteP	b		
ANTH 227		(3)	MedicalAnthropology
NRSC 333		(3)	Pollution and Bioremediation
Eign			
AGEC 200		(3)	Principles of Microeconomics
ECON 208		(3)	MicroeconomicAnalysis andApplications
Nb			
EDKP 292		(3)	Nutrition andWellness
NUTR 200		(3)	Contemporary Nutrition

NUTR 207 (3) Nutrition and Health

#### St

One of the following Statistics courses or equient:

Note: Credit given for Statistics courses is subject to certain restrictions. Students should consult the "Course Requirements" section for the Eculty of Arts.

AEMA 310	(3)	Statistical Methods 1
GEOG 202	(3)	Statistics and Spatialnalysis
MATH 203	(3)	Principles of Statistics 1
SOCI 350	(3)	Statistics in Social Research

### LtA:

9 credits from ListA (maximum 3 credits from anone catgory):

### Htm6b

ANTH 320	(3)	Social Evolution
GEOG 303	(3)	Health Geograph
SOCI 225	(3)	Medicine and Health in Modern Society
SOCI 234	(3)	Population and Society
SOCI 309	(3)	Health and Illness
SOCI 515	(3)	Medicine and Society

### Hışıl İgeClen

<sup>\*</sup> Note: You may take BREE 217 or GEOG 322ubnot both.

AGRI 452	(3)	Water Resources in Barbados
BREE 217*	(3)	Hydrology and Water Resources
GEOG 321	(3)	Climatic Environments
GEOG 322*	(3)	Environmental Hydrology
NRSC 510	(3)	Agricultural Micrometeorology

# Αij

A E D L 40 E

AEBI 425	(3)	Tropical Energy and lood
AGRI 340	(3)	Principles of Ecologica Agriculture
AGRI 411	(3)	Global Issues on Delopment, Food and Agriculture
AGRI 550	(3)	Sustained ropical Agriculture

### DiaMig

AGEC 242	(3)	ManagemenTheories and Practices
BTEC 502	(3)	Biotechnology Ethics and Society
ECON 440	(3)	Health Economics
PHIL 343	(3)	Biomedical Ethics
RELG 270	(3)	Religious Ethics and the Einonment
URBP 507	(3)	Planning and Infrastructure

# B**ijFt**h

 $^{\ast}$  You may take BIOL 308 or ENVB 305,  $\mbox{\it lbt}$  not both.

AEBI 210	(3)	Organisms 1
AEBI 211	(3)	Organisms 2
BIOL 200	(3)	Molecular Biology
BIOL 205	(3)	Biology of Organisms
BIOL 308*	(3)	<b>Ecological Dynamics</b>

ENVB 430*		(3)	GIS for Natural Resource Management
GEOG 201*		(3)	Introductory Geo-Information Science
GEOG 302		(3)	Environmental Management 1
GEOG 404		(3)	Environmental Management 2
PARA 515		(3)	Water, Health and Sanitation
SECE	е		
GEOG 406		(3)	Human Dimensions of Climate Change
GEOG 514		(3)	Climate Chang&ulnerability andAdaptation
HIST 249		(3)	Health and the Healer IN/estern History
SOCI 307		(3)	Sociology of Globalization
URBP 520		(3)	Globalization: Planning and Change
lm bydfn	ŧDis	İ	
MIMM 314		(3)	Intermediate Immunology
MIMM 324		(3)	FundamentaVirology
MIMM 413		(3)	Parasitology
PARA 438		(3)	Immunology
PATH 300		(3)	Human Disease
WILD 424		(3)	Parasitology
P <b>psP</b> e			
ANTH 451		(3)	Research in Society and Meeopment in Africa
<b>CANS 407</b>		(3)	Regions of Canada
EDKP 204		(3)	Health Education
GEOG 451		(3)	Research in Society and Medopment in Africa
GEOG 498		(3)	Humans inTropical Environments
HIST 335		(3)	Science and Medicine in Canada
HIST 510		(3)	Environmental History of LatinAmerica (Field)
PSYC 533		(3)	International Health Psychology
SOCI 520		(3)	Migration and Immigrant Groups
SOCI 525		(3)	Health Care Systems in ComparetPerspectre
SOCI 550		(3)	Developing Societies

# 9.2 EinstEa h sEn iv tel0ian

Jluy2012. Eoofe

This domain is open only to students in the B. Aculity Program in Enironment.

Adviser Mentor

Ms. Kathy Roulet

Email: kathyroulet@mcgill.ca

Professor Jeannæ@uette Email: jeannepaquette@mcgill.ca

Rej∌

Adviser Mentor

Telephone: 514-398-4306 Telephone: 514-398-4402

9.2.1 BatefAr t(B.A.)-FtPr efEn iv tenEisentEa tsEn iv te(64)st

Reins Je2012. Statte in

Understanding Earth's geologic processesiples us with the knowledge to mitigate many of our society's enfronmental impacts due to resourcetraction and waste disposalThis knowledge is not aways enough, as economics often plays a controlling rolewindreouse and autse our evironment.

This domain educates students in the fundamentals of economics and Earth Stitemforest amentals of economics are violed, as is their application to the efects of economic choices on Earth's itemment. Examples of these applications include the econoficiates of public policy toward resource industries and methods of the edisposal, and the poTm 3m (a(wledge is no 0 1 89.075 709.84Tm 5.237 6)Tj 1) e e1obdge0 0 1 158.783320m 592 Tm (as

ENVR 301	(3)	Environmental Research Design
ENVR 400	(3)	Environmenta∏hought

Ce C†an yCo e SëRe chPr¢(3 †al

Only 3 credits will be applied to the programmera credits will count as eleves.

Barbados Interdisciplinary Pr.767 .ej 1 0 0 1 121.949 644.5(6Tm ((3))Tj 1 0 0 121.949 644.5AEBI 427Tm (es.

ANTH 339	(3)	EcologicalAnthropology
ANTH 451	(3)	Research in Society and Metopment in Africa
BIOL 305	(3)	Animal Diversity
BIOL 308*	(3)	Ecological Dynamics
BIOL 451	(3)	Research in Ecology and Desopment in Africa
BREE 217*	(3)	Hydrology andWater Resources
ECON 305	(3)	Industrial Oganization
ECON 313	(3)	Economic Deelopment 1
ECON 314	(3)	Economic Deelopment 2
ECON 408	(3)	Public Sector Economics 1
ECON 409	(3)	Public Sector Economics 2
ECON 412	(3)	Topics in Economic Dælopment 1
ENVB 305*	(3)	Population & Community Ecology
ENVB 437	(3)	Assessing Evironmental Impact
EPSC 455	(3)	Sedimentary Geology
EPSC 549	(3)	Hydrogeology
GEOG 302	(3)	Environmental Management 1
GEOG 322*	(3)	Environmental Hydrology
GEOG 404	(3)	Environmental Management 2
GEOG 451*	(3)	Research in Society and Metopment in Africa
GEOG 498	(3)	Humans inTropical Environments
HIST 510	(3)	Environmental History of LatinAmerica (Field)
NRSC 451	(3)	Research in Ecology and Desopment InAfrica
SOIL 510	(3)	Environmental Soil Chemistry
URBP 507	(3)	Planning and Infrastructure
URBP 520	(3)	Globalization: Planning and Change

# 9.3 Eniv tedDe ptDian

Je2012.

Ede

Rej∎

This domain is open only to students in the B. Aculity Program in Enironment.

Adviser Mentor

Ms. Kathy Roulet

 ${\bf Email: kathyroulet@mcgill.ca}$ 

Telephone: 514-398-4306

Prof. Gregory Mikkelson

Email: gregory.miklelson@mcgill.ca

Telephone: 514-398-4583

Be Mar t(B.A.) - F

ECON 313	(3)	Economic Deelopment 1
ECON 314	(3)	Economic Deelopment 2
GEOG 302	(3)	Environmental Management 1

Dian C(an yCo e(21))

21 credits of complementary courses are chosen favious cateories as follows:

# Mic ien

One of:

AGEC 200 (3) Principles of Microeconomics

ECON 208 (3) MicroeconomicAnalysis andApplications

### Sts

3 credits, one of the following Statistics courses or equient:

Note: Credit gren for Statistics courses is subject to certain restrictions. Students should consult the "Carlars bioTrormation in the "Course Requirements" section for the Eculty of Arts.

AEMA 310	(3)	Statistical Methods 1
GEOG 202	(3)	Statistics and SpatiAlnalysis
MATH 203	(3)	Principles of Statistics 1
PSYC 204	(3)	Introduction to Psychological Statistics

AdveDe **tab**o to

GEOG 305*	(3)	Soils and Evironment
GEOG 322*	(3)	Environmental Hydrology
NRSC 451	(3)	Research in Ecology and Delopment InAfrica
NUTR 403	(3)	Nutrition in Society
NUTR 501	(3)	Nutrition in Developing Countries
PARA 410	(3)	Environment and Infection
WILD 421*	(3)	Wildlife Conservation

# SŁSĖ

6 credits from:

<sup>\*</sup> Note: You may take GEOG 221 or NRSC 221 \u03c4tbnot both.

AEBI 423	(3)	Sustainable Land Use
AEBI 425	(3)	Tropical Enegy and Food
AGEC 333	(3)	Resource Economics
AGRI 452	(3)	Water Resources in Barbados
ANTH 451	(3)	Research in Society and Metopment in Africa
CANS 407	(3)	Regions of Canada
ECON 326	(3)	Ecological Economics
ECON 347	(3)	Economics of Climate Change
ECON 405	(3)	Natural Resource Economics
GEOG 201	(3)	Introductory Geo-Information Science
GEOG 221	(3)	Environment and Health

Human Ecology in Geog9s in Barbados

10 BaktóAr tedSé(B.A. & Sc) ligPr giEn iv ten

The Interaculty Program in Enronment is open only to students in the B.A. & Sgrde.

30 credits - chosen from amongstAn2eas of focus

## SëRe chPr þ

Only 3 credits will be applied to the programmatra credits will count as eleves.

AGRI 519	(6)	Sustainable Deelopment Plans
ENVR 401	(3)	Environmental Research
ENVR 451	(6)	Research in Manama

#### Sts

### One of:

AEMA 310	(3)	Statistical Methods 1
BIOL 373	(3)	Biometry
GEOG 202	(3)	Statistics and SpatiAlnalysis
MATH 203	(3)	Principles of Statistics 1
PSYC 204	(3)	Introduction to Psychological Statistics

### Αe

30 credits from at least three of the follog Areas. At least 6 credits must be at the 40% eleor higher selected either from these lists or in consultation with the Program Adviser.

## Ael: Pps Con ty, eEspEty

<sup>\*</sup> Note: You may take BIOL 540 or ENVR 540, ltt not both; you may tækBIOL 308 or ENVB 305, ltt not both.

BIOL 308*	(3)	Ecological Dynamics
BIOL 432	(3)	Limnology
BIOL 441	(3)	Biological Oceanograph
BIOL 540*	(3)	Ecology of Species Imasions
ENVB 305*	(3)	Population & Community Ecology
ENVB 410	(3)	Ecosystem Ecology
ENVR 540*	(3)	Ecology of Species lasions
GEOG 350	(3)	Ecological Biogeograph
PLNT 460	(3)	Plant Ecology

Ae2: Bid teaCea

ECON 326	(3)	Ecological Economics
ECON 347	(3)	Economics of Climate Change
ECON 405	(3)	Natural Resource Economics
		Geography of theW

AGRI 210	(3)	Agro-Ecological History
AGRI 435	(3)	Soil andWater Quality Management
AGRI 452	(3)	Water Resources in Barbados
ENVB 437	(3)	Assessing Evironmental Impact
GEOG 302	(3)	Environmental Management 1
GEOG 404	(3)	Environmental Management 2
NRSC 333	(3)	Pollution and Bioremediation
SOIL 335	(3)	Soil Ecology and Management
WILD 401	(4)	Fisheries an Wildlife Management
WILD 415*	(2)	Conservation Law
WOOD 441	(3)	Integrated Forest Management

con rm that their course selection satis es the required components of the MSE core and their chosen domain, and that the complementary courses approved courses in their chosen domain; and

ful I all f aculty requirements as speci ed by taeulty in which the are registered: for the B.Sc.(Ag. ErSc.), refer to Programs, Couses and Univerity Regulations> Faculties & Shools> Faculty of Agricultural and Environmental Sciences Undergraduate>: Faculty Information and Regulations for the B.Sc., se Programs, Couses and Univerity Regulations> Faculties & Shools> Faculty of Science: Faculty Degree Requirements This includes meeting the minimum credit requirement as speci ed in their letter of admission.

## 11.1 Bid teCe viaDien

This domain is open only to students in the B.Sc.(Ayg. Scn) Major Environment or B.Sc. Major Environment program.

Adviser Mentor

Ms. Kathy Roulet Professor Graham Bell
Email: kathyroulet@mcgill.ca Email: graham.bell@mcgill.ca
Telephone: 514-398-4306 Telephone: 514-398-6485

11.1.1 BaktiSki(AbeEn iv te6be(B.So(AgEn v.So)) dBaktiSki(B.So) - Mje Eniv tenBid teCe vte63 tel

This domain (63 credits including core) is open only to students in the B.Sc. (#SpcFnMajor in Exironment or B.Sc. Major in Exironment program.

This domain links the academic study of biological edicity with the applied eld of consertion biology. The study of biological edicity, or "biodiversity," lies at the intersection of velution with ecology and genetics, combining the subdiscipline sculd before a cology evolutionary genetics, and ecological genetics. It has townain branches: the creation of edicity and the maintenance of velicity. Both processes are general mechanism of selection acting over different scales of space and timbes gives rise to a distinctive set of principles and generalizations the gubate rates of diersi cation and levels of diversity, as well as the advance or rarity of different species. Conservion biology constitutes the application of these principles in the relevant social and economic context the management of natural systems, with the object we putting the set inction of rare species and maintaining the diversity of communities as the impact of industrialization and population we natural systems has become move execution has emeged as an important area of practical enothers.

#### Sg geFr ts Ye(U) Co e

For suggestions on courses to take your rst year (U1), you can consult the "MSE Student Handbook 2012-204124ble on the MSE website (http://www.mcgill.ca/mse), or contact Ms. Kaytlikoulet, the Program/Adviser (kathy.roulet@mcgill.ca).

#### Prefiten

Note: Students are required to teak maximum of 30 credits at the 200elleand a minimum of 12 credits at the 400elleor higher in this program. his includes core and required courses.

Location NoteWhen planning their schedule angintering for courses, students should fix where each course is fulfed because courses for this program are taught at both McGill's Dwntown campus and at the Macdonald campus in Sainte-Anne-devibelle

#### Ce RèCo e(18 b)

Location Note: Core required courses are taught at both McGillson Down campus and at the Macdonald campus in Sainte-Anne-develed should register in Section 001 of an ENVR course that you plane to take the Macdonald campus.

ENVR 200	(3)	The Global Emironment
ENVR 201	(3)	Society Environment and Sustainability
ENVR 202	(3)	The Evolving Earth
ENVR 203	(3)	Knowledge, Ethics and <b>Evir</b> onment
ENVR 301	(3)	Environmental Research Design
ENVR 400	(3)	Environmenta∏hought

Ce C†an yCore-SèRer chPr¢(3†al

Only 3 credits will be applied to the programming credits will count as eleves.

AGRI	519	(6)		Sustainable Deelopment Plans
ENVR	401	(3)		Environmental Research
ENVR	451	(6)		Research in Amama
Dian	C‡m	уСо	e(42 <b>j</b> i	
42 cred	dits of complemen	ntary co	urses are	selected awsollo
9 credi	ts - basic courses	in the I	Biological	Principles of Bity, Systematics, and Consetion
3 credi	ts - Ecology			
3 credit	ts - Statistics			
9 credi	ts - Interace betwe	en Scie	ence, P <b>y</b> lic	and Management

3 credits - Field Courses

6 credits - General Scienti c Principles

3 credits - Social Science

6 credits - Oganisms and Driersity

## Belliphidie kishiga vi

9 credits are chosen from basic courses in the biological principleseositily systematics, and consetion as follows:

#### One of:

AEBI 212	(3)	Evolution and Phogeny
BIOL 304	(3)	Evolution
One of:		
AEBI 211	(3)	Organisms 2
BIOL 305	(3)	Animal Diversity
One of:		
BIOL 465	(3)	Conservation Biology
WILD 421	(3)	Wildlife Conservation
Eġ		
One of:		
BIOL 308	(3)	Ecological Dynamics
ENVB 305	(3)	Population & Community Ecology
Sis		
One of:		
AEMA 310	(3)	Statistical Methods 1
BIOL 373	(3)	Biometry

## Sie , Pio y, al Ma gten

9 credits are chosen from intacte between science, poliand management as folls:

<sup>\*</sup> Note: You may take AGEC 200 or ECON 208, utb not both.

PLNT 460 (3) Plant Ecology
WILD 311 (3) Ethology
WOOD 420 (3) Environmental Issues:dFestry

## S**a**Sie

One of:

\* Note: If WILD 415 is tak

ANSC 330	(3)	Fundamentals of Nutrition
NUTR 307*	(3)	Human Nutrition

## Hahla

12 credits chosen from Human Health, maximum of 3 credits fromorae category:

lm bgeP	þ	þ	
Reja	A <b>g</b> 2012.	Statfee is	
MICR 34	1	(3)	Mechanisms of Athogenicity
MIMM 21	14	(3)	Introductory Immunology: Elements of Immunity
PARA 43	8	(3)	Immunology
PATH 30	0	(3)	Human Disease
Reja	A <b>g</b> 2012.	Edae is	
	Ag.012.		
lfi tĐà			
ANSC 40	00	(3)	Eukaryotic Cells an∛iruses
MIMM 32	24	(3)	FundamentaVirology
MIMM 41	13	(3)	Parasitology
WILD 42	4	(3)	Parasitology
Nb			
NUTR 40	03	(3)	Nutrition in Society
NUTR 51	12	(3)	Herbs, Foods and Pytochemicals
DogHen			
ANSC 42	24	(3)	Metabolic Endocrinology
PHAR 30	00	(3)	Drug Action
Ph			
ANSC 32	23	(3)	Mammalian Plasiology
PHGY 20	09	(3)	Mammalian Phisiology 1

## NetEn iv ten

 $\hbox{6 credits chosen from the Natural} \hbox{$\sqrt{E}$ nonment, maximum of 3 credits from} \hbox{$y$ anne cat} \hbox{$g$ or $y$  

## Høl bysCten

\* Note: You may take BREE 217 or GEOG 322µbnot both.

AGRI 452	(3)	Water Resources in Barbados
BREE 217*	(3)	Hydrology and Water Resources
GEOG 321	(3)	Climatic Environments
	(3)	Environmental Hydrology

Te bapMa	g <b>t</b> n	
BREE 322	(3)	OrganicWaste Management
CHEE 230	(3)	EnvironmentalAspects of Technology
ENVB 437	(3)	Assessing Evironmental Impact
GEOG 302	(3)	Environmental Management 1
URBP 507	(3)	Planning and Infrastructure

#### PeMa gen

 $^{\star}$  Note: You may take BIOL 350 or ENTO 350, but not both.

BIOL 350*	(3)	Insect Biology and Control
ENTO 350*	(3)	Insect Biology and Control
ENTO 352	(3)	Biocontrol of Pest Insects

PtCto	beMa	g <b>t</b> n	
BREE 518		(3)	Bio-Treatment ofWastes
NRSC 333		(3)	Pollution and Bioremediation

## Εģ

 $<sup>^{\</sup>ast}$  Note: You may take ENVR 540 or BIOL 540,  $\mbox{\it ltt}$  not both.

BIOL 432	(3)	Limnology
BIOL 465	(3)	Conservation Biology
BIOL 540*	(3)	Ecology of Species trasions
BIOL 553	(3)	Neotropical Emironments
ENVB 410	(3)	Ecosystem Ecology
ENVR 540*	(3)	Ecology of Species trasions
MICR 331	(3)	Microbial Ecology
PLNT 304	(3)	Biology of Fungi
PLNT 460	(3)	Plant Ecology

## 11.2.2 Ber blis ei(Abg En Eniv ben Eb) bli Hb. P

iv 166)n (B.Sa(AgEn 1463)n

v.Sq) dBa

Mising B.Sc)- Miss

The Population concentration in this domain is open only to students in the B.Scv(Sg.EMajor Environment or B.Sc. Major En

#### Preficien

Note: Students are required to teak maximum of 31 credits at the 200elleand a minimum of 12 credits at the 400elleor higher in this programThis includes core and required courses.

Location Note: When planning your schedule and isstering for courses, you should rify where each course is felfed because courses for this program are taught at both McGill's Dontown campus and at the Macdonald campus in Sainte-Anne-develelle

#### Ce RigCo e(18 M)

Location Note: Core required courses for this program are taught at both McGilltcon campus and at the Macdonald campus in Sainte-Anne-devibelle You should rejister in Section 001 of an ENVR course that you plan to take on the Macdonald campus.

ENVR 200	(3)	The Global Emironment
ENVR 201	(3)	Society Environment and Sustainability
ENVR 202	(3)	The Evolving Earth
ENVR 203	(3)	Knowledge, Ethics and Erironment
ENVR 301	(3)	Environmental Research Design
ENVR 400	(3)	EnvironmentalThought

Сө	Cpin	уСо	e SëRe	cHPr∮s	(3	Ħ

Only 3 credits will be applied to the programmera credits will count as eleves.

AGRI 519	(6)	Sustainable Dælopment Plans
ENVR 401	(3)	Environmental Research
ENVR 451	(6)	Research in #hama

Dien	R <b>i¢Ço</b>	e(3 <b>j</b> il	
PARA	410	(3)	Environment and Infection

#### Dian Chan yCon e(39 h)

39 credits of complementary courses are selected as/sollo

21 credits - Fundamentals, maximum of 3 credits from eachorate

6 credits - ListA categories, maximum of 3 credits from yaone category

12 credits - List B catgories, maximum of 3 credits from yaone catgory

#### Fth

21 credits of fundamentals, 3 credits from eachgrate

HteEn	iv ten		
GEOG 221		(3)	Environment and Health
NRSC 221		(3)	Environment and Health

#### Htm6tp

Health Geograph

ANSC 312	(3)	Animal Health and Disease
PHAR 303	(3)	Principles ofToxicology
В <b>і</b> з		
BIOL 200	(3)	Molecular Biology
BIOL 201	(3)	Cell Biology and Metabolism
LSCI 211	(3)	Biochemistry 1

## St

One of the following Statistics courses or equient:

Note: Credit gir

## DeMenseCe

е

\* Note: You may take AGEC 200 or ECON 208, ulb not both.

AGEC 200*	(3)	Principles of Microeconomics
AGEC 242	(3)	ManagemenTheories and Practices
BTEC 502	(3)	Biotechnology Ethics and Society
ECON 208*	(3)	MicroeconomicAnalysis andApplications
EDER 461	(3)	Society and Change
GEOG 302	(3)	Environmental Management 1
GEOG 404	(3)	Environmental Management 2
PHIL 343	(3)	Biomedical Ethics
URBP 520	(3)	Globalization: Planning and Change

De <b>tail-te</b>	у
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AGRI 210	(3)	Agro-Ecological History
ANTH 212	(3)	Anthropology of Deelopment

Global Issues on Delopment, F

For suggestions on courses todaik your http://www	rst year (U1), you can consult the	he "MSE Student Handbook 2012-20 <b>/ଯ</b> ଞ୍ଜ <b>ା</b> ଯ୍ୟ	e on the MSE website at

l <b>p</b> n		
ENVB 437	(3)	Assessing Evironmental Impact
MIME 308	(3)	Social Impact of echnology
Mij		
BIOL 309	(3)	Mathematical Models in Biology
ENVB 506	(3)	Quantitative Methods: Ecology
GIS Tela		
ENVB 430	(3)	GIS for Natural Resource Management
GEOG 201	(3)	Introductory Geo-Information Science
BèlEn iv ±66ia		
One of:		
BREE 217	(3)	Hydrology andWater Resources
CIVE 323	(3)	Hydrology andWater Resources
ENVB 210	(3)	The Biophysical Environment
GEOG 305	(3)	Soils and Enironment
GEOG 322	(3)	Environmental Hydrology
GEOG 350	(3)	Ecological Biogeograph

#### St

6 credits of Statistics are selected from one of the with two options.

Note: Credit given for Statistics courses is subject to certain restrictions. Students in Science should consult the "Odaps information in the "Course Requirements" section for the Fully of Science. Seral Statistics courses erlap (especially with MAH 324) and cannot be teak together These rules do not apply to B.Sc.(Ag. ErSc.) students.

## Oμ

**GEOG 351** 

**SOCI 461** 

MATH 323	(3)	Probability
MATH 324	(3)	Statistics
Op2		
One of:		
AEMA 310	(3)	Statistical Methods 1
BIOL 373	(3)	Biometry
And one of:		
A E N A A A A	(2)	Fun anima antal Danima 04
AEMA 411	(3)	Experimental Designs 01
CIVE 555	(3)	Environmental DataAnalysis

(3)

(3)

Quantitative Methods

Quantitative DataAnalysis

Adviser Mentor

Telephone: 514-398-4306 Telephone: 514-398-8749

This domain (63 credits including core) is open only to students in the B.Sc. (ASCE) rMajor in Emironment or B.Sc. in Emironment program. The b

Сө	Cpm	yCo e Si	eRea chPr≴≰31al
Only 3	3 credits will be	applied to the	e programıtra credits will count as ele <b>vt</b> is.
AGR	l 519	(6)	Sustainable Deelopment Plans
ENV	R 401	(3)	Environmental Research
ENV	R 451	(6)	Research in Anama
Dien	R <b>i¢Co</b>	€(9 )⊭	
AEB	210	(3)	Organisms 1
AGR	I 210	(3)	Agro-Ecological History
PLN	Г 300	(3)	Cropping Systems

Dian Clan yCo e(33 lal

33 credits of complementary courses selected asvissilo

15 credits - Basic Sciences

12 credits Applied Sciences

6 credits - Social Sciences/Humanities

#### BisSie

15 credits of Basic Sciences selected as witalio

One of the following Statistics courses or equient:

Note: Credit given for Statistics courses is subject to certain restrictions. Students in Science should consult the "Eddaps' sin Dormation in the "Course Requirements" section for the Gulty of Science.

AEMA 310	(3)	Statistical Methods 1
MATH 203	(3)	Principles of Statistics 1
One of:		
AGRI 340	(3)	Principles of Ecologica Agriculture
ANSC 250	(3)	Principles of Animal Science
One of:		
BIOL 202	(3)	Basic Genetics
LSCI 204	(3)	Genetics
One of:		
ENVB 210	(3)	The Biophysical Environment
GEOG 305	(3)	Soils and Enironment
One of:		
BIOL 308	(3)	Ecological Dynamics
ENVB 305	(3)	Population & Community Ecology

## A piSea

12 credits of Applied Sciences from the following:

\* Note: You may take BREE 217 or GEOG 322µbnot both; you may tækFDSC 200 or NUTR 207µbnot both.

AGRI 411	(3)	Global Issues on Divelopment, Food and Agriculture
AGRI 435	(3)	Soil andWater Quality Management
AGRI 550	(3)	SustainedTropicalAgriculture
BIOL 465	(3)	Conservation Biology
BIOL 553	(3)	Neotropical Emironments
BREE 217*	(3)	Hydrology andWater Resources
BREE 322	(3)	OrganicWaste Management
BREE 518	(3)	Bio-Treatment ofWastes
ENVB 437	(3)	Assessing Evironmental Impact
FDSC 200*	(3)	Introduction to Fod Science
FDSC 535	(3)	Food Biotechnology
GEOG 302	(3)	Environmental Management 1
GEOG 322*	(3)	Environmental Hydrology
MICR 331	(3)	Microbial Ecology
NRSC 333	(3)	Pollution and Bioremediation
NUTR 207*	(3)	Nutrition and Health
NUTR 403	(3)	Nutrition in Society
PARA 410	(3)	Environment and Infection
PHAR 303	(3)	Principles ofToxicology
PLNT 434	(3)	Weed Biology and Control
SOIL 315	(3)	Soil Fertility and Fertilizer Use
SOIL 445	(3)	Agroervironmental Fertilizer Use
SOIL 510	(3)	Environmental Soil Chemistry
	(4)	Fisheries and Wildlife Management

GEOG 404	(3)	Environmental Management 2
GEOG 410	(3)	Geograph of Underdeelopment: Current Problems
GEOG 498	(3)	Humans inTropical Environments
GEOG 510	(3)	HumidTropical Environments
SOCI 254	(3)	Development and Under <b>vle</b> lopment
SOCI 565	(3)	Social Change in Anama
WILD 415**	(2)	Conservation Law

	11.5	Le66€Pr	eaEn	iv te6ta	eDian
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This domain is open only to students in the B.Sc. (Ag. Scn.) Major Enironment or B.Sc. Major Enironment program.

Adviser Mentor

Ms. Kathy Roulet Professor Ian Strachan
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Telephone: 514-398-4306 Telephone: 514-398-7935

11.5.1 Be MacSei(Abgen iv MacSei(B.Sq)-Maje EnvironLenSePr open iv MacSei(B.Sq)-Maje

This domain (63 credits including core) is open only to students in the B.Sc. (ASDE) rMajor in Extronment or B.Sc. Major in Extronment programs.

The thin soil layer on the planet's land anores controls the vital inputs of the restrict, and engry to terrestrial and freshader aquatic ecosystems. Widespread occurrences around the globe of deserti cation, soil erosion, deforestation, and large submorer water reservoirs indicate that this dynamic system is under increasing pressure from population type and changes in climate and land uses. Production of the reservoirs indicate that this dynamic system is under increasing pressure from population type and changes in climate and land uses. Production of the reservoirs indicate that this dynamic system is under increasing pressure from population type and changes in climate and land uses. Production of the reservoirs indicate that this dynamic system is under increasing pressure from population type and used in the land and uses. Production of the reservoirs indicate that this dynamic system is under increasing pressure from population type and used in the land and uses. Production of the land uses in the land uses in the land use of the land uses in the land use of the

The program introduces students to the interacting ipal and biogeochemical processes at the atmosphere-lithospheae in twiffich as his in land suafce habitats and determine their biological produit; iand response to anthropogenic or natural renmental change. In rough an appropriate selection of courses, students can prepare for graduate training in ingregoesearch areas such as earth system sciencies, meneral lydrology, and landscape ecology

Sg g

Ce Cpm	yCor e SëRea	chPr∯(3)al
Only 3 credits w	rill be applied to the prog	gramţra credits will count as eleves.
AGRI 519	(6)	Sustainable Dælopment Plans
ENVR 401	(3)	Environmental Research
ENVR 451	(6)	Research in Amama
D <b>irrico</b>	€(3 )⊒	
GEOG 203	(3)	Environmental Systems

#### Dian Chan yCor e(39 b)

39 credits of complementary courses are selected as/sollo

9 credits - 3 credits from each category of Statistics, GIS and Remote SensTeghniques) Weather and Climate

9 credits of fundamental land sauce processes

3 credits of enironment and resource management

3 credits of eld course

3 credits of social science

12 credits total of adanced studies chosen from Last Particular Environments and List B: Surfce Processes

#### Sts

One of the following Statistics courses or equient:

Note: Credit giren for Statistics courses is subject to certain restrictions. Students in Science should consult the "Edaps in Dormation in the "Course Requirements" section for the Gulty of Science.

AEMA 310	(3)	Statistical Methods 1
GEOG 202	(3)	Statistics and Spatialnalysis
MATH 203	(3)	Principles of Statistics 1

GIS eRessig	Te <b>k</b> q	
One of:		
ENVB 430	(3)	GIS for Natural Resource Management
GEOG 201	(3)	Introductory Geo-Information Science
GEOG 308	(3)	Principles of Remote Sensing

## WhatChan

One of:

ATOC 215	(3)	OceansWeather and Climate

ENVB 301 (3) Meteorology

#### Ftb.e6fPr e

9 credits of fundamental land sauce processes chosen as foolso

GEOG 321 (3) Climatic Ervironments

And/or one of:

GEOG 272 (3) Earth's Changing Surfe

SOIL 300 (3) Geosystems

And/or one of:

ANTH 339	(3)	EcologicalAnthropology
ECON 225	(3)	Economics of the Enironment
ECON 326	(3)	Ecological Economics
ECON 405	(3)	Natural Resource Economics
GEOG 221	(3)	Environment and Health
GEOG 408	(3)	Geograph of Development
GEOG 498	(3)	Humans inTropical Environments
GEOG 508	(3)	Resources, People and
NRSC 221	(3)	Environment and Health
SOCI 565	(3)	Social Change in Ahama
URBP 520	(3)	Globalization: Planning and Change

12 credits total of adanced studies chosen from the foliog two lists:

## LtsA-PabEn ivten

3-9 credits of adanced study of articular Environments:

<sup>\*</sup> Note: You may take BIOL 432 or ENVB 315, but not both.

BIOL 432*	(3)	Limnology
ENVB 315*	(3)	Science of InlandVaters
ENVB 410	(3)	Ecosystem Ecology
GEOG 350	(3)	Ecological Biogeograph
GEOG 372	(3)	RunningWater Environments
GEOG 470	(3)	Wetlands
GEOG 536	(3)	Geocryology
GEOG 550	(3)	Historical EcologyTechniques
PLNT 358	(3)	Flowering Plant Dirersity
PLNT 460	(3)	Plant Ecology

#### LtB - StPr e

3-9 credits adamced study of Surfce Processes:

ATOC 315	(3)	Thermodynamics and Coection
BREE 509	(3)	Hydrologic Systems and Modelling
EPSC 549	(3)	Hydrogeology
EPSC 580	(3)	Aqueous Geochemistry
GEOG 501	(3)	Modelling Environmental Systems
GEOG 505	(3)	Global Biogeochemistry
GEOG 522	(3)	Advanced Enironmental Hydrology
GEOG 537	(3)	Advanced Fluvial Geomorphology
NRSC 333	(3)	Pollution and Bioremediation
SOIL 331	(3)	Soil Physics
SOIL 510	(3)	Environmental Soil Chemistry

Re by til Re e Ma geblian

ENVR 202	(3)	The Evolving Earth
ENVR 203	(3)	Knowledge, Ethics and <b>E</b> rironment
ENVR 301	(3)	Environmental Research Design
ENVR 400	(3)	EnvironmentalThought

Сө	C†an	yCor e-SëRea	cHPr∯(3 b)l

Only 3 credits will be applied to the programmer credits will count as eleves.

AGRI 519	(6)	Sustainable Deelopment Plans
ENVR 401	(3)	Environmental Research
ENVR 451	(6)	Research in Amama

## Dian Clan yCo e(42 lpl

42 credits of complementary courses are selected as sollo

9 credits - Basic Principles of Ecosystem Processes awadsībiy

6 credits - 3 credits from each catey of Statistics and GIS

6 credits Advanced Ecosystem Components

6 credits Advanced Ecological Processes

6 credits - Social Processes

9 credits - Ecosystem Components or Management of Ecosystems

## B**ëP|aE¢P**r

ENVB 430	(3)	GIS for Natural Resource Management
GEOG 201	(3)	Introductory Geo-Information Science

## AdvoE 160 (m

6 credits of adamced ecosystem components selected from:

BIOL 553	(3)	Neotropical Enironments
GEOG 372	(3)	RunningWater Environments
PLNT 358	(3)	Flowering Plant Dirersity
SOIL 326	(3)	Soils in a Changing Exironment
WILD 307	(3)	Natural History of Vertebrates

## Adv**eEt**Pr

6 credits of adamced ecological processes selected from:

\* Note: You may take BIOL 432 or ENVB 315, ltt not both; you can tækBREE 217 or GEOG 322µbnot both.

BIOL 432*	(3)	Limnology
BIOL 465	(3)	Conservation Biology
BREE 217*	(3)	Hydrology andWater Resources
ENVB 315*	(3)	Science of InlandVaters
ENVB 410	(3)	Ecosystem Ecology
GEOG 322*	(3)	Environmental Hydrology
MICR 331	(3)	Microbial Ecology
NRSC 333	(3)	Pollution and Bioremediation
PLNT 460	(3)	Plant Ecology

#### SEPr e

6 credits of social processes selected aswistlo

<sup>\*\*</sup> Note: You may take AGEC 333 and ECON 405µbnot both.

AGEC 242	(3)	ManagemenTheories and Practices
AGEC 333**	(3)	Resource Economics
ANTH 339	(3)	EcologicalAnthropology
CANS 407	(3)	Regions of Canada
ECON 405**	(3)	Natural Resource Economics
GEOG 382	(3)	Principles Earth Citizenship
GEOG 498	(3)	Humans inTropical Environments
RELG 270	(3)	Religious Ethics and the Einonment
SOCI 565	(3)	Social Change in Anama
URBP 520	(3)	Globalization: Planning and Change
WILD 415*	(2)	Conservation Law

## Espû pad getiEspn

9 credits of ecosystem components or management of ecosystems selected from:

<sup>\*</sup> If WILD 415 is talen, 1 additional credit of complementary courses must be tak

AGRI 435	(3)	Soil andWater Quality Management
AGRI 452	(3)	Water Resources in Barbados
AGRI 550	(3)	Sustained ropical Agriculture
ENVB 437	(3)	Assessing Evironmental Impact
GEOG 302	(3)	Environmental Management 1
GEOG 404	(3)	Environmental Management 2
	(3)	Cropping Systems

Location Note: When planning your schedule and issering for courses, you should nify where each course is of

\* Note: AEMA 310 or equivalent

AEMA 202	(3)	Intermediate Calculus
AEMA 310*	(3)	Statistical Methods 1
MATH 203	(3)	Principles of Statistics 1
MATH 222	(3)	Calculus 3

#### F&Co e

3 credits selected from the folloing courses or an equalentAquatic Field course:

AGRI 452	(3)	Water Resources in Barbados
BIOL 331	(3)	Ecology/Behaiour Field Course
GEOG 495	(3)	Field Studies - Phsical Geograph

SŁ6 iedP	b y	
One of:		
AGEC 333	(3)	Resource Economics
ANTH 339	(3)	EcologicalAnthropology
ANTH 418	(3)	Environment and Deelopment
ECON 225	(3)	Economics of the Evnironment
ECON 326	(3)	Ecological Economics
GEOG 404	(3)	Environmental Management 2
GEOG 498	(3)	Humans inTropical Environments
POLI 345	(3)	International Oganizations
POLI 466	(3)	Public Policy Analysis
SOCI 565	(3)	Social Change in Anama
URBP 520	(3)	Globalization: Planning and Change

18 credits chosen in total from Listand List B as follows:

#### L**t**A

9-12 credits chosen from:

<sup>\*</sup> Note: you may tak BIOL 540 or ENVR 540, but not both; you may takENVB 210 or GEOG 305, but not both; you may takBIOL 432 or ENVB 315, but not both.

AGRI 435	(3)	Soil andWater Quality Management
BIOL 342	(3)	Marine Biology
BIOL 432*	(3)	Limnology
BIOL 441	(3)	Biological Oceanograph
BIOL 465	(3)	Conseration Biology
BIOL 540*	(3)	Ecology of Species lasions
BIOL 553	(3)	Neotropical Enironments
BIOL 570	(3)	Advanced Seminar in Mution
ENTO 535	(3)	Aquatic Entomology
ENVB 210*	(3)	The Biophysical Environment
ENVB 315*	(3)	Science of Inland/Vaters

Location NoteWhen planning your schedule and istering for courses, you should rify where each course is felfed because courses for this program are taught at both McGill's Dontown campus and at the Macdonald campus in Sainte-Anne-devibelle

#### Сө RäÇo **e**(18 ⊯

Location Note: Core required courses for this program are taught at both McGillston campus and at the Macdonald campus in Sainte-Anne-devibelle You should rejister in Section 001 of an ENVR course that you plan to dealthe Downtown campus, and in Section 051 of an ENVR course that you plan to take on the Macdonald campus.

ENVR 200	(3)	The Global Emironment
ENVR 201	(3)	Society Environment and Sustainability
ENVR 202	(3)	The Evolving Earth
ENVR 203	(3)	Knowledge, Ethics and E⁄monment
ENVR 301	(3)	Environmental Research Design
ENVR 400	(3)	EnvironmentalThought

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Сө	Cten	yCo	e SëRe	clPr	<b>6</b> 3 (	И

Note: Only 3 credits will be applied to the programtræ credits will count as eleves.

AGRI 519	(6)	Sustainable Deelopment Plans
ENVR 401	(3)	Environmental Research
ENVR 451	(6)	Research in Arhama

Dien	R <b>i¢Co</b>	e(12 <b>j</b> al	
ATOC	214	(3)	Introduction: Plysics of the Atmosphere
ATOC	215	(3)	Oceans/Weather and Climate
ATOC	315	(3)	Thermodynamics and Connection
GEO	G 372	(3)	RunningWater Environments

#### Dian Cþn yCo e(30 ¥

30 credits of complementary courses are selected as/sollo

6 credits - Hydrology/Marter Resources, Population, Community and Ecology

3 credits - Statistics or Calculus

3 credits - Field course

12 credits chosen from LiAt

6 credits chosen from List B

Hışıl £ğı∧	tRe	e	P‡Con	j∉E <b>j</b>
6 credit	s selected as fo <b>lks</b>	:		
One of:				
BREE	217	(3)		Hydrology andWater Resources
GEOG	322	(3)		Environmental Hydrology
And one	e of:			
BIOL 3	808	(3)		Ecological Dynamics
ENVB	305	(3)		Population & Community Ecology

#### Stacta

One of:

Note: Credit given for Statistics courses is subject to certain restrictions. Students in Science should consult the "Edaps &n Course Requirements" section for the Culty of Science.

AEMA 202	(3)	Intermediate Calculus
AEMA 310*	(3)	Statistical Methods 1
MATH 203	(3)	Principles of Statistics 1
MATH 222	(3)	Calculus 3

#### F&Co e

3 credits selected from the folloing courses or an equalentAquatic Field course:

AGRI 452	(3)	Water Resources in Barbados
GEOG 495	(3)	Field Studies - Phsical Geograph

#### LtA:

1	2	credits	chosen	from:

AGRI 435	(3)	Soil andWater Quality Management
ATOC 309	(3)	Weather Radars and Satellites
ATOC 568	(3)	Ocean Physics
BREE 416	(3)	Engineering for Land Dælopment
CIVE 323	(3)	Hydrology andWater Resources
EPSC 549	(3)	Hydrogeology
GEOG 201	(3)	Introductory Geo-Information Science
GEOG 308	(3)	Principles of Remote Sensing
GEOG 537	(3)	Advanced Fluvial Geomorphology
NRSC 510	(3)	Agricultural Micrometeorology
URBP 520	(3)	Globalization: Planning and Change

#### And/or one of:

AEMA 305	(3)	Differential Equations
MATH 315	(3)	Ordinary Differential Equations

#### And/or one of:

BREE 506	(3)	Advances in Drainage Management
BREE 509	(3)	Hydrologic Systems and Modelling
GEOG 522	(3)	Advanced Enironmental Hydrology

## And/or one of:

ENVB 210	(3)	The Biophysical Environment
GEOG 305	(3)	Soils and Enironment

<sup>\*</sup> Note: AEMA 310 or equivalent.

And/or one of:

ENVB 430	(3)	GIS for Natural Resource Management
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GEOG 306 (3) Raster Geo-Information Science

## LŧB:

6 credits chosen from:

\* Note: You can take BIOL 432 or ENVB 315, but not both.

BIOL 342	(3)	Marine Biology
BIOL 432*	(3)	Limnology
BIOL 441	(3)	Biological Oceanograph
BIOL 465	(3)	Conservation Biology
BIOL 553	(3)	Neotropical Emironments
ENVB 315*	(3)	Science of InlandVaters
GEOG 350	(3)	Ecological Biogeograph
GEOG 505	(3)	Global Biogeochemistry
WILD 401	(4)	Fisheries and Vildlife Management

# 12 MijiEn iv ten B.Sc

In addition to the domains/ailable to students in the Major program in either theulfty of Science or thealculty of Agricultural and Emironmental Sciences, Major in Evironment - B.Sc.students in the aculty of Science can choose from one of the viviling two domains:

Atmospheric Enironment and Air Quality, or

Earth Sciences and Economics.

Refer to section 11 Major in Environment B.Sc.(Arm.Sc.) and B.Sofor the general guidelines and re

One of:

GEOG 302	(3)	Environmental Management 1
GEOG 404	(3)	Environmental Management 2
GEOG 498	(3)	Humans inTropical Environments
POLI 466	(3)	Public Policy Analysis
RELG 270	(3)	Religious Ethics and the <b>Ein</b> onment

## 12.2 En tSiedEisDien

This domain is open only to students in the B.Sc. Majorir Enment program in thea Eulty of Science.

Adviser Mentor

Ms. Kathy RouletProfessor Jeannæ QuetteEmail: kathyroulet@mcgill.caEmail: jeannepaquette@mcgill.caTelephone: 514-398-4306Telephone: 514-398-4402

## 12.2.1 Ba tasse(B.Sc) - Majen iv ten Ea tasse telef 66 tel

The resources necessary for human society are e

AGRI 519 (6) Sustainable Deelopment Plans ENVR 401 (3) Environmental Research

ECON 313	(3)	Economic Deelopment 1
ECON 314	(3)	Economic Deelopment 2
ECON 408	(3)	Public Sector Economics 1
ECON 409	(3)	Public Sector Economics 2
ECON 412	(3)	Topics in Economic Deelopment 1
EPSC 312	(3)	Spectroscop of Minerals
EPSC 331	(3)	Field School 2
EPSC 341	(3)	Field School 3
EPSC 425	(3)	Sediments to Sequences
EPSC 435	(3)	Applied Geophysics
EPSC 452	(3)	Mineral Deposits
EPSC 519	(3)	Isotope Geology
EPSC 542	(3)	Chemical Oceanograph
EPSC 549	(3)	Hydrogeology
EPSC 580	(3)	Aqueous Geochemistry
EPSC 590	(3)	Applied Geochemistry Seminar
GEOG 302	(3)	Environmental Management 1
GEOG 322	(3)	Environmental Hydrology
SOIL 510	(3)	Environmental Soil Chemistry

# 13 Hou sPrejEn iven

## Adviser

Ms. Kathy Roulet, MSE ProgramAdviser

Email: kathyroulet@mcgill.ca Telephone: 514-398-4306

This Program is open only to students in the B.Sc. Major with the mirror ment, B.Sc. (Ag. En.Sc.) Major in Extrement, B.A. Faculty Program in Extrement,

LIMIOIIIIEIII. FIEdse ii	eler to theorally olan	is regulations on Hi	onours programs to	ound undercurty De	gree Requirements	other than the McGill S ", "About Program

5. B.A. & Sc. students must complete at least 30 credits inathalty of Arts and at least 30 in the Fulty of Science as part of their Honours program and their Minor concentration or Minor programs of Programs of

Students in the B.A. & Sc. Honours programs complete the would be described for the Interculty Program in Enfronment as well as the Honours required courses (6 credits).

At the completion of your Honours research, you appected to present your results at an Honours Symposium, and are required to subymit ayooop nal report to the MSE ProgramAdviser

## Hoo sRieCo e(6 b)

Note:You take either ENVR 495D1 and ENVR 495D2 (6 crediterconsecutie terms) or ENVR 495N1 and ENVR 495N2 (6 crediteronon-consecutie terms).

ENVR 495D1	(3)	Honours Research
ENVR 495D2	(3)	Honours Research
ENVR 495N1	(3)	Honours Research
FNVR 495N2	(3)	Honours Research

13.4	Be. Kana Sala Baran	iv ±66)∎(B.Sq(AgEn	v.Sg) - Ha	sEn iv te(69
	ù			

This program is open only to students in the B.Sc.(Avg.Sco.) Major Environment. To be eligible for Honours, students must satisfy the requirements set by their B.Sc.(Ag.En.Sc.) degree.

In addition, students must satisfy the fallog:

- 1. Students apply for the Honours program in March of their U2 Searthe Programaviser for details.
- 2. Applicants must have a minimum Program GPR GPA of all required and complementary courses for the programvintomment taken at McGill) of 3.3 to enter the Honours program.
- 3. Students must earn a B grade (3.0) or higher for the Honours Research courses (ENVR 496 and ENVR 497).
- 4. Students are required to achieve minimum perall CGPA of 3.0 at graduation, and a minimum ProgramAGP3.3 to obtain Honours.

Students in the B.Sc.(Ag. E.Sc.) Honours program complete the core and domain courses (60 to 63 credits) according to their chosen domain as well as the 6 credits of required Honours courses.

At the completion of your Honours research, you appected to present your results at an Honours Symposium, and are required to subymoot ayound nal report to the MSE ProgramAdviser

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Honours Researchalt 1	(3)	R 496	ENV
Honours Researchal? 2	(3)	R 497	ENV

## 14 Jthou sCHEn iven

#### Adviser

Ms. Kathy Roulet, MSE ProgramAdviser

Email: kathyroulet@mcgill.ca Telephone: 514-398-4306

This program is open only to students in the B. Acufty Program in Exironment.

The Joint Honours Component Fromment offers students the opportunity to undertarkyearlong, interdisciplinary research project in their nal year in close association with a profession ours research primates excellent preparation for graduate studiest, is not required for such studies. If, for some reason, students cannot complete the Joint Honours requirements at he till graduate with a Minor Concentration Fromment.

9 credits - must be tak in an area of focus chosen by the student w	ith the அற்றிothe ProgramAdviser. At least 6 d	credits must be tank at the 400 te

GEOG 508	(3)	Resources, People and Webr
GEOG 530	(3)	Global Land and Vater Resources
GEOG 551	(3)	Environmental Decisions
MGPO 440	(3)	Strategies for Sustainability
NRSC 221	(3)	Environment and Health
NRSC 540	(3)	Socio-Cultural Issues Mater
PHIL 230	(3)	Introduction to Moral Philosoph1
PHIL 237	(3)	Contemporary Moral Issues
PHIL 334	(3)	EthicalTheory
PHIL 343	(3)	Biomedical Ethics
PHIL 348	(3)	Philosophy of Law 1
POLI 211	(3)	Comparative Government and Politics
POLI 212	(3)	Government and Politics - DelopedWorld
POLI 227	(3)	DevelopingAreas/Introduction
POLI 345	(3)	International Oganizations
POLI 445	(3)	International Political Economy: Monetary Relations
POLI 466	(3)	Public Polig Analysis
PSYC 215	(3)	Social Psychology
RELG 270	(3)	Religious Ethics and the Einonment
RELG 340	(3)	Religion and the Sciences
RELG 370	(3)	Religion and Human Rights
RELG 376	(3)	Religious Ethics
SOCI 222	(3)	Urban Sociology
SOCI 234	(3)	Population and Society
SOCI 235	(3)	Technology and Society
SOCI 254	(3)	Development and Underwelopment
SOCI 386	(3)	Contemporary Social Moments
URBP 201	(3)	Planning the 21st Century City
URBP 506	(3)	Environmental Polig and Planning
URBP 530	(3)	Urban Environmental Planning
WILD 415*	(2)	Conservation Law

## NtaGied Te by

 $^{*}$  Note: You may take LSCI 230 or MIMM 211, bt not both; you may takeBIOL 432 or ENVB 315, but not both; you may takeBREE 217 or GEOG 322 $\mu$ bnot both.

AGRI 340	(3)	Principles of Ecologica Agriculture
AGRI 435	(3)	Soil andWater Quality Management
ANSC 326	(3)	Fundamentals of Population Genetics
ANTH 311	(3)	Primate Behæiour and Ecology
ARCH 375	(2)	Landscape
ARCH 377	(3)	Energy, Environment and Buildings
ARCH 378	(3)	Site Usage
ATOC 215	(3)	OceansWeather and Climate

BIOL 240	(3)	Monteræjian Flora
BIOL 305	(3)	Animal Diversity
BIOL 308	(3)	Ecological Dynamics
BIOL 310	(3)	Biodiversity and Ecosystems
BIOL 342	(3)	Marine Biology
BIOL 418	(3)	Freshwater Invertebrate Ecology
BIOL 432*	(3)	Limnology
BIOL 436	(3)	Evolution and Society
BIOL 465	(3)	Conservation Biology
BREE 217*	(3)	Hydrology and/Vater Resources
BREE 322	(3)	OrganicWaste Management
BREE 518	(3)	Bio-Treatment ofWastes
BTEC 502	(3)	Biotechnology Ethics and Society
CHEE 230	(3)	EnvironmentalAspects of Technology
CHEM 212	(4)	Introductory Oganic Chemistry 1
CHEM 281	(3)	Inorganic Chemistry 1
CHEM 462	(3)	Green Chemistry
CIVE 225	(4)	Environmental Engineering
CIVE 323	(3)	Hydrology and/Vater Resources
CIVE 550	(3)	Water Resources Management
ENTO 340	(3)	Field Entomology
ENVB 210	(3)	The Biophysical Environment
ENVB 301	(3)	Meteorology
ENVB 305	(3)	Population & Community Ecology
ENVB 315*	(3)	Science of InlandVaters
ENVB 410	(3)	Ecosystem Ecology
ENVB 415	(3)	Ecosystem Management
ENVB 430*	(3)	GIS for Natural Resource Management
ENVR 200	(3)	The Global Emironment
ENVR 202	(3)	The Eolving Earth
EPSC 201	(3)	Understanding Planet Earth
EPSC 233	(3)	Earth and Life History
EPSC 425	(3)	Sediments to Sequences
EPSC 549	(3)	Hydrogeology
ESYS 301	(3)	Earth System Modelling
GEOG 200	(3)	Geographical Perspe <b>vti</b> s:World Environmental Problems
GEOG 201*	(3)	Introductory Geo-Information Science
GEOG 205	(3)	Global Change: St, Present and Future
GEOG 272	(3)	Earth's Changing Suate
GEOG 308	(3)	Principles of Remote Sensing
GEOG 321	(3)	Climatic Environments
GEOG 322*	(3)	Environmental Hydrology
		O1AeNVB 430*( In3O 92 81.0f8 4rces 0 1 285.931 395.1.47949 442.6 30f5T Tm (v0 1 285.930d49 65.32 T2

GEOG 470	(3)	Wetlands
LSCI 230*	(3)	Introductory Microbiology
MICR 331	(3)	Microbial Ecology
MIME 308	(3)	Social Impact of Technology