public sector. Requires the student's development of his/her own management perspective as applied to case studies from governments internationally. Spring

#### PLSC425

S Alt ? (3

#### (merges PLSC304, PLSC306) The Policy-Making Process

An investigation of the activities essential to public policy formulation and administration as well as the variables affecting the process. *Fall* 

#### PLSC470

Alt ? (3)

#### (merges PLSC476, 487) Political Thought

A study of the great political ideas from antiquity to modern times including such thinkers as Plato, Aristotle, Jesus, Cicero, Augustine, Aquinas, Machiavelli, Calvin, Hobbes, Locke, Rousseau, and Havel. Examines concepts such as the nature of justice, purpose of politics, best form of government, natural rights, class struggle, and civic obligation. May be applied to the history major. *Fall* 

#### PLSC488

**International Relations** 

Alt? (3)

A systematic analysis of select nation-states in the modern era, with particular consideration given to the geographic, cultural, religious, social, and economic factors that contribute to shaping each nation's politics. *Spring* 

#### PLSC495

(1-3)

(1-3)

### Independent Study/Readings/Research

Individually directed study, readings, or research under the guidance of the instructor. Repeatable in a different area for up to 4 credits. Limited to students with majors in political economy or social studies or a minor in Political Science. Registration by permission of instructor. *Fall, Spring* 

## PLSC590

### Independent Readings

Individual readings in a specified area under the guidance of an instructor. Repeatable to 3 credits. *Fall, Spring* 

### **PHILOSOPHY**

#### PHIL224

(was GCAS224)

## Introduction to Philosophy

A study of the efforts of philosophy to provide answers to major human problems.

### PHIL320

(was GCAS320)

#### Critical Thinking

Designed to encourage independent thinking and to teach skills (including formal and informal logic) necessary for problem solving as well as understanding and evaluating the ideas and claims of others.

## INTER-DISCIPLINARY STUDIES

Academic Programs	Credits
BS: Environmental Sciences	
MA: Interdisciplinary Studies	
Communication	37-45
MS: Interdisciplinary Studies	
Mathematics and Physical Sciences	32-40

An increasing number of careers demand that students have integrated, advanced skills and expertise in more than one field of study. Careers in education, leadership, management, and religion require a holistic grasp on philosophical, ethical, and pedagogical interrelationships. The interdisciplinary programs provide a framework where faculty and students can engage in scholarly pursuits which require such interrelationships.

## Undergraduate Programs

## **BS: Environmental Sciences**

(616) 471-3240 FAX: (616) 471-6911 woody@andrews.edu

#### **Faculty**

Dennis W. Woodland, Biology, Coordinator
A. Josef Greig, Philosophy and Religion
James L. Hayward, Biology
Gary G. Land, History
Duane C. McBride, Sociology
G. William Mutch, Chemistry
Timothy G. Standish, Biology
David A. Steen, Biology
Kristopher P. Zygowiec, Geography

The discipline of environmental science deals with the relationships between humans and natural systems. This degree develops an understanding of the relationship between humans and natural systems, expertise in problem solving and communication skills, environmental management skills, testing and planning abilities, and a strong foundation for advanced study in various professional and basic research fields. It promotes "hands on" as well as basic and theoretical training.

#### Requirements in seven areas:

Physical/Natural Sciences and Math: BIOL165, 166, 208, 348; CHEM131, 132, 231, 232, 241, 242, 340; IDSC401, 402; MATH165, 182.
Religion: RELT100, RELB210, RELT348, RELP400.

Language/Communication: ENGL115, 215, 306; COMM104.

Arts/Humanities: HIST117, 118; IDSC211, 340; PLSC100, 425.

Computer Tools: INFS110 (or pass of competency test)

Social Sciences: ANTH124, ARTH220 or ENGL255; BHSC100, 235; SOCI470; ECON225 or 226.

PE/Wellness: HLED130; Two activity courses.

An internship is required, lasting a minimum of 3 months. Students are encouraged to select other electives with the help of their adviser according to their career interests.

# **Graduate Programs**

The College of Arts and Sciences (in cooperation with other schools) offers graduate programs leading to the Master of Arts: Interdisciplinary Studies (Communication), and Master of Science: Interdisciplinary Studies (Mathematics and Physical Sciences).

#### ENROLLMENT AND GRADUATION PROCEDURES FOR MASTER OF ARTS/SCIENCE IN INTERDISCIPLINARY STUDIES

Students planning to enroll in the Master of Arts or Master of Science: Interdisciplinary Studies program should note the following procedures:

- 1. At the time of application for admission, Master of Arts: Interdisciplinary Studies (Communication) students must submit a statement of objectives for seeking the degree and a proposal as to how disciplines will be integrated to meet the student's goals. Master of Science (Mathematics and Physical Science) students must specify the two areas of emphasis proposed.
- 2. A supervising committee (chair and two graduate faculty members representing appropriate disciplines) is appointed by the area coordinator in consultation with the Graduate Program Coordinator to advise the student in developing his/her program. This committee also supervises the student's program and guides his/her research.
- 3. The committee and the student develop a plan of study. Deficiencies, prerequisites, and research and/or language tools are considered as well as transfer credits, residency, comprehensives, and a culminating project. All course work and procedures are to be consistent with the student's defined and approved purpose and the general requirements for the MA or MS as defined in this bulletin.
- 4. The plan of study must be submitted to the Graduate Program Coordinator via the area coordinator before registration. Any changes in the plan of study must be approved by the supervising committee, the area coordinator, and the Graduate Program Coordinator.
- 5. A project must be submitted to a student's committee at least two months prior to graduation. The area coordinator recommends final project approval after the consent of the committee has been obtained.
- Advancement to degree candidacy is recommended by the area coordinator by means of the usual forms and according to the requirements outlined on p. 38.
- 7. Graduation Procedures and Degree Conferral. See p. 19 for further details.

#### GENERAL ADMISSION REQUIREMENTS

- Availability of faculty and facilities, as determined by Area Coordinator, for the intended program.
- 2. Completion of a baccalaureate degree in one of the areas selected for graduate study.

## MA in Interdisciplinary Studies—Communication

Janice Y. Watson, *Area Coordinator* Nethery Hall, Room 024 (616) 471-3160 commdept@andrews.edu http://www.andrews.edu/COMM/

The Master of Arts: Interdisciplinary Studies—Communication is designed for students who wish to develop advanced-level communication skills in combination with knowledge or skills in another area or areas.

Some of the areas of study that may be combined with communication in preparation for specific careers are religion, marketing, curriculum and instruction, consumer science, behavioral science, history and political science, health care, English, and the arts.

### SPECIFIC ADMISSION REQUIREMENTS

In addition to the admission requirements outlined for the Master of Arts on p. 34 and general interdisciplinary requirements noted above, the following apply:

- The student must have a minimum of 12 semester credits in communication and adequate prerequisites for the other area or areas of study. Deficiencies must be made up at the beginning of a student's program and such courses are in addition to the regular graduatedegree course work. Students must complete at least 6 undergraduate credits in communication before registering for graduate course work in communication.
- The student must have sufficient command of the English language to succeed in the proposed program. This requires a minimum TOEFL score of 600 average with no section score lower than 60 and a minimum 5.5 score on the TWE (Test of Written English) or a minimum

#### 98 ANDREWS UNIVERSITY IDSC294, 394 (3-12) PLA Portfolio Development The development of a portfolio of evidence to Off-Campus Study in present for Prior Learning Assessment. For details, see adviser. IDSC296 (0)IDSC526 **(2)** Student Missionary/Taskforce Experience Christian Faith and the Sciences Discussion of science and epistemology in the context IDSC298 (variable) of Christian faith, scientific model building, the church-science interface, and ethical considerations. PLA: (Special Topic) PLA (Prior Learning Assessment) is a process An interdisciplinary course recommended for all which validates learning experiences that have graduate students in the sciences. occurred outside traditional college/university academic programs. A portfolio of evidence for IDSC550 ? (1-3) demonstrating experience and competency Certification Seminar A web-based seminar providing an orientation to a justifies and determines the amount of credit granted. Repeatable with different topics. topic associated with graduate certification,

#### IDSC310

Introduction to Western Arts

The stylistic character and cultural climate of the important epochs of Western civilization; the relationship of painting, sculpture, architecture, and music. Discussion periods and lectures illustrated with colored slides, film strips, and recordings.

#### IDSC321, 322 \$ (3,3)

Scientific Inquiry I, II

Concepts from physics, chemistry, and biology organized in a sequence involving lab experimentation in the scientific method. Topics include philosophical issues of origins and cosmology, ethical issues, and the environment. Risk vs. Benefit analysis is used in addressing modern technologies. Prerequisites: MATH165, INSF110 or equivalent.

## IDSC340 (3)

Environmental Policy

A survey of historic and current environmental issues, pending and existing legislation on the state and federal level, federal land management offices and their differing missions, and competing and non-competing demands from bio-diversity to water usage. Prerequisites: BIOL208 or consent of the instructor.

#### IDSC401, 402 (1,1)

**Environmental Science Seminar** 

Discussion and presentations dealing with current or historic topics in environmental science.

IDSC440 (1-4)

*Topics:* \_\_\_\_\_

Designed to meet the needs of students with various interests in environmental science. Repeatable in different areas.

#### IDSC495 (1-3)

Independent Study/Readings

Directed study or readings under the guidance of an instructor. Repeatable. Registration is by permission of the dean in consultation with an instructor.

#### IDSC498 (variable)

PLA (Special Topic)

PLA (Prior Learning Assessment) is a process which validates learning experiences that have occurred outside traditional college/university academic programs. A portfolio of evidence for demonstrating experience and competency justifies and determines the amount of credit granted. Repeatable with different topics.

IDSC575 (1)

including an introduction to the most important

problems, an inventory of baseline competencies,

sources, an overview of salient issues and

and a survey of professional opportunities.

Mathematics and Science Seminar
Current research topics in mathematics and physical sciences. Attendance at 12 hours of research presentations, a paper, and a presentation of a current research topic.

IDSC640 (1-3)

IDSC499 (.5)