

School of Natural Resources

M.S. and Ph.D. area of Specialization (Human Dimensions)

Note: A student does not have to declare a specialization. The following is a description of the specialization in Human Dimensions. If a student wishes a recognized specialization to appear on his/her transcript, the indicated requirements in section I. D. must be met:

I. Content and Format of the Program

A. Education goals and objectives:

- (1) provide students a learning environment to promote an understanding of the human dimensions of natural resources, including emphases in environmental perceptions and behavior, planning, justice and law, and economics.
- (2) formally recognize students who have attained an advanced knowledge of the human dimensions field as part of their graduate program.
- (3) support interactions and cooperation among the community of scientists and students working in the field of natural resources management.

B. Courses offered in specialization:

Masters Degree: The student's major advisor and supervisory committee, in close consultation with the student, will determine the course work component of the M.S. program, in accordance with the requirements of the M.S. in Natural Resources Sciences degree for Options I or II as detailed in the Graduate Studies Bulletin (e.g., Option I requirements: 30 credit hours minimum, including 24 hours of course work, 6 thesis credits, at least one-half of the required work (credits) in the major, and at least 8 credit hours of graduate-only courses. Option II requirements: 36 credit hours minimum in the major, either 1 or 2 minors with corresponding requirements, and a thesis is not required.)

Doctoral Degree: The student's major advisor and supervisory committee, in close consultation with the student, will determine the course work component of the Ph.D. program, in accordance with the requirements of the Ph.D. in Natural Resources Sciences degree as detailed in the Graduate Studies Bulletin (e.g. for Ph.D., 90 hrs, 45 or more hrs of course work completed at UNL, 12-55 hrs dissertation research and with at last half of the course work in the Natural Resources Sciences major).

C. Are there guidelines or accreditations for such a program?

There are currently no national guidelines for human dimensions accreditation.

D. Requirements for students in specialization

- (1) Preparatory course work to be completed prior to acceptance to candidacy:
Calculus (1 semester) or Statistics (1 semester)
Economics (1 semester)
Chemistry or Physics (2 semesters)
Life Sciences (2 semesters)
(Biology, Botany, Ecology, Fisheries, Forestry, Wildlife, or Zoology)
Earth Sciences (2 semesters)
(Geology, Physical Geography, Meteorology, Oceanography, or Soils)
Social Sciences (2 semesters)
(Anthropology, Geography, Political Science, or Sociology)

Note: Students lacking these preparatory courses may be accepted into the specialization upon completion of deficiencies during their M.S. or Ph.D. program.

- (2) M.S. Option I: Minimum of 24 credit hours in basic courses in the field of human dimensions, as follows:

(a) *Required (16-17 hours)*

NRES 813/413	Environmental Leadership (3) [ALEC 410/810]
NRES 870*	Environmental Planning and Policy (3) [CRPL 870]
NRES 873*	Ecological Anthropology (3) [ANTH 473/873]
AECN 883	Ecological Economics (3)
NRES 896/496**	Special Topics: Human Dimensions (2-3)
***	Seminar (2)

* Courses proposed for cross-listing with NRES

** An SNR special topics course (900 level) is being developed in support of this and other specializations

*** At least one hour from NRES 891

(b) *Select remaining* courses from related elective courses:

AECN 840	Applied Welfare Economics and Public Policy (3)
AECN 856/456	Environmental Law (3)
AECN 857/457	Water Law (3)
AECN 868	Advanced Resource and Environmental Economics (3)
AECN 8xx*	Behavioral Economics (3)
ANTH 874/474	Applied and Development Anthropology (3)
ANTH 876/476	Human Rights, Environment, and Development (3)
CIVE 916	Interdisciplinary Seminar in Engineering: Economic and Legal Aspects of Water Resources (1-4) [LAW714; LAW774G]
CRPL 877	Recreation and Park Planning (3)
GEOG 806/406	Spatial and Environmental Influences in Social Systems

GEOG 931	Compar. Studies of the Disp. of Indigenous People (3)
GEOG 983	Sem. on Behavioral Processes in Person/Environ. Relat. (3)
NRES 812/412	Introduction to Geographic Information Systems (4) [GEOG 412/812]
NRES 815/415	Water Resources Seminar (1) [AGRO881; GEOG481/881; GEOL415/815]
NRES 818/418	Introduction to Remote Sensing (4) [GEOG 418/818]
NRES 820	Applications of Remote Sensing in Agriculture and Natural Resources(4) [AGRO, GEOG, GEOL 819]
NRES 823/423	Integrated Resources Management (3)
NRES 824/424	Forest Ecology (4)
NRES 835/435	Agroecology (3) [AGRO 435/835]
NRES 848/448	Advanced Topics in Wildlife Damage Management (2)
NRES 852/452	Climate and Society (3) [AGRO, GEOG, METR 450/850]
NRES 875/475	Water Quality Strategy (3) [AGRO, CRPL, CIVE, GEOL, MSYM, POLS, SOCI 475/875; SOIL, WATS 475]
NRES 891/491	Seminar in Natural Resources (2-3)
NRES 896/496	Independent Study (1-5) {1 course maximum for Option I, 2 course maximum for Option II}
NRES 897/497	Career Experiences in Natural Resource Sciences (1-6)
NRES 992	Seminar in Geographic Information Systems (3) [GEOG 992]
NRES 996	Research Other Than Thesis (1-6) {Option II only}
SOCI 846/446	Environmental Sociology (3)
SOCI 8xx*	Human Community and Ecology [AECN, CRPL]
†LAW 634G	Oil and Gas Law (1-4)
†LAW 641G	Environmental Law (1-4) [AECN841]
†LAW 677G	Toxic Substances and. and Hazardous Waste Law (1-4)
†LAW 697G/697	Environmental Planning and Pollution Control (1-4)
†LAW 698G	Public Lands and Natural Resources Law [AECN 898]
†LAW 776G	Water Law, Planning and Policy (1-4) [AECN 876]

*New course being developed

†Administered by the Law College. Special registration is required

Note: As new Human Dimensions science courses are created this list can be amended with the approval of the Human Dimensions Faculty and the SNR Graduate Committee. In special circumstances, NRES or other courses not in this list, but related to human dimensions science and/or the students research may be substituted with approval of the SNR Graduate Committee.

Additional requirements for the M.S. degree include NRES 899 Masters Thesis hours as required by the supervisory committee, and the Graduate College as

described in the 2002-2004 Graduate Studies Bulletin. In addition, students are required to formally present their research prospectus and final research results.

M.S. Option II: Total of 36 credit hours with one or two minors. Minimum of 24 credit hours in basic human dimensions courses as described in section (2) under M.S. Option I. Remaining credit hours may be taken from courses listed in (2b), or other selections made with consultation from the supervisory committee. In addition to course work, students selecting Option II must also complete a project (to be defined by the supervisory committee), and must present a final report and an oral presentation describing the project.

Ph.D.: Minimum of 24 credit hours in human dimensions courses, as described in section (2) under M.S. Option I. Additional requirements for the Ph.D. degree include NRES 999 Doctoral Dissertation hours as required by the supervisory committee, and the Graduate College as described in the 2002-2004 Graduate Studies Bulletin. All Ph.D. students must formally present dissertation proposals early in their programs and must formally present their research results to the University community before the final examination.

Note: Undergraduate or Masters's level course work may fulfill some of the course requirements listed above however, the student wishing the Human Dimensions Specialization is still required to take the minimum specialization credits from those courses listed in (2) under M.S. Option I above;

- (3) Proficiency in research methods, as needed to complete the student's research and as approved by the student's supervisory committee;
- (4) Thesis or dissertation topic in human dimensions;
- (5) Student's major advisor (or one of two co-advisors) must be a SNR faculty member (or courtesy appointment) with expertise in human dimensions.
- (6) Admission to candidacy requires successful completion of both written and oral comprehensive exams.
- (7) Successful completion of the requirements will be indicated on the student's final transcript as "Natural Resource Sciences with a specialization in Human Dimensions."

II. General Governance Procedures

A. Admission to the program. SNR faculty and other UNL faculty with courtesy appointments in the School of Natural Resources will assist in the selection of graduate applicants wishing to obtain this specialization using the following guidelines:

- (1) The student must meet the SNR's minimum admission requirements.

- (2) In addition to the SNR's minimum admission requirements, the student should have an appropriate science background as detailed in the list of preparatory courses.
- (3) A suitable advisor within the human dimensions faculty must be identified.

B. Completion of the Specialization:

- (1) The student will formally declare the Human Dimensions Specialization upon filing the Memorandum of Courses (MOC). The specialization will be noted on the MOC.
- (2) Approval of the thesis or dissertation topic must have the concurrence of the Supervisory Committee.

III. Availability of Resources and Funding

No additional resources are required to implement this specialization. Sufficient facilities, reference resources, and research equipment are available at UNL to complete the requirements of the specialization. Current SNR and other UNL faculty will teach the required courses and develop new courses for the program in the future as needed within their various areas of expertise.

IV. Impact on Existing Academic Community

This specialization was created by the *SNR Human Dimensions Specialization Committee* with input from other UNL faculty from the Fall of 2002 through the Spring of 2004. The committee consisted of faculty from SNR, Agricultural Economics, Community and Regional Planning, the Water Center, Anthropology, and Sociology. The proposed specialization provides a broad-based education in human dimensions aspects of natural resources.

The specialization will help foster the application of social science in SNR activities to enhance the stewardship of natural resources. It will help support the collaborative efforts between SNR and social science faculty within other departments at UNL. The specialization draws specific attention to the Human Dimensions emphasis within Natural Resource Sciences graduate degrees, which is important for students seeking employment in this field. The designation of the specialization will be of value in recruiting a broad range of graduate students from the natural resources and social science fields.

V. Proposal Approval

- The proposal was reviewed by faculty in the following units: Agricultural Economics, Community and Regional Planning, Anthropology and Geography, and Sociology.
- The specialization proposal was reviewed and approved by the SNR Graduate Committee on _____.