Present: S. Doederlein (CLAS), D. Ballantine (CHEM), Giovanni Bennardo (ANTH), J. Groves (ECON), F. Jaeger (FL&L), Doris Macdonald (ENGL), Joel Stafstrom (BIOS)

A. **Action on Minutes**

Minutes from the #9 meeting on October 23, 2013, were approved online and have been forwarded to the catalog editor.

B. **Miscellaneous**

The committee discussed a contract major proposal for Alicia Pfeiffer in Women, Gender, Sports, and Health. It was determined that additional information was needed to support the proposal.

Updated proposal and requested information was received and the contract major was reviewed and approved by the committee electronically on December 5, 2013.

C. **Curriculum – Old Business**

None

D. **Curriculum – New Business**

**Department of Biological Sciences**

The committee approved course revisions to BIOS 402X and 484X.

**Department of Chemistry and Biochemistry**

The committee approved course revisions to CHEM 490X and 493X.

**Environmental Studies**

The committee approved new course proposals for ENVS 401, ENVS 475X, ENVS 482, ENVS 483X, ENVS 487, and ENVS 495. They also approved the development of Emphasis 7, Educator Licensure in Environmental Science.

**Department of Geology and Environmental Geosciences**

The committee approved course revisions to GEOL 475 and GEOL 483.
Department of Physics

The committee approved course revisions to PHYS 490X and PHYS 493X.

Tabled:

None
Department of Biological Sciences

Course Revisions Page 210-212, 2013-14 Undergraduate Catalog

402X. INTERDISCIPLINARY TEACHING OF SCIENCE IN SECONDARY EDUCATION (3). Crosslisted as CHEM 493X, ENVS 483X, GEOL 483, and PHYS 493X. Methods and theory for the… portfolio. PRQ: Consent of department.

Rationale: Addition of ENVS 483X to the crosslistings.

484X. SCIENCE ACROSS TIME AND CULTURE (2). Crosslisted as CHEM 490X, ENVS 475X, GEOL 475, and PHYS 490X. Examination of… culture. PRQ: Consent of department.

Rationale: Addition of ENVS 475X to the crosslistings.

Department of Chemistry and Biochemistry

Course Revisions Page 218, 2013-14 Undergraduate Catalog

490X. SCIENCE ACROSS TIME AND CULTURE (2). Crosslisted as BIOS 484X, ENVS 475X, GEOL 475, and PHYS 490X. Examination of… culture. PRQ: Junior standing or consent of department.

Rationale: Addition of ENVS 475X to the crosslistings.

493X. INTERDISCIPLINARY TEACHING OF SCIENCE IN SECONDARY EDUCATION (3). Crosslisted as BIOS 402X, ENVS 483X, GEOL 483, and PHYS 493X. Methods and theory for the… portfolio. PRQ: Consent of department.

Rationale: Addition of ENVS 483X to the crosslistings.

Environmental Sciences

New Courses Page 247, 2013-14 Undergraduate Catalog

CIP: 03.01

401. THIRD CLINICAL HIGH SCHOOL EXPERIENCE IN ENVIRONMENTAL SCIENCE (2). Discipline-based early clinical experience for students seeking teacher licensure in environmental science. Observations, evaluation, methods, and problems practicum in subject discipline teaching. Includes a minimum of 40 clock hours of supervised and formally evaluated experiences. PRQ: Consent of department.

Rationale: This is a course that is required by all science teacher licensure candidates.
475X. SCIENCE ACROSS TIME AND CULTURE (2). Crosslisted as BIOS 484X, CHEM 490X, GEOL 475, and PHYS 490X. Examination of major concepts of science and how they evolved. Comparison and contrast of the role and practice of science in various cultures and examination of the interaction between science, technology, and culture. This course is only available to teacher licensure candidates. PRQ: GEOL 120 and GEOL 121, or consent of department.

Rationale: This is a crosslisted course that is required by all science teacher licensure candidates.

482. TRANSITION TO THE PROFESSIONAL ENVIRONMENTAL SCIENCE TEACHER (2). A transitioning experience, in which the teacher licensure candidate achieves closure on the initial phase of professional preparation and, upon that foundation, charts a path for continuing professional growth as a practicing teacher. Candidate will reflect on the preparatory experience and complete documentation demonstrating ability to perform as a qualified environmental science teacher. Such documentation will include, but not be limited to, the electronic portfolio, a professional development plan, and a resume. CRQ: ENVS 487 or consent of the department.

Rationale: This is a course that is required by all science teacher licensure candidates.

483X. INTERDISCIPLINARY TEACHING OF SCIENCE IN SECONDARY EDUCATION (3). Crosslisted as BIOS 402X, CHEM 493X, GEOL 483, and PHYS 493X. Methods and theory for the teaching of interdisciplinary science in grades 6-12. Exploration of the nature and purpose of science and its underlying assumptions, the social and cultural challenges in science teaching, and the potential solutions to these challenges through research, discussion, and reflection. Use of state and national science standards to develop student learning objectives and to design inquiry-based lesson plans, microteaching, construction and use of assessment rubrics, and ongoing development of a professional portfolio.

Rationale: This is a crosslisted course that is required by all science teacher licensure candidates.

487. STUDENT TEACHING (SECONDARY) IN ENVIRONMENTAL SCIENCE (10). Assignments made by Environmental Studies. Also see “Emphasis 7, Educator Licensure” for other regulations. PRQ: ENVS 495X and consent of department.

Rationale: This is a course that is required by all science teacher licensure candidates.

495. METHODS IN TEACHING ENVIRONMENTAL SCIENCES (3). Methods and materials and theory for teaching secondary environmental science. Emphasis on goal-setting, and planning logically sequenced learning experiences that are multisensory, interactive and that include opportunity for evaluation of on-going learning. Discussion and microteaching. Does not count as credit for the undergraduate major in environmental sciences. Students with a baccalaureate degree in environmental science from elsewhere must complete at least two upper-level environmental sciences courses at NIU with a minimum GPA of 3.00. PRQ: Minimum overall
GPA of 2.70 in all applicable environmental sciences, biology, chemistry, and physics courses, and consent of department. CRQ: ENVS 401.

Rationale: This is a course that is required by all science teacher licensure candidates.

Other Catalog Change Page 246, 2013-14 Undergraduate Catalog

Environmental Studies (ENVS)

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Emphasis 7. Educator Licensure - Environmental Science (95)

Students must complete a program of study approved by the Director of the Environmental Science licensure program designed to provide a broad background in the discipline and meet the requirements for an undergraduate major in Environmental Sciences at NIU. Students pursuing secondary science teacher licensure in environmental science must have a grade of C or better in all coursework specifically required for licensure. This includes all environmental science, biology, chemistry, physics and math courses, pedagogy, and written communication, oral communication, and psychology general education classes.

Admission and Retention Requirements

Candidates must submit an application in writing to the Director of the Environmental Science licensure program.

Undergraduates must have a GPA of 2.50 in all work at NIU. Candidates must also have a minimum combined GPA of 2.70 in NIU courses numbered 200 and above in physical and biological sciences and mathematics.

All potential certification candidates must have a satisfactory review of progress with the departmental licensure adviser each semester after admission to the certification program. The candidate must also:

- take and pass the ICTS Test of Academic Proficiency prior to applying to the certification program.
- take and pass the ICTS Environmental Science Content Test prior to applying to student teaching.
- take and pass the ICTS Assessment of Professional Teaching test before completion of the program.

Environmental Science Educator Licensure

All retention requirements listed above:

Fifteen (15) upper-division semester hours in environmental science, including:

- ENVS 301 – Environmental Science I: Physical Systems (3)
- ENVS 302 – Environmental Science II: Biological Systems (3)
- ENVS 303 – Environment in the Social Sciences and Humanities (3)
ENVS 304 – Environmental Law, Policy and Economics (3)
ENVS 305X/TECH 305 – Green Technologies (3)

Twelve (12) hours of electives in designated courses teaching environmental science concepts:
- ANTH 425 – Environment and Anthropology (3)
- ANTH 432 – Nature and the Environment Across Cultures (3)
- BIOS 406 – Conservation Biology (4)
- BIOS 409X/ENVS 409/GEOL 409X/PHHE 409X – Water Quality (4)
- ECON 386 – Environmental Economics (3)
- ENVS 315/GEOG 315X – Geography of Energy (3)
- GEOG 253 – Environment and Society (3)
- GEOG 303 – Water Resources and the Environment (3)
- GEOG 322 – Geography of World Plant Communities (3)
- GEOG 368 – Climate Change: Science, Impacts and Mitigation (3)
- GEOG 453 – Environmental Management (3)
- GEOG 455 – Land-Use Planning (3)
- GEOL 390 – Introduction to Groundwater (3)
- HIST 377 – American Environmental History (3)
- MEE 101 – Energy and the Environment (3)
- PHIL 335 – Environmental Ethics (3)
- POLS 324 – Politics of Environmental Health and Safety Regulation (3)
- TECH 245 – Pollution Prevention and Sustainable Production (3)
- TECH 484 – Energy Management (3)

Additional Coursework outside of the department (31)
- Eight (8) semester hours in biology:
  - BIOS 208 – Fundamentals of Cellular Biology I (3)
  - BIOS 210 – Fundamentals of Cellular Biology Laboratory (1)
  - BIOS 209 – Fundamentals of Organismal Biology (3)
  - BIOS 211 – Fundamentals of Organismal Biology Laboratory (1)
- Eight (8) semester hours in college chemistry:
  - CHEM 210 – General Chemistry I (3)
  - CHEM 212 – General Chemistry I Lab (1)
  - CHEM 211 – General Chemistry II (3)
  - CHEM 213 – General Chemistry II Lab (1)
- Eight (8) semester hours in college physics including lab:
  - PHYS 210 – General Physics I (4)
  - PHYS 211 – General Physics II (4)
- Seven (7) Semester hours in math/statistics:
  - MATH 211 – Calculus for Business and Social Science (3)
  - STAT 301 – Elementary Statistics (4)

Professional Education courses, including (37):
- BIOS 402X/CHEM 493X/ENVS 483X/GEOL 483/PHYS 493X – Interdisciplinary Teaching of Science in Secondary Education (3)
- BIOS 484X/CHEM 490X/ENVS 475X/GEOL 475/PHYS 490X – Science Across Time and Culture (2)
- ILAS 201 – Introductory Clinical Experience (1)
ILAS 301 – Second Clinical Experience (2)
ENVS 401 – Third Clinical High School Experience in Environmental Science (2)
ENVS 482 – Transition to the Professional Environmental Science Teacher (2)
ENVS 487 – Student Teaching (Secondary) in Environmental Science (10)
ENVS 495 – Methods in Teaching Environmental Science (3)
EPS 406/EPS 507 – Issues in Human Development and Learning in the Middle School and High School Years (3)
ETT 402 – Teaching and Learning with Technology (3)
LTIC 420 – Methods and Materials for Teaching English Language Learners in the Content Areas (3)
SESE 457/SESE 557 – Methods for Including Middle and Secondary Students with Exceptionalities in the General Education Classroom (3)

Rationale: NIU had a Science-Environmental Science (Secondary) program through the Geology department but that program approval from the Illinois State Board of Education has since lapsed due to no enrollment in the program for 3 or more years. With recent developments at NIU, including the emergence of Environmental Studies as its own major, the formation of a Center for Environmental Studies, the hiring of three new faculty lines in the field of environmental Science (including one that has brought us a faculty member with secondary teaching experience), and a resurgence of enrollment in the field, we submitted our request for approval of a new Environmental Teacher certification program through Environmental Studies. The program was approved in May of 2013.

Impact Statement: ENVS has consulted with the Departments of ANTH, BIOS, CHEM, ETRA, GEOG, GEOL, HIST, LEPF, LIT ED, MATH/STAT, MEE, PHIL, PHYS, POLS, SEED, and TECH, regarding the addition of their courses to the list of outside requirements in Emphasis 7. None of the departments identified any negative impact on course availability or enrollment with this change.

Department of Geology and Environmental Geosciences

Course Revisions

475. SCIENCE ACROSS TIME AND CULTURE (2). Crosslisted as BIOS 484X, CHEM 490X, ENVS 475X, and PHYS 490X. Examination of… and culture. PRQ: GEOL 120 and GEOL 121, or consent of department.

Rationale: Addition of ENVS 475X to the crosslistings.

483. INTERDISCIPLINARY TEACHING OF SCIENCE IN SECONDARY EDUCATION (3). Crosslisted as BIOS 402X, CHEM 493X, ENVS 483X, and PHYS 493X. Methods and theory for the portfolio.

Rationale: Addition of ENVS 483X to the crosslistings.

Department of Physics
490X. SCIENCE ACROSS TIME AND CULTURE (2). Crosslisted as BIOS 484X, CHEM 490X, ENVS 475X, and GEOL 475. Examination of… and culture. PRQ: PHYS 250A or PHYS 253, PHYS 251A or PHYS 273, and PHYS 261, or consent of department.

Rationale: Addition of ENVS 475X to the crosslistings.

493X. INTERDISCIPLINARY TEACHING OF SCIENCE IN SECONDARY EDUCATION (3). Crosslisted as BIOS 402X, CHEM 493X, ENVS 483X, and GEOL 483. Methods and theory for the… portfolio.

Rationale: Addition of ENVS 483X to the crosslistings.