School of Public Policy and Administration

Program Type:\* 

Degree Type:\* 

Energy and Environmental Policy (PhD)

Provide a brief summary of the proposed program changes and describe the rationale for the change(s):

The current changes to the ENEP degree are being made in order to help bring synergy between the UAPP, DISA, and ENEP PhD degrees across SPPA.

List new courses required for the revised curriculum. How do they support the overall program objectives of the major/ minor/ concentrations)?

No New courses are requitred for this proposal.

None, All courses included in this proposal are either SPPA courses or were included in the already approved version of this degree.

Prospective Curriculum:\*

Core Requirements

Description

The following courses should be taken by all students:

Courses

ENEP 820 International Perspectives on Energy and Environment (3cr.)

ENEP 821 Proseminar: Technology, Environment and Society (3cr.)

SPPA 861 Doctoral Professional Development

Students in the ENEP PhD program must take 1 credit of professional development each semester until they complete three credits or defend their dissertation proposal. Students are exepcted to enroll for zero credits each semester after proposal defense until the degree is completed.

Methodology Requirements

Description

Six credits of methodology course work are required and must be selected from the following list. Other UD courses may be substituted with the prior permission.

Courses

APEC 807 Math Programming with Economic Appls (3cr.)

ECON 801 Microeconomics (3cr.)

ECON 802 Macroeconomics (3cr.)

ENEP 660 Eng. Econ Analysis for Sust. Energy (3cr.)

ENWC 615 Wildlife Research Techniques (3cr.)

GEOG 604 GIS for Environmental Research (3cr.)

GEOG 670 Geographic Information Systems and Science (3cr.)

GEOG 671 Advanced Geographic Information Systems (3cr.)

MAST 663 Decision Tools for Policy Analysis (3cr.)

MAST 672 Benefit-Cost Analysis (3cr.)

MAST 681 Remote Sensing of Environment (3cr.)

POSC 816 Philosophy of Science and Research Design (3cr.)

STAT 608 Statistical Research Methods (3cr.)

UAPP 691 Quantitative Analysis in Public and Nonprofit Sectors (3cr.)

UAPP 801 Processes of Social Inquiry (3cr.)

UAPP 704 Advanced Quantitative Methods (3cr.)

UAPP 808 Qualitative Methods for Program Evaluation (3cr.)

For students with strong background in economics, the following 3-credit courses may be added to the list above:

ECON 803 Applied Econometrics I (3cr.)

ECON 804 Applied Econometrics II (3cr.)

ECON 810 Mathematics for Economists (3cr.)

ECON 822 Econometric Theory I (3cr.)

ECON 823 Econometric Theory II (3cr.)

Social Science Requirements

Description

Six credits of social science course work are required and must be selected from the following list of three-credit courses.   Other UD courses may be substituted with the prior permission.

Courses

ENEP 625 Energy Policy and Administration (3cr.)

ENEP 626 Climate Change:Science, Policies & Political Economy (3cr.)

ENEP 661 Sustainable Energy Financing (3cr.)

ENEP 802 Electricity Policy and Planning (3cr.)

ENEP 810 Political Economy of the Environment (3cr.)

ENEP 824 Sustainable Energy Policy and Planning (3cr.)

ENEP 866 Special problem (1 to 12cr.)

ENEP 868 Research (1 to 6cr.)

ENEP 870 Readings (3cr.)

DISA 650 Overview of Disaster Science and Management (3cr.)

DISA 651 International Comparative Analysis of Disasters (3cr.)

DISA 666 Special Problem (1 to 12cr.)

DISA 866 Special Problem (1 to 12cr.)

DISA 868 Research (1 to 9cr.)

Science, Engineering and Public Policy Requirement

Description

Students complete the science, engineering and public policy requirement by choosing a 3 credit graduate course (including a tutorial course with a number such as 666, 868 or 870) in a natural science or engineering related topic to meet the science, engineering and public policy requirement.   The course must be taken with a member of the University's science or engineering faculty and should be linked to the student's research interest.

Courses

CIEG 636 Biological Aspects of Environmental Engineering (3cr.)

CIEG 650 Urban Transportation Systems (3cr.)

CIEG 654 Urban Transportation Planning (3cr.)

CIEG 655 Civil Infrastructure Systems (3cr.)

CIEG 666 SPECIAL PROBLEM (1 to 12cr.)

ELEG 620 Photovoltaic Materials and Devices (3cr.)

ELEG 628 Solar Energy Technology and Application (3cr.)

ELEG 637 Energy Systems (3cr.)

ENWC 620 Behavioral Ecology (3cr.)

GEOG 652 Seminar in Climatology (3 to 12cr.)

MAST 601 Introduction to Oceanography (3cr.)

MAST 606 Ocean and Atmosphere Remote Sensing (3cr.)

MEEG 642 Introduction to Fuel Cells (3cr.)

Specialization

Description

Students are expected to take 12 credits in preparation for completing their dissertation. Thrre of the twelve will; include the 3-credit Doctoral Dissertation Proposal Course (SPPA 863).

This will prepare students for their doctoral level research.  Concentrations include Energy Sustainability, Water Sustainability, Environmental Justice, Political Ecology, Global Environments, and Sustainable Development.    Students must have areas of concentration approved by their PhD Advisor and their Guidance Committee.  If students meet the requirements of one of these concentrations, their transcript will formally indicate that the degree is awarded in this concentration.

Alternatively, students may elect to specialize in other areas.  Areas of specialization must be approved by the student’s faculty advisor and do not appear on a student’s transcript.

Courses

Students must take (3) three concentration/specialization courses approved by their advisor.

SPPA 863 Dissertation Proposal Development

Other Requirements

Description

Courses

SPPA 969 Doctoral Dissertation

APEC - 807 - Math Programming with Economic Appls (3cr.)

BISC - 635 - Population Ecology (3cr.)

CIEG - 632 - Chemical Aspects of Environmental Engineering (3cr.)

CIEG - 636 - Biological Aspects of Environmental Engineering (3cr.)

CIEG - 650 - Urban Transportation Systems (3cr.)

CIEG - 654 - Urban Transportation Planning (3cr.)

CIEG - 655 - Civil Infrastructure Systems (3cr.)

CIEG - 666 - SPECIAL PROBLEM (1 to 12cr.)

DISA - 650 - Overview of Disaster Science and Management (3cr.)

DISA - 651 - International Comparative Analysis of Disasters (3cr.)

DISA - 666 - Special Problem (1 to 12cr.)

DISA - 690 - Natural Hazards (3cr.)

DISA - 866 - Special Problem (1 to 12cr.)

DISA - 868 - Research (1 to 9cr.)

ECON - 801 - Microeconomics (3cr.)

ECON - 802 - Macroeconomics (3cr.)

ECON - 803 - Applied Econometrics I (3cr.)

ECON - 804 - Applied Econometrics II (3cr.)

ECON - 810 - Mathematics for Economists (3cr.)

ECON - 822 - Econometric Theory I (3cr.)

ECON - 823 - Econometric Theory II (3cr.)

ECON - 862 - Topics in Industrial Organization and Regulation (3cr.)

ELEG - 620 - Photovoltaic Materials and Devices (3cr.)

ELEG - 628 - Solar Energy Technology and Application (3cr.)

ELEG - 637 - Energy Systems (3cr.)

ENEP - 625 - Energy Policy and Administration (3cr.)

ENEP - 626 - Climate Change:Science, Policies & Political Economy (3cr.)

ENEP - 660 - Eng. Econ Analysis for Sust. Energy (3cr.)

ENEP - 661 - Sustainable Energy Financing (3cr.)

ENEP - 666 - Special Problem (1 to 12cr.)

ENEP - 802 - Electricity Policy and Planning (3cr.)

ENEP - 810 - Political Economy of the Environment (3cr.)

ENEP - 820 - International Perspectives on Energy and Environment (3cr.)

ENEP - 821 - Proseminar: Technology, Environment and Society (3cr.)

ENEP - 824 - Sustainable Energy Policy and Planning (3cr.)

ENEP - 866 - Special problem (1 to 12cr.)

ENEP - 868 - Research (1 to 6cr.)

ENEP - 870 - Readings (3cr.)

ENWC - 613 - Wildlife Policy and Administration (3cr.)

ENWC - 615 - Wildlife Research Techniques (3cr.)

ENWC - 620 - Behavioral Ecology (3cr.)

GEOG - 604 - GIS for Environmental Research (3cr.)

GEOG - 622 - Resources, Development and the Environment (3cr.)

GEOG - 652 - Seminar in Climatology (3 to 12cr.)

GEOG - 670 - Geographic Information Systems and Science (3cr.)

GEOG - 671 - Advanced Geographic Information Systems (3cr.)

MAST - 601 - Introduction to Oceanography (3cr.)

MAST - 606 - Ocean and Atmosphere Remote Sensing (3cr.)

MAST - 660 - International and National Ocean Policies (3cr.)

MAST - 663 - Decision Tools for Policy Analysis (3cr.)

MAST - 672 - Benefit-Cost Analysis (3cr.)

MAST - 675 - Economics of Natural Resources (3cr.)

MAST - 676 - Environmental Economics (3cr.)

MAST - 681 - Remote Sensing of Environment (3cr.)

MEEG - 642 - Introduction to Fuel Cells (3cr.)

POSC - 816 - Philosophy of Science and Research Design (3cr.)

SOCI - 671 - Disasters, Vulnerability & Development (3cr.)

SPPA - 861 - Doctoral Professional Development

SPPA - 863 - Dissertation Proposal Development

SPPA - 969 - Doctoral Dissertation

STAT - 608 - Statistical Research Methods (3cr.)

UAPP - 611 - Regional Watershed Management (3cr.)

UAPP - 691 - Quantitative Analysis in Public and Nonprofit Sectors (3cr.)

UAPP - 704 - Advanced Quantitative Methods (3cr.)

UAPP - 801 - Processes of Social Inquiry (3cr.)

UAPP - 808 - Qualitative Methods for Program Evaluation (3cr.)