# ECU COURSE CATALOG

## WATER RESOURCE POLICY MANAGEMENT

WRPM-3003 Natural Resources and Policy **3 Credits** IN THIS COURSE, STUDENTS EXAMINE NATURAL RESOURCE POLICY AND CONTEMPORARY CHALLENGES FROM MULTIPLE PERSPECTIVES. SPECIAL ATTENTION IS PAID TO ISSUES RELATED TO WATER.

WRPM-5103 **Policy Research and Methodology 3 Credits** THIS COURSE WILL STUDY RESEARCH METHODS, RESEARCH STRATEGIES, AND STATISTICAL ANALYSIS SKILLS NECESSARY TO BOTH PRODUCE AND CRITICALLY ANALYZE RESEARCH REPORTS AND DATA COMPILATIONS USED TO FORM PUBLIC POLICY.

WRPM-5113 **Advanced Native American Law 3 Credits** THE STUDY OF ISSUES RELATED TO NATIVE AMERICANS AND THE LAW. EMPHASIS ON THE ANALYSIS OF SOVEREIGNTY ISSUES. TREATIES, AND NATIVE AMERICAN COURTS.

WRPM-5193 Advanced Tribal Politics 3 Credits THIS COURSE WILL SURVEY TRIBAL GOVERNMENT AND POLITICS IN THE UNITED STATES WITH A SPECIAL EMPHASIS ON THE INTERGOVERNMENTAL RELATIONSHIPS AMONG TRIBAL, STATE, AND FEDERAL GOVERNMENTS.

WRPM-5203 Natural Resource Hist and Policy **3 Credits** THIS COURSE EXAMINES PUBLIC LAND AND NATURAL RESOURCES HISTORY AND POLICY FROM MULTIPLE PERSPECTIVES. NATURAL RESOURCE POLICY DEVELOPMENT AND DECISION-MAKING, COMMON DETERMINANTS OF NATURAL RESOURCE CHALLENGES, AND SOLUTIONS TO CONTEMPORARY MANAGEMENT PROBLEMS AND CONFLICTS WILL BE COVERED.

WRPM-5213 **Advanced Public Policy Making** 3 Credits THIS COURSE EXAMINES MODELS OF PUBLIC POLICY MAKING, LEADING THE ANALYSIS OF VARIOUS PROBLEMS CONFRONTING GOVERNMENT. THE COURSE IS CONCERNED WITH INTEREST GROUPS, WHICH INFLUENCE POLICY MAKING, THE PROCESSES (GOVERNMENTAL, INSTITUTIONAL, AND ENVIRONMENTAL) THROUGH WHICH POLICIES FLOW, THE FINAL CONCLUSIONS OF POLICY MAKING, AND THE IMPACT ON SOCIETY.

WRPM-5223 Water in Developing Countries 3 Credits THIS COURSE WILL PROMOTE CRITICAL THINKING ABOUT WATER POLICIES, MANAGEMENT, AND ACCESS ISSUES IN THE DEVELOPING WORLD. WATER IS ESSENTIAL FOR SUSTAINING HUMAN LIFE. IT IS VITAL TO OUR WAY OF LIFE AND IS ESSENTIAL FOR AGRICULTURAL PRODUCTION AS WELL AS MAINTAINING THE ECOSYSTEMUPON WHICH ALL LIFE DEPENDS. WATER MANAGERS AND POLICY MAKERS ARE FACING DIFFICULT CHALLENGES SUCH AS INCREASED DEMAND FROM CITIES, CONFLICTS AMONG WATER USERS, COMPETITION FROM FARMERS/AGRICULTURAL USERS, AND EFFECTS OF C

WRPM-5303 Water Resource Policy Analysis 3 Credits THIS COURSE FOCUSES ON THE DEVELOPMENT OF WATER RESOURCE POLICIES AND FUNDAMENTALS OF WATER RESOURCE PLANNING. TECHNIQUES FOR EVALUATING ECONOMIC AND ENVIRONMENTAL EFFECTS OF WATER RESOURCE PROJECTS WILL BE EXAMINED, AND POLICIES FOR ALLOCATING THE RESOURCE AMONG COMPETING INTERESTS WILL BE COVERED.

WRPM-5313 **Native American Water Rights 3 Credits** THIS COURSE COVERS THE SCOPE OF TRIBAL, FEDERAL, AND STATE AUTHORITY TO REGULATE OR AFFECT THE DEVELOPMENT OF NATIVE AMERICAN LANDS ESTABLISHED BY STATUTE OR TREATY, TRIBALLY AND INDIVIDUALLY OWNED. STUDENTS WILL EXPLORE THE PHILOSOPHICAL BACKGROUND AND CASE LAW PERTAINING TO NATIVE AMERICAN MANAGEMENT OF WATER. EMPHASIS WILL BE PLACED ON THE NATURE OF THE FEDERAL-TRIBAL TRUST RELATIONSHIPS AND THE DOCTRINE OF RESERVED RIGHTS AS IT APPLIES TO WATER.

WRPM-5403 Water Law 3 Credits THIS COURSE EXPLORES LEGAL SCHEMES FOR SECURING AND USING WATER RIGHTS IN SURFACE AND GROUNDWATER FOR PRIVATE AND PUBLIC USES IN THE UNITED STATES. STUDENTS WILL EXAMINE PRIOR APPROPRIATION DOCTRINES OF WATER ALLOCATION, GROUNDWATER MANAGEMENT REGIMES, FEDERAL WATER MANAGEMENT AND REGULATION, AND INTERSTATE ALLOCATION DEVICES.

WRPM-5413 **Public Organization Theory** 3 Credits THIS COURSE COVERS THE KEY CONCEPTS OF PUBLIC ORGANIZATION THEORIES AND THE APPLICATIONS OF THEORIES TO SOLVE WORLD PROBLEMS. A SIGNIFICANT PORTION OF THE CLASS WILL APPLY THE CONCEPTS TO WATER POLICY DECISION-MAKING.

WRPM-5503 **Environmental Conflict Mgmt** 3 Credits THIS COURSE FOCUSES ON THE CAUSES, DYNAMICS, AND CONSEQUENCES OF NATURAL RESOURCE AND ENVIRONMENTAL CONFLICTS AS WELL AS ON THE UNDERSTANDING OF POSSIBLE APPROACHES TO MANAGING THESE CONFLICTS. THE COURSE EXPLORES TRADITIONAL PROCEDURES USED TO MANAGE DISPUTES IN THE PUBLIC SECTOR AND ANALYZE WHY THESE TRADITIONAL MECHANISMS FAIL DURING ENVIRONMENTAL AND RESOURCE DISPUTES. DISPUTE RESOLUTION, MEDIATED NEGOTIATIONS AND MULTI-PARTY COLLABORATIVE EFFORTS ARE EXAMINED.

WRPM-5513 Advanced Watershed Management **3 Credits** THIS COURSE CONSIDERS THE WATERSHED HOLISTICALLY AND SEEKS SOLUTIONS TO AN INTERRELATED SET OF SOCIAL, ECONOMIC, AND ENVIRONMENTAL PROBLEMS. STUDENTS WILL EXPLORE A WIDE RANGE OF THREATS TO THE PRODUCTIVITY AND HEALTH OF WATERSHEDS AND EXPLORE NEW, COLLABORATIVE APPROACHES TO WATERSHED MANAGEMENT.

WRPM-5603 Water Resource Economics 3 Credits EXPLORES THE ECONOMICS OF WATER RESOURCES, INCLUDING STATIC AND DYNAMIC EFFICIENCY FOR CONSUMERS AND PRODUCERS AND OTHER TOPICS CONCERNED WITH WATER QUALITY. EXPLORES EFFECTS OF CLIMATE CHANGE ON WATER RESOURCES, AND ECONOMIC APPROACHES TO MITIGATE THESE EFFECTS.

WRPM-5613 Hydrogeology 3 Credits THIS COURSE PROVIDES AN INTRODUCTION TO THE PRINCIPLES AND PRACTICES ASSOCIATED WITH AN UNDERSTANDING OF GROUNDWATER AND ITS UTILIZATION. STUDENTS WILL EXAMINE THE RELATIONSHIP BETWEEN GEOLOGIC MATERIALS AND THE PROCESS OF WATER MOVEMENT WITHIN THE EARTH WITH A CONSIDERATION THAT GROUNDWATER IS A PRECIOUS RESOURCE THAT IS INCREASINGLY AT RISK FROM EXPLOITATION AND CONTAMINATION.

WRPM-5691 Thesis 1 Credit STUDENTS COMPLETING THE THESIS OPTION ARE REQUIRED TO CONDUCT RESEARCH AND PREPARE A SCHOLARLY PAPER. OR OTHER APPROPRIATE CREATIVE COMPONENT, UNDER THE GUIDANCE OF A FACULTY COMMITTEE FOR SUBMISSION TO THE GRADUATE SCHOOL. THIS COURSE IS REPEATABLE. A MINIMUM OF THREE HOURS MUST BE COMPLETED. A MAXIMUM OF SIX HOURS MAY BE COUNTED TOWARD THE DEGREE.

#### WRPM-5692 Thesis

STUDENTS COMPLETING THE THESIS OPTION ARE REQUIRED TO CONDUCT RESEARCH AND PREPARE A SCHOLARLY PAPER, OR OTHER APPROPRIATE CREATIVE COMPONENT, UNDER THE GUIDANCE OF A FACULTY COMMITTEE FOR SUBMISSION TO THE GRADUATE SCHOOL. THIS COURSE IS REPEATABLE. A MINIMUM OF THREE HOURS MUST BE COMPLETED. A MAXIMUM OF SIX HOURS MAY BE COUNTED TOWARD THE DEGREE.

WRPM-5693 Thesis **3** Credits STUDENTS COMPLETING THE THESIS OPTION ARE REQUIRED TO CONDUCT RESEARCH AND PREPARE A SCHOLARLY PAPER, OR OTHER APPROPRIATE CREATIVE COMPONENT, UNDER THE GUIDANCE OF A FACULTY COMMITTEE FOR SUBMISSION TO THE GRADUATE SCHOOL. THIS COURSE IS REPEATABLE. A MINIMUM OF THREE HOURS MUST BE COMPLETED. A MAXIMUM OF SIX HOURS MAY BE COUNTED TOWARD THE DEGREE.

#### WRPM-5694 Thesis

4 Credits STUDENTS COMPLETING THE THESIS OPTION ARE REQUIRED TO CONDUCT RESEARCH AND PREPARE A SCHOLARLY PAPER, OR OTHER APPROPRIATE CREATIVE COMPONENT, UNDER THE GUIDANCE OF A FACULTY COMMITTEE FOR SUBMISSION TO THE GRADUATE SCHOOL. THIS COURSE IS REPEATABLE. A MINIMUM OF THREE HOURS MUST BE COMPLETED. A MAXIMUM OF SIX HOURS MAY BE COUNTED TOWARD THE DEGREE.

2 Credits

#### WRPM-5695 Thesis

### 5 Credits STUDENTS COMPLETING THE THESIS OPTION ARE REQUIRED TO CONDUCT RESEARCH AND PREPARE A SCHOLARLY PAPER. OR OTHER APPROPRIATE CREATIVE COMPONENT, UNDER THE GUIDANCE OF A FACULTY COMMITTEE FOR SUBMISSION TO THE GRADUATE SCHOOL. THIS COURSE IS REPEATABLE. A MINIMUM OF THREE HOURS MUST BE COMPLETED. A MAXIMUM OF SIX HOURS MAY BE COUNTED TOWARD THE DEGREE.

WRPM-5696 Thesis 6 Credits STUDENTS COMPLETING THE THESIS OPTION ARE REQUIRED TO CONDUCT RESEARCH AND PREPARE A SCHOLARLY PAPER, OR OTHER APPROPRIATE CREATIVE COMPONENT, UNDER THE GUIDANCE OF A FACULTY COMMITTEE FOR SUBMISSION TO THE GRADUATE SCHOOL. THIS COURSE IS REPEATABLE. A MINIMUM OF THREE HOURS MUST BE COMPLETED. A MAXIMUM OF SIX HOURS MAY BE COUNTED TOWARD THE DEGREE.

WRPM-5703 International Environmental Policy 3 Credits THIS COURSE INTRODUCES STUDENTS TO CONTEMPORARY INTERNATIONAL ENVIRONMENTAL PROBLEMS FROM THEORETICAL AND POLICY PERSPECTIVES TO UNDERSTAND THE CAUSE OF ENVIRONMENTAL PROBLEMS. STUDENTS WILL INVESTIGATE STRATEGIES USED TO ADDRESS A NATION S PROBLEMS, RECOGNIZING FAILURE AND SUCCESS. ADDITIONALLY, STUDENTS WILL EXAMINE NATIONAL SECURITY AND ECONOMIC STABILITY IN LIGHT OF THE ENVIRONMENTAL POLICIES IN PLACE, PARTICULARLY THOSE POLICIES RELATED TO WATER.

WRPM-5713 **Advanced Water Quality and Treatment 3 Credits** THIS COURSE COVERS THE FUNDAMENTALS OF WATER QUALITY AND DISTRIBUTION SYSTEMS THAT INCLUDE NATURAL PURIFICATION OF SURFACE WATER, WASTEWATER COLLECTION SYSTEMS, WATER AND WASTEWATER TREATMENT TECHNOLOGIES AND DESIGN STRATEGIES.

WRPM-5813 **Studies in Environmental Toxicology** 3 Credits THE COURSE COVERS POISONOUS OR TOXIC PROPERTIES OF SUBSTANCES AND THE REGULATIONS AND MANAGEMENT PRACTICES FOR THESE CHEMICALS.

WRPM-5913 **Climate Change and Water** 3 Credits CLIMATE CHANGE AND WATER PROVIDES STUDENTS WITH THE INFORMATION THEY NEED TO UNDERSTAND AND EVALUATE THE EFFECTS OF CLIMATE CHANGE ON MANAGING WATER IN THE HUMAN ENVIRONMENT. A SPECIAL EMPHASIS WILL BE PLACED ON HOW INDIGENOUS TRIBES ARE AFFECTED BY AND MANAGE THE EFFECTS OF CLIMATE CHANGE.

WRPM-5951 Internship in Water Resources 1 Credit AN IN-DEPTH AND PRACTICAL STUDY OF WATER RESOURCE POLICY AND MANAGEMENT.

WRPM-5952 Internship in Water Resources 2 Credits AN IN-DEPTH AND PRACTICAL STUDY OF WATER RESOURCE POLICY AND MANAGEMENT.

WRPM-5953 **Internship in Water Resources 3 Credits** AN IN-DEPTH AND PRACTICAL STUDY OF WATER RESOURCE POLICY AND MANAGEMENT. WRPM-5981 Seminar-1 Credit DIRECTED GROUP STUDY ON SPECIAL SUBJECT OR PROBLEM. WRPM-5982 Seminar-2 Credits DIRECTED GROUP STUDY ON SPECIAL SUBJECT OR PROBLEM. WRPM-5983 Seminar-**3 Credits** DIRECTED GROUP STUDY ON SPECIAL SUBJECT OR PROBLEM. WRPM-5984 4 Credits Seminar-DIRECTED GROUP STUDY ON SPECIAL SUBJECT OR PROBLEM. WRPM-5991 Individual Studies-1 Credit DIRECTED INTENSIVE STUDY ON A SELECTED PROBLEM OR SPECIAL TOPIC.

WRPM-5992 Individual Studies-2 Credits DIRECTED INTENSIVE STUDY ON A SELECTED PROBLEM OR SPECIAL TOPIC.

WRPM-5993 Individual Studies-

DIRECTED INTENSIVE STUDY ON A SELECTED PROBLEM OR SPECIAL TOPIC.

3 Credits

WRPM-5994 Individual Studies-4 Credits

DIRECTED INTENSIVE STUDY ON A SELECTED PROBLEM OR SPECIAL TOPIC.