

UNIVERSITY OF ARIZONA
GRADUATE CERTIFICATE IN THE ADMINISTRATION AND
MANAGEMENT OF AMERICAN INDIAN NATURAL RESOURCES

I. Certificate Name and Description.

Introduction

The American Indian Studies Program (AIS), with assistance from the School of Natural Resources and Environment (SNRE), is proposing an academic Post-Baccalaureate Certificate in the administration and management of American Indian natural resources. To obtain the Certificate, students must complete a 12-unit program of study that includes core and thematic courses. The program is designed for students to begin in the fall and complete in one to two academic years. Students will be able to complete the Certificate in conjunction with a graduate or professional degree program or as a stand-alone certificate.

The goal of the Certificate is to train graduate students and related professionals to be conversant with the problems of managing natural resources on American Indian reservations and off-reservation areas. We have outstanding resource management programs that are highly specialized at the University of Arizona, but we lack basic training for graduate or professional degree-seeking students who aim to work in the management and administration of Tribal natural resources.

Administration

The Program will be administered by an Executive Committee, and draw from liaison professionals comprising an Advisory Committee and Participating Faculty from the Office of the Vice President for Research (GIDP), the College of Agriculture and Life Sciences, the College Social and Behavioral Sciences, the College of Science, the Eller College of Management, the James E. Rogers College of Law, the Udall Center for Studies in Public Policy, the Native Nations Institute for Leadership, Management, and Policy, the Indigenous Peoples Law and Policy Program, and the Institute of the Environment. Primary administrative and signature responsibility will be housed in the American Indian Studies Program. The Executive Committee will make admission recommendations and establish policy, whereas the Advisory Committee will be called upon for the recommendations and needs of Native professionals working in areas of American Indian natural resource management and administration. Participating faculty will provide recommendations on current course offerings and provide expertise in areas of research. Staff in AIS will coordinate recruiting efforts, student selection, and paperwork leading to certification.

Executive Committee

- *Benedict J. Colombi* Assistant Professor, American Indian Studies Program, School of Anthropology, and School of Natural Resources and Environment
- *J.E. "Ed" de Steiguer* Professor, School of Natural Resources and Environment and American Indian Studies Program
- *Joseph Hiller (Lakota)* Head (2010-2011), American Indian Studies Program, Assistant Dean for American Indian Programs of the College of Agriculture and Life Sciences, Associate

Director of the Arizona Agricultural Experiment Station, and Assistant Director of Arizona Cooperative Extension

- Ronald Trosper (Salish/Kootenai) Head, American Indian Studies Program (2011-present), and Professor, American Indian Studies Program

Advisory Committee

- Guillermo (Bill) Quiroga (Pascua Yaqui) Director, Rural and Tribal Entrepreneurship Initiatives, McGuire Center for Entrepreneurship, Eller College of Management
- Ross Racine (Blackfeet) Executive Director, Intertribal Agriculture Council
- Chris Stainbrook (Lakota) President, Indian Land Tenure Foundation
- Arnold Taylor (Hopi) Former Director, Department of Natural Resources, Hopi Tribe
- Augustine Toro (Tohono O'odham) Director, Natural Resources Department, Tohono O'odham Nation

Participating Faculty

- Diane E. Austin Associate Professor, School of Anthropology and Associate Research Anthropologist, Bureau of Applied Research in Anthropology
- Carl J. Bauer Associate Professor, School of Geography and Regional Development
- Manley A. Begay, Jr. (Navajo) Faculty Chair, Native Nations Institute, Udall Center for Studies in Public Policy and Senior Lecturer and Associate Social Scientist, American Indian Studies Program
- Anita D. Bhappu Co-Director, Consumers, Environment and Sustainability Initiative (CESI) and PetSmart Associate Professor & Division Chair, Retailing and Consumer Science, John & Doris Norton School, Family and Consumer Science
- Karletta Chief (Navajo) Assistant Professor, Soil, Water & Environmental Science and Department of Hydrology and Water Resources
- Stephen Cornell Director of the Udall Center for Studies in Public Policy and Professor of Sociology and Public Administration and Policy
- Laura Lopez Hoffman Assistant Professor, School of Natural Resources and Environment
- James C. Hopkins Associate Clinical Professor, Indigenous Peoples Law and Policy Program, James E. Rogers College of Law
- T J Ferguson Professor, School of Anthropology
- Larry Fisher Adjunct Professor, School for Natural Resources and Environment and Senior Program Manager, U.S. Institute of Environment Conflict Resolution, Udall Foundation
- Mitch McClaran Professor, School of Natural Resources and Environment
- Thomas R. McGuire Professor, School of Anthropology and Associate Research Anthropologist, Bureau of Applied Research in Anthropology
- Marc Miller Ralph W. Bilby Professor and Vice Dean, James E. Rogers College of Law
- Katherine Morrissey Associate Professor, Department of History
- Edella Schlager Associate Professor, School of Government and Public Policy
- Richard Stoffle Professor, School of Anthropology and the American Indian Studies Program and Research Anthropologist, Bureau of Applied Research in Anthropology
- Melissa Tatum Research Professor and Associate Director, Indigenous Peoples Law and Policy Program, James E. Rogers College of Law

- *Maria Nieves Zedeno* Associate Professor, School of Anthropology and Associate Research Anthropologist, Bureau of Applied Research in Anthropology

II. Certificate Requirements.

Curriculum Overview

Students will be required to take 12 units of course work, consisting of at least two courses selected from a core curriculum focused on American Indian natural resources and management, and two courses drawn from a longer list of thematic courses. All courses in the curriculum are currently taught at the University of Arizona; none are offered through distance learning. We anticipate that new courses will be added in conjunction with new faculty hires. Courses currently on the list may be removed. The determination of approved courses is at the discretion of the Executive Committee, and a signed and approved advising worksheet and plan of study is required for each student.

Students must take all course work for a letter grade. Students may, in conjunction with the approval of their Certificate or regular-degree advisor, petition the Executive Committee for no more than 3 transfer credits in the proposed general course of study outlined below.

CORE CURRICULUM

The core curriculum consists of at least six credit hours chosen from the following list. Additional courses selected from the core list may be used to satisfy thematic course requirements. The core curriculum is designed to offer students an opportunity to obtain a strong background in American Indian natural resources and management. Students will select two courses from the following core offerings:

REQUIRED CORE

AIS 541a (also ARL 541a, RAM 541a, RNR 541a, SWES 541a, WFSC 541a, WSM 541a) – Natural Resource Management in Native Communities (3 units) Spring.

This course surveys of basic issues and concepts in natural resource management and environment in Native communities. A central theme focuses on developing tribally-specific solutions to rebuilding the resiliency of degraded ecosystems. We consider theoretical orientations and case-specific material in: sovereignty, reserved rights, and Native claims; Native knowledge systems and western science; co-management and restoration; water, fish, wildlife, agriculture, rangeland management, energy, mining, nuclear waste, and global climate change.

CHOOSE 1 OF 5

AIS 526a – Principles of Indigenous Economics (3 units) Fall.

Indigenous and aboriginal peoples in the Americas developed distinctive economic systems prior to contact with Europe. As the world economic system developed, indigenous peoples attempted to preserve their ways of life as best they could, with some success. This course examines the ontological, epistemological and moral principles of indigenous economic theory with application to contemporary problems.

AIS 531a – Traditional Ecological Knowledge (3 units) Spring.

An introduction to the growing literature on traditional ecological knowledge and its relationships to the ecological and social sciences.

AIS 595a – Globalization, Natural Resources and Indigenous Peoples (3 units) Fall.

The major challenges and opportunities facing the world today and particularly in Indigenous communities have come about as the result of historical situations in place, as well as increasingly from the modern situation of globalization and the concomitant relentless search for natural resources to fuel this economic system. This course introduces the economic terms and situations of globalization and natural resources and then critically examines how globalization and natural resource management impact Indigenous world populations and by extension, all life on earth. The class is useful for students in American Indian Studies, Natural Resource Management, Economics, History, and Political Science, and may be of interest for students in Public Policy Management, Business Administration, or other areas of study.

LAW 643 – Native American Natural Resources (3 units) Fall.

This course examines several themes: conflicts over which government has sovereign control over which resources; the role that tribal governments play in natural resource allocation and management; questions relating to ownership of natural resources; the changing federal policies relating to natural resources allocation; the role of federal courts, Congress, and Executive branches in relation to the trust responsibilities to protect tribal lands and resources; environmental protection, including EPA policy in relation to Indian Reservations; and natural resource development and management.

RNR 580 – Natural Resources Policy and Law (3 units) Spring.

The purpose of this course is to instruct students regarding: 1) the role of public policy and law in the management of renewable natural resources; 2) U.S. natural resource policy and the political process, 3) selected important federal natural resource and environmental laws; 4) the emerging role of collaborative planning in natural resources management; 5) trends and future directions in U.S. natural resources policy and law; 6) the role of public policy in the career of the natural resource professional. The course emphasizes public policy and law as they apply to natural resources on U.S. federal land. However, the principles would apply to state government policy as well.

THEMATIC COURSES

Thematic courses consist of six credit hours chosen from the following list. Thematic courses are designed to offer students an opportunity to focus on thematic coursework in areas of Sustainability and Cultures; Natural Resource Management; Law and Policy; and Business Administration. Thus students are required to select two courses from the following thematic offerings and could do so within a theme or across themes.

Each area will provide the flexibility and range in producing and approving appropriate plans of study. The role of the advisor is to assist the student in choosing the appropriate classes in meeting the diverse needs of two groups: (1) degree-seeking certificate students and (2) professional-seeking certificate students. For example, a fall 2010 survey conducted by Professor Colombi shows that tribal natural resource professionals emphasize a primary need of having professionals conversant in areas of business management and accounting and natural resource management, with general competency in areas of law and policy and cultures and sustainability.

THEME 01: SUSTAINABILITY AND CULTURES

ANTH 611 – *Ecological Anthropology (3 units) Spring.*

A graduate-level overview of the major alternative approaches to ecological anthropology. The topics we will investigate include population, systems, community, political, behavioral, and evolutionary ecology as they have been applied to a range of anthropological questions.

ANTH 696B – *Conservation and Community (3 units) Fall.*

This course explores the historical construction of space and nature in Western society, and examines the impacts of conservation efforts, including protected areas, on the lives and livelihoods of rural peoples across the world. It also investigates the fundamental assumptions of conservation biology and anthropological notions of community to analyze the discursive strategies and relations of power promoting or contesting conservation endeavors across the world, with a particular emphasis upon the American West.

GEOG 532 – *Climate & Water (3 units) Spring.*

This course explores the connections between climate and water resources from the perspective of the past, the present, and the future to foster an appreciation of the finite nature of water in the western U.S. and other regions in the face of a changing climate.

GEOG 568 – *Water & Sustainability (3 units) Fall and Spring.*

Social and environmental conflicts over water are intensifying in much of the world. This course studies the physical basis, history, and political economy of water development and water policy in the U.S. and internationally. Graduate-level requirements include additional reading every week and a term paper instead of the final exam.

GEOG 696j – *(also HWR 696I, NES 696I, POL 696I) Political Ecology: Institutions, Environmental Change & Development (3 units) Fall and Spring.*

This course is a multi-disciplinary approach to understanding resource access by different people, the institutions and environmental conditions through which resource access is mediated, and the sorts of environmental change that these systems may create. It also involves an analysis of the political institutions that have a bearing on environmental outcomes. It frames local resource use systems within the 'nests' of processes that help to shape them - e.g. political economy, globalization, gender relations, and historically produced 'narratives.'

GEOG 696o – *Resilience and Adaptation (3 units) Fall and Spring.*

Climate change, urban growth, energy demand, and global food trade alter water in coupled human-natural systems. This seminar addresses adaptation and resilience using material on river basins, aquifers, infrastructure, policy, and institutions from Southwest U.S., transboundary U.S.-Mexico, and international cases.

LAW 603j – *(also ANTH 603J, ECOL 603J, PA 603J, SWES 603J) Sustainability & Environmental Policy (3 units) Spring.*

Over the past twenty years "sustainability" (or "sustainable development") has emerged as a central goal of environmental policy making. Contemporary tools of environmental policy including ecosystem management, adaptive management, and restoration have been displaced by what seems

like a clearer goal that captures ends as well as means. Sustainability has moved from the work of scholars and activists to laws and administrative regulations. The language of sustainability has extended to the world of business and commerce.

LAW 697b – (also AIS 697b) *Globalization and the Transformation of Culture (3 units) Fall and Spring.*

Workshop on globalization and preservation of culture.

THEME 02: NATURAL RESOURCE MANAGEMENT

AREC 596 – *Agricultural and Resource Economics (3 units) Fall and Spring.*

The development and exchange of scholarly information, usually in a small group setting. The scope of work shall consist of research by course registrants, with the exchange of the results of such research through discussion, reports, and/or papers.

RAM 536 – *Grazing Ecology and Management (3 units) Spring.*

This course examines how herbivores interact with their environment and how understanding of these interactions is applied to the management of grazing animals or the environments they inhabit or both. Emphasis is placed on the scientific basis for grazing management decisions and management designed to accomplish a variety of outcomes. Graduate-level requirements include to meet separately with instructor twice during the semester; they will read current literature and discuss these readings during these special meetings.

RNR 512 – (also LAR 512) *Recreational Dimensions of Natural Resource Management (3 unit) Fall.*

Human perception, value and behavioral aspects of outdoor recreation; sociological dimensions of the recreational experience in wildland recreation settings and activities; development of sociological concepts and theories employed to understand recreation behavior; and computer-based models for recreation.

RNR 548 – (also LAR 548) *Outdoor Recreation Management (3 unit) Spring.*

Analysis of the Earth system through an examination of its component parts (particularly climate and biogeochemistry) and their interactions with human activities, emphasizing information needed to understand modern and future environmental changes. Graduate-level requirements include students to be team leaders during the project phase of the class. They will be expected to learn how to be project coordinators and work with undergraduate students.

SWES 501 – *Sustainable Management of Arid Lands & Salt-Affected Soils (3 units) Spring.*

Principles and practices of soil, water and crop management under arid and semiarid conditions; the use of diagnostic procedures for evaluating soils and waters, reclamation, and economics of irrigation project development. Graduate-level requirements include an in-depth research paper on a single aspect of a current topic.

WSM 560 – (also HWR 560, HWRS 560, HYDR 560) *Watershed Hydrology (3 units) Fall.*

Application of fundamental principles to quantifying the basic hydrologic processes occurring on watersheds. Graduate-level requirements include an in-depth paper on the application of hydrologic principles to problems in watershed management.

WSM 562 – *Watershed Management (3 units) Spring.*

Evaluating hydrologic impacts of management activities on watersheds to include silviculture, range, mining, and recreation use. Graduate-level requirements include an in-depth paper on the application of hydrologic principles to problems in watershed management.

WFSC 525 – *Conceptual Foundations in Ecology (3 units) Spring.*

Applying the hypothetico-deductive method to questions in ecology. Examine classic/controversial papers from the primary literature to critique past efforts to address conceptual issues in ecology via the use (or mis-use) of the scientific method.

WFSC 555r – *Fishery Management (3 units) Spring.*

Methods and concepts pertaining to fishery investigations and management; application of principles for enhancement of fisheries and aquatic habitats. Graduate-level requirements include a report on a current issue in management and a report on a research issue, plus several discussion meetings. Offered in spring of even years.

WFSC 578 – *Wildlife Population Dynamics (3 units) Fall.*

Concepts and methods for estimating abundance and survival of fish and wildlife population, with emphasis on computer-assisted techniques, application to research design, and implications for management of populations.

WFSC 595c – *Wildlife Habitat Analysis (3 units) Spring.*

The conceptual foundations for understanding how animals select habitat, and information about animal behavior, cues used in habitat selection, and theoretical models of habitat selection. Students evaluate related subjects, such as habitat quality, habitat sources, populations sinks, and thresholds.

WFSC 696a – *Fish and Wildlife Ecology (3 units) Fall and Spring.*

The development and exchange of scholarly information, in a small group setting, on selected topics in Wildlife and Fisheries science and management. Course registrants exchange results of research through discussions, reports, and/or papers.

WFSC 696c – *Restoration Ecology (3 units) Spring.*

Examination of the emerging field of restoration ecology from a habitat and population perspective. Will investigate concepts and applications of restoration ecology, with emphasis on southwestern ecosystems.

THEME 03: LAW AND POLICY

AIS 575 – *Contemporary Federal Indian Policy (3 units) Spring.*

This course examines the current legal and political relationship between the United States government and American Indian tribes and individual Indians. The social, political, and legal circumstances of American Indians are considered through the examination of legislation, court cases, and policies of federal, state and local, and tribal governments. The course will consist of lectures, group, and individual analyses of pertinent court cases and federal legislation as they pertain to the subject for the week. Students are required to brief all cases included in substance in the assigned reading, including all cases underlined in the syllabus. These briefs will be turned in on the day the material is discussed. Case briefs and the oral participation of students in the class discussion are an important

component of the class participation grade. An essential aspect of the course is an oral presentation of a case by individual student presenter.

AIS 584 – (also *LAW 584, POL 584*) *Development of Federal Indian Law (3 units). Fall and Spring.* European colonial precedents through the treaty-making period; federal policy from treaty-making to the present.

AIS 603 – (also *LAW 603*) *Nation Building (3 units) Fall.*

This course explores critical nation-building issues confronting Indigenous peoples in North America, with a primary focus on Native peoples in the United States. The course examines multi-dimensional settings that confront Native societies and their social, cultural, political, educational, and economic leaders. The issues to be analyzed include: education (formal and informal) from both contemporary and historical contexts, economic development, culture and identity; and leadership and institution-building. Issues, concepts, and theories examined in the course provide a basis for examining current Native institutions of self-government; assessing educational policies of federal, First Nation/tribal, and state/provincial governments; analyzing how to enhance the foundational capacities for effective governance and for strategic attacks on education, economic, and community development problems of Native nations; and augmenting leadership skills, knowledge, and abilities for nation-building. Course participants link concepts of education and culture with nation-building and leadership through readings, discussions, short assignments, and a final research paper.

ANTH 540 – *Cultural Resource Management (3 unit) Spring.*

Cultural Resource Management (CRM) involves research to identify, evaluate, and register historic properties, and mitigate adverse impacts to them. The course reviews the legislation, method and theory of CRM to develop the practical skills needed in professional applications. Graduate-level requirements include extra reading assignments, more class discussion and higher standard for written assignments.

GEOG 596 – (also *HWR 596B, HWRS 596B, LAW 596B, PLG 596B, SWES 596B*) *Arizona Water Policy (3 units) Spring.*

This course focuses on current Arizona water policy from a multi-disciplinary perspective. Through readings, research, lectures, discussions and presentations, the student is exposed to major, current water resource issues facing Arizona and other parts of the West and policies to address them. The faculty draw upon their and guest-lecturers' experiences to demonstrate the development, analysis and implementation of real-world water policy.

GEOG 596j – *Water Management & Policy (3 units) Fall and Spring.*

Management and policy challenges driven by surface water and groundwater scarcity will be assessed for the Southwest US, Mexico, and globally. Critical review of institutions coupled with assessment of emerging management systems will lead to consideration of policy alternatives.

LAW 525 – (also *AIS 525*) *Native Economic Development (3 units) Fall.*

This course examines the issues surrounding economic development as indigenous peoples and their respective organizations enter the 21st Century. The course will cover a broad range of issues including sovereignty, constitutional reform and by-law development, cultural preservation, securitization of resources, intellectual property, religious freedom, health, social welfare and education.

LAW 631a – (also AIS 631a) *Federal Indian Law I (3 units) Fall and Spring.*

This course explores the principles, doctrines, and texts governing the legal relations between the United States and Indian tribes, the history of federal Indian law and policy, tribal property, treaty rights and sovereignty, congressional plenary power, the trust doctrine, jurisdiction in Indian country, and tribal government. Topics specifically examined in the course include tribal lawmaking powers and jurisdiction, gaming and economic development in Indian country, protection of Indian religious rights and cultural property, water rights, fishing, hunting and other treaty based rights.

LAW 631d – (also AIS 631d) *Law, Policy, and Economics of Development in Indian Country (3 units) Fall.*

This course examines the development challenges faced by contemporary Native nations. Utilizing numerous case studies and extensive research on what is working and what is not working to promote the social, political, cultural and economic strengthening of American Indian nations, the course emphasizes themes applicable to community development worldwide. Historical and relevant federal Indian policy and case law are used as background material, but the course emphasizes the interdisciplinary nature of the "nation building" revolution underway in Indian Country. Additional emphasis is placed on how tribal initiatives can conflict with federal case law, state jurisdiction, and federal policies and politics.

PA 581 – *Environmental Policy (3 units) Spring.*

This course examines the role of government in management of energy, natural resources and environment; process and policy alternatives; special attention to the Southwest. Graduate-level requirements include additional readings and a substantial research paper of at least 25 pages in length. Taught every other year.

THEME 04: BUSINESS ADMINISTRATION

ACCT 500a – *Intermediate Financial Accounting (3 units) Fall and Spring.*

Theory and methodology involved in contemporary accounting for assets, liabilities, stockholders' equity, net income and funds, analysis and interpretation of financial statements. Graduate-level requirements include a special project.

ACCT 510 – *Principles of Profit Planning and Control (3 units) Spring.*

Course focuses on growing a profitable enterprise by understanding how to identify, evaluate, and manage key components of the Customer Value Proposition.

BNAD 501 – *Leadership and Teams (3 units) Fall.*

Success requires much more than expertise in your field. Leadership in the 21st century requires developing a vision and driving your organization to excel through clear strategic goal-setting and execution. This module provides an integrated leadership framework for organizational success, combining leadership and team building strategies to provide the participants with actionable ideas they can implement immediately.

MGMT 501 – *Leadership & Social Responsibility (3 units) Fall and Spring.*

One goal of this course is to focus on the skills you will need to effectively lead and manage work teams. Another goal is to explore the topic of leadership in a corporation that is socially

responsible. We will take a decidedly experiential and applied approach to examining this topic. We will be examining and evaluating techniques for leading individuals, groups, and teams as well as exploring the concept of corporate social responsibility. At the end of this course, participants should be able to translate theories into more specific competencies that will improve your ability to lead and manage in a corporation that is socially responsible.

MGMT 502 – Organizational Behavior (3 units) Fall and Spring.

The interactions, effects, and interrelationships of managers, employees, and organizational structures and systems.

MKTG 500 – Marketing Management (3 units) Fall.

Market and customer analysis for product service, price, promotion and distribution decisions; study of marketing management theories and practices to maximize customer value and satisfaction.

Sample Schedule

We anticipate completion of the program in 2 years at the rate of one course a semester. Students can complete the program in as little as one semester with a four course load. Core and thematic courses can be taken in any order, though the recommended schedule would be as follows:

<i>Fall Year 1</i>	<i>Spring Year 1</i>	<i>Fall Year 2</i>	<i>Spring Year 2</i>
Core Course	Core Course	Thematic Course	Thematic Course

Student Learning Objectives

Upon completion of the Certification program, students will:

- Understand current natural resource and environmental issues affecting American Indian nations, and understand current issues affecting the administration and management of natural resources on tribal lands.
- Understand federal environmental and natural resource policies impacting American Indian tribal nations.
- Understand the relationship between American Indian peoples in the United States with federal, state, and local governments and agencies and the impact of those relationships upon contemporary issues affecting natural resources management.
- Understand basic Federal Indian law and policies in regards to the management of American Indian land and natural resources.
- Understand American Indian natural resources in the United States, especially the development and management of those resources for Native nations.

Audience, Need, and Recruitment Strategies

There are two primary audiences for the Certificate in the Administration and Management of American Indian Natural Resources. First, many students apply to AIS masters and doctoral, and graduate professional programs with an interest in understanding American Indian natural resources and the management of those resources, especially in light of the international reputation of the University of Arizona as a leader in the research of natural resources, environment, and related Indigenous studies. At present, however, there is no interdisciplinary certificate related to American Indian natural resources and management that students can acquire in conjunction with their pursuit of traditional academic degrees. We believe there is a demand for focused, graduate level training in the management and administration of American Indian natural resources, and that this topical focus will attract in near equal numbers students across environmental sciences, social sciences, agricultural sciences, law and policy, business administration, and related professions. Second, we anticipate a demand on the part of BA degree-holding professionals of both tribal and non-tribal government and private industry in the state of Arizona, and beyond. These professionals will be attracted to the Certificate's focus on acquiring a deeper understanding of and skill sets related to the environmental, scientific, administrative, and legal and policy dimensions that affect the management of natural resources on tribal lands, especially as these issues are regionally connected to the US Southwest.

We will advertise this program through appropriate UA web pages, contacts with current and prospective graduate students and graduating seniors, and professionals in the natural resource management community in Arizona and other states. We will distribute promotional materials to our contacts with tribal and non-tribal governments and non-government agencies and organizations, and across campus.

Professor Colombi (American Indian Studies Program) undertook a survey of American Indian tribes in Arizona to gauge potential support and collaboration from American Indian nations in the State of Arizona for the Certificate. The informal survey included consultations with natural resource leaders with the following Arizona tribes: (1) Cocopah Indian Tribe; (2) Colorado River Indian Tribes; (3) Fort Yuma – Quechan Tribe; (4) Gila River Indian Community; (5) Hualapai Tribe; (6) Hopi Tribe; (7) Navajo Nation; (8) San Carlos Apache Tribe; and (9) Tohono O'odham Nation. The interviews provided information about current natural resource needs, management, and educational training efforts. Initial consultation contained a summary, but not a copy, of this proposal, which was still in development at the time of the survey. Individual responses indicated a wide range of interest in the program. Tribal natural resource managers reported relatively uniform levels of interest in areas of natural resource and American Indian law and policy, and the administration and management of those resources for tribal nations. In addition, several offered questions/comments. Some thought the idea was excellent and could help alleviate the need to provide on-the-job training. The importance of connecting natural resource administration and management with policy was noted. Others saw the value depending on the actual course content and overall program. Overall, reaction was positive. The detailed comments show high interest in natural resource administration and management curriculum that is connected to real-world, American Indian policy.

III. Student Admittance/Advising/Completion.

Application and Selection Process

Students must meet the Graduate College admission requirements and have completed a bachelor's degree or its equivalent and formally apply to the American Indian Natural Resources Certificate. Admission materials will include a Program Application, past transcripts of all previous university coursework, a one page statement of background and goals. Students will designate on their application form whether they are pursuing the certificate: (a) in conjunction with a graduate academic or professional degree program, or (b) independently without concurrent status as a regular student in another program. Students in the second category will be required to register through the Graduate College, certificate-seeking programs.

Selection of participants will be based on submitted materials (per above). The Executive Committee or a designated sub-committee will be responsible for admitting students to the program.

Advising

Advising will be shared among members of the Executive Committee. The Executive Committee can also designate the student's primary advisor in a degree program to serve as the certificate advisor. The advisor's primary responsibility is to assist the student in determining an appropriate selection of courses based on her/his interests and in filing a corresponding Plan of Study with the Graduate College. Advising will be on a case-by-case basis. Students concurrently enrolled in the Certificate Program and a regular degree program will work with their major advisory committee to ensure that the certificate does not interfere with their progress at the University. Admitted students will be made aware of the list of potential advisors, and will be assigned an initial advisor according to their interests.

Policies

Completion of certificate requirements at the graduate level

The certificate program is designed to be a post-baccalaureate experience.

Transfer Course Work

Students may transfer, from another accredited academic institution, up to three units of related graduate course work to be applied to the Certificate. Transfer credit must be approved by the Executive Committee.

Relationship between Certification and Graduate Degrees

Students in the Certificate Program who wish to apply to a graduate degree program must follow the Graduate College and program admissions policies.

Minimum GPA required

Students must earn a letter grade of A or B in the curriculum and maintain a 3.0 GPA. No Pass/Fail grades are permitted.

Student Benefits

Students will receive a University of Arizona Certificate in the Administration and Management of American Indian Natural Resources as well as a document from the American Indian Studies Program and the School of Natural Resources and Environment that describes the participant's curriculum and the objectives achieved by it.

Assessment

We will take a multi-faceted approach to assessment, including informal feedback and formal assessment instruments. Each year the Executive Committee or a designated sub-committee shall meet annually to review:

- recruitment strategies and publicity
- program curriculum in light of Student Learning Objectives (see above), faculty resources, and student needs
- student exit surveys that identify program strengths and weaknesses in light of the student's academic and professional goals

IV. Student Demand.

The University of Arizona is uniquely positioned to offer the proposed Certificate. As a leader in natural resources and related Indigenous studies, the University of Arizona houses the strongest collection of faculty with expertise in this area and its myriad environmental, technical, social, and legal-policy dimensions. The University has the necessary faculty resources to enable students to complete the Program in a timely manner, either alone *or* in combination with a regular graduate degree program. We anticipate no needed expansion of the faculty as a result of this program. The Program will require a modest level of operational funds, as discussed below in the section on "Funding."

As a land grant university with a significant extension component, we have contacts with numerous tribal nations and non-tribal agencies and organizations that have a demonstrated interest in providing their employees with educational opportunities to promote career growth. We already attract a great many students who recognize the importance of natural resources and related Indigenous studies in scholarly, applied, and policy domains. In combination with graduate students and outside professionals, we expect that in any given semester some 20 students will be taking classes in the Program by the beginning of the third year of operation.

Particularly compelling to the development of this Certificate Program is the partnership among many units and colleges. The proposed curriculum has been designed by faculty and administrative heads of the Executive Committee from the American Indian Studies Program and the School of Natural Resources and Environment, and liaison faculty from the Office of the Vice President for Research (GIDP), the College of Agriculture and Life Sciences, the College Social and Behavioral Sciences, the College of Science, the Eller College of Management, the James E. Rogers College of Law, the Udall Center for Studies in Public Policy, the Native Nations Institute for Leadership, Management, and Policy, the Indigenous Peoples Law and Policy Program, and the Institute of the Environment. Primary administrative and signature responsibility will be housed in the American Indian Studies Program.

V. Expected Faculty and Resource Requirements.

Fees

At this stage, we do not envision assessing fees for participating in this program (beyond those collected by the University of Arizona Continuing Education and Academic Outreach unit).

Funding

As it draws upon already existing and anticipated faculty resources in the area of American Indian natural resource management and administration on this campus, the proposed Program is relatively light on resource demands. There will, however, be staff and operational expenses associated with administrative recordkeeping and the development and dissemination of web and print materials. These costs are estimated as follows:

- Web, print, and other office expenses \$3,000

The program costs of personnel and supplies will be covered, in-kind, by AIS. As the program develops and attracts professional students pursuing the Certificate through the Office of Continuing Education and Academic Outreach, returned tuition will be used to provide staff and operations funding. Those funds derived from courses taken by CEAO enrollees will be distributed in ways that support and enhance the Program.

Letters of Support

Joseph Hiller (Lakota) – Head (2010-11), American Indian Studies Program, Assistant Dean for American Indian Programs of the College of Agriculture and Life Sciences, Associate Director of the Arizona Agricultural Experiment Station, and Assistant Director of Arizona Cooperative Extension.
Charles Hutchinson – Director and Professor, School of Natural Resources and Environment

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