Academic Policy Series	1622.20A

ADD, CHANGE OR DELETE UNIT, PROGRAM REQUIREMENTS, OR ACADEMIC POLICIES

Complete this form consistent with the instructions in Academic Policy 1622.20. Use the form to add, change, or delete a program or unit or to change program policies. Proposed additions and changes must be consistent with Academic Policies 1100.40 and 1621.10 and any other policies which apply.

SECTION I: Approvals

_Steve K. Boss (GEOS), Tahar Messadi (ARCH)_____09/28/2012_____

Department / Program Chair — Date Submitted

Graduate Council Chair — Date

College Dean — Date

Faculty Senate Chair — Date

Honors College Dean — Date

Provost — Date

Core Curriculum Committee — Date

Board of Trustees Approval/Notification Date

University Course and Programs Committee — Date

Arkansas Higher Education Coordinating Board Approval/Notification Date

SECTION II: Profile Data - Required Information and Name Change Information

Academic Unit: ☐ Major/Field of Study ☒ Minor ☐ Other Unit _____ ☐ Policy

Level: ☒ Undergraduate ☐ Graduate ☐ Law Effective Catalog Year 2013

Program changes are effective with the next available catalog. See Academic Policy Series 1622.20

Current Name **Foundation of Sustainability Minor**

College, School, Division **PROV** Department Code **PROV**

Current Code (6 digit Alpha) **SUST-M** Proposed Code (6 digit Alpha)
Prior approval from the Office of the Registrar is required.

☒ Interdisciplinary Program CIP Code **30.3301**
Prior assignment from Office of Institutional Research is required.

Proposed Name
When a program name is changed, enrollment of current students reflects the new name.

SECTION III: Add a New Program/Unit

☐ For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE
http://www.adhe.edu/divisions/academicaffairs/Pages/aa_academicproposals.aspx

☐ Program proposal uses courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____

SECTION IV: Eliminate an Existing Program/Unit

Code/Name _____ Effective Catalog Year _____

No new students admitted to program after Term: ___ Year: _____
Allow students in program to complete under this program until Term: ___ Year: _____

SECTION V: Proposed Changes to an Existing Program or Program Policies

Insert here a statement of the exact changes to be made:

Include the following courses as acceptable electives for the SUST-M:

HIST 3273, Agricultural and Rural History of America
TEED 2103, Technology and Society
BENG 3603, Sustainable Agricultural Systems
ARHS 4983, Special Topical in Art History: Ecological Emergence in American Art and Architecture

Strike list of courses from catalog copy and insert website location of all SUST –eligible courses.

Check if either of these boxes apply and provide the necessary signature:

☒ Program change proposal adds courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____

☐ Program change proposal deletes courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____

Check all the boxes that apply and complete the required sections of the form:

☐ Change of Name and Code (Complete only sections I, II, V and VII.)
☐ Change Course Requirements: (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
☐ Change Delivery Site/Method (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
☐ Change Total Hours (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
☒ Change in Program Policies

SECTION VI: Justification

Justify this change and state its likely effect on any other degree program (including those outside the school or college). Identify any program or program components (other than courses) to be eliminated if this program is implemented. (Program and course change forms must also be submitted for such related changes.)

The Foundations of Sustainability minor is an interdisciplinary curriculum using courses across all colleges of the University of Arkansas. Annually, the Sustainability Curriculum Steering Committee updates the list of courses that may be used to satisfy electives for the minor to accommodate new courses that may be developed by colleges with relevance to sustainability and to remain current with respect to pre-requisites for those courses.

SECTION VII: Catalog Text and Format

In the box below, insert the current catalog text which is to be changed, with changes highlighted with the color yellow. Include all proposed changes identified in Section V. Only changes explicitly stated in Section V will be considered for approval by the University Course and Programs Committee, the Graduate Council and the Faculty Senate. If you are proposing a new program, give proposed text with all of the elements listed below. If you are proposing modified text, include these elements as appropriate.

Include the following elements, in order, in the catalog text for proposed undergraduate program(s) or program changes:

- State complete major/program name
- Briefly define or describe the major/program or discipline.
- Identify typical career goals or paths for graduates. (Optional)
- State admission requirements (if any) for entry or entry into upper/advanced level of major/program.
- Identify location in catalog of university, college/school, and department/program requirements which the student must meet in addition to hours in the major, but do not restate these requirements.
- State course requirements in the major and any allied areas, giving number of hours and specific courses; specify electives or elective areas and give numbers of hours and courses in elective pools or categories; identify any other course requirements.
- State any other requirements (required GPA, internship, exit exam, project, thesis, etc.).
- Identify name and requirements for each concentration (if any).
- Specify whether a minor or other program component is allowed or required and provide details.
- State eight-semester plan requirements

For minors, state requirements in terms of hours, required courses, electives, etc.

For graduate program/units, include elements (as needed) parallel to those listed for undergraduate programs above.

For Law School program/units, prepare text consistent with current catalog style.

For centers, prepare text consistent with current catalog style.

~~SUSTAINABILITY MINOR~~ FOUNDATIONS OF SUSTAINABILITY MINOR (SUST-M)

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Associate Professor Tahar Messadi, co-director, Architecture
Associate Dean Carol Gattis, Honors College
Professor Kevin Fitzpatrick, Sociology
Professor Jon Johnson, Management
Professor Kim LaScola Needy, Industrial Engineering
Professor Marty Matlock, Biological and Agricultural Engineering
Professor Jennie Popp, Agricultural Economics and Agribusiness
Research Assistant Professor Harrison Pittman, Agricultural Law
Assistant Professor Gregory Benton, Recreation and Sports Management

The 'Foundations of Sustainability' minor is interdisciplinary, drawing from faculty and course work across all colleges of the University of Arkansas. 'Foundations of Sustainability' is also accessible to all undergraduate students, regardless of degree program. The purpose of the minor in 'Foundations of Sustainability' is to provide foundational knowledge and skills related to the emerging discipline of Sustainability organized around four thematic areas reflecting strength in scholarship of University of Arkansas academic colleges: Sustainability of Social Systems, Sustainability of Natural Systems, Sustainability of Built Systems, and Sustainability of Managed Systems. Students who complete the minor in Foundations of Sustainability will be expected to:

1. articulate commonly accepted definitions of sustainability and discuss various nuances among those definitions;
2. have an understanding of the interdisciplinary nature of sustainability issues, particularly as the pertain to the thematic areas of knowledge addressed by the minor (sustainability of natural systems, sustainability of managed systems, sustainability of built systems, and sustainability of human social systems);
3. be conversant regarding acquisition and analysis of data pertinent to sustainability issues;
4. communicate orally, and in writing organized thoughts defining sustainability issues;
5. identify appropriate potential strategies to address sustainability issues using data and provide results of rudimentary analyses of data using novel metrics or statistics;
6. make recommendations, based on data analysis and interpretation, to advance sustainability of individuals or institutions.

Required Courses for Foundations of Sustainability Minor – U. of Arkansas Fayetteville
Students must earn a grade of 'C' or better for all courses used to fulfill requirements of the Foundations of Sustainability Minor

Hours	Courses
3	SUST 1103 Fundamentals of Sustainability
3	SUST 2103 Applications of Sustainability
9	Elective courses with sustainability focus selected from a broad menu of offerings in 4 thematic areas: Sustainability of Social Systems Sustainability of Natural Systems Sustainability of Built Systems Sustainability of Managed Systems Elective courses are categorized as Tier 1 and Tier 2. Tier 1 courses are those with dominant sustainability content or fundamental principles related to understanding sustainability. Tier 1 courses must comprise at least 6 hours of the 9 elective hours in the Foundations of Sustainability Minor. Tier 2 courses are those with subordinate sustainability content or associated principles related to understanding sustainability, but with content useful in preparing students with pre-requisite knowledge for Tier 1 courses. Only 3 hours of Tier 2 courses will be accepted in fulfillment of the elective hours in the Foundations of Sustainability Minor. Complete lists of Tier 1 and Tier 2 courses by thematic areas are presented below
3	SUST 4103 Capstone Project in Sustainability or substitute approved by UA Sustainability Curriculum Steering Committee to serve as capstone experience for the Foundations in Sustainability minor.

A complete list of acceptable elective courses for the Foundations of Sustainability minor can be found online at the following link:

http://sust.uark.edu/minor/listofcourses.php

~~Sustainability of Natural Systems Courses~~

~~Tier 1~~

~~Course Number and Description~~	**~~Prerequisites~~**
~~BENG 4903 Watershed Ecology & Hydrology~~	~~Prerequisite: CVEG 3213~~
~~BIOL 3861L General Ecology Lab~~	~~Co-req: BIOL 3863~~
~~BIOL 3863 General Ecology~~	~~7 hrs of Bio Sciences~~
~~CSES 3214 Soil Resources & Nutrient Cycles~~	~~CSES 2203 Corequisite: Lab component~~
~~ENSC 3003 Introduction to Water Science~~	~~ENGL 1023 and ENSC 1003 or CHEM 1053 or higher or GEOL 1113 or higher or BIOL 1543~~
~~ENSC 3103 Plants & Environmental Restoration~~	~~CSES 1203 or HORT 2003 or BIOL 1613~~
~~ENSC 3223/3221L Ecosystem Assessment~~	~~BIOL 1543, CSES 2203, ENSC 3003 Corequisite: ENSC 3221L~~
~~ENSC 3263 Soil & Water Conservation~~	~~CSES 2203~~
~~ENSC 4023 Water Quality~~	~~CHEM 1123 and CHEM 1121L, Laboratory/Corequisite: Lab Component~~
~~ENSC 4263 Environmental Soil Science~~	~~Prerequisite: CSES 3214~~
~~GEOG 3003 Conservation of Natural Resources~~	~~Junior standing~~

~~Tier 2~~

~~Course Number and Description~~	**~~Prerequisites~~**
~~BIOL 1543 Principles of Biology~~	~~Corequisite: BIOL 1541L~~

CHEM 1103 University Chemistry I	MATH 1203; Corequisite: Drill; Recommended Corequisite: CHEM 1101L
CHEM 1123 University Chemistry II	Math 1203, Chem 1103. Corequisite: CHEM 1121L and
CSES 2203/2201L Soil Science	CHEM 1103 or CHEM 1074. (Same as ENSC 2203)
ENSC 1003 Environmental Science	None
GEOG 2003 World & Regional Geography	None
GEOG 3333 Oceanography	Junior standing
GEOG 3383 Principles of Landscape Evolution	None
GEOG 4353 Elements of Weather	Junior Standing
GEOG 4363 Climatology	GEOG 1003 and/or GEOG 4353.
GEOL 1113/1111L General Geology + Lab	Pre- or Corequisite: GEOL 1113.
GEOL 1133/1131L Environmental Geology + Lab	GEOL 1113, GEOL 1111L
GEOL 4033 Hydrogeology	MATH 2564, GEOL 3513, GEOL 3511L
GEOL 4053 Geomorphology	GEOL 1113 or GEOL 3002
GEOL 4063 Principles Geochemistry	CHEM 1121L and CHEM 1123
GEOS 4413 Principles of Remote Sensing	University science course
MATH 4163/BIOL4163 Dynamic Models in Biology	MATH 2554. (Same as BIOL 4163)
PHYS 2054 Univeristy Physics I	Math 2554; Corequisite: Lab component
PHYS 2074 Univeristy Physics II	PHYS 2054, Prerequisite or corequisite: MATH 2564 Coreq: Lab component

Sustainability of Managed Systems courses

Tier 1

Course Number and Description	**Prerequisites**
AGEC 3413 Principles of Environmental Economics	AGEC 1103 or ECON 2023
AGEC 3523 Environmental & Natural Resource Law	None
AGED 4003 Issues in Agriculture	Junior standing
CSES 3214 Soil Resources & Nutrient cycles	CSES 2203. Corequisite: Lab component
ECON 3843 Economic Development, Poverty, & the Role of the World Bank and IMF in Low-Income Countries	ECON 2013 and ECON 2023, or ECON 2143
ENSC 3103 Plants & Environmental Restoration	CSES 1203 or HORT 2003 or BIOL 1613.
ENSC 3223 Ecosystems Assessment	BIOL 1543, CSES 2203, and ENSC 3003, Corequisite: ENSC 3221L
ENSC 3263 Soil and Water Conservation	CSES 2203, Corequisite: Lab component
ENSC 4023 Water Quality	CHEM 1123 and CHEM 1121L, Corequisite: Lab component
ENSC 4263 Environmental Soil Science	CSES 3214
HORT 3503 Sustainability & Organic Horticulture	Suggested but not required: BIOL 1613 , CSES 1203, CSES 1003, or HORT 2003
WCOB 3023 Sustainability in Business	Junior standing

Tier 2

Course Number and Description	Prerequisites
AGED 4443 Methods of Technological Change	Junior standing
AGME 1613 Fundamentals of Agricultural Systems Technology	Corequisite: Lab Component
CSES 2012 Organic Crop Production	None
CSES 2203/2201L Soil Science	CHEM 1103 or CHEM 1074. (Same as ENSC 2203), Drill component
ENSC 1003 Environmental Science	None
MGMT 4243 Ethics & Corporate Responsibility	Junior standing

Sustainability of Built Systems courses

Tier 1

Course Number and Description	Prerequisites
ARCH 4023H Sustainability & Design	Permission of instructor
CVEG 488V Sustainability in Civil Engineering	CVEG majors
GEOG 4383 Hazard Assessment & Risk Policy	Junior standing
INEG 4583 Renewable Energy: Green Power Sources	Senior standing
MEEG 4453 Industrial Waste & Energy Management	MEEG 4413 or equiv
MEEG 4473 Indoor Environmental Design	MEEG 4413 or equiv
LARC 40?? Sustainable Housing	4th year standing
LARC 40?? Alternative Stormwater Management	None

Tier 2

Course Number and Description	Prerequisites
GEOG 3543 Geographic Information Science	None
GEOG 4063 Urban Geography	Junior standing
ARCH 2114 Building Environmental Technology: Passive Systems Buildings	ARCH 1024 and ARCH 1222, Corequisite: ARCH 2016
ARCH3134 Building Systems: Lighting, Acoustics, & HVAC	ARCH 2124, Corequisite: ARCH 3016
LARC 4743 Site Plannning in Landscape Architecture	None
CVEG 3243 Environmental Engineering	MATH 3404 and CHEM 1123, Corequisite: Lab component
CVEG 4243 Environmental Engineering Design	CVEG 3243
CVEG 4323 Design of Structural Systems	CVEG 4303 & 4313
CSCE 4233 Low Power Digital Systems	CSCE 2123

Sustainability of Social Systems courses

Tier 1

Course Number and Description	Prerequisites
AGEC 3523 Environmental & Natural Resource Law	None
AGEC 4163 Agriculture & Rural Development	AGEC 1103 or ECON 2023
COMM 4643 Environmental Communications	None

~~ENGL 4133 Environmental Literature & Nature Writing~~	~~None~~
~~ENSC 3933/ PHIL 3113 Environmental Ethics~~	~~ENSC 1003 or PHIL 2003 or PHIL 2103~~
~~GEOS 4693 Environmental Justice~~	~~None~~
~~RESM 1023 Recreation & Natural Resources~~	~~RESM 1003~~
~~RESM 4023 Outdoor Adventure Leadership~~	~~None~~
~~RSOC 4603/SOCI 4603 Environmental Sociology~~	~~None~~

~~**Tier 2**~~

~~**Course Number and Description**~~	~~**Prerequisites**~~
~~ANTH 4143 Ecological Anthropology~~	~~None~~
~~HIST 4773 Environmental History~~	~~None~~
~~HLSC 6553 Environmental Health~~	~~None~~
~~HLSC 4643/5643 Multicultural Health~~	~~None~~
~~SCWK 4093 Human Behavior & Social Environments I~~	~~PSYC 2003, SOCI 2013, SCWK 2133, and SCWK 3193 and (BIOL 1543 and BIOL 1541L, or ANTH 1013 and ANTH 1011L~~
~~SCWK 4103 Human Behavior & Social Environments II~~	~~SCWK 4093 and SCWK 4153.~~
~~SCWK 3193 Human Diversity & Social Work~~	~~None~~
~~SOCI 2033 Social Problems~~	~~None~~
~~SOCI 3013 Population and Society~~	~~None~~
~~SOCI 3193 Race, Class, Gender in the U.S.~~	~~SOCI 2013~~
~~SOCI 4013 Special Topics: The City —~~	~~SOCI 2013~~

Capstone Experience

All students participating in the Foundations of Sustainability minor must complete a capstone experience focused on service learning, research learning, or internship in sustainability. Student engagement in community service, research, or relevant work on sustainability through a summer internship provides opportunities for students to apply sustainability theories and principles learned from prior coursework toward advancing sustainability across society.

Students may formally petition the University of Arkansas Sustainability Curriculum Steering Committee (UA SCSC) to substitute sustainability-oriented senior design projects, Honors College research projects, other service learning courses, or equivalent internship experiences for SUST 4103 to satisfy the capstone element of Foundations in Sustainability minor. Details of the procedure to substitute alternative experiences for SUST 4103 can be found in the Foundations of Sustainability Program Handbook.

To qualify for SUST 4103 or other sustainability capstone experience, students must have successfully completed SUST 1103, SUST 2103, and 6 hours of elective course work toward the Foundations of Sustainability minor.

SECTION VIII: Action Recorded by Registrar's Office

PROGRAM INVENTORY/DARS

PGRM _____ SUBJ _____ CIP _____ CRTS _____

DGRE _____ PGCT _____ OFFC&CRTY VALID _____

REPORTING CODES

PROG. DEF. _____ REQ. DEF.

Initials ____ Date _____

Distribution

Notification to:
(1) College (2) Department (3) Admissions (4) Institutional Research (5) Continuing Education (6) Graduate School
(7) Treasurer (8) Undergraduate Program Committee

5/12/08