**LETTER OF NOTIFICATION – 3**

NEW OPTION, EMPHASIS or CONCENTRATION

(Maximum 18 semester credit hours of theory courses and 6 credit hours of practicum courses)

1. Institution submitting request: University of Arkansas Fayetteville

1. Contact person/title: Dr. Terry Martin, Vice Provost for Academic Affairs
2. Phone number/e-mail address: (479) 575-2151/tmartin@uark.edu
3. Proposed effective date: Fall 2017
4. Title of existing degree program: none

(Indicate if the degree listed above is approved for distance delivery)

1. CIP Code: 01.1299
2. Degree Code:
3. Proposed name of new option/concentration/emphasis: Soil Science Minor
4. Reason for proposed action: There is a Soil Science Certification program administered through the Soil Science Society of America. The program requires a degree in which students enroll in 15 hours of soil science courses specifically. The Environmental, Soil and Water Science major which has broad appeal and much flexibility does not specifically require 15 hours in soil science. This minor will allow students enrolled in the ESWS and other applied science majors to meet the initial requirements to pursue certification as Professional Soil Scientists.
5. New option/emphasis/concentration objective: Not applicable
6. Provide the following:
   1. Curriculum outline - List of courses in new option/concentration/emphasis

Required Courses (4 hours)

CSES 2203 Soil Science (SP, FA)

CSES 2201L Soil Science Laboratory (SP, FA)

Optional Courses - select the remaining 14 hours from the following list of courses

Undergraduate Courses:

CSES 3214/3210L Soil Resources and Nutrient Cycles with Laboratory (SP odd)

ENSC 3263 Soil & Water Conservation (FA)

CSES 355V Soil Profile Description (FA, 1 hour, may take twice for credit)

CSES 4224/4220L Soil Fertility with Laboratory (FA)

CSES 4253 Soil Classification and Genesis (FA odd)

ENSC 4263 Environmental Soil Science (SP even)

ENSC 4401 Professional Certification Preparation (Soils exam, SP even)

CSES 4553 Wetland Soils (SP odd)

Graduate Courses:

CSES 5033 Advanced Soil Fertility and Plant Nutrition (SP

even)

CSES 5224/5220L Soil Physics with Laboratory (SP)

CSES 5264/5260L Microbial Ecology with Laboratory (FA odd)

CSES 5453 Soil Chemistry (SP even)

* 1. Provide degree plan that includes new option/emphasis/concentration

See item 11a.

* 1. Total semester credit hours required for option/emphasis/concentration

(Option range: 9–24 semester credit hours) 18

* 1. New courses and new course descriptions

There are no new courses being developed for this minor. The minor will be composed of existing courses.

* 1. Goals and objectives of program option

The goal of the Soil Science Minor is to prepare students to be competent soil

scientists to pursue soil science certification if so desired. Objectives include 1) student enrollment in 18 academic hours of soil science courses which exceeds the requirement of 15 hours of soil science required to be eligible to pursue national certification in the Soil Science Society of America certification program, and 2) flexibility in course selection to cover the six core sub-disciplines in the certification program: physics, fertility, genesis, morphology, and classification, chemistry and mineralogy, soil biology and ecology, and land use and management.

* 1. Expected student learning outcomes

1. Students will demonstrate the discipline specific knowledge required to function as soil science professionals.
2. Students will demonstrate the ability to critically evaluate situations or scenarios to arrive at well thought out and supported decisions and outcomes.
3. Students will demonstrate the ability to work through and solve complex, multidisciplinary problems relevant in soil science.
   1. Documentation that program option meets employer needs

Documentation describing the requirements necessary to become a Certified Professional Soil Scientist through the Soil Science Society of America program can be found at

<https://www.soils.org/files/certifications/cpss-cpsc/cpss-and-cpsc-policies-procedures-and-standards.pdf>

The paragraph most relevant to creation of the minor is on page 4 as follows:

“1. Education Requirements

a. Possess a Bachelor’s degree in Soil Science or closely related Agricultural, Earth, or Environmental Science program (e.g., **named option in Soil Science, minor in Soil Science)** from a U.S. or Canadian institution (or show equivalency if outside the U.S. or Canada). The **minimum Soil Science core course requirement of 15 semester hours must be met**…”

* 1. Student demand (projected enrollment) for program option

To illustrate demand for the minor, there are a total of 13 students currently enrolled (spring 2016 semester) in the combined courses ENSC 4401 Professional Certification Preparation (undergraduate level) and CSES 504V Special Problems (graduate level). They are preparing to take the Soil Science Fundamentals national certification examination to become Associate Professional Soil Scientists. This is a step in the certification process before becoming Certified Professional Soil Scientists.

* 1. Name of institutions offering similar program or program option and the institution(s) used as a model to develop the proposed program option

1. Institutional curriculum committee review/approval date: April 13, 2016
2. Will the new option/emphasis/concentration be offered via distance delivery? If yes, indicate mode of distance delivery: no
3. Explain in detail the distance delivery methods/procedures to be used: not applicable
4. Specify the amount of additional costs required for program implementation, the source of funds, and how funds will be used. There are no new costs. All courses are currently taught at the University of Arkansas by existing faculty.
5. Provide additional program information if requested by ADHE staff. Not applicable

President/Chancellor Approval Date:

Board of Trustees Notification Date:

Chief Academic Officer Date: