**PROGRAM COMPONENT (Group B) OR NON-SUBSTANTIVE MINOR REQUEST FORM**

**Short Form**

**Instructions:** Please use one form for each request/action. Clearly mark all changes using Track Change or strikethroughs for deletions and underlines for additions. Following the approval of the appropriate college curriculum committee, a single representative for the college will e-mail the completed form to the Office of the Provost and Executive Vice President, provost@uidaho.edu for approval and then submission to the Academic Publications Editor in the Registrar’s Office for review by the University Curriculum Committee (UCC).

**Deadline:** This form must be submitted to the Office of the Provost and Executive Vice President by December 15th for inclusion in the next available General Catalog and to be available for scheduling beginning with the next summer semester.

## Submission Information

This section must be completed

<table>
<thead>
<tr>
<th>College:</th>
<th>College of Agricultural and Life Sciences (CALS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department/Unit:</td>
<td>Biological and Agricultural Engineering (BAE)</td>
</tr>
<tr>
<td>Dept/Unit Approval Date:</td>
<td>October 9, 2015</td>
</tr>
<tr>
<td>College Approval Date:</td>
<td>10/11/2016</td>
</tr>
<tr>
<td>CIP code (Consult Institutional Research):</td>
<td></td>
</tr>
<tr>
<td>Primary Point of Contact (Name and Email):</td>
<td>Larry D. Makus, Interim BAE Department Head <a href="mailto:lmakus@uidaho.edu">lmakus@uidaho.edu</a></td>
</tr>
</tbody>
</table>

## Program Component Request

Leave blank if not adding, discontinuing, or modifying a program component which consists of option, emphasis, minor, academic certificate less than 30 credits, or teaching endorsement

Clearly mark all changes to existing program components by using Track Change or strikethroughs for deletions and underlines for additions.

<table>
<thead>
<tr>
<th>Create New:</th>
<th>Modify:</th>
<th>Discontinue:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Level:</td>
<td>Undergraduate Level:</td>
<td>Law Level:</td>
</tr>
<tr>
<td>Credit Requirement:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emphasis:</td>
</tr>
</tbody>
</table>

| Minor: |

| Academic Certificate less than 30 credits: |

| Teaching Endorsement (Major/Minor): |
**Overview of Program Component:**
*Provide a brief narrative description*

The existing BAE Department will be changed to Soil and Water Systems (SWS) with the CALS soils faculty moving to the re-named Department to join the existing BAE faculty. The SWS Department allows CALS to focus additional attention on water and the critical interaction with soils. Two existing academic programs (Agricultural Systems Management major and the Soil and Land Use emphasis area as a proposed major) will be modified to meet a new SWS core set of courses, with additional modifications to courses in the major. The new major in Water Science and Management will provide an important emphasis on water management, which is critical to all aspects of agriculture in Idaho. The existing MS with a major in Soil and Land Resources (thesis and non-thesis options) and the PhD (major in Soil and Land Resources) will be assigned to the SWS Department. The B.S. AgLS with a major in Sustainable Food Systems and the Soil Science minor will also be assigned to the SWS Department.

**Program Component Curriculum:**
*Required courses*

<table>
<thead>
<tr>
<th>Current Program</th>
<th>New Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS with a major in Soil and Land Resources (thesis and non-thesis options) – no change in curriculum</td>
<td></td>
</tr>
<tr>
<td>PhD with a major in Soil and Land Resources – no change in curriculum</td>
<td></td>
</tr>
<tr>
<td>Soil Science Minor – no change in curriculum</td>
<td></td>
</tr>
<tr>
<td>BS AgLS – Sustainable Food Systems</td>
<td></td>
</tr>
</tbody>
</table>

**Name or Degree Change Only Requests**
Leave blank if not making a name and/or degree change. This section can be completed for changes to the name of: degree, major, minor, option, emphasis, certificate, teaching endorsement

<table>
<thead>
<tr>
<th>Current Name:</th>
<th>Biological and Agricultural Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Name:</td>
<td>Soil and Water Systems</td>
</tr>
<tr>
<td>Current Degree:</td>
<td>BS, Agricultural and Life Sciences – Agricultural Systems Management major and minor</td>
</tr>
<tr>
<td>New Degree:</td>
<td>BS, Soil and Water Systems: Majors in: Environmental Soil Science (existing emphasis area); Agricultural Systems Management (existing major); Water Science and Management (new major)</td>
</tr>
<tr>
<td>Other Details:</td>
<td>Changing name of existing department and adding Soils faculty to the Department</td>
</tr>
</tbody>
</table>

**Financial Impact**
This section must be completed

| Greater than $250,000 per FY: | Less than $250,000 per FY: | X |
Brief Description of financial impact:

Administration will consist of a Department Chair to be selected from within the SOILS/BAE faculty and serving a fixed 3 to 5 year term following procedures of yet to be determined SWS Bylaws. The chair will carry approximately 0.80 administrative responsibility and 0.20 teaching, research or extension responsibility as appropriate to maintaining elements of an active scholarship program. A full time staff Office Manager will report to the chair. This will not be a new position but will be an internal reallocation within CALS to SWS.

Rationale and Assessment Information

This section must be completed

Rationale for approval of this request as appropriate; include an explanation of how the department will manage the added workload of the new program component and any relevant assessment information that applies, describe whether the program component, curriculum, and admission requirements remain the same, describe the rationale for a name change or degree designation change:

The Department will continue to offer two existing academic programs (one elevated from an emphasis area to a major), and add one additional major. Two of the programs are already in place and have established curricula, admission requirements, and assessment procedures. Additional processes for determining needs and restructuring the curriculum will be developed following the name change.

As a result of the separation of BAE from the College of Engineering (COE), CALS currently has 7 faculty positions in ASM and water engineering that are without a functional department. A departmental home needs to be established for these faculty members. Since the department is now exclusively assigned to CALS, the “engineering” component of the name needs to be changed.

There is a synergistic relationship between soil and water in agricultural and living systems, suggesting the importance of managing such systems in a holistic manner. Water is becoming an increasingly critical issue for agriculture in Idaho, the Pacific Northwest, and globally. The UI-wide interdisciplinary Water Resources (WR) program is now administratively housed in CALS, and this department will continue to be an important partner for the WR program. The growing interest and use of precision agriculture practices in both dryland and irrigated agricultural systems suggests the potential for additional emphasis in this area, and the ASM program is the logical place to focus on precision agriculture. Given the water issues facing Idaho, irrigation systems will initially play an important role in the adoption of precision agriculture. There is significant stakeholder support (including the Idaho Water Users Association and the CALS Advisory Board) for additional emphasis on water and precision agriculture issues.

This program will not require specialized accreditation. Internally, the program will be monitored using the same protocols applied to the existing majors. Exit interviews with undergraduate students will be conducted and responses recorded. Students will be strongly encouraged to complete advising evaluations. Teaching evaluations will be reviewed by the department head and peer-teaching evaluations will be completed each year. An experienced faculty will serve as the academic advisor to students in the program and will utilize advising appointments to gather informal student feedback regarding courses, internships and overall satisfaction with the program. The program will also be reviewed periodically with the established advisory committees at the department and college level. Learning outcomes will be established following the established procedure utilized across UI programs.

Faculty for the Department:

Existing Faculty:
Marvin Heimgartner (Senior Instructor – BAE)
Tad Wheeler (Temporary Instructor – BAE)
Erin Brooks (Associate Professor – BAE)
Tom Karsky (Professor – BAE)
Jae Ryu (Associate Professor – BAE)
Howard Neibling (Associate Professor – BAE)
Rick Allen (Professor – BAE)
Lide Chen (Assistant Professor – BAE)

Faculty transferred from PSES:
Jodi Johnson-Maynard (Professor – Soils)
Paul McDaniel (Professor – Soils)
Matthew Morra (Professor – Soils)
Robert Heins (Associate Professor – Soils)
Daniel Strawn (Professor – Soils)
Robert Mahler (Professor – Soils)
Amber Moore (Extension Associate Professor – Soils)
Leslie Baker (Assistant Professor - 50% with Geology)
Microbial Ecologist (vacant position being hired)

Staff:
All staff members currently associated with the Soil and Land Resources Unit within PSES
Administrative Support Position (to be hired)

Distance Education Availability
This section must be completed

To comply with the requirements of the Idaho State Board of Education (SBOE) and the Northwest Commission on Colleges and Universities (NWCCU) the University of Idaho must declare whether 50% or more of the curricular requirements of a program may be completed via distance education. If the program component is to be offered via distance education, additional or different formwork may be required. Contact provost@uidaho.edu for assistance.

The U.S. Department of Education defines distance education as follows:
Distance education means education that uses one or more of the technologies listed below to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor, either synchronously or asynchronously. The technologies may include--

1. The internet;
2. One-way and two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communications devices;
3. Audio conferencing; or
4. Video cassettes, DVDs, and CD-ROMs, if the cassettes, DVDs, or CD-ROMs are used in a course in conjunction with any of the technologies listed in paragraphs (1) through (3).

Can 50% or more of the curricular requirements of this program component be completed via distance education? Yes* No X

*If Yes, can 100% of the curricular requirements of this program component be completed via distance education? Yes No X

Geographical Area Availability
This section must be completed

Identify the geographical area(s) this program component can be completed in:

Moscow X
Coeur d’Alene
Boise*
Idaho Falls*
Other** Location(s):

*Note: Programs offered in regions 3, 4, and/or 5 may require additional formwork from the State Board of Education. Contact the Office of the Provost and Executive Vice President for additional information.

**Note: If Other is selected identify the specific area(s) this program component will be offered.

Office of the Registrar Information

Implementation Effective Date: February 15, 2017

Date Received by the Office of the Provost and Executive Vice President: