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>Natural Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department/Unit:</td>
<td>Natural Resources and Society</td>
</tr>
<tr>
<td>Dept/Unit Approval Date:</td>
<td>October 15, 2015</td>
</tr>
<tr>
<td>College Approval Date:</td>
<td>Nov 13 - 2015</td>
</tr>
<tr>
<td>Vote Record:</td>
<td>unanimous</td>
</tr>
<tr>
<td>Vote Record:</td>
<td>unanimous</td>
</tr>
</tbody>
</table>

CIP code (Consult Institutional Research):

Primary Point of Contact (Name and Email):

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>X</th>
<th>Modify:</th>
<th>Discontinue:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Level:</td>
<td></td>
<td>Undergraduate Level:</td>
<td>X</td>
</tr>
</tbody>
</table>

Option:

Emphasis:

Minor:

Academic Certificate less than 30 credits: Remote Sensing of the Environment

Teaching Endorsement (Major/Minor):

Overview of Program Component: Provide a brief narrative description

The objective of the certificate is to provide students with the scientific background and technical skills required for using Remote Sensing as an analytical tool for environmental investigation. These skills are increasingly demanded by employers - both in the private and public sector - in fields such as natural resources management, land planning, sustainable development, disaster preparedness and mitigation. The students will become familiar with the sources of remotely sensed data (both aerial and satellite systems), with the state of the art processing techniques needed to generate thematic datasets, and will be able to integrate remotely sensed datasets into Geographic Information Systems (GIS). The required and optional courses have a strong emphasis on practical applications, and the students will have the opportunity of gaining proficiency in the use of some software packages most widely used in professional settings.
**Program Component Curriculum:**

*Required courses*

**Required:**

**Requirement A:** **One of the two** below courses:

- FOR375 Intro to Spatial Analysis in Natural Resources (3 cr.)
- or GEOG 483 Remote Sensing/GIS integration (3 cr.)

**Requirement B:** **The two following courses:**

- FOR435 Remote Sensing of Fire (3 cr.)
- FOR472 Remote Sensing of the Environment (4 cr.)

**Requirement C:** **One** of the following:

- LARC 395 GIS Applications in Land Planning (3 cr.)
- REM 407 GIS Applications in Fire Ecology and Management (2 cr.)
- REM 429 Landscape Ecology (3 cr.)
- REM 460 Integrating GIS and Field Studies in Rangelands (2 cr.)
- GEOG 424 Hyrdologic Applications in GIS and Remote Sensing (3 cr.)

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**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>New Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Degree:</td>
<td>New Degree:</td>
</tr>
<tr>
<td>Other Details:</td>
<td></td>
</tr>
</tbody>
</table>

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**Financial Impact**

This section must be completed

<table>
<thead>
<tr>
<th>Greater than $250,000 per FY:</th>
<th>Less than $250,000 per FY:</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief Description of financial impact:</td>
<td>Limited if any financial impact. Required courses for this certificate already exist, with corresponding faculty resources.</td>
<td></td>
</tr>
</tbody>
</table>

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**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:
CNR currently requires an introductory natural resources focused geospatial course as part of the college core. This certificate would build upon our strengths in geospatial education to offer students further opportunities to develop expertise in the area of remote sensing, a rapidly developing tool for natural resource management and problem solving. Information from students, industry, and interested external stakeholders has indicated a strong preferences for this type of focused, technical skill oriented certificate. Currently NRS has strong faculty expertise in remote sensing education and when combined with additional resources available outside of the department, there will be limited added workload. Additionally, all courses for the certificate currently exist, thus limiting additional resource needs.

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

Geographical Area Availability
This section must be completed

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

<table>
<thead>
<tr>
<th>Moscow</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coeur d’Alene</td>
<td></td>
</tr>
<tr>
<td>Boise*</td>
<td></td>
</tr>
<tr>
<td>Idaho Falls*</td>
<td></td>
</tr>
<tr>
<td>Other**</td>
<td>Location(s):</td>
</tr>
</tbody>
</table>

*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:  
Date Received by the Office of the Provost and Executive Vice President:  
Date Received by UCC Secretary: 12/02/2015