Wilkes University Curriculum Committee

PROPOSAL SUBMITTAL FORM

Directions:

- Use this set of forms for all proposals sent to the Curriculum Committee.
- Pages 1-3 of this document are required. Any unnecessary forms should be deleted from the packet before submissions. If multiple forms are needed (course addition, course deletion, etc), simply copy and paste additional forms into this packet.
- Note that all new programs (majors and minors), program eliminations, significant program revisions and all general education core revisions must be reviewed and approved by the Provost and Academic Planning Committee (APC) prior to submission to the Curriculum Committee. The Provost will make the decision if a program revision requires APC review.
- Completed and signed forms are due no later than the second Tuesday of every month. Submit one signed original hard copy and a scanned electronic copy with all signatures to the Chair of the Curriculum Committee.

1. Originator: Bobak Karimi
   Environmental Engineering & Earth Science
   (570) 408-4698 bobak.karimi@wilkes.edu

2. Proposal Title: Geology Program Revisions

3. Check only one type of proposal: (double click on the appropriate check box and change default value to “checked”).

   ☐ New Program. (Major or Minor Degree Programs). This requires prior review and approval by the Provost and APC.
   ☐ New Concentration, Track, or Certificate. The Provost determines if review and approval by APC is necessary.
   ☐ Elimination of Program. (Major or Minor Degree Programs). This requires prior review and approval by the Provost and APC.
   ☐ Elimination of Concentration, Track, or Certificate. The Provost determines if review and approval by APC is necessary.
   ☒ Program Revision. Significant revisions to a program require review and approval by the Provost. The Provost determines if review and approval by APC is necessary.
   ☐ General Education Revision. Submissions only accepted from the General Education Committee (GEC). Must be reviewed and approved by the Provost.
   ☐ Creation of new departments, elimination of existing department. This requires prior review and approval by the Provost and APC.
   ☐ Course additions or deletions not affecting programs (such as elective courses, transition of “topics” courses to permanent courses).
   ☐ Change in course credit or classroom hours.
   ☐ Incidental Changes. Includes changes in course/program title, course descriptions, and course prerequisites. (Although these changes do require approval by the Curriculum Committee, they do not go before the full faculty for approval).
   ☐ Other (Specify)
4. Indicate the number of course modification forms that apply to this proposal:

___ Course Addition Form (plus syllabi)
___ Course Deletion Form
___ Course Change Form

***This document contains an updated curriculum for the Geology program in the department of
Earth and Environmental Sciences (EEES). Please see the attached curriculum document. Additional
proposals include incidental changes, credit hour changes, and one course addition. Please see the
relevant proposals for further details.***

5. Executive Summary of Proposal.

Briefly summarize this proposal. The breadth and depth of this executive summary should
reflect the complexity and significance of the proposal. Include an overview of the
proposal, background and reasoning behind the proposal and a description of how the
proposal relates to the mission and strategic long-range plan of the unit and/or university.
For incidental changes a one or two sentence explanation is adequate.

The department of Environmental Engineering & Earth Science recently developed a Geology
major, and hired personnel to further support this program. The Geology faculty are invested in
making the program as strong as possible, and to this end have collectively, with the support of their
department, suggested program revisions. Among these changes are the addition of a course in
Regional Studies (proposal: Geology Program Revisions: Course Additions), incidental changes for
prerequisites and courses made elective rather than required (proposal: Geology Program Revisions
– Incidental Changes), course credit hour changes (proposal: Geology Program Revisions – Course
Credit Changes), and curriculum changes relevant to the Geology program that are described in this
document. Among these curriculum changes are the addition of ENV 321 Hydrology and GEO 351
Paleoclimatology as required courses, the removal of CS 115 Computers and Applications from the
program curriculum, and a movement of some courses between semesters. All of these changes
(except perquisite changes) are identified by red text in the program curriculum attached to this
proposal.

The addition of ENV 321 Hydrology was considered after discussion among faculty of what the
professional geologist licensing exams require in terms of hydrology/hydrogeology. The faculty felt
confident that the existing ENV 321 Hydrology course covered the material adequately. The
proposed addition of ENV 321 Hydrology to the curriculum as a required course for Geology majors
displaces GEO 352 Hydrogeology, which will now be offered as an elective for those who wish to
continue or advance their careers in water and water systems. This transition from required course to
elective course, in addition to GEO 383 Geochemistry and GEO 375 Geohazards, has been proposed
in a separate document as they are incidental changes (per conversations with the chair of the
curriculum committee). Additionally, GEO 351 Paleoclimatology has been moved from the status of
an elective to a required course. The faculty made this decision with consideration to the current
social and political conversations regarding climate change, feeling it was a socially responsible
curriculum addition/requirement.
CS 115 Computers and Applications has been removed from the curriculum. Per University general education policy, this can be done by having students take two courses with a computer intensive (CI) code. ENV 321 Hydrology has a CI code. A separate proposal with incidental changes to EES 271 Environmental Mapping I: GPS and EES 272 Environmental Mapping II: GIS has been submitted to change their titles and content, and will be followed by an application to the general education committee (GEC) for CI code approval. This would mean students in the geology program would take at least 3 courses with a CI code.

The last program revisions are the movement of courses, which can be found in the attached program curriculum (see red text). These changes were made to avoid overly credit-laden semesters, but also to allow for a flow of ideas from some courses to others. For instance, in GEO 345 Stratigraphy and Sedimentation, students are taught about sediment and environments of deposition, which is useful precursory knowledge to have for stronger conversations in GEO 349 Structure and Tectonics, where students will be able to broadly relate depositional environments to regional tectonics.

All of the proposed changes in this document and all other GEO curriculum proposals (incidental changes, course credit changes, and course additions) are meant to strengthen the Geology curriculum, provide students with opportunities for success, and encourage students to follow the curriculum. If accepted, these changes will enhance the program by providing an innovative curriculum that remains socially conscious, and allows students a level of freedom to explore sub-disciplines. This directly addresses the University’s strategic priorities of fostering excellence in academic programs by providing students with a curriculum designed for continued growth. These changes also address the strategic priority to recruit, retain, place, and graduate undergraduate students, by creating a strong program curriculum that generates competitive graduates.

6. Other specific information. (Not applicable for incidental changes.)

    What other programs, if any, will be affected by this proposal? Describe what resources are available for this proposal. Are they adequate? What would be the effect on the curriculum of all potentially affected programs if this proposal were adopted? Include any potential effects to the curriculum of current programs, departments and courses.

The changes to the curriculum directly impact the Geology program with no foreseeable effects on other programs in the department, or external to the department. Current resources available for the program are sufficient to support all the changes proposed.

7. Program Outline. (Not applicable for incidental changes).

    A semester-by-semester program outline as it would appear in the bulletin for a new program or any modified program with all changes clearly indicated.

Please see the attached document. All curriculum changes for this proposal are highlighted in red and explained briefly.
8. Signatures and Recommendations. (please date)
   - Signatures of involved Department chair(s) and Dean(s) indicate agreement with the proposal
     and that adequate resources (library, faculty, technology) are available to support proposal.
   - If a potential signatory disagrees with a proposal he/she should write "I disagree with this
     proposal" and a signed statement should be attached to this submission.

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<tr>
<th>Print Name/Title</th>
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<tbody>
<tr>
<td>S. P. Halsey</td>
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Department chair(s) of all potentially affected programs

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<tr>
<th>Print Name/Title</th>
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<tr>
<td>William B Hudson</td>
<td>W. B. H.</td>
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Dean(s) of any potentially affected College/School.

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<tr>
<td>Susan Hritzak</td>
<td>Queen Hitzel</td>
<td>1/22/18</td>
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Registrar

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<tr>
<td>Anne Schen</td>
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Provost (For new programs, significant revisions and revisions to the General Education Program
revisions only).

Province should check here ___ if this proposal is a program revision AND the significance of
the revision requires review and approval by APC prior to Curriculum Committee.

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Chair, Academic Planning Committee. For new programs, program revisions sent via the provost.
Signature indicates that the proposal has been reviewed and approved by APC.

| Print Name | Signature | Date |

Chair, General Education Committee. For revisions to General Education program only.
(Signature indicates that the proposal has been approved by GEC).
# Updated Geology Curriculum

## First Semester
- **CHM 115 Elements and Compounds** | 3 credits  
- **CHM 113 Elements and Compounds Lab** | 1 credit  
- **ENG 101 Composition** | 4 credits  
- **FYF 101 First Year Foundation** | 3 credits  
- **MTH 111 Calculus I** | 4 credits  

**Total Credits**: 15

## Second Semester
- **CHM 116 The Chemical Reaction** | 3 credits  
- **CHM 114 The Chemical Reaction Lab** | 1 credit  
- **GEO 211 Physical Geology** | 4 credits  
- **MTH 112 Calculus II** | 4 credits  
- **Distribution Requirement** | 3 credits  

**Total Credits**: 15

## Third Semester
- **PHY 171 Principles of Classical and Modern Physics** | 4 credits  
- **MTH 150 Elementary Statistics** | 3 credits  
- **GEO 212 Historical Geology** | 3 credits  
- **GEO 281 Mineralogy** | 4 credits  

*Made 4 credits*

**Distribution Requirement** | 3 credits  

**Total Credits**: 17

## Fourth Semester
- **PHY 174 Applications of Classical and Modern Physics** | 4 credits  
- **CS 115 Computers and Applications** | 3 credits  

*remove and add CI to Env. Mapping I and II*

- **EES 240 Principles of Environmental Engineering and Science** | 4 credits  
- **GEO 206 Solid Earth Energy and Mineral Resources** | 3 credits  
- **GEO 282 Petrology** | 3 credits  
- **Distribution Requirement** | 3 credits  

*Moved from 8th to 4th semester*

**Total Credits**: 17

## Fifth Semester
- **EES 271 Environmental Mapping I: GPS** | 3 credits  
- **GEO 345 Stratigraphy and Sedimentation** | 4 credits  

*Made 4 credits*

- **ENV 321 Hydrology** | 4 credits  

*Now required (has CI code)*

- **Program Elective** | 3 credits  
- **Distribution Requirement** | 3 credits  
- **GEO 352 Hydrogeology** | 3 credits  

*Made program elective*

**Total Credits**: 17

## Sixth Semester
- **EES 272 Environmental Mapping II: GIS** | 3 credits  
- **GEO 349 Structure and Tectonics** | 4 credits  

*Made 4 credits and moved from 5th to 6th semester*

- **GEO 351 Paleoclimatology** | 3 credits  

*Made a required course*

- **EES 302 Literature Methods** | 1 credit  
- **EES 304 Environmental Data Analysis** | 2 credits  
- **Distribution Requirement** | 3 credits  

**Total Credits**: 16

## Summer Session
- **GEO 380 Geology Field Camp** | 4 credits

## Seventh Semester
- **GEO 390 Applied Geophysics** | 3 credits  

*Moved from 8th to 7th semester*

- **GEO 391 Senior Projects I** | 1 credit  
- **Distribution Requirement** | 3 credits

## Eighth Semester
- **GEO 388 Regional Studies** | 2 credits  

*New course, capstone*

- **GEO 392 Senior Projects II** | 2 credits  
- **GEO 370 Geomorphology** | 3 credits  

*Moved from 6th to 8th semester*
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<td>GEO-382 Geochemistry</td>
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<tr>
<td>GEO-375 Geologic Hazards</td>
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*Made program elective

Total Credits: 13

TOTAL: 127