GIS 582: Geospatial Modeling

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19. Grad Final Review (george_hodge@ncsu.edu; lian_lynch@ncsu.edu; mlnosbis@ncsu.edu)
20. PeopleSoft (none)

Approval Path
1. Mon, 26 Sep 2016 13:39:49 GMT
   Melissa Nosbisch (mlnosbis): Approved for ABGS Coordinator
2. Tue, 27 Sep 2016 16:41:56 GMT
   Yu-Fai Leung (leung): Approved for 15PRT GR Director of Curriculum
3. Wed, 26 Oct 2016 00:44:32 GMT
   Myron Floyd (myron_floyd): Approved for 15PRT Grad Head
4. Mon, 31 Oct 2016 17:16:45 GMT
   Elana Leithold (leithold): Approved for 17MEA GR Director of Curriculum
   Jay Levine (jay_levine): Approved for 17MEA Grad Head
   Yvonne Lee (yvonne_lee): Approved for CNR CC Coordinator GR
   Yvonne Lee (yvonne_lee): Approved for CNR CC Meeting GR
   Ilona Peszlen (Ilona_Peszlen): Approved for CNR CC Chair GR
9. Mon, 31 Oct 2016 21:00:31 GMT
   Yvonne Lee (yvonne_lee): Approved for CNR Final Review GR
    Adrianna Kirkman (ag_kirkman): Approved for CNR Dean GR
11. Tue, 01 Nov 2016 13:00:42 GMT
    Cheryll Bowman-Medhin (clbowma2): Approved for COS CC Coordinator GR
12. Tue, 01 Nov 2016 13:01:51 GMT
    Cheryll Bowman-Medhin (clbowma2): Approved for COS CC Meeting GR
13. Mon, 07 Nov 2016 02:40:16 GMT
    Alun Lloyd (alun_lloyd): Approved for COS CC Chair GR
14. Mon, 07 Nov 2016 04:31:06 GMT
Viewing: GIS 582/MEA 582 : Geospatial Modeling

Changes proposed by: esmoney

**Change Type**
Minor

**Course Prefix**
GIS (Geographic Information Systems)

**Course Number**
582

**Course ID**
015408

**Dual-Level Course**
No

**Cross-listed Course**
Yes

**Cross-listed with Subject Code(s)**

**Course Prefix:**
MEA

**Title**
Geospatial Modeling

**Abbreviated Title**
Geospatial Modeling

**College**
College of Natural Resources

**Academic Org Code**
Parks, Recr & Tourism Mgmt (15PRT)

**CIP Discipline Specialty Number**
11.0101

**CIP Discipline Specialty Title**
Computer and Information Sciences, General.

**Term Offering***
Fall and Spring

Year Offering
Offered Every Year

Effective Date
Fall 2017

Previously taught as Special Topics?
No

Course Delivery

Grading Method
Graded/Audit

Credit Hours
3

Course Length
weeks

Contact Hours
(Per Week)

<table>
<thead>
<tr>
<th>Component Type</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>3.0</td>
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</tbody>
</table>

Course Is Repeatable for Credit

No

Instructor Name
Helena Mitasova

Instructor Title
Professor

Grad Faculty Status
Full

Course Prerequisites, Corequisites, and Restrictive Statement
None.

Is the course required or an elective for a Curriculum?
Yes

Which Curricula are Affected?

<table>
<thead>
<tr>
<th>SIS Program Code</th>
<th>Program Title</th>
<th>Required or Elective?</th>
</tr>
</thead>
<tbody>
<tr>
<td>15GISMR</td>
<td>Master of Geospatial Information Science and Technology</td>
<td>Required</td>
</tr>
<tr>
<td>15GISFORMR</td>
<td>Master of Geospatial Information Science and Technology</td>
<td>Required</td>
</tr>
<tr>
<td>15GISCTG</td>
<td>Graduate Certificate in Geographic Information Systems</td>
<td>Elective</td>
</tr>
</tbody>
</table>
Catalog Description

The course provides foundations in methods for GIS-based surface analysis and modeling. The topics include proximity analysis with cost surfaces and least cost paths, multivariate spatial interpolation and 3D surface visualization. Special focus is on terrain modeling, geomorphometry, solar irradiation, visibility, and watershed analysis. Students are also introduced to the basic concepts of landscape process modeling with GIS and to the principles of open source GIS. Introductory level knowledge of GIS or surveying/geomatics principles is required.

Justification for each revision:

Name and catalog updates to better reflect current content of the course.

Term offerings were updated to reflect that the course has been taught both Fall and Spring for several years now.

Does this course have a fee?

No

Consultation

Instructional Resources Statement

Course Objectives/Goals

Student Learning Outcomes

Student Evaluation Methods

Topical Outline/Course Schedule

Syllabus

GIS582_Syllabus_2017.pdf

Additional Documentation

Additional Comments

The GIS program has been re-evaluating several course titles and catalog descriptions to update them based on best practices and to be more inline with the content of the courses. Titles and descriptions have not been updated since the courses were established nearly 7 years ago.

Course Reviewer Comments

minosbis (Mon, 26 Sep 2016 13:39:42 GMT): This is a minor action updating the title and course description. No major revisions are proposed.


Key: 3836