Introducing the New UCSB Undergraduate Minor in Spatial Studies

Discussion led by Don Janelle and Mike Goodchild
18 January 2011
## Developing the UCSB Undergraduate Minor in Spatial Studies

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 Oct 2008</td>
<td>Open discussion on Spatial Literacy Initiative for Undergraduate Education at UCSB / ThinkSpatial</td>
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<tr>
<td>12 Jan 2010</td>
<td>Open discussion on a Proposal for a Minor in Spatial Studies / ThinkSpatial forum</td>
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<tr>
<td>16 March 2010</td>
<td>Submission of proposal by Department of Geography to Faculty Executive Committee/College of Letters and Science</td>
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<tr>
<td>8 April 2010</td>
<td>Report and Questions from FEC</td>
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<tr>
<td>5 May 2010</td>
<td>Response to FEC by Department of Geography</td>
</tr>
<tr>
<td>21 May 2010</td>
<td>Proposal endorsed and submitted by FEC to Council on Undergraduate Programs and Policy (CUAPP)</td>
</tr>
<tr>
<td>4 Oct 2010</td>
<td>Report and Questions from CUAPP</td>
</tr>
<tr>
<td>25 Oct 2010</td>
<td>Response to CUAPP from Department of Geography</td>
</tr>
<tr>
<td>15 Nov 2010</td>
<td>Minor in Spatial Studies Approved by Undergraduate Council</td>
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Goals for Minor in Spatial Studies

• Provide opportunities for undergraduate students to complement their disciplinary majors with a supportive set of courses that will strengthen spatial reasoning skills for problem solving for the benefit of society and science.

• Facilitate acquisition of knowledge and perspective on creativity to:
  • transcend disciplinary boundaries
  • unite quantitative and qualitative thinking
  • engage multi-media graphic display with communication of information
Focus A. **Spatial Thinking**
http://geog.ucsb.edu/undergraduates/minor-spatial-studies/spatial-thinking.html

Focus B. **Space and Place**
http://geog.ucsb.edu/undergraduates/minor-spatial-studies/space-and-place.html

Focus C. **Spatial Science**
http://geog.ucsb.edu/undergraduates/minor-spatial-studies/spatial-science.html
## Optional Core Courses for the Focus Areas of the Minor

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Course No.</th>
<th>Course title</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus A: Spatial Thinking</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>GEOG 153A</td>
<td>Behavioral Geography</td>
</tr>
<tr>
<td>Staff</td>
<td>GEOG 153B</td>
<td>Introduction to Spatial Decision Making and Behavior</td>
</tr>
<tr>
<td>Dan Montello, Professor</td>
<td>GEOG 153C</td>
<td>Environmental Perception and Cognition</td>
</tr>
<tr>
<td>Staff</td>
<td>PSY 107</td>
<td>Introduction to Perception</td>
</tr>
<tr>
<td>Mary Hegarty, Professor</td>
<td>PSY 108</td>
<td>Introduction to Cognitive Psychology</td>
</tr>
<tr>
<td>Russell Revlin, Associate</td>
<td>PSY 110</td>
<td>Perception: Vision</td>
</tr>
<tr>
<td>Professor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miguel Eckstein, Professor</td>
<td></td>
<td></td>
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<tr>
<td><strong>Focus B: Space and Place</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swati Chattopadhyay, Associate Professor</td>
<td>ARTHI 136I</td>
<td>The City in History</td>
</tr>
<tr>
<td>Volker Welter, Associate Professor</td>
<td>ARTHI 136Y</td>
<td>Modern Architecture in Southern California, C. 1890s to the Present</td>
</tr>
<tr>
<td>Kim Yasuda, Professor</td>
<td>ARTST 105</td>
<td>Intermediate Spatial Practices</td>
</tr>
<tr>
<td>Joel Michaelsen, Professor</td>
<td>GEOG 148</td>
<td>California</td>
</tr>
<tr>
<td>Dan Montello, Professor</td>
<td>GEOG 150</td>
<td>Geography of the United States</td>
</tr>
<tr>
<td>David Carr, Associate Professor</td>
<td>GEOG 155</td>
<td>Geography of Latin America</td>
</tr>
<tr>
<td>Helen Couclelis, Professor</td>
<td>GEOG 159</td>
<td>Geography of Europe</td>
</tr>
<tr>
<td></td>
<td>GEOG 182</td>
<td>Global Cities in the Information Age</td>
</tr>
</tbody>
</table>

### Required Lower-Division Course for Minor in Spatial Studies / Core Course for Focus C: Spatial Science

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<thead>
<tr>
<th>Instructor</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Keith Clarke, Professor</td>
<td>GEOG 12</td>
<td>Maps and Spatial Reasoning</td>
</tr>
<tr>
<td>Martin Raubal, Associate Professor</td>
<td>GEOG 12</td>
<td>Maps and Spatial Reasoning</td>
</tr>
</tbody>
</table>
How to Become a Minor in Spatial Studies

1. Submit a request to be included on the Spatial Minor Listing (optional) to receive preference in access to courses and information about related events and opportunities
2. Seek advice from the Center for Spatial Studies (optional but desirable) or consult Spatial Pathways at http://spatial.ucsb.edu/programs/Spatial-Pathways.php
3. Complete required course work
4. Request Certification Form for Graduation from the Geography Department / Center for Spatial Studies

Conditions for Official Recognition of the Minor

- Meet prerequisites for required and elective courses.
- All courses completed on a letter-grade basis
- At least 20 upper-division quarter units completed for the minor (maximum of three courses from a single department or program)
- Substitutions and waivers must be approved by the advisor for the Spatial Studies minor
- The UC grade-point average in ALL applicable upper-division courses is 2.0 or higher
- No more than 5 upper-division units overlap between the Spatial Studies minor and the upper-division portion of a student's major(s) or other minor(s)
- Students must complete at least 12 of the upper-division requirements as a registered UCSB student
- The Geography department reports completion of minor prior to the posting of the degree
- No reference will be made to the minor on any progress checks or degree clearance forms
**Spatial Minor Listing**

*Required*

Although one does not declare a minor (as is the case with an academic major), students who request to have their names added to the Spatial Studies Minor Listing may receive preference in access to selected courses and information about related academic events and opportunities. To be added to the listing, the following form may be submitted online or delivered to the Center for Spatial Studies (3512 Phelps Hall).

**For Student online submission, start here:**

(Check all that apply)

* Last Name: [ ]
* First Name: [ ]
* Home Department: [ ]
* Date of entry into the Spatial Minor Listing: [ ]
* Degree Program: [ ] *(e.g., B.A., B.S.)*

Date of Request for Certification to Graduate with a Minor in Spatial Studies:

* Phone Number: [ ]
* Email: [ ]

[Submit]

Spatial Pathways

Spatial Pathways provides information and guidance about possible five-course sequences for the Minor in Spatial Studies that complement different career orientations and discipline specializations.

For students and their major advisors, Spatial Pathways will help answer the question

“How can a minor in spatial studies enhance my degree in ______ / my career interest in ______ ?”

In time, this resource will also provide substantive vignettes based on the actual experiences of students who complete the minor.

This section is under development. The first set of examples will be available in mid-March 2011

http://www.spatial.ucsb.edu/programs/Spatial-Pathways.php
What needs to happen now?

• **Advertizing and Support Services for Students**
  – Web resources
  – Building a collection of *Spatial Pathways*
  – Flier(s)
  – Other?

• **Freshman Seminar(s) INT 94 ???**
  – One course focused generally on *Spatial Studies* (starting Sept 2011)
  – Three separate courses (one each quarter, starting Sept 2011)
    • Frontiers in Spatial Thinking
    • Space and Place
    • Breakthroughs in Spatial Science
  – Are there faculty who are interested in developing/offering such courses, individually or as teams of instructors?
  – Schedule a planning meeting
  – Submission/approval process

• **Governance:**
  – Don Janelle and Karen Doehner (day-to-day management and advising)
  – Advisory Committee: Kim Yasuda, Mary Hegarty, Volker Welter, 2 faculty from Geography (possible expansion?)
  – Geography Curriculum Committee, Chair, College L&S
Appreciation of support

• Dept of Geography: Stuart Sweeney, Dan Montello, Mo Lovegreen, Jon Hall, Keith Clarke, Mike Goodchild, David Carr, Helen Couclelis, Joel Michaelsen, Martin Raubal, Dar Roberts

• Geography Curriculum Committee

• Center for Spatial Studies: Karen Doehner, Guylene Gadal

• Faculty Executive Committee

• CUAPP

• College of Letters & Science: Mary Nisbet, Bryant Wienke, Robin Johnson

• Dept of Art: Kim Yasuda, Colin Gardner

• Dept of History of Art and Architecture: Volker Welter, Swati Chattopadhyay, Ulrich Keller

• Dept of Psychology: Mary Hegarty, Miguel Eckstein, Russel Revlin, Daphne Bugental, Greg Ashby
Thank You

Please check the following web sites for information on the UCSB Undergraduate Minor in Spatial Studies

http://spatial.ucsb.edu/programs/academic-minor.php

http://geog.ucsb.edu/undergraduates/minor-spatial-studies/

Counseling Support for Students and Advisors
Karen Doehner, 893-8224
Don Janelle, 893-5267