

Department of Geography College of Arts and Sciences

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Bernadette Vankeerbergen, Ph.D. Program Manager, Curriculum and Assessment Arts and Sciences The Ohio State University 154D Denney Hall 164 W 17th Ave. Columbus, OH 43210

August 11, 2015

Dr. Vankeerbergen,

We are seeking Arts and Sciences Curriculum Committee and Council on Academic Affairs approval for a proposed revision to our GIScience minor. This letter explains the changes to our minor. The two attached documents are the old and revised advising sheets. The revised advising sheet is edited using track changes.

In general, we have overhauled our GIScience minor in order to reflect changes in the dynamic field of GIScience, and to reflect the cutting edge teaching expertise of new GIScience faculty hired in the department over the past two years. Is it typical that Geography departments routinely revamp their GIScience offerings to stay current with technological developments in the field.

The changes we made, which impact the minor, include:

- a change to our course numbering system, to create a clear and coherent pedagogic sequencing of knowledge and educational outcomes;
- retitling and renumbering our classes to better reflect content, and to be more transparent to students (see Appendix 1);
- addition of two existing courses to the minor (5100 Introduction to Spatial Data Analysis, 5225 Geographic Applications of Remote Sensing) as required classes (see explanation below);
- addition of a new course to the minor (GEOG 5212 Geospatial Databases), as a required class (see explanation below); and
- an expansion in the electives that students can choose from, now including 3 courses that we had previously designated as required (5222 GIS Algorithms and Programming, 5223 Design and Implementation of GIS and 5226 Spatial Simulation and Modeling) (see explanation below).

Overall, these changes add 3 credit hours to our GIScience minor. Our revised minor is 18 credit hours, whereas the old minor was 15 credit hours.



Our changes to the minor reflect the growing emphasis on data-driven approaches in GIScience. In order to bolster our offerings in this cutting-edge area, we have added a new course to the minor: 5212 Geospatial Databases for GIS. This course provides students with knowledge and skills on how to design and implement GIS data within larger, enterprise database systems and how to publish data via the web.

To support the emphasis of our minor on data-driven approaches to GIScience, we have also added 5100 Introduction to Spatial Data Analysis as a required class due to its focus on basic spatial data analysis. We have also added 5225 Geographic Applications of Remote Sensing as required class since remotely sensed data and imagery are increasingly important as sources of georeferenced data.

To accommodate the changes above, and to keep the minor manageable, we have removed 5222 GIS Algorithms and Programming, 5223 Design and Implementation of GIS and 5226 Spatial Simulation and Modeling as required classes and instead designated these as electives. These classes, while important, are more suitable as requirements for our GIS major since they involve advanced programming, software design and simulation techniques that are more appropriate for students who are seeking research and development knowledge and skills in GIScience. GIScience Minor students can nevertheless pick which of these courses are appropriate given their pedagogic and career goals.

Please get in touch with me if you have any questions. My email is <u>coleman.373@osu.edu</u> and my office number is 2-9686.

Sincerely,

Mat Coleman Chair of Undergraduate Studies 1156 Derby Hall Department of Geography

Cc: Morton O'Kelly (Chair, Department of Geography), Harvey Miller (Professor, Department of Geography, Brooke Raake (Undergraduate Adviser, Department of Geography)



Appendix 1

New course titles and numbers	Old course titles and numbers
GEOG 5100 Spatial Data Analysis	GEOG 5100 Quantitative Geographical Methods
GEOG 5200 Cartography and Map Design	GEOG 5200 Elements of Cartography
GEOG 5201 GeoVisualization	GEOG 5201 Computer Cartography and Geographic Visualization
GEOG 5210 Fundamentals of GIS	GEOG 5220 Fundamentals of GIS
GEOG 5212 Geospatial Databases for GIS	N/A
GEOG 5222 GIS Algorithms and	GEOG 5222 GIS Applications in Social Science
Programming	and Business
GEOG 5223 Design and Implementation of GIS	GEOG 5223 Design and Implementation of GIS
GEOG 5225 Geographic Applications of	GEOG 5270 Geographic Applications of
Remote Sensing	Remote Sensing
GEOG 5226 Spatial Simulation and Modeling	GEOG 5221 Spatial Simulation and Modeling
GEOG 5229 Emerging Topics in GIS	GEOG 5224 Emerging Topics in GIS