



MCRP Spatial Analysis Competency Requirement

Spatial Analysis and Professional Deliverable Competencies

MCRP students must develop spatial analysis tools to analyze planning problems and develop planning solutions. This can be done through a course, and many students elect to take a GIS course that uses ArcGIS software. Others develop the skills through an internship or work, and use online trainings and a manual to learn the software. The purpose is not to learn one software package but to understand the principles and develop enough familiarity with available software to continue to build skills throughout your career.

Step 1: Participate in the Spatial Analysis Workshop

The Spatial Analysis Workshop is held during Orientation Week (the week before classes begin). Students can participate in the workshop for multiple years. The workshop has three objectives:

- To introduce the participants to spatial analysis tools through hand drawn and computer based mapping exercises
- To explain the spatial competency requirement and different ways to fulfill it.
- To have fun with your colleagues!

Step 2: Determine how you will fulfill this competency

By your second semester, you should determine how you intend to fulfill this requirement. Many students choose to take a GIS course at UNM. The GIS course can be from any department, and the CRP faculty have reviewed the syllabuses from GEOG 581L Introduction to GIS for Graduate Students and CE 547 GIS in Water Resources Engineering. Both courses cover parallel content to CRP 583 Introduction to Geographic Information Systems. These courses use ESRI ArcGIS software, which is used most frequently by public sector agencies and private firms.

The purpose is to understand the basics of spatial analysis, mapping, data collection and representation. While many planners use ArcGIS, others use analog tools to help capture community based spatial information or open source software. Non-profit organizations and community-based organizations, in particular, may use one of the many open source platforms available for mapping and spatial analysis because ArcGIS is too expensive for small organizations. Other courses such as CRP 539 Indigenous Space Place and Mapping, which draws on open source software, community-based knowledge, and addresses non-cartesian approaches to spatial analysis, is another course that can fulfill this requirement.

Step 3: Discuss your plan with the faculty during the Graduate Review

Students are responsible for consulting with their advisor regarding the best way to fulfill the spatial competency requirement. During the Graduate Review, you will discuss your plan with the faculty. You do not yet know what you will need to know throughout your career, and we encourage you to approach spatial analysis as one of numerous tools to practice in course assignments and projects.

Step 4: Retain examples of your spatial analysis work to demonstrate your competency

These examples must be submitted to the Graduate Advisor before or during your last semester. Your submission will be evaluated by two faculty members.