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|  | Expectations for Doctoral Students Dr. Hutchinson Department of Geography Kansas State University |

**Basic Expectations**

1. Display outstanding character and professionalism – be a model student and serve as a role model for your peers, our M.A. students, and our undergraduates.
2. Be an active department citizen – attend most, if not all, visiting scholar presentations and as many social events as you can. Strongly consider being a member of our GTU/Geography Club chapter.
3. Maintain membership in at least two professional organizations. If you are a geographer, this should include the AAG (and one or more specialty groups) plus one additional society (*e.g.,* ASPRS, IEEE Geosciences and Remote Sensing, etc.).
4. Be in the office, or in the field, working every day and accomplish something that contributes to your research.
5. Understand that my door is always open, but my undivided attention is best scheduled.

**Research and Teaching Experience**

1. Develop a comprehensive understanding of GIScience. Comprehensive is defined here as including quantitative methods, remote sensing, GIS, appropriate computer programming and scripting technqiues, and relational databases.
2. Incorporate a secondary subfield (in geography or an allied discipline) to provide context for your GIS and/or remote sensing.
3. Better understand the role, expectations, joys, and agony of being a university instructor by assisting me, at my request, in grading assignments, serving as a guest lecturer in one of my classes, help me to develop course materials/labs, etc.
4. Be the lead instructor of a course at least one time before completing your degree to obtain student teaching evaluation and increase your perspective on your teaching strategies and philosophy.
5. Publish at least 2-3 peer-reviewed journal articles before finishing.

**Research Publications and Presentations**

1. Submit a portion of your dissertation research for publication in a peer-reviewed journal prior to scheduling the defense.
2. Prepare and submit a grant application (*e.g.,* NSF DDI).
3. Prepare and submit an application for an award, scholarship, or fellowship.
4. Prepare a well-written and comprehensive dissertation.
5. Conduct at least one oral presentation at a major research-oriented conference each year.
6. Present at least one poster at a professional meeting each year.
7. Always participate in student paper/poster competitions held in conjunction with a professional meeting.
8. If a geographer, volunteer for at least one department seminar or brown-bag to discuss your dissertation research.

**Preliminary Exam**

1. You are expected to demonstrate mastery of GIScience. Evidence of mastery include:
   1. Familiarity with the vocabulary of a subject.
   2. Knowing the names of key people and contributors in the discipline of geography as a whole, as well as those within GIScience.
   3. Understanding the history of and major “schools of thought” within geography and GIScience.
   4. Describing concepts fundamental to geography, GIScience, and your general area of research.
   5. Familiarity with contemporary questions and “grand challenges” within GIScience.
2. In addition to any research manuscript that I assigned during a course you took with me AND any other document that I share with you during your residency, read and understand the following:
   1. Longley, P.A., M.F. Goodchild, D.J. Maguire, and D.W. Rhind. 2005. Geographic Information Systems and Science, 2nd Edition. New York: Wiley.
   2. Clarke, K.C., B.O. Parks, and M.P. Crane (eds). 2002. Geographic Information Systems and Environmental Modeling. Upper Saddle River, NJ: Prentice-Hall.
   3. Hanson, Susan, ed. 1997. 10 Geographic Ideas that Changed the World. New Brunswick, NJ: Rutgers University Press.
   4. Chapters on *GIS, remote sensing, cartography*, and *mathematical modeling/quantitative methods* in: Gaile, G.L. and C.J. Willmott, eds. 2004. Geography in America at the Dawn of the 21st Century. New York: Oxford University Press.
   5. National Research Council. 1997. Rediscovering Geography. Washington, DC: National Academy Press.
   6. Goodchild, M.F. 1992. Geographic information science. *International Journal of Geographical Information Science* 6(1):11-45.
   7. Goodchild, M.F. 2010. Twenty years of progress: GIScience in 2010. *Journal of Spatial Information Science* 1:3-20.
   8. UCGIS. 2006. *Geographic Information Science & Technology Body of Knowledge.* DiBiase, D., M. DeMers, A. Johnson, K. Kemp, A. Luck, B. Plewe, and E. Wentz, eds. Association of American Geographers: Washington, D.C.
   9. National Research Council. 2006. Learning to Think Spatially: GIS as a Support System in the K-12 Curriculum. Washington, DC: The National Academies Press.