

# APPLIED RESEARCH IN GEOGRAPHY

GEOG 4000/5000

## Fall 2019

Scheduled time: Tuesdays 5:30 – 8:15 pm  
Classroom(s): McEniry 431  
Instructors: Dr. Elizabeth Delmelle ([edelmell@uncc.edu](mailto:edelmell@uncc.edu)) | McEniry 419  
Dr. Claire Schuch ([claire.schuch@uncc.edu](mailto:claire.schuch@uncc.edu)) | McEniry 403  
Office hours: Tuesdays 3:30 -5:00 pm or by appointment

## Course description and objectives

Have you wondered how applied geographic research is actually conducted? In this course, you will take part in a real research project and be guided through the steps of applied geographic research. We will study how the opening of light rail transit lines affects residential mobility in and around adjacent neighborhoods. Using both quantitative and qualitative methods, you will help the research team address questions such as: What are the characteristics of people moving in and out of transit neighborhoods? What is the relationship between transit investments and income segregation?

Through a set of assignments, you will gain hands-on experience in data collection and qualitative as well as quantitative data analysis by actively participating in and contributing to the research project. These assignments consist of article reviews, a series of labs and field work, all directly related to the research project. Students will work in groups throughout the second part of the semester with a graduate student taking a team leader position within each group. The final product will be a research presentation by each group which they will present during finals week as well as at an undergraduate (or professional, for graduate students) research conference.

This is a project-driven course intended to provide students with geographic research experience, both qualitative and quantitative. By the end of the course, you will: have some understanding of the relationships between transit, local development, housing values and residential mobility; have some knowledge of how to design a research project, including formulating a research question and considering research ethics; be familiar with various qualitative and quantitative methods used in applied geographic research, and; have a good understanding of how to enter, analyze and present various types of data.

The standards and requirements set forth in this syllabus may be modified at any time by the course instructors. Notice of such changes will be by announcement in class or via email.

## Required course materials

1. Hay, Iain, ed. 2010. *Qualitative Research Methods in Human Geography, Third Edition*. Oxford and New York: Oxford University Press.

Additional required readings and supplemental resources are drawn from journals and excerpted from a variety of texts. Please notify your instructor if you have trouble accessing a reading.

## Requirements and grading

### *Class participation and preparation*

Students are expected to complete all required readings listed prior to attending a lecture and are encouraged to actively participate in class discussions. Students are expected to attend every class and remain in class for the duration of the session. Failure to attend class or arriving late may impact your ability to achieve course objectives which could affect your course grade. An absence, excused or unexcused, does not relieve a student of any course requirement. Regular class attendance is a student's obligation, as is a responsibility for all the work of class meetings.

### *Grading*

Grades will be based on the following:

Attendance & participation (instructor & peer evaluations)	10 points
Article summary (due 8/27)	5 points
Readings quizzes (throughout the course)	15 points
Fieldwork (includes completion of CITI training and two days of conducting surveys, see detailed schedule for dates)	15 points
Lab 1: Coding & data management (10/22, in class)	10 points
Lab 2: Descriptive statistics & data visualization (11/19)	10 points
Lab 3: Mapping exercise (11/26)	10 points
Lab 4: Spatial autocorrelation analysis (12/3)	10 points
Story map presentations (12/10)	15 points

All assignments must be completed and turned in on the day and time specified. Unless prior arrangements are made late assignments will be penalized by one full letter grade for each day an assignment is late.

### *Grading policy*

For the 4155 section of the course, final grades will be assigned using the following scale:  
A = 90% or above B = 80-89% C = 70-79% D = 60-69% F = less than 60%

For the 5155 section of the course, final grades will be assigned using the following scale:  
 A = 90% or above B = 80-89% C = 70-79% U = less than 70%

**Disability accommodations**

UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please provide a letter of accommodation from Disability Services early in the semester. For more information on accommodations, contact the Office of Disability Services at [704-687-0040](tel:704-687-0040) or visit their office in Fretwell 230.

**Academic integrity**

All students are required to read and abide by the Code of Student Academic Integrity. Violations of the Code of Student Academic Integrity, including plagiarism, will result in disciplinary action as outlined in the Code. Definitions and examples of plagiarism are set forth in the Code. The Code is available from the Dean of Students Office or [online](#). Faculty may require students to demonstrate that graded assignments completed outside of class are their own work.

**University policy on withdrawals**

Students are expected to complete all courses for which they are registered at the close of the add/drop period. If you are concerned about your ability to succeed in this course, it is important to make an appointment to speak with me as soon as possible. The University policy on withdrawal allows students only a limited number of opportunities available to withdraw from courses. It is important for you to understand the financial and academic consequences that may result from [course withdrawal](#).

**Use of cell phones, smart phones, or other mobile communication devices in the classroom**

The use of cell phones, smart phones, or other mobile communication devices is disruptive, and is therefore prohibited during class. Cell phones and other electronic devices should be put away and not sitting out in view. Cell phones may be left on vibrate for emergency notification purposes only.

**Detailed schedule**

Date	Topics	Assignments <b>due</b>
8/20	<p><b>Course overview / Introduction to research project</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Grant proposal</li> <li>• Goetz, A., Vowles, T. &amp; Tierney, S. (2009). Bridging the Qualitative-Quantitative Divide in Transport Geography. <i>The Professional Geographer</i>, 61:323-335.</li> </ul>	
8/27	<p><b>Rail transit &amp; residential mobility</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Nilsson, I. &amp; E. C. Delmelle (2018) Transit Investments and Neighborhood Change: On the Likelihood of Change. <i>Journal of Transport Geography</i>, 66, 167-179.</li> <li>• Delmelle, E. C. &amp; I. Nilsson (2019) New rail transit stations and the out-migration of low-income residents. <i>Urban Studies</i> (In Press)</li> </ul>	<i>Article summary</i>

	<p>Optional readings (graduate students select one):</p> <ul style="list-style-type: none"> <li>• Billings, S. (2011). Estimating the value of a new transit option. <i>Regional Science and Urban Economics</i>, 41:525-536.</li> <li>• Tiebout, C. M. (1956). A Pure Theory of Local Expenditures. <i>Journal of Political Economy</i>, 64:416-424.</li> </ul>	
9/3	<p><b>Intro to qualitative research</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Hay, Ch. 1 &amp; 10.</li> </ul> <p>Optional readings (required for graduate students):</p> <ul style="list-style-type: none"> <li>• Sullivan, D. M. (2007). Reassessing Gentrification: Measuring Residents' Opinions Using Survey Data. <i>Urban Affairs Review</i>, 42(4), 583-592.</li> </ul> <p>Practice surveys</p>	
9/10	<p><b>Developing a research proposal</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Hay, Ch. 4 &amp; 16.</li> </ul>	
9/17	<p><b>IRB &amp; CITI training</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Hay, Ch. 2 &amp; 3.</li> </ul>	
9/24	<b>IRB practice</b>	<i>Fieldwork 1</i>
10/1	<b>Conducting surveys</b>	<i>Fieldwork 2</i>
10/8	<i>No class – Fall break</i>	
10/15	<b>Conducting surveys</b>	<i>Fieldwork3</i>
10/22	<p><b>Coding &amp; data management</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Hay, Ch. 14.</li> </ul>	<i>Lab 1</i>
10/29	<p><b>Intro to qualitative data analysis</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Hay, Ch. 15.</li> <li>• Blair, E. (2015). A reflexive exploration of two qualitative data coding techniques. <i>Journal of Methods and Measurement in the Social Sciences</i>, 6(1), 14-29.</li> </ul>	
11/5	<b>Intro to quantitative data analysis</b>	

	<p>Readings:</p> <ul style="list-style-type: none"> <li>• Gomez and Jones (2010), Ch. 17.</li> <li>• Gomez &amp; Jones (2010), Ch. 11.</li> </ul> <p>Optional readings (required for graduate students):</p> <ul style="list-style-type: none"> <li>• Logan, J., Xu, Z., &amp; B. Stults (2014) Interpolating US decennial census tract data from as early as 1970 to 2010: A longitudinal tract database. <i>The Professional Geographer</i>, 66:412-420.</li> </ul>	
11/12	<b>Data analysis lab</b>	
11/19	<p><b>Spatial data analysis &amp; GIS</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Gomez and Jones (2010). Ch. 22.</li> <li>• Reardon, S. F. &amp; K. Bischoff (2011) <i>Growth in the residential segregation of families by income, 1970-2009</i>. US2010 Project Report.</li> </ul>	<i>Lab 2</i>
11/26	<p><b>Spatial statistics</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Mitchell, A. (2005) <i>The ESRI Guide to GIS Analysis, Volume 2: Spatial Measurements and Statistics</i>. ESRI Press. Ch. 4.</li> </ul> <p>Optional readings (required for graduate students):</p> <ul style="list-style-type: none"> <li>• Getis, A. &amp; J. K. Ord (1992) The analysis of spatial association by use of distance statistics. <i>Geographical Analysis</i>, 24,189-206.</li> </ul>	<i>Lab 3</i>
12/3	<p><b>Guest Speaker – Heather Seagle, Alta Planning, Charlotte</b></p> <p><b>Presenting your research</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Hay, Ch. 17.</li> </ul>	<i>Lab 4</i>
12/10	Finals week	<i>Story Map presentations + peer reviews</i>