

R for GIS and Political Geography

COURSE INFORMATION	<i>Term:</i> Spring 2021 (mod credit) <i>Level:</i> Intermediate Workshop <i>Meet:</i> Friday, 4:30-5:20 <i>Type:</i> Remote (<i>synchronous or asynchronous</i>) <i>Syllabus Revision:</i> April 11, 2021	<i>Instructor:</i> Jack Reilly <i>live text:</i> ncfpolgeo.slack.com <i>E-mail:</i> jreilly@ncf.edu <i>Office Hours:</i> Fridays, 9-11 <i>Appointments:</i> jackreilly.com/appointments
DESCRIPTION	Geographical Information Systems (GIS) are an increasingly important and useful tool in the creation of maps and in the analysis of geographic data in the social sciences. In this mod workshop course, we will learn how to make use of the open source software R as a GIS, with a special focus on the use of R to create maps and other graphical representations of spatial data.	
COURSE STRUCTURE	This course can be taken in one of two ways: as a remote synchronous workshop, or as an asynchronous workshop. Students taking the course need to choose a track at the beginning and stick with it, as course requirements are slightly different in each track.	
SIBLING COURSES	This course is a full term for mod credit course (a half credit course) with two sibling half-semester courses: <i>Political Geography</i> , a mod1 seminar course, and <i>Rural Politics</i> , a mod2 seminar course. Students looking for a whole course unit in political geography are encouraged to consider one or both of those courses in addition to this one.	
PREREQUISITES	<i>Required:</i> Introductory work in any social science, statistics, or computation. Enrollment is at the discretion of the instructor, who may waive pre-requisites in special circumstances.	

Materials

BOOKS	Required <ul style="list-style-type: none">• Brunsdon and Comber, <i>An Introduction to R for Spatial Analysis & Mapping</i>
TECHNOLOGY	<p>This is a remote course. As such, to successfully complete the course, you will need internet access and a device capable of running or accessing the following software: Canvas, Zoom, Google Drive, and Slack. You will also need the ability to play mp3 audio files and mp4 video files. You may find all electronic course resources linked from the course Canvas page or course google drive folder.</p> <p>While no familiarity with R is presumed for this course, prior experience in an introductory statistical, quantitative, or computational class is beneficial.</p>

Course Requirements

OVERVIEW	Satisfactory completion of the course requires completion of the following: <ol style="list-style-type: none">1. Weekly Attendance2. Assignments<ol style="list-style-type: none">(a) Minor Assignments (9)
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(b) Major Assignments (2)

3. Self-Evaluation

GUIDANCE

Weekly Workshops: This course is structured as a weekly workshop zoom. You should plan to attend each week, as we will go over work from the prior week's assignment and cover material for the next week's assignment as well. If you cannot make a particular week, you may request the zoom session be recorded. Replication files from each workshop can be found in the course google drive prior to class for you to follow the workshop yourself, if you wish, and assignments are given at the conclusion of every workshop.

Minor Assignments: A short assignment with pre-determined data; should be completed and submitted as an R script or RMarkdown/HTML document.

Major Assignments: A larger assignment that requires original data collection and topic identification, a writeup (as an RMarkdown/HTML document) and an in-class presentation.

Course Expectations

ETIQUETTE

Course participants must be courteous to the professor and fellow students. Attend class on time, listen to fellow students when they talk, disagree (or agree) with others' arguments professionally. Remote instruction presents unique challenges to seminar classes, but the principles remain the same: when you are in seminar, attend and focus on the class and your fellow students discussion.

SYNCHRONOUS
COMMUNICATION

I encourage you to come by my virtual Zoom student hours at any point if you have questions about the course, the readings, school, etc. To set up a zoom meeting, just schedule time here: <http://jackreilly.com/appointments> or email me!

ASYNCHRONOUS
COMMUNICATION

Students can generally expect a response to all e-mails within 36 hours, excepting weekends. (And typically more quickly - I check email daily.) In addition to email, I encourage you to come to the course slack channel to ask questions or discuss questions outside of regular zoom meeting times.

Class Schedule

OUTLINE

Subject to change

W	Topic	Assignment
1	Intro to R	Minor
2	Data Frames & Matrices	Minor
3	RMarkdown, External Data, and Plots	Minor
4	Base Graphics	Minor
5	External Packages and Basic Mapping	Minor
6	BREAK	
7	Maps and Graphing with GGPlot	Minor
8	State Maps and Data Managing & Merging	Minor
9	County Maps	Minor
10	Solutions & Preparation	Minor
11	Students Present: Country Maps Project	Major
12	Open Street Maps Data	<i>None</i>
13	Solutions & Preparation	Minor
14	Students Present: City Maps Project	Major
15	READING DAYS	
F	FINALS WEEK	

New College Campus Policies and Resources

STUDENT ACCESSIBILITY

New College of Florida is committed to creating a learning environment that meets the needs of its diverse student body. If you are a student with a disability, or think you may have a disability, you are encouraged to initiate a conversation with the office of Student Disability Services (SDS). SDS works with students with disabilities to identify reasonable accommodations and plans ways to implement these with your faculty members. Please visit their website for additional information: <https://www.ncf.edu/student-disability-services/>. You may also contact Student Disability in-person (HCL3), via phone at 941-487-4496 OR via email at disabilityservices@ncf.edu. Students are welcome to discuss privately any concerns related to barriers to both fully participating and learning in this course. Students with accommodations are highly encouraged to meet with their primary or partner instructor as soon as possible.

TITLE IX

New College of Florida is committed to equal access to education pursuant to Title IX of the Educational Amendments of 1972. The law protects all individuals on our campus from gender-based discrimination or exclusion or instances of sexual misconduct. All full-time faculty, full-time staff, and resident advisors are Responsible Employees required to report any known instances of sexual misconduct or gender discrimination to the Title IX Coordinator. Please contact our Title IX coordinator (titleix@ncf.edu) or see the website (<https://www.ncf.edu/campus-life/title-ix/>) for more information.

EQUITY, DIVERSITY, AND EQUAL OPPORTUNITY

New College's commitment to excellence can only be realized in a learning environment that is inclusive, characterized by openness to diverse perspectives, and marked by mutual respect. Anything short of this aspiration is inconsistent with our commitment. Equal access, and the opportunity to participate fully in all of our programs and facilities, without regard to race, color, creed, religion, political ideology, national origin, age, marital status, disability, public assistance status, veteran status, gender identity, gender expression, or sexual orientation, is

essential to that commitment and will be the standard to which we expect all members of our learning community to adhere.

ACADEMIC INTEGRITY

Academic integrity is essential to maintaining a vibrant, healthy, and engaging learning environment for which we all must take responsibility. The New College faculty considers academic dishonesty to be a serious violation of community standards. Students are expected to refrain from acts of academic dishonesty, which may include:

1. cheating and/or plagiarism (such as: presenting the intellectual work of others as one's own; failing to cite sources; improper paraphrasing via failing to use own words even if a citation is given; partial, incomplete, or inaccurate citation of work of others);
2. unauthorized multiple submissions (submission of the same work for different academic activities, without the approval of the instructor);
3. false citation (false citation of a source or knowingly attributing work to a source from which the referenced material was not obtained);
4. falsifying data (fabricating or altering data to deliberately mislead; for example, changing data to get better experiment results is academically fraudulent);
5. falsifying information, signatures, or initials on official and academic forms.

If you are in doubt about what practices are permissible in an examination, you should consult the professor prior to sitting for the exam. If you lack understanding of how, in a paper or other presentation, to distinguish your thoughts from those of others, the faculty can refer you to standard guidelines and discuss specific questions.