FLORIDA ATLANTIC UNIVERSITY

NEW COURSE PROPOSAL
Undergraduate Programs

Department School of Criminology and Criminal Justice

College College of Social Work and Criminal Justice

(*To obtain a course number, contact **erudolph@fau.edu***)

UUPC Approval 3-1-21
UFS Approval _____
SCNS Submittal _____
Confirmed _____
Banner Posted _____
Catalog _____

Prefix CCJ **Number** 4072	*(L = Lab Course; C = Combined Lecture/Lab; add if appropriate)* **Lab Code**	**Type of Course** Special Topics	**Course Title** Crime Mapping

Credits *(Review Provost Memorandum)*: 3

Effective Date *(TERM & YEAR)*:

Grading *(Select One Option)*: **Regular** (●) **Pass/Fail** ( ) **Sat/UnSat** ( )

Course Description *(Syllabus must be attached; Syllabus Checklist recommended; see Guidelines)*
See attached.

Prerequisites, with minimum grade*	**Corequisites**	**Registration Controls** *(Major, College, Level)*
NA	NA	A "C" or better grade is required in all criminal justice coursework

Default minimum passing grade is D-.** **Prereqs., Coreqs. & Reg. Controls are enforced for all sections of course

WAC/Gordon Rule Course
( ) **Yes** (●) **No**

WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to proposal. See WAC Guidelines.

Intellectual Foundations Program (General Education) Requirement *(Select One Option)*
None

General Education criteria must be indicated in the syllabus and approval attached to the proposal. See GE Guidelines.

Minimum qualifications to teach course
Master's Degree in Criminal Justice or Related Field.

Faculty Contact/Email/Phone
Seth Fallik/sfallik@fau.edu/561-297-4287

List/Attach comments from departments affected by new course
See attached.

Approved by		***Date***
Department Chair	Wendy P Guastaferro — Digitally signed by Wendy P Guastaferro Date: 2021.02.15 13:28:55 -05'00'	
College Curriculum Chair	Precious Skinner-Osei, PHd, MSW	2/17/2021
College Dean	Naelys Luna — Digitally signed by Naelys Luna Date: 2021.02.17 11:42:45 -05'00'	
UUPC Chair	Jerry Haky	3-2-21
Undergraduate Studies Dean	Edward Pratt	3-2-21
UFS President		
Provost		

Email this form and syllabus to mjenning@fau.edu seven business days before the UUPC meeting.

New Course: Crime Mapping (February 2021)
Contact: Seth Fallik, UG Coordinator (sfallik@fau.edu)

Background

The School of Criminology & Criminal Justice (SCCJ) has offered a special topics class titled "Crime Mapping". This class was popular with students as evidenced by the 110 mostly criminal justice majors who enrolled in the three course sections. In December, the SCCJ sought to have this course recognized with its own course number, appear in the University course catalog, and serve as an elective in the major.

Accompanying a new course proposal, was a sample syllabus (see attached) and potential course catalog description. The latter read:

> (CCJ 4072) This course focuses on the importance of Geographic Information Systems (GIS) in both the criminal justice system and scholarly research. Learning how to use ArcGIS mapping software, students will conduct their own crime mapping research project using real crime statistics datasets and present their findings. This hands-on course prepares students interested in a career as a crime analyst or social scientist, offering opportunities to meet local officials and become a member of the Florida Crime and Intelligence Analyst Association (FCIAA) at a discounted student rate. This course also encourages participation in the annual FAU Undergraduate Research Symposium.

At UUPC meeting on Dec. 7, 2021, a representative requested that the new course proposal be tabled until comment from the Geosciences Department was received. The Geosciences Department contended that our new course proposal is redundant with GIS 3015. A syllabus for this course is attached and the following is the course catalog description for GIS 3015:

> (GIS 3015) Analysis of map properties and use of maps as sources of information. Essentials of location, scale, projection, direction, elevation, and general map elements. Introduction to map making in geographic information systems.

We present information below 1) comparing the two courses' content, 2) describing the student populations enrolling in these courses, 3) exploring these course offerings with the SUS of Florida and National/Peer Universities, and 4) provide information about crime mapping as an area of specialization in the field of criminology and criminal justice.

Course Comparisons

CCJ's Crime Mapping course provides students with discipline-specific exposure to an important and growing need in our field. CCJ 4072 and GIS 3015, however, are pedagogically different. GIS 3015 is not a crime mapping course and tends to focus on reading and interpreting maps (i.e., introductory elements of cartography), while the proposed CCJ 4072 emphasizes using ArcGIS mapping software. More specifically, Crime Mapping teaches students to find, use, manipulate, and analyze criminal justice GIS data. In doing so, the proposed CCJ 4072 delivers a firm foundation of environmental criminology and situational crime prevention, which is not present in GIS 3015. Data in GIS 3015 tends to focus on macro-level trends as opposed to micro-level analyses. To that end, GIS 3015 emphasizes the natural and built environment, which is squarely outside the scope of the proposed CCJ 4072.

Importantly, the proposed CCJ 4072 is also connected to the community in a critical way. Students in Crime Mapping, for example, tackle local crime issues and present their findings to faculty and local practitioners in a poster session held on campus. Of critical importance to these encounters is a class emphasis on networking and crime mapping careers.

Student Populations

In addition to the programmatic and course differences, there are important distinctions in the student populations who take GIS 3015 and the proposed CCJ 4072. Among 110 students who took Crime Mapping in fall of 2018 and spring of 2019, 96 (87.3%) were Bachelor of Arts in Criminal Justice students. Only four students were from the College of Science and none of these four were geoscience majors, GIS minors, or certificate recipients. Only one student took GIS 3015 and Crime Mapping and that student was a Bachelor of Arts in Criminal Justice student.

Among those who took GIS 3015 in the last three years, only 14 or 2.6% were criminal justice majors and only one criminal justice major was a GIS minor (0.2%). Of the 532 students who took GIS 3015, 70% are from the College of Science majors (e.g. biological sciences, geology, geomatics engineering, geosciences, health science, urban and regional planning, urban design, geography, geology, environmental engineering, and environmental science).

State University System of Florida (SUS), Regional, & National Peer Institutions

Programmatic and course differences between GIS 3014 and the proposed CCJ 4072 has also been recognized at SUS of Florida, regional, and national peer institutions.

Table 1, below, displays a course catalog search (using "GIS", "spatial", and "crime mapping") among institutions with a college, school, or department of criminal justice and/or criminology.

Crime mapping was its own unique undergraduate class at 4 universities in the SUS of Florida. In each of these instances, crime mapping existed in addition to an undergraduate introductory GIS class and none of these cooccurrences required the introductory GIS class as a prerequisite.

Among Regional and National Peer Institutions, there were four universities with undergraduate introductory GIS classes. Half of those Universities also offered undergraduate crime mapping courses. None of these cooccurrences required the introductory GIS class as a prerequisite to crime mapping.

Where universities in the SUS of Florida and Regional and National Peer Institutions had undergraduate crime mapping classes (n = 6) it did not contribute to core or elective credits for majors, minors, or GIS certificates. Rather, it only counted for CCJ elective credits.

Crime mapping was also institutionalized beyond a simple course offering in a number of these institutions, including:

- Florida International University has a Geographic Information System Center within their Department of Criminology and Criminal Justice that offers a certificate in GIS.
- University of Central Florida offers a Crime Analysis and Mapping Certificate in the Department of Criminal Justice.

Substantively, Universities in the SUS of Florida and our Regional, and National Peer Institutions recognize the programmatic and course differences between GIS 3014 and the proposed CCJ 4072.

Table 1. Comparison of Undergraduate Introductory GIS and Crime Mapping Classes Among SUS of Florida, Regional, & National Peer Institutions

	No Crime Mapping Class or Programming	Crime Mapping outside CCJ	Crime Mapping in CCJ
State University System of Florida			
Florida A&M University	X		
Florida Gulf Coast University		Grad only	
Florida International University		Grad only	CCJ 4072
Florida State University		GIS4043	CCJ 4072
University of Central Florida		SYA 3352	CJE 4663
University of Florida	X		
University of North Florida		GIS 4850C	
University of South Florida		GIS 4043C	CCJ 4072
University of West Florida		GIS 4043 & UG Certificate	
National & SACS Regional Peer Institutions			
University of Memphis		Grad only	
University of North Texas		GEOG 3500	
Northern Arizona University		Grad only	
Old Dominion University		GEOG 402 & UG Certificate	CRJS 344[1]
University of New Mexico		Grad only	
Georgia State University		Grad only	
Texas State University		GEO 2426 & UG Certificate	
University of North Carolina		GEOG 3120	CJUS 4374

<u>Crime Mapping as a Criminal Justice Discipline Niche</u>

The skill of crime mapping is a developing niche in the criminal justice discipline. Several professional organizations in criminal justice recognized recognize its contribution.

In the American Society of Criminology, the worlds largest academic and practitioner based criminal justice and criminology organization, there exists the Division of Communities and Place, who's mission states:

> The mission of the Division of Communities and Place is to support the development of theory, research, and policy regarding the effects of both community context (such as social structure, culture, and social processes) and place (such as the built, social, cultural and physical environment) on crime rates, hot spots, and crime control. The Division is grounded in the historical fact that crime varies by place and seeks to develop the best methods and strategies

[1] In addition to being offered toward the Bachelor of Arts and Sciences in Criminal Justice, this course was cross listed for Sociology credit.

for understanding and addressing the causes and consequences of crime within communities and at specific geographic locations.[2]

At a local level, students of the proposed CCJ 4072 are integrated into the community of crime mapping experts. Members of the *Florida Crime and Intelligence Analyst Association* (FCIAA), for example, give presentations to Crime Mapping students and students are offered a deeply discounted membership.[3] They can also present their class project at the annual FCIAA conference.

Summary

The data and information gathered find:

1. GIS 3015 and the proposed CCJ 4072 are programmatically and pedagogically different;
2. When crime mapping was offered as a CCJ special topics course, most of the students enrolled were criminal justice majors (n=96 or 87.3%). The course did not attract students in the Geosciences programs;
3. Very few GIS 3015 students in the last three years were criminal justice majors (n = 14, 2.6% of 532 students);
4. GIS 3015 and the proposed CCJ 4072 coexist without prerequisites at most Universities in the SUS of Florida and among Regional, and National Peer Institutions; and
5. Crime mapping is an expanding niche in the criminal justice discipline.

These facts collectively support the creation of CCJ 4072 to meet our students' needs and demonstrate that it is not a redundant course with GIS 3015. The SCCJ, therefore, seeks the Committee's approval for this new course proposal.

Moving forward, the SCCJ would be interested in exploring how we can work with the Geosciences Department to offer classes or perhaps create additional programs that would serve to develop the GIS expertise of our students and/or the criminal justice expertise of GIS students.

[2] See https://asc41.com/divisions/dcp/.
[3] See https://fciaa.org/.

Florida Atlantic University

School of Criminology & Criminal Justice

CCJ 4072: Crime Mapping
3 Credit Hours

SPRING 2019

I.	**COURSE TITLE:**	CCJ4072: Crime Mapping
	Section:	013
	Days:	Thursday
	Time:	11:00am-1:50pm
	Location:	SO 200
	Course start and end dates:	January 5-May 3, 2019

II.	**PROFESSOR:**	Dr. Kendra Gentry
	E-mail:	gentryk@fau.edu (reply within 48 hours)
	Phone:	561-297-2878
	Office:	SO 271
	Office Hours:	Mon: 2:00pm-3:30pm (Boca) Tues: 10:30am-11:00am (Boca) Tues: 7:00pm-8:00pm (Davie) Thurs: 2:00pm-3:30pm (Boca) Other times by appointment

III. COURSE DESCRIPTION:

This course focuses on the importance of Geographic Information Systems (GIS) in both the criminal justice system and scholarly research. Learning how to use ArcGIS mapping software, students will conduct their own crime mapping research project using real crime statistics datasets and present their findings. This hands-on course prepares students interested in a career as a crime analyst or social scientist, offering opportunities to meet local officials and become a member of the Florida Crime and Intelligence Analyst Association (FCIAA) at a discounted student rate. This course also encourages participation in the annual FAU Undergraduate Research Symposium.

Related Courses:
CJE 4412-Problem Solving in Crime Situations
CJE 4663-Crime Analysis

IV. LEARNING OUTCOMES:

At the completion of this course, the student will be able to:

1. Understand the importance of crime mapping
2. Analyze crime-related geographic data using ArcGIS software
3. Apply environmental criminology theories to real-world crime problems
4. Communicate findings both orally and in a critical-thinking format

V. REQUIRED MATERIALS & TEXTBOOKS:

Title: GIS Mapping for Public Safety: An Annotated Guide to ArcGIS **For Version 10**
Authors: Caplan & Moreto
CLICK HERE FOR URL LINK TO FREE TEXTBOOK

VI. COURSE REQUIREMENTS AND POLICIES

Course Attendance:

- Class attendance is **mandatory**. There is a **zero tolerance** for tardiness.
- Should you miss class, it is also your responsibility to ask a classmate or the professor what was missed. If you miss class the day an assignment is due, the assignment must be submitted to the professor's email inbox **before** class begins.
- **IMPORTANT: Late or missing assignments will not be accepted and a score of zero will be assigned**. **No exceptions are made for individual students, no matter the circumstances.**
- University Approved Absence Policy Statement: In accordance with rules of FAU, students have the right to reasonable accommodations to participate in University approved activities, including athletic or scholastics teams, musical and theatrical performances and debate activities. It is the student's responsibility to notify the course instructor at least one week prior to missing any scheduled class or assignment/exam.
- Religious Accommodation Policy Statement: In accordance with rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices and beliefs with regard to admissions, registration, class attendance and the scheduling of examinations and work assignments.

Canvas:
This course utilizes the Canvas learning management system for the dissemination of supplemental materials. Canvas allows for additional communication between the students as well as the professor. Students should check Canvas regularly for email announcements, handouts, articles, etc. that may be posted by the professor.

Examinations:
Students are required to take exams during the assigned day and time as scheduled on the course syllabus. No make-up exams will be offered.

Grades:
Individual grades on assignments are posted in Canvas in order to assist students in monitoring their academic progress throughout the semester. Borderline final grades will be determined based on in-class participation, attendance and the completion/submission of all assignments.

Extra Credit:
Any extra credit opportunities will be discussed in class. If offered, extra credit will be available to all students in the course, not individual students.

Plagiarism:
Plagiarism is generally defined as the presentation of the ideas and/or the words of someone else as one's own. Examples of plagiarizing material include using a person's written words or ideas from a variety of different sources (internet, classmate's paper, book, journal article, etc.) without proper documentation. Plagiarism is taken very seriously and the student will be fully punished if caught plagiarizing material within this course. This course uses plagiarism software, which is integrated within Canvas.

You commit plagiarism if you use, copy and paste or paraphrase:

- **Any part of an assignment submitted by a student from a previous semester**
- **Any part of an assignment written by/shared with a current classmate (collaboration work, group work and split work are NOT allowed)**
- **Any part of another person's written words without correct documentation**
- **Any part of another person's ideas without correct documentation, including any part of a website, book, encyclopedia, magazine article, journal article, newspaper article or any other source used without correct documentation.**
- **Plagiarism is punished in a variety of ways. If collaboration/shared work is found, BOTH the student who copied and the student who allowed their work to be copied will be reported. The student(s) may fail the assignment and/or the entire course. The Dean may take additional actions.**
- **To avoid such punishments: do not plagiarize others and do not allow other students/friends to view your work at any time, no matter the circumstances.**

For a detailed description of plagiarism and its potential consequences and penalties, consult the FAU Code of Academic Integrity: http://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf

Electronic Policy:
Laptop computers may be used during class time, for the purpose of taking electronic notes only. Students should not access the internet or play games during class. If a student is found using their laptop for activities not pertaining to taking electronic notes, the student will lose their privilege of using their laptop during class for the remainder of the semester/term.

NO electronic communication devices or music devices are to be used in this class during class time. This includes cell phones, tablets, laptops, iPods, etc.

- Students must turn off all electronic devices during class. Should there be an extenuating circumstance, which requires the potential use of a cell phone during class, please notify the professor prior to class.
- Should your electronic device go off during class, you will be asked to leave the class. This is disruptive to your fellow students and the classroom environment. Laptops should be closed during student presentations and guest speakers

Classroom Rules:

- Students are free to discuss individual thoughts and opinions during class discussion periods, however, be sure to be courteous to your fellow classmates and professor.
- Please be tolerant toward comments and opinions for which you do not agree; tolerance is a reciprocal process for all students. The professor will not tolerate any remarks that are personally demeaning, or offensive.
- Students who become disruptive in class will be asked to stop the behavior immediately.
- If the behavior continues, the student(s) will be asked to leave the classroom immediately and for the rest of the class period.
- If asked to leave, a student(s) will not be allowed back in the classroom until he/she/they meet with the professor in her office to discuss the disruptive behavior.
- If the disruptive behaviors arise in class and/or in the online discussion board again, the student(s) will be asked to leave and cannot return until he/she/they meet with the professor and the School Director to discuss dropping the student(s) from the course.

VII. COURSE SCHEDULE AND TOPIC OUTLINE *subject to modification, with notification

Late submissions are NOT accepted and a grade of "zero" will be recorded.

Date	Task	Topic	Due
Thurs. 1/10	Introduction	Syllabus, Canvas, ArcMap, Virtual Apps	
Thurs. 1/17	Chap. 1	Thinking Spatially Types of GIS representations Introduction to ArcGIS Attribute Data	
Thurs. 1/24	Chap. 2	Communicating with Maps Map Symbology Querying GIS Data Exporting Shapefiles/Features	
Thurs. 1/31	Work Day	Complete lab assignment (attendance graded)	**Lab 1**
Thurs. 2/7	Chap. 3 Chap. 4	Map Layout & Design Elements Labeling Features Exporting Map Images Inserting Maps into Word & PPT Map Projections Base Layer (Shapefile) Data Sources Managing GIS-Friendly Data Importing Excel Files	
Thurs. 2/14	Work Day	Complete lab assignment (attendance graded)	**Lab 2**
Thurs. 2/21	Chap. 5 Chap. 6	Geocoding Addresses Creating XY Coordinates Creating Feature Centroids Adding XY Data Joining Tables Calculating Field Values Spatial Joins Aggregating Point Data Aggregation Issues	
Thurs. 2/28	Work Day	Complete lab assignment (attendance graded)	**Lab 3**
Thurs. 3/7	**NO CLASS**	**Spring Break**	

Thurs. 3/14		Find/create data for your poster Developing your research questions: IVs & DVs Inputting your project data into ArcGIS: Shapefiles and Cleaned/Joined Tables	
Thurs. 3/21	Work Day	Create Maps (attendance graded)	
Thurs. 3/28	Work Day	Create Maps (attendance graded)	**Progress Report 1**
Thurs. 4/4	Work Day	Create Poster (attendance graded)	
Thurs. 4/11	Work Day	Create Poster (attendance graded)	**Progress Report 2**
Thurs. 4/18		Upload draft of poster in Canvas Participate in class poster session	**Deadline: 9am**
Thurs. 4/25		**Upload final draft of poster in Canvas**	**Deadline: 1pm**

VIII. DESCRIPTION OF CLASS ASSIGNMENTS AND REQUIREMENTS

1. Lab Assignments: 50 points each x 3 = 150 points

There will be (3) lab assignments due via Canvas during the semester. Students will be responsible for all assigned readings and lecture materials associated with each lab assignment.

2. Progress Reports: 15 points each x 2 = 30 points

Students will meet with Dr. Gentry at various points throughout the semester to show the work completed thus far on his/her project.

3. Poster Presentation: 100 points

Students will participate in a class-wide poster session attended by classmates, CCJ majors and faculty. Students will present their findings to attendees in a digital poster (.pptx file). Additionally, students will provide feedback to their classmates.

POSTER CHECKLIST

- Discussion question(s)
- Applied theories
- 3-4 maps
- Data sources
- Methods/techniques used to create or analyze maps
- Interpretation of map results
- Reference list

4. Final Poster: 100 points

After incorporating all feedback provided during the poster session, students will upload their final edited poster via Canvas.

5. Attendance & Participation: 20 points

Students will be graded on the following:

- ✓ Lab attendance
- ✓ Has read assigned chapters
- ✓ Ready to answer in-class questions
- ✓ Has textbook, lecture slides & pen/pencil
- ✓ Frequently engages in class discussions
- ✓ Focused during in-class activities/work days

2. GRADING CRITERIA:
Your grade will be determined by your performance on the following:

Graded Item	Points Possible	Points Earned
Lab Assignments (3)	150	
Progress Reports (2)	30	
Poster Session	100	
Final Poster	100	
Attendance & Participation	20	
TOTAL	400	

Final Grading Scale

Points Earned	Final Grade
372-400	A
360-371	A-
348-359	B+
332-347	B
320-331	B-
308-319	C+
292-307	C
280-291	C-
268-279	D+
252-267	D
240-251	D-
239 or below	F

3. Final Grade Policy:
The professor is available to discuss all grades except the final grade. As per FAU policy, the final grade will not be discussed with the student until after the student has retrieved the final grade from Canvas. As such, the professor will not email grades to the student.

IX. UNIVERSITY POLICY STATEMENTS

Course Withdrawal: To withdraw from a course, it is not sufficient simply to stop attending class or to inform the professor of your intention to withdraw. In accordance with university policy, you must contact the Registrar office to begin the withdrawal process.
http://www.fau.edu/registrar/registration/faqs.php

Course Prerequisites, Credit Hours, and Time Commitment: There are no prerequisites for this course. This is a 3-credit hour course. According to Florida State Statute 6A-10.033, students must spend a minimum 2,250 minutes of in class time during a 3-credit course. Additionally, students enrolled in a 3-credit course are expected to spend a minimum of 4,500 minutes of out-of-class-time specifically working on course-related activities (i.e., reading assigned pieces, completing homework, preparing for exams and other assessments, reviewing class notes, etc.) and fulfilling any other class activities or duties as required. The course schedule for this course reflects this expectation of students.

Student Support Services: All University services are available to all students.

Online Help Desk:	https://helpdesk.fau.edu/
FAU Libraries:	https://www.fau.edu/library/
Center for Learning and Student Success:	www.fau.edu/CLASS/
University Center for Excellence in Writing:	www.fau.edu/UCEW/
Office of Undergraduate Research and Inquiry:	www.fau.edu/ouri/
Student Accessibility Services:	www.fau.edu/sas/

Disability Policy Statement: In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/

Counseling and Psychological Services (CAPS) Center: Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to http://www.fau.edu/counseling/

Grade Appeal Process: A student may request a review of the final course grade when s/he believes that one of the following conditions apply:

- There was a computational or recording error in the grading.
- Non-academic criteria were applied in the grading process.
- There was a gross violation of the instructor's own grading system.
- Procedures for a grade appeal may be found in Chapter 4 of the University Regulations http://www.fau.edu/regulations/chapter4/index.php

FAU
FLORIDA ATLANTIC UNIVERSITY

GIS 3015C: INTRODUCTION TO MAPPING & GIS

Geosciences Department
Summer 2020
3 Credit Hours

Instructor: James Gammack-Clark
Office Location: Science Building 412B
Office Hours: Tues/Thurs 10.30am – 1.30pm
Phone Number: (561) 297-0314
Email: jgammack@fau.edu
Skype for Business: jgammack@fau.edu

Teaching Assistant: Kevin Cresswell
Office Location: Science Building 408
Office Hours: Mon 2.00pm – 5.00pm, & Weds 11.00am – 2.00pm
Email: kcresswell2014@fau.edu

COURSE PREREQUISITES

There are no prerequisites for this class.

COURSE DESCRIPTION

This course is an introduction to cartography and is the cornerstone of the Geographic Information Science course sequence. It is also a required course for Field Methods, and all Geography and Geology majors at FAU. In this course, we will learn basic map design, map interpretation and appreciation. We will explore the nature of spatial data, and learn what maps can and cannot represent. We will explore maps as a data source for Geographic Information Systems (GIS). This course is oriented towards maps as a graphic tool, an early form of Scientific Visualization. The design of computer maps using simple, inexpensive software will be explored.

COURSE OBJECTIVES

Upon successful completion of this course, students will be able to:

1. Define Geographic Information Science/Systems (GIS). (CO: 1)
2. Perform basic GIS tasks, such as adding layers, and applying symbology, and performing queries of the data. (CO: 2)
3. Define the geographic grid. (CO: 3)
4. Apply and interpret Scale and Map Projections on a case by case basis. (CO: 4)
5. Apply and interpret Coordinate Systems and Land Partitioning Systems on a case by case basis. (CO: 5)
6. Interpret, and navigate with, topographic maps. (CO: 6)
7. Define Digital Terrain Models. (CO: 7)
8. Employ the Cartographic Design Process to create effective maps. (CO: 8)

(CO = Course-Level Objectives.)

COURSE DELIVERY MODE

This is a fully online course accessible only through FAU's learning management system, Canvas. As such, *students should ensure that they have access to a reliable broadband internet connection.* You must log into Canvas with your FAU ID and Password to access the materials and assignments in this course. If you do not know your FAU ID or Password, contact OIT for help. Once you have logged into Canvas, access the *Introduction to Mapping & GIS* course. Here you will find streaming lectures, lecture notes, required assignments, quizzes, and optional extra credit exercises. It will also allow you to check your own progress in class.

The course is organized into modules with due dates. Unless otherwise specified, each module begins on Wednesday and ends on the following Wednesday at 11:59pm, EST. The course begins with the START HERE page, which will familiarize you with the organization and navigation of the course. You will open a new learning module to access the assigned reading materials, videos, presentations, and other relevant materials for each subsequent module.

Should you run into general problems accessing Canvas, or logging into FAU computers, you should contact FAU Helpdesk at (561) 297-3999. If you run into problems regarding access to the Geosciences department server, contact geohelpdesk@fau.edu.

TIME COMMITMENT PER CREDIT HOUR

This course has three [3] credit hours. For traditionally delivered courses, not less than one (1) hour of classroom or direct faculty instruction each week for fifteen (15) weeks per Fall or Spring semester, and a minimum of two (2) hours of out-of-class student work for each credit hour. Equivalent time and effort is required for Summer Semesters, which usually have a shortened timeframe. Fully Online courses, hybrid, shortened, intensive format courses, and other non-traditional modes of delivery will demonstrate equivalent time and effort.

REQUIRED/RECOMMENDED TEXTS & MATERIALS

In this course, you will need the following texts and/or materials:

- Law, M. and Collins, A. (2018). *Getting to Know ArcGIS Desktop*. Redlands, CA: Esri.
- U.S.G.S. Map - *Las Pulgas Canyon, CA* (7.5-minute topographic) (through FAU bookstore)
- Webcam

This text is not required, but is instead recommended:

- Kimerling, A. J., Buckley, A. R., Muehrcke, Phillip C., & Muehrcke, J. O. (2016). *Map Use: Reading analysis interpretation* (8th ed.). Redlands, CA: Esri.

MINIMUM TECHNOLOGY & COMPUTER REQUIREMENTS

As an eLearning class, students will require access to a computer with a broadband internet connection and sufficient administrative permissions to install a small Citrix plugin (detailed instructions are provided within Canvas). Once installed, students will have access to virtual computers loaded with industry standard software via the Geosciences department's server (i.e. students do NOT need to acquire/install their own software).

HARDWARE & SOFTWARE REQUIREMENTS

Hardware

- Dependable computer/broadband internet connection
- Computer speakers/earphones for listening to lectures
- Microphone/Webcam for testing and any desired teleconferences with Professor/TA

Software

- Reliable web browser (recommended Chrome or Firefox)
- Citrix Plugin (see canvas for instructions)
- (Optional) Canvas mobile app: Download instructions for iOS device or Android device
- Adobe Reader
- Adobe Flash Player
- Respondus Lockdown Browser

Internet Connection

- Recommended: Broadband Internet connection with a speed of 4 Mbps or higher.
- To function properly, Canvas requires a high-speed Internet connection (cable modem, DSL, satellite broadband, T1, etc.). The minimum Internet connection speed to access Canvas is a consistent 1.5 Mbps (megabits per second) or higher.
- Check your Internet speed here.

Other Technologies

- N/A

COMPUTER REQUIREMENTS

Basic Computer Specifications for Canvas

- Operating system: Windows 10 or macOS Sierra (or higher).
- Specifications

Peripherals

- A backup option should be available to minimize the loss of work. This can be an external hard drive, a USB drive, cloud storage, or your folder on the FAU servers.

Software

- Once logged in to Canvas make sure your Internet browser is compatible.
- Other software may be required for specific learning modules. If so, the necessary links to download and install will be provided within the applicable module.

MINIMUM TECHNICAL SKILLS REQUIREMENTS

The general and course-specific technical skills you must have to succeed in the course include but are not limited to:

- Accessing Internet.
- Using Canvas (including taking tests, attaching documents, etc.).
- Using email with attachments.
- Creating and submitting files in commonly used word processing program formats such as Microsoft Office Tools.
- Copying and pasting functions.
- Downloading and installing software.
- Using presentation, graphics, and other programs.
- Posting and commenting in an online discussion.
- Searching the FAU library and websites.

TECHNICAL SUPPORT

In the online environment, technical issues are always possible (e.g., lost connection, hardware or software failure). Many of these can be resolved relatively quickly, but if you wait until the last minute before due dates, the chances of these glitches affecting your success are greatly increased. Please plan appropriately. If a problem occurs, it is essential you take immediate action to document the issue so your instructor can verify and take appropriate action to resolve the problem. Most issues in Canvas can be resolved by clicking on the "Help" tab located on the menu bar.

When a problem occurs, click "Help" to:

- Report a Problem
- Live Chat with Canvas Support
- Search Canvas Guides

Additional Technical Support

1. Contact the eLearning Success Advisor for assistance: 561-297-3590
2. If you can, make a Print Screen of the monitor when the problem occurs. Save the Print Screen as a .jpg file. If you are unfamiliar with creating a Print Screen file, see Print Screen instructions.

3. Complete a Help Desk ticket. Make sure you complete the form entirely and give a full description of your problem so the Help Desk staff will have the pertinent information in order to assist you properly. This includes:
    a. Select "Canvas (Student)" for the Ticket Type.
    b. Input the Course ID.
    c. In the Summary/Additional Details section, include your operating system, Internet browser, and Internet service provider (ISP).
    d. Attach the Print Screen file, if available.
4. Send a message within Canvas to your instructor to notify him/her of the problem. Include all pertinent information of the incident (2b-d above).
5. If you do not have access to Canvas, send an email to your instructor with all pertinent information of the incident (2b-d above).
6. If you do not have access to a computer, call your instructor with all pertinent information of the incident. If he/she is not available, make sure you leave a detailed message.
7. If you do not hear back from the Help Desk or your instructor within a timely manner (48 hours), it is your responsibility to follow up with the appropriate person until you obtain a resolution.

LOCKDOWN BROWSER & WEBCAM REQUIRED FOR QUIZZES

This course requires the use of LockDown Browser and a webcam for online exams. The webcam can be the type that's built into your computer or one that plugs in with a USB cable.

Watch this brief video to get a basic understanding of LockDown Browser and the webcam feature.https://www.respondus.com/products/lockdown-browser/student-movie.shtml

DOWNLOAD INSTRUCTIONS

Download and install LockDown Browser from this link:
https://download.respondus.com/lockdown/download.php?id=721312624

ONCE INSTALLED

- Start LockDown Browser
- Log into to Canvas
- Navigate to the quiz

Note: You won't be able to access a quiz that requires LockDown Browser with a standard web browser. If this is tried, an error message will indicate that the test requires the use of LockDown Browser. Simply start LockDown Browser and navigate back to the exam to continue.

GUIDELINES

When taking an online quiz, follow these guidelines:

- Ensure you're in a location where you won't be interrupted
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach
- Before starting the test, know how much time is available for it, and also that you've allotted sufficient time to complete it
- Clear your desk or workspace of all external materials not permitted - books, papers, other devices
- Remain at your computer for the duration of the test
- If the computer, Wi-Fi, or location is different than what was used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again prior to the exam
- To produce a good webcam video, do the following:
    - Avoid wearing baseball caps or hats with brims
    - Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move
    - If using a built-in webcam, avoid readjusting the tilt of the screen after the webcam setup is complete
    - Take the exam in a well-lit room, but avoid backlighting (such as sitting with your back to a window)
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted

GETTING HELP

Several resources are available if you encounter problems with LockDown Browser:

- The Windows and Mac versions of LockDown Browser have a "Help Center" button located on the toolbar. Use the "System & Network Check" to troubleshoot issues. If an exam requires you to use a webcam, also run the "Webcam Check" from this area
- You can also submit a ticket with FAU's Helpdesk by going to http://helpdesk.fau.edu or by calling 561-297-3999.
- Respondus has a Knowledge Base available from support.respondus.com. Select the "Knowledge Base" link and then select "Respondus LockDown Browser" as the product. If your problem is with a webcam, select "Respondus Monitor" as your product
- If you're still unable to resolve a technical issue with LockDown Browser, go to support.respondus.com and select "Submit a Ticket". Provide detailed information about your problem and what steps you took to resolve it

COURSE ASSESSMENTS, ASSIGNMENTS & GRADING POLICY

GRADING CRITERIA

Discussion Boards [10%]

During the course of the semester, there will be two assignments issued that require participation on the discussion boards. As part of these assignments, you will be asked to post an original submission to the discussion board and reply to at least two other students' posts with a substantive response. A substantive response adds value to the discussion by bringing new ideas, research, evidence, etc. to the conversation. "I agree," "Ditto" and the like are not acceptable replies. The rules of Netiquette must be followed. Replies are not texts with your friends. Full sentences, proper spelling, source citations, etc., are expected.

[Ensure that postings contain detailed responses to each question and that course contents are applied in your discussion responses. For example, consider taking a new approach in presenting lecture content, cite new examples, present external research (paraphrase, avoid unnecessary and/or lengthy quotations; **do not plagiarize, cite references)**. For maximum points, please reference external research or examples as well as the discussion rubrics.]

Discussions will be deducted 5% for each day that they are late, unless arranged in advance and with good reason.

Quizzes [50%]

Quizzes are designed to assess each student's comprehension of the material presented therein (approximately 5% of your course grade per quiz). An introductory/syllabus quiz will also be issued. The quizzes will include multiple choice, true/false and/or short answer questions. Answers will be evaluated based on content in terms of accuracy of information and ability to analyze the issues. Exams will be taken online in Canvas and will be timed. There will be **no 'make-up' quizzes** unless arranged **prior** to ***and*** **with good reason**.

Lab Assignments [40%]

Each module will be accompanied with one or more lab assignments designed to practically apply the theoretical concepts discussed during the lecture portions of the class. Labs will be **deducted 5%** for each day that they are **late**, unless arranged **in advance and with good reason**.

GRADE SCALE

Grade	Total (%)
A	100 – 93
A-	92 – 90
B+	89 – 88
B	87 – 82
B-	81 – 79
C+	78 – 76
C	75 – 65
C-	64 – 60
D	59 – 51
F	50 – 0

LATE ASSIGNMENTS POLICY

Late assignments are not accepted. The instructor can make exceptions for sudden family death; medical illness or surgery; personal/family emergency; or university-mandated/approved activities. In these cases, timely notification and documentation are required.

INCOMPLETE GRADE POLICY

The University policy states that a student who is passing a course, but has not completed all work due to exceptional circumstances, may, with consent of the instructor, temporarily receive a grade of incomplete ("I"). The assignment of the "I" grade is at the discretion of the instructor, but is allowed only if the student is passing the course.

COURSE POLICIES

CODE OF ACADEMIC INTEGRITY POLICY STATEMENT

Students at Florida Atlantic University should endeavor to maintain the highest ethical standards. Academic dishonesty is a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive to the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see http://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf.

PLAGIARISM

Plagiarism is unacceptable in the University community. Academic work must be an original work of your own thought, research, or self-expression. When students borrow ideas, wording, or organization from another source, they must acknowledge that fact in an appropriate manner. Plagiarism is the deliberate use and appropriation of another's work without identifying the source and trying to pass off such work as one's own. Any student who fails to give full credit for ideas or materials taken from another has plagiarized. This includes all discussion board posts, journal entries, wikis, and other written and oral presentation assignments. If in doubt, cite your source.

ONLINE ATTENDANCE POLICY

Since the course is online, you should access the course **at least three times per week** to ensure you do not miss pertinent postings, messages, or announcements. It is imperative that you meet course deadlines and stay active in discussion boards, group projects, etc. If you are experiencing major illness, absences due to University duties, or other large-scale issues, contact the instructor immediately to formulate a resolution.

NETIQUETTE

Due to the casual communication common in the online environment, students are sometimes tempted to relax their grammar, spelling, and/or professionalism. Please remember that you are adult students and professionals—your communication should be appropriate. For more in-depth information, please see the FAU statement on netiquette.

CLASSROOM ETIQUETTE/DISRUPTIVE BEHAVIOR POLICY STATEMENT

Disruptive behavior is defined in the FAU Student Code of Conduct as "... activities which interfere with the educational mission within classroom." Students who disrupt the educational experiences of other students and/or the instructor's course objectives in a face-to-face or online course are subject to disciplinary action. Such behavior impedes students' ability to learn or an instructor's ability to teach. Disruptive behavior may include, but is not limited to non-approved use of electronic devices (including cellular telephones); cursing or shouting at others in such a way as to be disruptive; or, other violations of an instructor's expectations for classroom conduct.

For more information, please see the FAU Office of Student Conduct.

COMMUNICATION POLICY

EXPECTATIONS FOR STUDENTS

Announcements

You are responsible for reading all announcements posted by the instructor. Check the course announcements each time you log in.

Email/Video Conferencing

You are responsible for reading all of your course email and responding in a timely manner.

Course-Related Questions

Post course-related questions to the FAQ discussion board. This allows other participants with the same question to benefit from the responses. Also, make sure you review this forum prior to posting a question. Someone may have already asked and answered the question in previous posts.

INSTRUCTOR'S PLAN FOR CLASSROOM RESPONSE TIME & FEEDBACK

Email/Video Conferencing Policy

Except for weekends and holidays, the instructor will typically will respond to email within 48 hours. You should ask course-related questions in the discussion board. If you have questions of a personal nature, you should email the instructor. Students **SHOULD NOT** communicate via the Canvas messaging system, but instead using traditional emails to facilitate the maintenance of the email chain, less the context of the students' questions become completely lost upon the professor. Video conferences may be facilitated during office hours upon request.

Assignment Feedback Policy

Feedback will be provided on submitted assignments within one week of the submission date. Some assignments may require a longer review period, which the instructor will communicate to you.

Course-Related Questions Policy

Except weekends and holidays, the instructor will generally answer questions within 48 hours.

Electronic Communication Policy

In addition to the University's policy, please consider the following:

- Privacy, confidentiality, and security in all electronic communications.
- All electronic communication resources must be used for the course and in alignment with to the University mission.
- Prohibited use of false identity, false identity pseudonyms, or anonymous (sender's name or electronic identification is hidden).
- Access without consent.
- Disruption of services including introducing computer contaminants (viruses).
- Harassment of any kind.

Please see the Office of Information Technology's policies on Cyber Security Awareness.

SUPPORT SERVICES & ONLINE RESOURCES

- Center for eLearning and Student Success
- Counseling and Psychological Services
- FAU Libraries
- Freshmen Academic Advising Services
- Math Learning Center
- Office of Information Technology Helpdesk
- Office of International Programs and Study Abroad
- Office of Undergraduate Research and Inquiry
- Student Accessibility Services
- University Center for Excellence in Writing

FACULTY RIGHTS & RESPONSIBILITIES

Florida Atlantic University respects the rights of instructors to teach and students to learn. Maintenance of these rights requires classroom conditions that do not impede their exercise.

To ensure these rights, faculty members have the prerogative to:

- Establish and implement academic standards.
- Establish and enforce reasonable behavior standards in each class.
- Recommend disciplinary action for students whose behavior may be judged as disruptive under the *Student Code of Conduct*.

SELECTED UNIVERSITY & COLLEGE POLICIES

ACCESSIBILITY POLICY STATEMENT

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations to properly execute coursework due to a disability, must register with Student Accessibility Services (SAS) located in the Boca Raton, Davie, and Jupiter campuses and follow all SAS procedures. For additional information, please consult Student Accessibility Services.

CONTACT

- **Boca Raton:** (561) 297-3880
  Fax: (561) 297-2184, TTY: 711

- **Davie:** (954) 236-1222
  Fax: (954) 236-1123, TTY: 711

- **Jupiter:** (561) 799-8721
  Fax: (561) 799-8721, TTY: 711

GRADE APPEAL PROCESS

You may request a review of the final course grade when you believe that one of the following conditions apply:

- There was a computational or recording error in the grading.
- The grading process used non-academic criteria.
- There was a gross violation of the instructor's own grading system.

Chapter 4 of the University Regulations contains information on the grade appeals process.

RELIGIOUS ACCOMMODATION POLICY STATEMENT

In accordance with rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices and beliefs with regard to admissions, registration, class attendance, and the scheduling of examinations and work assignments. For further information, please see Academic Policies and Regulations.

UNIVERSITY APPROVED ABSENCE POLICY STATEMENT

In accordance with rules of the Florida Atlantic University, students have the right to reasonable accommodations to participate in University approved activities, including athletic or scholastics teams, musical and theatrical performances and debate activities. It is your responsibility to notify the instructor at least one week prior to missing any course assignment.

DROPS/WITHDRAWALS

You are responsible for completing the process of dropping or withdrawing from a course. Please click on the following link for more information on dropping and/or withdrawing from a course. Please consult the FAU Registrar Office for more information.

COUNSELING AND PSYCHOLOGICAL SERVICES (CAPS) CENTER

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to http://www.fau.edu/counseling/

* * *

The instructor reserves the right to adjust this syllabus as necessary.

COURSE SCHEDULE

Module	Dates	Topic	Assignments & Due Dates	Recommended Readings
1	5/16 – 5/23	Introduction to GIS	• Lab 1: Intro to ArcGIS **(due 5/23)** • Quiz 1 **(due 5/23)**	• Law & Collins (2018), Ch 1-2 • Kimerling, et al. (2016), Intro
2	5/22 – 6/5	Elements of Maps: Scales and Projections	• Group Discussion 1: Longitude **(due 5/29)** • Lab 2: Map Projections **(due 5/29)** • Quiz 2 **(due 5/29)**	• Kimerling, et al. (2016), Ch 1-3
3	5/29 – 6/5	Coordinate Systems, Measurements, and Route Selection	• Lab 3: Las Pulgas – Coordinate Systems **(due 6/5)** • Quiz 3 **(due 6/5)**	• Kimerling, et al. (2016), Ch 4-5, 12-15
4	6/5 – 6/19	Terrain Representation: Maps of the Landscape	• Lab 4: Contour Interval Interpolation **(due 6/12)** • Lab 5: Las Pulgas – Profiles, Elevations, and Gradient **(due 6/19)** • Quiz 4 **(due 6/19)**	• Kimerling, et al. (2016), Ch 9 & 19
5	6/19 – 6/26	Digital Terrain Representation and Topographic Maps	• Lab 6: Symbolizing Features and Rasters **(due 6/26)** • Quiz 5 **(due 6/26)**	• Kimerling, et al. (2016), Ch 9 & 16
6	6/26 – 7/3	Map Design	• Lab 7: Templates **(due 7/3)** • Quiz 6 **(due 7/3)**	• Kimerling, et al. (2016), Ch 6
7	7/3 – 7/10	Qualitative and Quantitative Mapping: Point Symbols	• Lab 8: Labels **(due 7/10)**	• Kimerling, et al. (2016), Ch 7-8
8	7/10 – 7/17	Qualitative and Quantitative Mapping: Proportional Symbols	• Lab 9: Dot Density Mapping **(due 7/17)** • Quiz 7 **(due 7/17)**	• Kimerling, et al. (2016), Ch 7-8
9	7/17 – 7/24	Qualitative and Quantitative Mapping: Areal Symbols	• Lab 10: Classifying Features and Rasters **(due 7/24)** • Quiz 8 **(due 7/24)**	• Kimerling, et al. (2016), Ch 7-8
10	7/24 – 7/31	Qualitative and Quantitative Mapping: Line Symbols	• Lab 11: Layouts **(due 7/31)** • Quiz 9 **(due 7/31)**	• Kimerling, et al. (2016), Ch 7-8
11	7/24 – 8/7	Color on Maps	• Group Discussion 2: Map Composition **(due 7/31)** • Group Discussion 2: Critique **(due 8/7)** • Quiz 10 **(due 8/7)**	• Kimerling, et al. (2016), Ch 6