

DCP 2002: Introduction to GIS II

Spring 2023 | 3 Credits

Instructor: Azza Kamal, PhD, LEED AP ND | Program in Sustainability and the Built Environment (SBE), and Department of Urban and Regional Planning College of Design, Construction and Planning (DCP) | University of Florida.

Instructor's Office: ARCH 132 | [UF Building #0268](#)

Instructor's Contacts & Preferred: Canvas email

Alternative: O: (352) 294-1425 | azzakamal@ufl.edu

Office Hours: M (2:00 – 3:00 PM) and W (3:00 – 4:00 PM) | or by appointment

Course Time & Location: Thursday | Period 4-6 (10:40 - 1:40 PM) | WEIL 408E | [UF Building #0024](#)

Co/Prerequisite: DCP 2001

General Education Credit: None

Final Exam Schedule: No Final Exam. A Final Term Project is due by the end of the semester.

IT IS IMPORTANT TO READ THIS ENTIRE SYLLABUS ON YOUR FIRST DAY OF CLASS

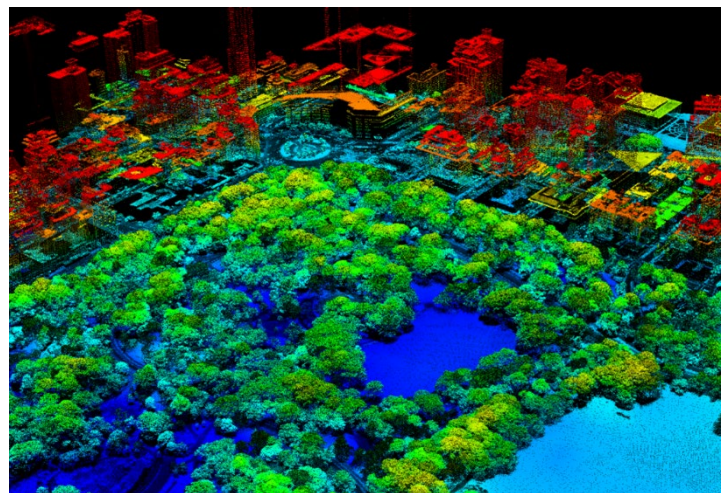
COURSE DESCRIPTION

This course provides fundamental and advanced concepts, principles, and techniques for the use of GIS in the evolving Geodesign process.

COURSE OVERVIEW AND OBJECTIVES

This course provides a learning platform for the application of GIS concepts and techniques in the process of Geodesign. It expands upon theoretical concepts and hands-on experiences introduced in the preceding DCP2001 course, and it maintains its focus on the design of process analysis and process modeling. Its overall intent is to provide an individualized hands-on experience with planning and designing sustainable communities, by applying a Geodesign approach in addressing a community problem.

- This course will advance both the technical skills and theoretical/ conceptual skills to allow students to solve intermediate spatial problems using GIS. *The lectures* focus on understanding the premises of several advanced functions of GIS, and how to apply them in ArcGIS Pro and other platforms. They also include examples and applications of spatial analyses as an effective tool for decision-making.
- *The laboratory* and homework assignments provide students with a weekly hands-on opportunity to examine the principles and functions of geospatial tools.



<https://beh.columbia.edu/urban-forestry/>

- **A group project** will offer professional, collaborative, and hands-on experience with GIS software products (ArcGIS Pro) and the applications of Geodesign Framework (a six-step model) in real-world projects.

The goal of the course is to provide students with experiences in the advanced tools to analysis and visualize geographic data. Upon completion of the course, students will be able to:

- 1) Demonstrate an understanding of the theoretical and practical concepts of advanced GIS operations.
- 2) Manage advanced spatial and non-spatial data management techniques for use in a GIS.
- 3) Conduct spatial and logical queries on geospatial data to solve problems.
- 4) Demonstrate knowledge of advanced GIS software capabilities.
- 5) Master the communication of analytical findings to a non-technical audience.
- 6) Demonstrate the ability to utilize ModelBuilder to utilize Geospatial data to solve complex problems.

STUDENT LEARNING OUTCOMES (SLO)

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

- Integrate GIS technology into a Geodesign process.
- Recognize the difference between geoprocessing and the Geodesign process, including the components within GIS necessary to support the Geodesign process.
- Explain and interpret how GIS is used in spatial analysis relating to urban and natural systems in real world design.
- Discuss how factors such as scale, resolution, and accuracy impact GIS analysis, design, and outcomes.
- Use and apply basic functionality of ArcMap in support of local and regional Geodesign models.
- Integrate basic GIS tools into a process that provides better solutions to larger more advanced spatial problem analysis.

TEXTBOOKS AND READING

Required Book: Michael Law and Amy Collins (2021), *Getting to Know ArcGIS Pro 2.8*, 4th Edition, ESRI Press.

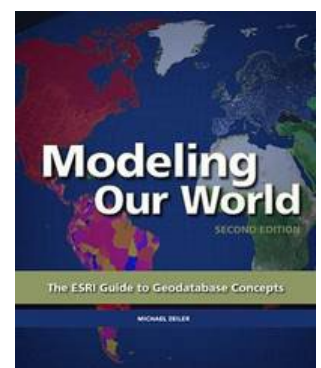
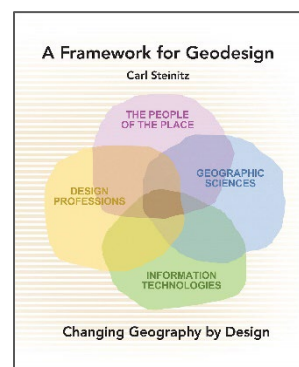
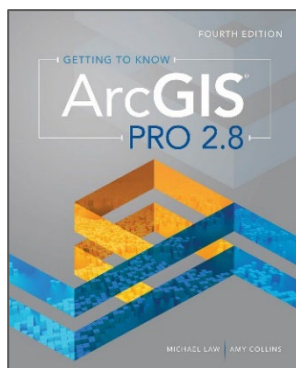
Recommended Books:

- 1) Carl Steiniz (2012), *A Framework for Geodesign: Changing Geography by Design*, ESRI Press. (on the Course Reserve) at The UF George A. Smathers Libraries.
- 2) Michael Zeiler (2010), *Modeling Our World: The ESRI Guide to Geodatabase Concepts Second Edition*, 2nd edition, ESRI Press.

Various free publications identified for class assignments and preparation for exercises will be supplied via the UF Canvas e-Learning portal (<https://lss.at.ufl.edu/>).

ADDITIONAL EXPENSES

Not applicable. However, students are expected to procure and use their own mobile file storage and transfer device (e.g., **USB thumb drive**) or web-based service to present and share information in class.



INSTRUCTIONAL METHODS AND EXPECTATIONS

This course format includes lectures/ software demo, quizzes, lab exercises, homework assignments, previewing of multi-media materials, and a group project. Student research, writing, and project development during and outside of class is also expected. The course may periodically include materials other than the lecture and readings, including online forums, videos and ESRI online resources and training. Students are **expected to take content and contextual notes about lectures, readings, and videos**, as these materials may also be of relevance and referenced on course assignments and projects. (This course will be using ArcGIS Pro 3.0)

- Student expectations of instructor: enthusiasm for the course; engaging lectures; application of knowledge through classroom activities and fieldwork; easy to access course materials; clear guidance and assessment rubric; openness and encouragement of critical thoughts and new ideas; constructive feedback, and reasonable flexibility to meet with students outside of class.
- Instructor expectations of students: compassionate curiosity; positive attention and intention; enthusiasm about learning new ideas and contribution to the learning environment, consistent attendance; punctual arrival; active participation in class discussions and activities; advance-reading and note preparation of assigned reading; on-time completion/submission of all assignments; proper citation management; professional attitude, adherence to proper netiquette and all University rules and regulations.

COURSE COMMUNICATIONS AND E-LEARNING/ CANVAS PORTAL

This class will be delivered through in-person instructions. The instructor will utilize the [UF Canvas e-Learning](#) portal as the primary medium to send announcements and to distribute course information, assignments, readings materials, resources, and grading. Students are responsible for checking Canvas portal regularly for announcements, course content, access to all supplemental readings, and to submit assignments and projects. Readings and changes to the syllabus will also be posted on Canvas.

Lecture slides will be posted on Canvas in advance of each scheduled lecture. Reviewing materials online is never a substitute for class attendance. Lecture posted on Canvas by instructor are not intended to be a complete study aid and should be viewed as supplementary to personal notes.

- **Canvas email is my preferred method of communication.** Please don't email me on my campus email, rather on Canvas email system. I will answer your email on the same system. Please allow up to 24 hours for a reply. Proper email etiquette is expected. It is your responsibility to ensure that you either login to Canvas to retrieve instructor's emails or have them set to be forwarded to your university's email account. To login to Canvas, provide your GatorLink username and password. If you are new to Canvas or have any problems with it, **please contact the Help Desk at 392-HELP.**
- It is your responsibility to submit assignments on time through Canvas. If you are having problems uploading your assignment to Canvas, you must immediately contact the Help Desk [392-HELP (4357) or helpdesk@ufl.edu] to report the problem and receive a ticket to document the problem. I can only extend the submittal deadline if you have contacted the Help Desk ahead of the assignment deadline and received a ticket. The Help Desk is available by phone and email 24 hours a day, 7 days a week.

WEEKLY PLAN *(Recommended)*

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
			Lecture/Lab Exercise		<ul style="list-style-type: none"> ▪ Quiz (11:59 PM) 	<ul style="list-style-type: none"> ▪ Lab assignment (Sunday, 11:59 PM) ▪ Work on Term Project (Groups)

ASSIGNMENTS AND GRADING

All grades will be posted in the Canvas gradebook. Any discrepancies with points displayed in the gradebook should be addressed directly to the instructor. Course grades will neither be curved, nor rounded up. *Any requests for extra credit or special exceptions to these grading policies will be interpreted as an honor code violation (i.e., asking for preferential treatment) and will be handled accordingly.*

According to Southern Association of Colleges and Schools Commission on Colleges [SACS] that our university abides by, one credit hour represents "not less than 1 hour of classroom or direct faculty instruction and a minimum of 2 hours out of class student work each week for approximately 15 weeks for one semester". Thus, **students are expected to spend approximately 9 hours every week for this 3-credit hour course.** This time is expected to be spent on the work required per week for completing lectures, videos, readings, quizzes, discussions, assignments, and semester project for this course. Please be sure to schedule the appropriate amount of time each week to devote to this class and the various assignments.

Assignments Points and Weights

Assignment*	Points	Percent
Attendance, Punctuality, and Participation	100	10%
Lab Assignments (8X25)	200	20%
Lab Exercises (8X20)	160	16%
Quizzes (8X 25 each)	200	20%
Term Project (Groups): multiple submissions	340	34%
Total	1000	100%

**Extra credit: (20 points or 2%) available for Submission of GBLC Summary Report*

Grading Scale

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Numeric Grade	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	0-59
Quality Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0

Final student grades will follow University of Florida grades and grading policies.

- Undergraduate Students [grading policy](#)

SYSTEM REQUIREMENTS

The following are the minimum hardware requirements recommended for this course assignments and are seamlessly working with the software: ArcGIS Pro 2.8 or more updated ESRI release. A system check is assigned and available on Canvas that student must submit on the first week of class.

Item	Expected (and recommended)
CPU	Minimum: 2 cores, simultaneous multithreading Simultaneous multithreading, or hyperthreading, of CPUs typically features two threads per core. A multithreaded 2-core CPU will have four threads available for processing, while a multithreaded 6-core CPU will have 12 threads available for processing.
	Recommended: 4 cores
	Optimal: 10 cores
Platform	x64
Storage	Minimum: 32 GB of free space
	Recommended: 32 GB or more of free space on a solid-state drive (SSD)
Memory/RAM	Recommended: 32 GB
	Optimal: 64 GB or more
Dedicated (not shared) graphics memory	Recommended: 4 GB or more If you're using a <u>notebook computer</u> with an integrated GPU, consider <u>increasing the system RAM</u> to compensate for the usage of shared memory.
Visualization cache	The temporary visualization cache for ArcGIS Pro can consume up to 32 GB of space, if available, in the user-selected location. By default, the visualization cache is written to the user profile's \Local subfolder, so it does not roam with the user profile if roaming profiles are enabled by your system administrator.
DirectX*	Minimum: DirectX 11, feature level 11.0, Shader Model 5.0
OpenGL*	Minimum: OpenGL 4.3 with the ARB_clip_control and EXT_texture_compression_s3tc extensions
	Recommended: OpenGL 4.5 with the ARB_shader_draw_parameters, EXT_swap_control, EXT_texture_compression_s3tc, and EXT_texture_filter_anisotropic extensions
Screen resolution	1024x768 or higher
This is ESRI's recommended hardware for ArcGIS Pro 3.0 (if your computer has less RAM and is doe now meet these requirements, try to install ArcGIS Pro 2.9 or 2.8): https://pro.arcgis.com/en/pro-app/latest/get-started/arcgis-pro-system-requirements.htm	

CLASS POLICY AND EXPECTATIONS

Attendance Policy

You are expected to be an active participant in the class. Attendance is mandatory and participation is graded based on each class period (i.e., missing a multi-period day of class will count as multiple absences in accordance with the number of periods). Every class is comprised of 3 teaching periods. **Students may miss up to 4 periods (not 4 classes)** without penalty. Students with **5 to 6 periods of unexcused absence will result in a 10% grade reduction** (one letter grade) from the total semester grade. **7 or more periods of unexcused absences will result in failing this course.**

According to University policy, absences may be excused due to illness, religious holiday, emergency, death in the family, or participation in official University-sponsored athletic events or scholarly activities. Please inform the instructor of any anticipated absences as early as possible and be prepared to provide appropriate documentation. You are responsible for contacting a classmate to obtain notes on the materials covered.

Requirements for class attendance and **make-up exams/quizzes, assignments, and other work** in this course are consistent with University policies as found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

If you encounter an emergency or illness that requires an extended absence, you may wish to **contact the Dean of Students Office** (202 Peabody Hall, 392- 1261) for assistance.

Failure to attend class regularly, consistent tardiness, and/or early departure will result in a significant negative impact on your attendance and class participation grades. Missing a substantive portion of a class, whether you arrive late or leave early without prior approval, will also be considered an unexcused absence. This means the following:

- Come to class on time and complete weekly readings and assignments prior to class discussions.
- Submit your work on time.
- Participate in class and be an active listener (i.e., listen, respond, ask questions, and make comments).

Attendance, Punctuality and Class Participation (Rubric)

Your engagement in, and contribution to and leading, class discussions is essential to the success of this course as both instructors and students benefit from learning from new perspectives. As such, you are expected to be well prepared for each class by keeping up with scheduled readings, completing assignments, and creatively contributing information and commentaries.

Critical thinking and problem solving require robust, informed conversation. If an interesting issue in sustainability and the applications of spatial analyses is receiving considerable attention in the audio or visual media, it may be discussed in class. Similarly, if there are issues, ideas, or readings that you want included in this course, please let the instructor know. This is your course, and together we will make every reasonable attempt to accommodate new ideas. Thus, you should plan to invest some of your time into finding material and reflecting on those new ideas. You are expected to participate via active listening and thoughtful discourse. The following rubric will be employed to assign class participation points:

Qualities	Preferred (4 pts)	Acceptable (3 pts)	Passing (1 pts)	Unacceptable (0 pts)
Punctuality	Arrives on time	Arrives less than 5 minutes late	Arrives 5-10 minutes late	Absent, or arrives more than 10 minutes late (w/o explanation)
Commentary	Comments are relevant and reflect understanding and good preparation	Comments are mostly relevant, but understanding may be slightly lacking	Comments are minimal and demonstrate poor preparation	No comments are made or disruption to others.
Demeanor	Clear enthusiasm	Not overly enthusiastic, but positive	Partially engaged, but not enthusiastic or positive	Disengaged, texting, online, et.

Personal Conduct Policies

Treat this course as you would a new job. Above all else, the classroom is a place of respect for people and ideas. You are expected to treat your fellow classmates, the instructor, guests, and others with respect, honesty, professionalism, and politeness. Please be on time and prepared to share your informed questions, impressions, and interpretations of the current week's materials. Tardiness is unacceptable and rude to both the instructor and your fellow classmates. If you need to leave class early, please let the instructor know ahead of time and sit nearer to the door so as not to disrupt class. A break will be provided approximately every 60 minutes for any multi-hour blocks. Students engaging in disruptive behavior will be asked to leave the class and will be marked absent for the day.

Netiquette – Communication Courtesy

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats. Please refer to: <http://biostat.ufl.edu/resources/e-learning-resources/e-learning-basics/etiquette-online/>

Cell Phones

Cell phones and other electronic devices must be set to silent or vibrate mode during class. Cell phones must be put away during class time. Students who receive or make calls or text messages during class will be asked to leave and marked absent for the day.

Tablets & Laptops

You may use tablets or laptops to take notes, access course materials, and/or complete in-class assignments. If you are observed using your electronic device for social media, email, messaging, and/or other non-class uses, you will be asked to leave and marked absent for the day.

Make-Up Policies

There is no make-up policy for exams, quizzes, and in-class activities missed due to unexcused absences. If you are sick or have an emergency that prevents you from taking an exam at the scheduled time, it is your responsibility to contact the instructor as soon as possible. Documentation of the illness, or emergency date will be required. If you need to schedule a make-up exam, please email the instructor with a detailed explanation, and attach documentation. Make-up exams will be given at the instructor's discretion. Scheduling make-up exams is the responsibility of the student and should be done before the scheduled exam time.

If you have a serious emergency or life event, **please contact the Dean of Students Office** (www.dso.ufl.edu), and they will contact all of your instructors so that you do not have to provide documentation of the emergency/death in order to make-up exams and coursework. You and your instructor may work together to create a schedule for make-up coursework upon your return. See other sections of **Class Policy and Expectations** for more information.

Assignments and Submission Policy

Assignments will be opened on Canvas in advance of their due dates and must be submitted by their posted deadlines. You're expected to work up to 9 hours per week for this class per university standards (*see the textbox in page #3 of this syllabus*). It is your responsibility to ensure that each assignment has been successfully uploaded to Canvas for instructor grading. If you anticipate being unable to submit an assignment on time for an excusable reason, you must submit the assignment early or notify the instructor as early as possible. Extensions are not granted lightly and must be arranged in advance. **Otherwise, late work will be marked down by 10% for each day it is late. No work will be accepted after 5 days** without a pre-approved excuse. The following is a summary of the expected coursework. Detailed guidance and assessment rubric for each will be available on Canvas throughout the semester:

Homework Assignments: 20% of Semester Grade

Eight (8) lab assignments may be started in class and completed outside class time (or completely started and completed outside class time). Each assignment is worth 25 points with a total of 200 points (20% of the total semester grade). Assignments are due on Canvas on Sundays. An evaluation rubric will be included in each assignment.

Lab Exercises & Class Activities: 16% of Semester Grade

Eight (8) lab exercises will be started in class and completed outside class time. Each exercise is worth 20 points with a total of 160 points. Exercises will be reviewed during class time and are due on Canvas on Sundays. An evaluation rubric will be included in each exercise.

Quizzes: 20% of Semester Grade

Eight (8) quizzes are required to test your understanding of the principles, scopes, and areas of GIS covered throughout this semester. Each quiz is worth 25 points with a total of 200 points (20% of the total semester grade) for all quizzes. Quizzes are not summative, rather focus on the contents covered in the week(s) preceding the quiz only. You have two attempts to re-take the first quiz, and one attempt for all subsequent quizzes, each within 30 minutes maximum.

Term Project (Groups): 34% of Semester Grade

The Term project is a significant checkpoint in this course. It will be conducted as a group effort with a **team of 2-3 students each**. It is an opportunity to demonstrate a firm grasp of the foundations and technical skills in GIS and its applications in the context of Geodesign at local, city, and regional scales. Each group will identify a topic withing the themes provided by instructor and will develop a summary and a problem statement to define how they will approach a solution to the problem through Geodesign lens. The project will have multiple phases of submission and reviews to provide timely feedback by instructor. Detailed guidelines and evaluation rubric of the project will be available on Canvas. Students can earn up to 340 points (34% of total semester grade). A final SoryMap presentation and cumulative report are due in the last week of the semester.

UNIVERSITY POLICIES

Student Responsibilities

As a student at the University of Florida, you have committed yourself to uphold the *Honor Code*, which includes the following responsibilities as delineated at <https://catalog.ufl.edu/UGRD/student-responsibilities/>.

- Academic Honesty
 - Preamble
 - The Honor Pledge
 - Student Responsibility
 - Faculty Responsibility
 - Administration Responsibility
- Student Conduct Code
 - Alcohol and Drugs
 - What the University Community Can Do to Prevent Alcohol Abuse and Drug Abuse
 - Relations Between People and Groups
 - Service to Others
 - Standard of Ethical Conduct

Software Use

All faculty, staff and students at the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. As such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Students with Disabilities

Students requesting accommodation for disabilities must first register with the Disability Resource Center (DRC). The DRC coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services, and mediating faculty-student disability related issues.

Upon registering, the DRC will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking quizzes or exams. Accommodations are not retroactive; therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations. The DRC may be contacted by visiting 001 Reid Hall, calling 352-392-8565, or viewing www.dso.ufl.edu/drc/.

Religious Observances

Please inform the instructor of any religious holidays or other days of special religious significance that may interfere with your participation in this class so that appropriate accommodations can be made.

Sexual Harassment

Sexual harassment is reprehensible and will not be tolerated by the University. It subverts our academic mission and threatens the careers, educational experience, and well-being of students, faculty, and staff. The University will not tolerate behavior between, nor among, members of this community that creates an unacceptable working environment.

Special Consideration

The principle of equal treatment of all students is a fundamental guide in responding to requests for special consideration. No student shall be given an opportunity to improve a grade that is not made available to all members of the class. This policy is not intended to exclude reasonable accommodation of verified student disability, or the completion of work missed due to religious observance, verified illness, or absence due to circumstances beyond your control. Reconsideration of subjective judgments of a student's work will be done only if all students in the class can be and are given the same consideration.

Campus Accessibility Considerations

When driving onto campus, be aware of parking decal restrictions and visit <http://www.parking.ufl.edu/>. When riding transit or using other available commuting methods, visit <http://parking.ufl.edu/transit-commuting/>.

HELPFUL CAMPUS RESOURCES

Academic and Professional

- *Career Connections Center*, Reitz Union, 352-392-1601. Career assistance and counseling. <https://career.ufl.edu/>
- *E-Learning Technical Support*, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
<https://elearning.ufl.edu/student-help-faqs/>
- *Library Support*. Provides various ways to receive assistance with respect to using the libraries or finding resources.
<http://cms.uflib.ufl.edu/ask>
- *Teaching Center*, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>
- *Writing Studio*, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<http://writing.ufl.edu/writing-studio/>
- *UF Information Technology | Computing Help Desk*, 352-392-HELP (4357) or e-mail to helpdesk@ufl.edu
<http://helpdesk.ufl.edu/>

Health and Safety

- *Dean of Students Office*, 202 Peabody Hall, 352-392-1261. Among other services, the DSO assists students who are experiencing situations that compromises their ability to attend classes. This includes family emergencies and medical issues (including mental health crises). <https://www.dso.ufl.edu/care>
- *Sexual Assault Recovery Services (SARS)*, Student Health Care Center, 352-392-1161. Sexual assault counseling.
- *Student Health Care Center*. Call 352-392-1161 for 24/7 health care information. <https://shcc.ufl.edu/>
- *UF Health Shands Emergency Room / Trauma Center*, 1515 SW Archer Road, Gainesville, FL 32608, 352-733-0111. For immediate medical care call or go to the emergency room. <https://ufhealth.org/emergency-room-trauma-center>
- *U Matter, We Care, U Matter*, multiple locations, 352-392-1575. If you or someone you know is in distress, please contact umatter@ufl.edu or visit the website to refer or report a concern and a team member will reach out to the student in distress. <https://umatter.ufl.edu/>
- *University Counseling Center & Wellness Center*, 3190 Radio Rd., 392-1575. Personal and career counseling, as well as therapy for anxiety, stress, and mental health issues. <http://www.counseling.ufl.edu/cwc/>
- *University Police Department*, 392-1111 (or 9-1-1 for emergencies). <http://www.police.ufl.edu/>

DCP 2002: COURSE MODULES AND TOPICS*

Detailed weekly plan, readings, quizzes, and course content will be available on Canvas throughout the semester

Week	Module	Details	Submissions
<u>Week 1</u> 1/12 (Online Asynchronous)	Module 1 Advanced GIS & GIS Project	Course Introduction and Syllabus GIS Project and Data Design Advanced Geographic Information Systems (GIS) Principles and models of Geodesign.	On Canvas <ul style="list-style-type: none"> Quiz 1 (Wed 11:59 PM) Lab assignment 1 (Wed 11:59 PM)
<u>Week 2</u> 1/19	Module 2 Advanced Geoprocessing	Advanced Geoprocessing and Representation Tools: Advanced geoprocessing tools Managing Geodatabase Advanced Symbology Import Symbology	On Canvas <ul style="list-style-type: none"> Quiz 2 (Wed 11:59 PM) Lab assignment 2 (Wed 11:59 PM)
<u>Week 3</u> 1/26	Module 3 Geospatial Relationships	Exploring advanced geospatial relationships: Add spatial reference Data conversion to geospatial data	On Canvas <ul style="list-style-type: none"> Quiz 3 (Wed 11:59 PM) Lab assignment 3 (Wed 11:59 PM)
<u>Week 4</u> 2/2	Module 4 Data Tables	Working with Attribute Tables Table Format Attribute table and query builder Table conversions Advanced editing & calculation in table	On Canvas <ul style="list-style-type: none"> Quiz 4 (Wed 11:59 PM) Lab assignment 4 (Wed 11:59 PM)
<u>Week 5</u> 2/9	Module 5 Imagery Analysis & Remote Sensing	Imagery Analyses Georeferencing Historic Maps Remote Sensing Satellite Imagery and Elevation Data Introduction to LiDAR INTRODUCTION TO TERM PROJECT ATTENDANCE (REQUIRED): GBLC EVENT (NEXT WEDNESDAY 2/22: 4:30 – 6:30 PM)	On Canvas <ul style="list-style-type: none"> Quiz 5 (Wed 11:59 PM) Lab assignment 5 (Wed 11:59 PM)
<u>Week 6</u> 2/16			On Canvas <ul style="list-style-type: none"> Quiz 6 (Wed 11:59 PM) Lab assignment 6 (Wed 11:59 PM) Project teams (Sunday 11:59 PM)
<u>Week 7</u> 2/23	Module 6 Suitability & Geodesign Change Model	Advanced suitability model: Advanced Spatial Analyst Raster Calculator Working with different vector data types Advanced Suitability Workflow Suitability for Geodesign Change Model	On Canvas <ul style="list-style-type: none"> Quiz 7 (Wed 11:59 PM) Lab assignment 7 (Wed 11:59 PM) Extra credit (optional): GBLC Summary Report (Sunday,11:59 PM)
<u>Week 8</u> 3/2 (Online Asynchronous)	Module 7: Advanced Representation of Geospatial Data	Advanced Representation: Importing layouts Analytical representation graphics Geospatial data sharing Advanced representation tools	On Canvas <ul style="list-style-type: none"> Project Theme, title, case studies, and bibliography (Sunday 11:59 PM)
<u>Week 9</u> 3/9			On Canvas <ul style="list-style-type: none"> Quiz 8 (Wed 11:59 PM) Lab assignment 8 (Wed 11:59 PM)
<u>Week 10</u> 3/16	NO CLASSES (SPRING BREAK)		
<u>Week 11</u> 3/23	Module 8 Sources of Geospatial Data	Data and Resources for Geospatial Analysis Data sources (vector and raster) Data download demo Data selection and prep for analysis	On Canvas <ul style="list-style-type: none"> Final Project (Groups): Problem statement, literature review, and extended bibliography (Sunday 11:59 PM)

<u>Week 12</u> 3/30	Module 9 Geoprocessing Automation	Geoprocessing Automation: Introduction to ModelBuilder Part Introduction to Python ArcPy	<u>On Canvas</u> <ul style="list-style-type: none"> Final Project (Groups): Methods and complete data sets (Sunday 11:59 PM)
<u>Week 13</u> 4/6			<u>On Canvas</u> <ul style="list-style-type: none"> Final Project (Groups): Report outline and ModelBuilder workflow (Sunday 11:59 PM)
<u>Week 14</u> 4/13	Module 10 Final Project	Work on the Final Project Report and Presentation In-class Review: Final Draft	
<u>Week 15</u> 4/20	TERM PROJECT FINAL PRESENTATION (Groups): Thursday 4/20 (10:40 AM – 1:40 PM) In-class Presentation: StoryMap Project Presentation (All Groups): Thursday 4/20 On Canvas: Sunday 4/23 (@11:59 PM) <ul style="list-style-type: none"> Final Cumulative Term Report [PDF only] StoryMap Link (included in the PDF report file) 		

**Disclaimer: This schedule represents the basic and prospective plans and objectives for this course. As we go through the semester, those plans may change to enhance the class learning opportunity. Such changes will be communicated clearly by the instructor and are not unusual and should be expected.*

Reading Days (No Classes): Thursday and Friday, April 27 and 28.



I will be out of town for academic visits or fieldtrip with my other class. Thus, these weeks will be taught online (Asynchronous).