

UNIVERSITY OF FLORIDA SCHOOL OF FOREST RESOURCES AND CONSERVATION
GEOMATICS PROGRAM - SUR 4430 SURVEYING AND MAPPING PRACTICE
SYLLABUS – SPRING SEMESTER 2024

Version 1 – 010324

STUDENTS ARE CAUTIONED TO STAY UP WITH THE CURRENT VERSION

COURSE TITLE: SUR 4430 Surveying and Mapping Practice - Credits: 3

Class 16233 Section 01GF (REC's)

Class 16234 Section 1662

Class 16235 Section 2002 (Broward)

Class 16236 Section 2064 (Plant City)

Class 16237 Section 22BG (CERTIFICATES)

Class 16238 Section 8849 (Gainesville)

SUR 6934 Topics In Geomatics - Credits: 3

Class 26043 Section 2298 (Master's Degree)

PREREQUISITES: SUR 3520 and SUR 4403 or the equivalents. You MUST have mastered the Cadastral Principles Course before attempting this class. This course should be the final core Geomatics course for graduating Seniors who are preparing to take their S.I.T. exam, and either enter the workforce or proceed on to graduate school.

UF CATALOG DESCRIPTION: A study of land surveying and mapping practice; the lot survey; the sectional survey; the water boundary survey; office and business practices; professional standing. *(Note: This Catalog Description dates back to the earliest decade of the Program and was written by Dr. David W. Gibson, P.L.S.)*

Current Instructor Breed's Expanded Description: A study of the Professional Practice of Surveying and Mapping and preparing graduating Seniors to enter the Surveying and Mapping workforce; the "Lot and Block" Boundary Survey; the United States Public Lands Survey System and Boundary surveys within sectionalized lands; Riparian Boundary Surveys (Mean High Water and the Ordinary High Water Mark); Public- and Private-Sector Office and Business Practices; Professionalism; Ethics; the Florida Regulatory Environment; Professional Standing and Inculcating A High View Of A Grand Profession.

OBJECTIVES: As one of the final courses of the Geomatics Program, this course will explore and discuss practical applications of geomatics principles and theories, aimed at students entering the Surveying and Mapping Profession. Further, this course aligns with the students' professional goals of licensure as a Professional Surveyor and Mapper.

INSTRUCTOR: J.N. "Jack" Breed, P.L.S. / Cellphone 863-559-6597 / Email jnbreed@ufl.edu (!!warning!! jbreed@ufl.edu is NOT ME!! !!warning!!)

Office hours: Gainesville on-campus days, I am available after classes (T,W,Th) 11:30am to 12:00 noon, 3rd Floor Library, Reed Lab.

Off- Campus Work Days: J.N. "Jack" Breed, PLS / Senior Client Services Manager / CivilSurv Design Group, Inc. / 2525 Drane Field Road, Suite 7 / Lakeland, FL 33811 / Office 863-646-4771

CAMPUS ASSISTANCE: Plant City / Ali Gonzalez Perez / Office 813-757-2286 / Cell 813-448-4913

Broward / Youssef Kaddoura / Office 954-577-6378

Gainesville + Certificate Students / Christine Reeves / Office 352-392-9492 / Cell 904-742-7228

COMMUNICATION, ATTENDANCE and PARTICIPATION: For the Gainesville and REC Students, this is to be a DISCUSSION course. You will be graded on your timely attendance, participation, professionalism, insight and input on the issues we discuss. With a few exceptions, I will be teaching "live" on campus in Gainesville and require the Gainesville students to be in Reed Lab 302. Of course, the REC students must attend "live via ZOOM". Cameras ON for all sessions. Again, when attending remotely, no blank screens are allowed, ever. In some schedule conflicts, I will have to teach from my location via ZOOM on my laptop. We must work together to overcome the disconnect caused by a multi-campus class discussion, and you are encouraged to speak up and keep the course lively. Outside of class and office time it is easiest to reach me via email and cell phone when you have questions or need assistance. Again, watching the video recordings is NOT attending and participating. To attend the live lectures, go to the Canvas Course, then "Zoom Conferences", then "Upcoming Meetings", then click on the day's lecture. To view the video and transcript (which will be automatically uploaded later the same day) just follow the same path to "Cloud Recordings". Canvas supports only the two most recent versions of any browser software. Internet Explorer and Microsoft Edge are not recommended. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found on the "catalog" section online. Once more, for the record: Up to 25% of your grade will be Professor Breed's evaluation of your "PARTICIPATION", "ATTENDANCE", and "PROFESSIONALISM".

And yet another repetition.... this course will deal in practical applications and requires student/class interaction and discussion. Again, class participation is a significant portion of your grade. Talk to me. Think. Discuss. Debate. Participation in ALL lectures, ALL labs and ALL field trips is required. Attendance will be taken at the beginning of each session. Exceptions may be granted at the Instructor's sole discretion for extreme hardship. This is a professional-level course and classroom demeanor is expected to conform to business office practices. Graduates of this class will be entering the workforce, and students will be expected to produce professional deliverables in a timely manner. You will be introduced to the leadership of this profession on several field trips and appropriate attire is mandatory. That is "Professional Office Attire". Here is a specific dress code example of this class on a recent field trip:



"But... I work full time" Yep, I too work, and teach and have family obligations, etc. I also drive 140 miles every Tuesday morning to deliver this class in the best educational format possible, a LIVE lecture and discussion on campus in Gainesville. Then 140 miles back home on Thursdays. So, working REC students are to pause for 50 minutes during their work day to participate in this course. I have NEVER had an employer deny this opportunity to good employees. I have never (in 15 years of teaching this class) had a student regret the investment of time and effort into your career.

.....and, some very different rules and expectations for the **CERTIFICATE Students**: It is understood that you will be in an exclusively on-line format for this class, and you will NOT be graded on participation or attendance. There is NO expectation of "live via ZOOM". Thus, it is up to you to watch the video recordings and stay current every week. I am always available, as noted above, to talk with you and help you. All homework assignments will have a defined schedule and format, so it is imperative that you get caught up with the videos and assignments every Sunday evening, to be prepared for the coming week. Quizzes and Final Exam will be administered via HonorLock. Due to the size of our class, and the logistics of our labs, I regret that **Field Trips do NOT include the CERTIFICATE students**.

TEXTBOOK and REQUIRED RESOURCES:

Required Text: *Evidence and Procedures for Boundary Location, 7th Edition* Robillard, Wilson, Brown. (6th Ed. is OK). Note : Prerequisite courses required *Boundary Control and Legal Principles*, Brown, Robillard, Wilson, and this text will be an additional reference.

Resources: Supplementary Materials, Exhibits and Handouts will be distributed for lectures and labs. CADD-equipped and internet-accessible workstation/laptop is required for labs. Field Trips require travel and rigorous outdoor work. PLEASE NOTE: you will be required to deliver Sketches, Boundary Surveys and Topographic Surveys which requires access to, and proficiency in AutoCad. There are student versions available, on-campus workstations, and remote access through UF Apps. Do not wait until mid-semester, make arrangements now.

LECTURE/LAB TIMES AND DAYS: Typically, Lectures will be 10:40am to 11:30am on Tuesdays, Wednesdays, and Thursdays. There are many exceptions to the usual schedule as there are several out-of-town field labs. Pay close attention to the weekly schedule, and note that students must provide their own transportation for the field labs.

ASSIGNMENTS, DELIVERABLES AND DEADLINES: Welcome to the Profession! Deadlines are absolute "midnight Sunday" deliverable is marked LATE at 12:01am). Due dates and times will be announced when assignments are given. Strict attention to deadlines is required, just as it will be in your future practice of Surveying and Mapping. All assignments must be successfully and fully completed and turned in to pass the course. Again, to pass this class, ALL work must be successfully and thoroughly completed and turned in. Late work delivered within 24 hours of the deadline will result in a 20% score reduction on delivery. Work delivered any later than 24 hours will be docked an additional 10%. All work must be turned in to pass this course, but any submittals over one week late will receive a score of zero, but regardless of the zero, mastery of the topic and an acceptable submittal are mandatory, not matter how many times I require you to re-submit. Again, regardless of score, incomplete submittals will be returned and all assignments MUST be thoroughly and satisfactorily completed to pass this course. And, a "Lesson Learned": Clearly label all submittals with your name and date and assignment title on the center top of the front page. Likewise, .pdf file names should include your name and assignment title.

FINAL EXAM, QUIZZES and HOMEWORK ASSIGNMENTS: There will be several short Quizzes, several homework assignments and a comprehensive Final Exam. The reading assignments are an important part of this class and you are strongly urged to read the assigned chapters or articles prior to class. Final grades will be based on Instructor-weighted performance in attendance, participation, homework, quizzes, and exams. Current UF grading policies for assigning grade points may be reviewed at <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>. For the Gainesville and REC Students, grading will be weighted approximately as follows:

<i>Class Attendance and Participation/Discussion/Engagement</i>	15%
<i>Professionalism</i>	10%
<i>Homework/Lab Assignments</i>	30%
<i>Quizzes</i>	30%
<i>Final Exam</i>	15%

For the Certificate Students, grading will be weighted approximately as follows:

<i>Homework/Lab Assignments</i>	30%
<i>Quizzes</i>	30%
<i>Final Exam</i>	40%

THE FS (SIT) and PS (PSM) EXAMS:

The majority of our Geomatics students plan to take the NCEES Fundamentals of Surveying (FS) Exam after completing this course or near the end of the semester. Our course is structured to follow the content of the exam to prepare the student for licensure.

The Fundamentals (FS) exam and the Principles and Practice (PS) exam are both now offered year- round through computer based testing (CBT). The National Council of Examiners for Engineering and Surveying (NCEES) is responsible for administering of both the FS and PS exams, and you may direct all of your questions regarding exam registration and procedures to NCEES. Find out more by visiting www.ncces.org.

The Florida Jurisdictional exam is now being offered through the Florida Board of Professional Surveyors and Mappers office. They offer the paper and pencil, 100 question multiple choice exam four to six times per year in different locations throughout the state. Please visit their website to view the exam dates and locations, as well as the registration information.

Please note: In order to register for any of the exams (FS, PS and Florida Jurisdictional), you must have submitted a registration application and been approved by the Board.

UF HONOR CODE & HELPFUL RESOURCES:

In all course related activities, students are expected to respect one another and use proper language. As a result of completing the registration form at the University of Florida, every student has signed the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University." The instructors of this course fully support the intent of the above statement and will not tolerate academic dishonesty. We, the members of the University of Florida Community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. All students are expected to follow the University of Florida Honor Code (excerpt above). Read more: <https://sccr.dso.ufl.edu/> Students experiencing crises or personal problems that interfere with their general well- being are encouraged to utilize the university's counseling resources. Both the Counseling Center and Student Mental Health Services provide confidential counseling services at no cost for currently enrolled students. Bonus insert... I am convinced that none of you read the Syllabus thoroughly and it frustrates me greatly. As a simple test, the first person to interrupt me in class by loudly stating "Sibilance-Sibilance-Sibilance" (and source the quote) will get 5 bonus points to their lowest scored quiz or assignment. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- University Counseling Center, 301 Peabody Hall, 392-1575, www.counseling.ufl.edu (Links to an external site.)
- Career Resource Center, CR-100 JWRU, 392-1602, www.crc.ufl.edu/ (Links to an external site.)
- Student Mental Health Services, Rm. 245 SHCC, 392-1171, www.shcc.ufl.edu (Links to an external site.)
 - Alcohol and Substance Abuse Program (ASAP)
 - Center for Sexual Assault / Abuse Recovery & Education (CARE)
 - Eating Disorders Program
 - Employee Assistance Program
 - Suicide Prevention Program

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester. The School of Forest, Fisheries and Geomatics Sciences cares about your experience and we will make every effort to address course concerns. We request that all of our online students complete a course satisfaction survey each semester, which is a time for you to voice your thoughts on how your course is being delivered. If you have a more urgent concern, your first point of contact should be our Distance Education Coordinator for the FFGS. You may also contact the Graduate or Undergraduate Coordinator for the program offering the course if you prefer.

CRITICAL CALENDAR DATES:

... beginning at the beginning..... did you do your formal class introduction? Are you going to be late at the starting gate?... Degree-seeking students are supposed to be attending and doing this in the first week... if you missed it...?? I told all the Certificate Students their deadline was midnight Sunday 1/14/24

8 ASSIGNMENTS

Field Crew Work Order	1/10 due 1/21
Bridge Survey Business Proposal	1/25 due 2/11
Surveyors Report	1/31 due 2/18
Legal Description	2/28 due 3/17
Cory Expert Opinion	2/28 due 3/24
Retracement Lab Prep	3/27 due 4/3
"Mortgage" Survey	3/21 due 4/7
Tide Study	4/10 due 4/19* (Watch this date!)

5 QUIZZES

Introduction	1/21
Regulations	2/4
Subdivisions	2/25
Water/USPLSS	4/14
Ethics	4/19*

5 FIELD LABS/TRIPS

FDACS Board Meeting	2/6
Leadership/Regulation	2/21
Hands On Look	3/6
USPLSS Retracement	4/3
Tide Study	4/15

PLUS: I may sneak a couple of "POP" assignments to keep you awake

PLUS PLUS

Masters Degree Presentation 4/24 (Last Lecture before Reading Days)

PLUS PLUS PLUS *a Final Exam!* 3/1/24 7:30am to 9:30am

2024 COURSE TOPICS AND TENTATIVE CLASS SCHEDULES

The dates of each lesson may change during the semester, subject to class progress. This is the initial plan to serve as a guideline.

WEEK 1	LECTURE SERIES 1	AN INTRODUCTION TO THE PRACTICE OF SURVEYING AND MAPPING
Tuesday	1/9	CLASS 1 Introductions (Degree Seeking Students, do it "live" in today's class. Certificate students are to post their introduction on Canvas, no later than midnight, Sunday, 1/14.) The Surveying and Mapping Profession. Course Outline. Shock and Awe. Expectations. Students are once again cautioned that there will also be reading assignments given in the lectures and labs, and there will be subsequent quizzes on the reading assignments. One more HonorLock warning, be ready for Quiz One. READ TEXT: Preface and Chapter 1 "Introduction"
Tuesday	1/9	<i>The 60 Day Session of the Florida Legislature Begins. Practitioners of a highly regulated profession, living in a highly regulated State, and operating in highly litigious environment, must maintain active participation and vigilance in our State Legislature and with our elected officials.</i>
Wednesday	1/10	CLASS 2 Wrap up overview, expectations and introductions. Homework Assignment #1 – NIRTS, Welcome To The Profession. Due via .pdf by Midnight on Sunday 1/21. And, for the Gainesville and REC students: a Class Presentation on the 1/25 Class.
Thursday	1/11	CLASS 3 Time, Cost and Schedule Management
Sunday	1/14	Deadline for all Certificate students to provide their introduction to the entire class, via "Discussions" in our Canvas page for this class.
WEEK 2	LECTURE SERIES 1	AN INTRODUCTION TO THE PRACTICE OF SURVEYING AND MAPPING
Tuesday	1/16	CLASS 4 Client/Project and Business/Operational Proposals
	LECTURE SERIES 2	A HIGHLY REGULATED PROFESSION
Wednesday	1/17	CLASS 5 Florida Statutes Chapter 472 and Florida Administrative Code Chapter 5J17
Thursday	1/18	CLASS 6 Florida Statutes Chapters 177 and 287 and the BLM Manual of Instructions READ TEXT: Chapters 7 and 12 "PLATS"
Sunday	1/21	QUIZ ONE via Honorlock, ALL students. Will be available from Noon Sunday until midnight. Once you begin you will have 60 minutes to complete. - This is also Homework 1 Deadline, at midnight

WEEK 3 LECTURE SERIES 2 A HIGHLY REGULATED PROFESSION

- Tuesday 1/23 CLASS 7
Florida Statutes 95, 718, ALTA/NSPS Standards
- Wednesday 1/24 CLASS 8
"Mortgage Survey" and Condominiums. Regulatory Review and wrap-up
- Thursday 1/25 CLASS 9
Student Presentation of Field Crew Work Order Packages, Open Class Grading
Homework Assignment #2 – Bridge Survey Business Plan/Proposal
Due via .pdf by Midnight on Sunday 2/11.
- Friday 1/26 *Florida Surveying and Mapping Society Board of Directors Meeting in Tallahassee*

WEEK 4 LECTURE SERIES 2 A HIGHLY REGULATED PROFESSION

- Tuesday 1/30 CLASS 10
Regulatory wrap-up and review. **READ TEXT:** Appendix A "Surveyors Report"
- Wednesday 1/31 CLASS 11
Reviewing the Classic David Gibson Case of Jack Frost's Survey.
Homework Assignment 3: Writing a Surveyor's Report, due 2/18 via .pdf NLT Midnight Sunday.
- Thursday 2/1 CLASS 12
Surveying in a Monumented Subdivision. **READ TEXT:** Chapter 11 "Boundary Surveys"
- Sunday 2/4 QUIZ TWO via Honorlock, ALL students. Will be available from all day Sunday until midnight.
Once you begin you will have 60 minutes to complete.

WEEK 5 LECTURE SERIES 3 SURVEYING AND MAPPING PROCEDURES AND DELIVERABLES

- Tuesday 2/6 FIELD LAB FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES BOARD OF
PROFESSIONAL SURVEYORS AND MAPPERS. 8:00am to approximately 4:00pm on-site (*remember to
budget your travel time*) *Meet me promptly at 8:00am in the Lobby of the Hilton University of Florida
Conference Center, 1714 SW 34th Street, Gainesville, FL 32607. Meeting begins at 8:30am.* We have been
invited to attend the Quarterly Meeting of our Regulatory Board (BPSM) in the Department of Agriculture
and Consumer Services (FDACS). Our host is Board Executive Director Liz Compton. This is a unique
opportunity to meet with our Regulators, and observe Probation Reviews, Application Reviews, Continuing
Education, Rules and General Business of the Board. *You will be introduced to the leadership of this
profession and appropriate attire is mandatory, which is specifically "PROFESSIONAL OFFICE MEETING
ATTIRE". What that means to me is that I will wear a jacket and tie. This is all-day in GAINESVILLE – Make
arrangements with other classes and plan your travels.*
- Wednesday 2/7 No Lab today, due to yesterday's Gainesville trip
- Thursday 2/8 CLASS 13
Surveying in a Protracted Subdivision
- Sunday 2/11 Homework 2, Bridge Proposal is due, midnight.

Friday 3/8 *The 60 Day Session of the Florida Legislature Adjourns "Sine Die" with the ceremonial drop of a handkerchief. Practitioners of a highly regulated profession, living in a highly regulated State, and operating in a highly litigious environment, must maintain active participation and vigilance in our State Legislature and with our elected officials.*

WEEK 10 SPRING BREAK

See you at the 12 Hours of Sebring!

WEEK 11 LECTURE SERIES 3 SURVEYING AND MAPPING PROCEDURES AND DELIVERABLES

Sunday 3/17 Homework 4 Legal Description Deadline, midnight.

Tuesday 3/19 CLASS 20
USPLSS 2 - Following in the footsteps, equipment and marks

Wednesday 3/20 CLASS 21
USPLSS 3 - Township Protraction, Dependent and Independent Resurveys, Township Corner Recovery - USPLSS Section Corner Recovery

Thursday 3/21 CLASS 22
USPLSS 4 - Section Breakdown and the Center of Section
Homework assignment #6 The Whitedove Lot Survey. Deadline via .pdf NLT Midnight Sunday 4/7

WEEK 12 LECTURE SERIES 3 SURVEYING AND MAPPING PROCEDURES AND DELIVERABLES

Sunday 3/24 Cory Opinion, Homework 5 due, midnight

Tuesday 3/26 CLASS 23
USPLSS Review and wrap-up

Wednesday 3/27 CLASS 24
ACMF Retracement Lab Preparation
Homework Assignment #6: ACMF Retracement Lab Field Crew Work Package Deadline on-site and via .pdf NLT Midnight Wednesday 4/3

Thursday 3/28 CLASS 25
Master's Degree Project Assignment. "The Pipkin Road Mess"

WEEK 13 LECTURE SERIES 3 SURVEYING AND MAPPING PROCEDURES AND DELIVERABLES

Tuesday 4/2 CLASS 26
Intro to Water Boundaries and the OHWM (same slides used again on Lecture 20)
READ TEXT: Chapter 8 "Water Boundaries"

Wednesday 4/3 USPLSS RETRACEMENT LAB - Field trip – meet onsite promptly at 10:00am. Working lab until dark, so pack your own lunch - section corner retracement in Austin Cary Memorial Forest, between Waldo and the Gainesville Airport. 10625 NE Waldo Road Gainesville 32609

Thursday 4/4 The Spring Meetings of the Geomatics Program Advisory Committee and the SFFGS Advisory Board are held these two days, and I am a member of both, thus Thursday Class is cancelled.

Friday 4/5 The Spring Meeting of the FFGS Advisory Board

Saturday 4/6 The School of Forest, Fisheries, and Geomatics Sciences Annual Spring Celebration at the Stern Learning Center in the Austin Cary Memorial Forest! Hope to see you all there.

Sunday 4/7 White Dove Mortgage Survey Deadline Midnight via .pdf

WEEK 16 LECTURE SERIES 4 YOU! - THE PROFESSIONAL SURVEYOR AND MAPPER

Sun-Wed 4/20-24 NSPS Conference

Tuesday 4/23 CLASS 31
The Surveyor in Court (part 2) Plus Liability and Contracts

Wednesday 4/26 CLASS 32 – THE END!
Master's Degree Presentations. Need your "live" presence in Gainesville

WEEK 17 FINAL EXAM WEEK

Monday 5/1 FINAL EXAM 7:30am to 9:30am

EXTRA COURSE MATERIALS FOR TIME REMAINING

Marketing 101 : Private Sector Proposals For Public Sector Clients.
Marketing Discussion
Old School vs. Virtual vs. Social Media
Community Involvement
Targeted Markets

Case Studies: Holmes Avenue and Gardens East.

S&M From A to Z

LIABILITY AND CONTRACTS

PSM Exam Prep

The Surveyors Shoot Out

FEMA FLOOD CERTIFICATIONS