

UNIVERSITY OF FLORIDA SCHOOL OF FOREST RESOURCES AND CONSERVATION
GEOMATICS PROGRAM - SUR 4430 SURVEYING AND MAPPING PRACTICE
SYLLABUS – SPRING SEMESTER 2019

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

PREREQUISITES: SUR 3520 and SUR 4403 or the equivalents. This course should be the final course in the Geomatics Certificate program for working professionals who have completed a 4 year degree in associated disciplines and wish to obtain a professional license in the Geomatics arena.

UF CATALOG DESCRIPTION: A study of land surveying and mapping practice; the lot survey; the sectional survey; the water boundary survey. Also includes office and business practices and professional standing.

Instructor's Expanded Description: A study of the Professional Practice of Surveying and Mapping, and to prepare the student to be accepted for the professional licensing exam in their associated discipline. The course will include 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 Regulatory Environment; and the Professional Standing in the ever advancing environment of the Geomatics Profession.

COURSE COMMUNICATION: This is an online course only. Class location and time will be online through Canvas. Students are expected to read before lectures and contribute to discussion forum posts on a regular basis.

INSTRUCTOR: Robin B. Petzold, P.S.M.
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Contact via Email: petzold@USA.com or cellphone 561.719.8276
Office hours: Open and reasonable

TEXTBOOK: Required Text: *Evidence and Procedures for Boundary Location*
Sixth Edition, Robillard, Wilson, Brown
Note : Prerequisite courses required *Boundary Control and Legal Principles*, Brown, Robillard, Wilson, and this text will be an additional reference **and should be included in your reference library**.
Supplementary Materials, Exhibits and Handouts will be distributed for lectures and labs. CADD-equipped and internet-accessible workstation/laptop is required. Due to this course being "online and email based"

OBJECTIVES: As one of the final courses of the Geomatics Certificate Program, this course will explore and discusses the practical applications of geomatics principles and theories, along with the understanding of business, accounting, and management principles to develop a complete understanding of the Surveying and Mapping Profession. Further, this course aligns with the students' professional goals of licensure as a Professional Surveyor and Mapper.

LECTURES:

Typically, Lectures will be posted weekly. Students will be responsible for watching the PowerPoint lecture and responding to the appropriate quizzes and assignments as applicable. Pay close attention to the weekly schedule.

ATTENDANCE: This course will deal in practical applications and will require student interaction through Canvas or email. Timelines and meeting the schedules are a significant portion of your grade. Since this course is through Canvas, students are expected to read and respond to assignments before lectures and contribute through discussion forum posts. I can also be reached through the contact information above.

ASSIGNMENTS, DELIVERABLES AND DEADLINES: Welcome to the Profession! Deadlines are absolute (a 11:59PM 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. There are no *Makeup tests*. ***Understanding that most of you have full time jobs, I have set the deliverables for midnight on Sunday's to give you the weekend to complete.*** If there is solid evidence of a medical or serious emergency in accordance with University policy, please notify me and adjustments will be made.

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%. Work turned in over one week late will receive a score of **zero**. Incomplete submittals will be returned, and regardless of score, all assignments MUST be thoroughly and satisfactorily completed to pass this course.

ACCOMODATIONS FOR STUDENTS WITH DISABILITIES: Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

SPECIAL COURSE REQUIREMENTS- Students must check their official UF email accounts and the official course web page (Canvas) on a daily basis for announcements and other correspondence.

ETIQUETTE POLICY- All members of the class are expected to follow **rules of common courtesy in all email messages**, threaded discussions and chats. In the professional world, all electronic correspondence with any public agency in Florida is subject to the "Florida Sunshine Law" If you are taking this course and reside in another state, I'm sure that some appropriate law will apply. **Never email anything you might regret!**

ASSESSMENT METHODS: Current UF grading policies for assigning grade points may be reviewed at <http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>. Grading will be weighted approximately as follows:

<i>Class lectures and Participation/ Canvas Discussions when applicable or email questions</i>	<i>20% ~ 30%</i>
<i>Homework/Quiz assignments</i>	<i>30% ~ 40%</i>
<i>Examinations/Final Exam (weight varies, Final is weighted more than exams and will be cumulative)</i>	<i>40%</i>

2019 COURSE TOPICS AND TENTATIVE CLASS SCHEDULES

The dates of each lesson may change during the semester, depending on our class progress. This is the initial plan to serve as a guideline. Lab assignments and quizzes will be assigned during lectures

LECTURE SERIES 1 – Introduction To The Practice Of Surveying and Mapping

Lecture 1 – 1/8 The Surveying and Mapping Profession - Course Introduction. (Introductions / Expectations) (History) (Wk 1)

LAB SESSION 1 - 1/9 HOMEWORK ASSIGNED: NIRTS (WELCOME TO THE PROFESSION!) (Wk 1)

Lecture 2 - 1/10 Time, Cost and Schedule Management) (Wk 1)

Lab Quiz 1- Evidence and Procedures Book (Preface and Chapter 1 Quiz) (Wk 2)

Lecture 3 - 1/16 Client/Project and Business/Operational Proposals (Wk 2)

LAB SESSION 2 - 1/17 – LASER SCANNER/TERRESTRIAL LIDAR BUSINESS PROPOSAL INSTRUCTIONS AND OVERVIEW (Week 2)

LECTURE SERIES 2 – A Highly Regulated Profession

Lecture 4 - 1/22 Florida Statutes Chapter 472 and Florida Administrative Code Chapter 5J17 (WK3) **PART 1 OF 2**

Lab Assignment 1/23 – Continue to work on last weeks assignment – Laser Scanner Business Proposal (Week 3)

Lecture 5 - 1/24 Florida Statutes Chapter 472 and Florida Administrative Code Chapter 5J17 **Part 2 of 2** (WK3)

Lecture 6 – 1/29 Florida Statutes Chapter 177 and the BLM Manual of Instructions (WK4)

LAB Reading Assignment 1/30- Read F.S. Chapter 95 and 718 along with ALTA/ACSM Standards (WK4)

Lecture 7- 1/31 Florida Statutes Chapters 95 and 718 and the ALTA/ACSM Standards (WK4) **Part 1 of 2**

Lecture 7 – 2/5 Florida Statutes Chapters 95 and 718 and the ALTA/ACSM Standards (WK5) **Part 2 of 2**

LAB DISCUSSION LECTURE/LAB 3 – 2/6 – JACK FROST’S SURVEY – WRITING A SURVEYOR’S REPORT (WK5)

Lab Assignment 3

Lecture- 2/12 NO LECTURE TODAY- Reading Assignment is to familiarize yourselves with NCEES Model Law and Model Rules (provided on Canvas) for lecture on 2/13 (Wk 6)

Lecture 8 2/13- National Council of Examiners for Engineering and Surveying (NCEES) Model Law and Model Rules (WK6)

Quiz 2 –Regulatory Issues (WK6)

LECTURE SERIES 3 - Surveying and Mapping Procedures and Deliverables

Lecture 9 – 2/19 – Surveying in a Monumented Subdivision (WK7)

Lecture 10 – 2/20 – Surveying in a Protracted Subdivision – and- Surveyor’s Report and Content of A Survey Drawing (WK7)

Quiz 3 (WK7) **Reading Assignment for next week: Chapter 2 in Evidence and Procedures for Boundary Location on “Definition, Scope, and Nature of Evidence”**

Lecture 11 – 2/26 Evidence and Procedures (Parts I) (WK8)

Lecture 12 – 2/27 Evidence and Procedures (Parts II) (WK8)

Quiz #4 on The Definition, Scope, and Nature of Evidence (WK8)

WEEK 9 SPRING BREAK, NO CLASSES FROM 3 /2 THROUGH 3 /9

Lecture 12 – 3/12 – The “Mortgage Survey” and Condominiums (WK10)

Reading Assignment on 3/13- Reading Assignment is needed for the next several lectures - Manual of Surveying Instructions either the 1973 Manual Chapter 5 on Restoration of Lost and Obliterated Corners, **OR** Chapter VII in the 2009 Manual. (You can borrow from someone in your office but you might consider buying one) Also read Chapter 6 in Brown and study the examples 6.1-6.9 (WK10)

Lecture 13 – 3/14 - The Bureau of Land Management and the History of the Public Lands Survey System (USPLSS) (WK10)

Lecture 14 – 3/19 - USPLSS Following in the footsteps, equipment and marks (WK11)

Lecture 15 – 3/20 -USPLSS Section Breakdown and the Center of Section (WK11)

Quiz #5- BLM and PLSS “Following in the Footsteps” (WK11)

Lecture 16&17 – 3/26 &3/27 - Water Boundaries and the Ordinary High Water Mark (Wk 12) (Double lecture)

Lecture 17 – 3/28 & 4/2– Tidal Boundaries and MHW Surveys (Wk 12 &13) (Double lecture)

Quiz #6- BLM and “Water Boundaries and the OHWM (Wk 13)

Lab Assignment # 4- 4/4 &4/9 Mean High Water Survey (simulated) at Cedar Key, Florida (Wk 13 &14)

Lecture 18 – 4/10 Ethics Part I (Wk 14)

Lecture 19 – 4/11- Ethics Part II (Wk 14)

Quiz #7- Ethics (Wk 15)

Lecture 20 – 4/17- Professionalism in Surveying and Mapping (Wk 15)

Lecture 21 – 4/18-Professional Liability and Contracts (Wk 15)

Lecture 24 – 4/23- Surveying and Mapping from A to Z (A final Overview) (Wk 15)

APRIL 24TH LAST DAY FOR CLASSES (ALL ASSIGNMENTS COMPLETED)

READING DAYS APRIL 25 and 26

FINAL EXAMINATION: 5/1 Proposed

FINAL GRADES 5/4