

**UNIVERSITY OF FLORIDA SCHOOL OF FOREST RESOURCES AND CONSERVATION  
GEOMATICS PROGRAM - SUR 4430 SURVEYING AND MAPPING PRACTICE  
SYLLABUS – SPRING SEMESTER 2016**

**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.  
2910 Maquire Road, Suite 2008, Ocoee, FL 34761  
Contact via Email: [robin.petzold@wantmangroup.com](mailto:robin.petzold@wantmangroup.com) or cellphone 561.719.8276  
Office hours: **By request**

**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.  
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 the discussion groups. Participation is 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 to discussion forum posts on a regular basis. I can also be reached through the contact information above.

**ASSIGNMENTS, DELIVERABLES AND DEADLINES:** Welcome to the Profession! Deadlines are absolute (a 3:00pm deliverable is marked LATE at 3:01pm). 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. *Makeup tests* are given only if there is solid evidence of a medical or serious emergency in accordance with University policy.

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. 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 is subject to the "Florida Sunshine Law"

**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 Attendance and Participation/Discussions</i>	20% ~ 30%
<i>Homework/Quiz assignments</i>	30% ~ 40%
<i>Examinations/Final Exam (weight varies, for example, Final is weighted more than exams)</i>	40%

# 2016 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.*

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

Lecture 1 – 1/6 The Surveying and Mapping Profession - Course Outline. Introductions and Expectations (Shock and Awe).

LAB DISCUSSION SESSION 1 - 1/7 HOMEWORK ASSIGNED : NIRTS (WELCOME TO THE PROFESSION!)

Lecture 2 - 1/8 Time, Cost and Schedule Management- ) – First Quiz!

Lecture 3 - 1/12 Client/Project and Business/Operational Proposals

LAB DISCUSSION SESSION 2 - 1/13 – LASER SCANNER/TERRESTRIAL LIDAR BUSINESS PROPOSAL INSTRUCTIONS AND OVERVIEW

\* ASSIGNMENT DUE TODAY– FIELD CREW WORK ORDER PACKAGE ALONG WITH COST ESTIMATE AND LEGAL DESCRIPTION (HOMEWORK 1)

## **LECTURE SERIES 2 – A Highly Regulated Profession**

Lecture 4 - 1/14 Florida Statutes Chapter 472 and Florida Administrative Code Chapter 5J17

\* ASSIGNMENT DUE TODAY– LIDAR BUSINESS PROPOSAL (HOMEWORK 2)

Lecture 5 - 1/19 Florida Administrative Code Chapter 5J17

Lecture 6 – 1/20 Florida Statutes Chapter 177 and the BLM Manual of Instructions

LAB DISCUSSION SESSION 3 - 1/21 – JACK FROST’S SURVEY – WRITING A SURVEYOR’S REPORT

Lecture 7 - 1/26 Florida Statutes Chapters 95 and 718 and the ALTA/ACSM Standards

Lecture 8- 1/27- National Council of Examiners for Engineering and Surveying (NCEES) Model Law and Model Rules –Quiz 2

## **LECTURE SERIES 3 - Surveying and Mapping Procedures and Deliverables**

Lecture 7 – 1/28 – Surveying in a Monumented Subdivision

SESSION 4 – 2/2 –ORIGINAL SURVEYOR’S INTENT AND MINED LANDS – AND – WRITING LEGAL DESCRIPTIONS – AND – THE CORY BOUNDARY SURVEY DILLEMMA, EXPERT OPINION LETTER

Lecture 8 – 2/3 – Surveying in a Monumented Subdivision

Lecture 9 – 2/4 – Surveying in a Protracted Subdivision – and- Surveyor’s Report and Content of A Survey Drawing

Lecture 10 & 11 – 2/9 Evidence and Procedures (I)

SESSION 6 - 2/10 –HOLMES AVENUE SURVEYOR’S REPORT – AND REGULATORY QUIZ 2

Lecture 12 – 2/11 – The “Mortgage Survey” and Condominiums

SESSION 7 - 2/16 –GARDENS EAST– QUIZ 3 : SUBDIVISIONS - LEGAL DESCRIPTIONS DUE 3:00PM TODAY

Lecture 13 – 2/17 – The Bureau of Land Management and the History of the Public Lands Survey System (USPLSS)

Lecture 14 – 2/18 – USPLSS Following in the footsteps, equipment and marks

NO LECTURE ON THURSDAY 2/25, GET AN EARLY START ON SPRING BREAK! ~ ~ ~ SPRING BREAK ~ 2/29-3/4 ~ ~ ~

Lecture 15 – 3/8 - USPLSS Township Protraction, Dependent and Independent Resurveys, Township Corner Recovery - USPLSS Section Corner Recovery and Prep for this Friday's ACMF FIELD LAB

NO LAB ON WEDNESDAY 3/9,

Lecture 16 – 3/9 – Bureau of Land Management- Restoration of Lost or Obliterated Corners & Subdivision of Sections

Lecture 17 – 3/10 - USPLSS Section Breakdown and the Center of Section

Lecture 18&19 – 3/15 – Intro to Water Boundaries and the OHWM (same slides used again on Lecture 19) LAB 10 will be assigned during this lecture, the WHITEDOVE LOT SURVEY

NO LAB ON WEDNESDAY 3/16 – ASSIGNMENT WILL BE GIVEN IN LECTURE ON 3/15

Lecture 18 - 3/17- Cost and Proposal preparation for Boundary, Topographic, and Route Surveys

Lecture 19 – 3/22 - The Ordinary High Water Mark (continue slides from 3/15) and Tidal Boundaries and MHW Surveys I

Lecture 20 – 3/24 - Tidal Boundaries and MHW Surveys II

Lecture 21 – 3/24 Flood Certifications

LAB/DISCUSSION SESSION 12 – 3/30 – PROCESSING THE MHW SURVEY and QUIZ 4 – Water Boundaries and the USPLSS

NO LECTURE ON THURSDAY 3/31/16

April 1-2 – SFRC Spring Celebration and UFGSA Weekend

**Lecture Series 4 – YOU! - The Professional Surveyor and Mapper**

Lecture 21- 4/5 Ethics I

LAB/DISCUSSION SESSION 13 – 4/6 - THE “MTS SHOOTOUT”. WHITEDOVE BOUNDARY SURVEYS PRESENTATIONS.

Lecture 22 - 4/7 Professionalism

Lecture 23 - 4/12 Liability and Contracts

Lecture 24 - 4/14 The Surveyor in Court (I) and (II)

Last Lecture 25 – 4/21 Ethics II and Surveying and Mapping from A to Z

LAST LAB/DISCUSSION SESSION 15 – 4/20 - Quiz 5 – Ethics – and wrap-up discussion.

READING DAYS APRIL 21 and 22

FINAL EXAMINATION: TBD