Department of Civil Environment and Geomatics Engineering
Florida Atlantic University
Course Syllabus

Online Lecture – Canvas **SUR 4463 Subdivision Design**	**Face – To – Face Laboratory** **SUR 3463L Subdivision and Platting Lab**
1. Course Title / Number of Credit Hours	
Subdivision Design – SUR 4463 2 Credit Hours	Land Subdivision and Platting Lab 1 Credit Hour
2. Course Prerequisites, core -requisites, and where the course fits in the program of study	
Prerequisites – EGN1002 – Fundamentals of Engineering AND MAC2311-Calculus with Analytical Geometry 1 AND CGN2327-Computer Aided Design OR EGN1111C-Engineering Drawing, all with minimum grade of "C"	Prerequisites – EGN1002 – Fundamentals of Engineering AND MAC2311-Calculus with Analytical Geometry 1 AND CGN2327-Computer Aided Design OR EGN1111C-Engineering Drawing, all with minimum grade of "C" Corequisites – SUR4463 – Subdivision Design
3. Course Logistics	
Term: Spring 2019 There is an online course and also a Face to Face but all can take the Online. There will be a Mediacast recording done in College of Education Room 337	Term: Spring 2018 This is a face to face laboratory class Class location and time: Thursday 9:00 -10;00 Location to be determined. I may use the Ed. Room 337 and we may do the lab right after the online course.
4. Instructor contact information	
Instructors Name *Office Hours* *Contact telephone number* *emails*	Gary Pirtle – Adjunct Professor EG 36 – Room 254 Survey Thursday 5:00 - 6:00 954-658-7128 gpirtle@fau.edu or gpirtle.seabee@gmail.com
5. TA Contact Information	
N/A	**N/A**
6. Course Description	
Physical elements of designing land subdivisions, including circulation systems, sewer systems, drainage systems, soils and earthwork, erosion control, lot and block arrangement, topography and existing land use factors, geometric analysis, and municipal planning and zoning approvals.	This is a lab companion to SUR 4463 to introduce students to the hands-on applications of land subdivision development and platting practices. Course material from online course will be presented in the lab also. Civil 3D AutoCAD will be introduced.
7. Course Objectives / student learning outcome / program outcomes	
I. Understand how to compute parcel corner coordinates. II. Understand how to layout and plot subdivisions. III. Understand how to calculate area of parcels, bearings of lot lines and distances.	

IV. Understand how to layout and plot curves in subdivisions. V. Be able to interpret regulatory requirements related to subdivision development. VI. Understand sitework, underground utilities for site development. VII. Perform simple drainage calculations and understand drainage design. VIII. Understand how to record and look up subdivisions at local municipalities. IX. Understand how to plot elevations of parcels and layout topographic contours.		
Program Objectives		
Relationship to Civil Engineering educational objectives (H:High, M: medium, L: low)	**Objective A: Practice Civil Engineering** within the general areas of civil engineering design for development and design of subdivisions.	**M**
	Objective B: Advance their knowledge of Civil Engineering, both formally and informally, by engaging in lifelong learning experiences including attainment of professional licenses and graduate studies.	**M**
	Objective C: Serve as effective professionals based on strong interpersonal and teamwork skills, and understanding of professional and ethical responsibilities, and willingness to take the initiatives and see progressive responsibilities.	**L**
	Objective D: Participate as Leaders in activities that support service to and / or economic development of the region, the state and the nation.	**H**
Relationship to Geomatics Engineering educational objectives *(H:High, M: medium, L: low)*	**Objective A: Practice Geomatics Engineering** within the general areas of boundary and land surveying relative to the design of subdivisions that Surveyors must be responsible for.	**H**
	Objective B: Advance their knowledge of geomatics engineering, both formally and informally by engaging in lifelong learning experiences including attainment of professional licensure and/or graduate studies.	**H**
	Objective C: Serve as effective professionals based on strong interpersonal and teamwork skills, and understanding of professional and ethical responsibilities, and willingness to take the initiatives and see progressive responsibilities.	**L**
	Objective D: Participate as Leaders in activities that support service to and / or economic development of the region, the state and the nation.	**H**
8. Course Evaluation Method		
Quizzes – 25%, Mid-Term Exam – 30%, Homework and Class – 10%, Final Exam – 35% SUR 3463L LAB Reports 80%, Class participation – 20%		
9. Course Grading Scale		
Curves and Scaling will be up to Instructor		
10. Policy on makeup tests, late work, and incompleteness.		
SUR 3463 Online Course material will be open for all students to review. It is suggested that homework be attempted for student review of the material but typically not required to be turned in. Quizzes will be assigned for students to taken and normally quizzes can be retaken multiple times to improve scores. Make up tests are given only if there is solid evidence of a medical or other serious		

emergency that prevented the student of participating in the exam. Make up tests will have to be scheduled based on Professors schedule.
SUR 3463 L – During some of the lab sessions lectures may be given and field lab work and lab reports will be due with two weeks of lab dates. The lab work will be accomplished in teams and reports are due by the team with appropriate documentation. See the lab report format.

11. Special Course Requirements

Students must check in with the official FAU electronic mail accounts and official course website such as Blackboard or Canvas. This should be done daily to check for announcements, assignments and other instructions.
Online exams will typically not be given, and students will have to attend exam dates face-to-face.
Students will need to have a **Scientific Calculator** for Homework, Quizzes and Field work.

1. College of Engineering and Computer Science (COECS) Technology Services Group (TSG). TSG provides support for students with issues related to the use of College computing resources such as lamp.sce.fau.edu, the student web server, and GENIE, the Citrix Remote Application Server. TSG also supports the Microsoft Developer Network Academic Alliance portal through which students taking courses in CEECS can obtain free copies of many software products from Microsoft. Details of these and other resources are described on the TSG web site at tsg.eng.fau.edu.

   For support issues not covered on the web site students must send email to Help@eng.fau.edu. TSG responds to help requests only through this email address. Do not attempt to phone them or contact them personally. TSG support is limited to assistance with COECS computing resources such as having your password on lamp reset. They do not handle specific course related questions. Those should be directed to the instructor for the course.

2. FAU Information Resource Management (IRM)

   IRM provides support for general computing and network issues at FAU. General information and many resources can be found on the IRM site, www.fau.edu/irm/index.php. IRM provides direct student assistance through an online Help Desk at www.fau.edu/helpdesk/ The help desk includes extensive online support resources and "Ticket" submission system for support requests. Areas of particular concern to students in this course covered by the Help Desk included general Blackboard, Canvas, FAU Netid and network login, and FAU Google Email. The Help Desk can also be accessed by phone at (561) 297-3999. Phone access should generally be used only if you are unable to log in to FAU systems. For most other issues the phone consultant will simply record your concern and submit a help ticket on your behalf. The help ticket will get the same treatment as on you submitted directly.

3. College of Engineering and Computer Science (COESS) Division of Engineering Student Services (ESS).

   ESS provides general advising and academic support for students in COESCS including free tutoring support for all students in computer science courses. Additional information can be found on their website at www.eng.fau/engineering -student-services.

4. FAU University Center for Excellence in Writing (UCEW)

The UCEW, sometimes referred to simply as the Writing Course, provides assistance to students with writing assignments through consultants. They can assess student writing skills and suggest approaches to dealing with problem areas. The center web site is at www.fau.edu/UCEW/WC.

12. Classroom Etiquette Policy

University policy requires that in order of enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops are to be disabled in class sessions.

1. Cell phones and beepers should have the ringers turned off as a courtesy to the instructor and your fellow students.
2. Exams will be given only at the scheduled times and places. No make-ups except in documented emergencies are allowed.
3. Attendance to class sessions is required. You are expected to attend and participate in all class sessions and lab work to add value to the team projects. Final grades will be reduced by one letter grade for every three unexcused absences. Attendance to a least one professional meeting is required.
4. You are expected to read the assigned reading prior to date indicated on the on the class schedule, do all homework assignments, and to participate fully in group projects.
5. Assignments are due at the beginning of class on the date indicated on the class assignment sheet. The instructor will consider late assignments, but late assignments may affect the final grade.
6. Tests will typically be open book, but internet use will not be allowed.

13. Attendance Policy Statment

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

14. 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/.

15. 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/

16. Code of Academic Integrity

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered 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 of 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 University Regulation 4.001.

17. Required Textbook / reading

1. The professor will provide class notes and subdivision examples to study.
2. Official Course Policy document, available on the official web page (Canvas)

18. Supplemental / recommended reading

Ghilani & Wolf, Elementary Surveying, An Introduction to Geomatics, 15th edition (2015). We recommend purchasing a used copy. Other previous editions are acceptable. See the official course website on Blackboard or Canvas.

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Online Lecture **SUR 4463 Subdivision Design**			**Face-To-Face Laboratory** **SUR 3463 L Land Subdivision and Platting**		
Course topical outline, including tentative dates for exams, quizzes, assignments, completion of reading. Students must refer daily to Blackboard or Canvas for specifics.					
Date	**Topic**	**Activities**	**Date**	**Topic**	**Activities**
Week 1	**Orientation** **Introductions** **History of Subdivisions** **Basic Concepts** **Syllabus** **Roles of Surveyor and Civil Engineer**	Review Canvas Class Notes Session 1	Week January 10	**Orientation** **Syllabus** **Basic Concepts** **Quizzes** **Homework** **Lab Schedule** **Lab Reports**	Syllabus Orientation
Week 2	**Municipal Requirements and Permits**	Review Class Notes Session 2 Quiz 1	Week 2 January 17	**Lecture** **Review Subdivision Plats and overview of Surveyor responsibilities**	Subdivision Plats
Week 3	**Subdivision Layout and design**	Review Class Notes Session 3	Week 3 January 24	**Lecture** **Review Subdivision Plats and overview of Civil Engineer Responsibilities**	Subdivision Plats and aerial photography
Week 4	**COGO, Coordinates, Property layout, Bearings, Distance Calculations**	Review Class Notes Session 4 Quiz 2	Week 4 January 31	**Go over AutoCAD Civil 3D**	Parcel layout and calculate area, bearings, distance
Week 5	**Subdivision Layout** **Curves** **Roads** **Design (**last day to drop Feb 5)	Review Class Notes Session 5	Week 5 Feb 7	**Lecture** **Subdivision Layout**	Subdivision Layout
Week 6	**Real Property Ownership, Boundaries, Descriptions, easements**	Review Class Notes Session 6 Quiz 3 Review for Mid-Term	Week 6 Feb 14	**Lecture** **Layouts of parcels and Civil Engineering considerations**	Subdivision Layout
Week 7	**Mid Term Exam**	**Mid Term Exam**	Week 7 Feb 23	**Mid Term Exam**	**MID TERM EXAM**

Week 8	**Regulatory requirements for Subdivisions**	Review Class Notes Session 8	Week 8 March 1	**Review Mid Term Exam Lecture Layout of subdivisions**	Review Mid Term Exam
Week 9	**Spring Break March 4 through March 10**		Week 9		
Week 10	**Civil Engineering Roads, Structures, Traffic**	Review Class Notes Session 9 Quiz 4	Week 10 March 14	**Lecture Civil Design Layout**	Layout for roads, structures Traffic Design
Week 11	**Civil Engineering Storm Water Erosion Protection Drainage**	Review Class Notes Session 10	Week 11 March 21	**Lecture Civil Design Storm Water Drainage Erosion Protection**	Drainage design
Week 12	**Civil Engineering Domestic Water Earthwork**	Review Class Notes Session 11 Quiz 5	Week 12 March 28	**Lecture Civil Design Water Earthwork**	Water Earthwork Lab
Week 13	**Civil Engineering Sanitary and Earthwork**	Review Class Notes Session 12	Week 13 April 4	**Lecture Civil Design Sanitary and Earthwork**	**Earthwork Sanitary**
Week 14	**Civil Engineer Specifications Topography Review for Final**	Review Class Notes Session 13	Week 14 April 11	**Review for Final**	**Submit all lab work**
Week 15	**Final Exam**		**Week 18 TBD**	**Final Exam**	