

**Department of Civil Environmental and Geomatics Engineering  
Florida Atlantic University  
Course Syllabus**

<b>1. Course title/number, number of credit hours</b>	
Land Suvdivision and Platting - SUR 3463	2 credit hours
<b>2. Course prerequisites, corequisites, and where the course fits in the program of study</b>	
<i>Prerequisites:</i> SUR 2101; SUR 2101L; corequisite SUR 3463L. This course provides an introduction into the principles of the subdivision of real estate, including computation of parcel dimensions and areas, civil engineering design issues, and regulatory processes.	
<b>3. Course logistics</b>	
<i>Term:</i> Spring 2013 This is a classroom lecture/laboratory course <i>Class location and time:</i> W 7:10-8:50 PM (Lecture) <i>Blackboard Collaborate</i> Examinations to be held in a classroom	
<b>4. Instructor contact information</b>	
<i>Instructor's name</i> <i>Office address</i> <i>Office Hours</i> <i>Contact telephone number</i> <i>Email address</i>	Loren J. Gibson, Instructor Boca Raton campus, building EG36, room 223 F 8:00–10:00 AM; other times by appointment  (561) 297-3936 <a href="mailto:lgibso15@fau.edu">lgibso15@fau.edu</a>
<b>5. TA contact information</b>	
<i>TA's name</i> <i>Office address</i> <i>Office Hours</i> <i>Contact telephone number</i> <i>Email address</i>	
<b>6. Course description</b>	
Physical elements of designing land subdivisions, including circulation systems, sewer systems, drainage systems, soils and earthwork grading considerations, erosion control, lot and block arrangement, topography and existing land use factors, geometric analysis procedures, presentations to city planning and zoning boards.	
<b>7. Course objectives/student learning outcomes/program outcomes</b>	
<i>Course objectives</i>	I. Understand how to compute parcel corner coordinates. II. Understand how to compute parcel areas and bearings, lengths, and curve data for parcel boundaries. III. Be able to interpret regulatory requirements related to parcel dimensions and area, and design a subdivision in conformance with them. IV. Perform an elementary drainage computation for a subdivision. V. Be able to prepare a subdivision map based on the design.
<i>Student learning outcomes &amp; relationship to ABET a-k objectives</i>	A. 1. Understand how to compute parcel areas, corner coordinates, and bearings, lengths, and curve data for parcel boundaries (a, e, k). B. Be able to interpret regulatory requirements related to parcel dimensions and area, and design a subdivision in conformance with them (a, b, c, d, e, f, g, h, j, k). C. Perform an elementary drainage computation for a subdivision (a, b, c, d, e, f, h, j, k). D. Be able to prepare a subdivision map based on the design (a, d, g, k).

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<i>Relationship to program outcomes</i>	<b>Outcome 1:</b> An understanding of professional and ethical responsibility.	High
	<b>Outcome 2:</b> A working knowledge of fundamentals, engineering tools, and experimental methodologies.	High
	<b>Outcome 3:</b> An understanding of the social, economic, and political contexts in which engineers must function.	High
	<b>Outcome 4:</b> An ability to plan and execute an engineering design to meet an identified need.	High
	<b>Outcome 5:</b> An ability to function on multi-disciplinary teams.	Medium
	<b>Outcome 6:</b> An ability to communicate effectively.	High
	<b>Outcome 7:</b> Graduates will have an advanced understanding of the following areas of Geomatics Engineering: a) Surveying, including but not limited to, boundary and land surveying, subdivision and plat creation, control surveys, and construction surveys, b) geographic information systems (GIS), c) photogrammetry and remote sensing d) mapping, to include but not limited, to topographic maps, cadastral maps, and land use maps, e) geodesy, and f) Global Navigation Satellite Positioning Systems (GPS, GLONASS, etc).	High
	<b>Outcome 8:</b> Graduates will have a conceptual understanding of the role of Geomatics Engineering in infrastructure planning and sustainability, including safety, risk assessment, environmental issues, and hazard mitigation.	High
	<b>Outcome 9:</b> Graduates will be successful in finding professional employment, attaining professional licensure, and/or pursuing further academic studies.	High

<b>8. Course evaluation method</b>	
Homework: Approx. 25% Mid-term and final exams: Approx. 75%	<i>Note:</i> The minimum grade required to pass the course is C.

<b>9. Course grading scale</b>
See the supplementary <i>Course Policies Document</i> .

<b>10. Policy on makeup tests, late work, and incompletes</b>
<i>Makeup tests</i> are given only if there is solid evidence of a medical or otherwise serious emergency that prevented the student of participating in the exam. Makeup exam should be administered and proctored by department personnel unless there are other pre-approved arrangements. <i>Late work</i> is not acceptable. <i>Incomplete grades</i> are against the policy of the department. Unless there is solid evidence of medical or otherwise serious emergency situation incomplete grades will not be given.

<b>11. Special course requirements</b>
Students must check their official FAU electronic mail accounts and the official course web page (Blackboard) on a daily basis for announcements and other correspondence. Students are responsible for obtaining use of suitable computer hardware, software, and Internet connection in order to participate in the <i>Blackboard Collaborate</i> lecture classes. Students must acquire headphones and microphone for classes. Travel to a campus location may be required for examinations.

<b>12. Classroom etiquette policy</b>
Attendance during the Blackboard Collaborate sessions is mandatory. Students are required to fully participate in the live sessions, and not merely log in to the classroom session and physically leave the

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computer terminal.	
<b>13. Disability policy statement</b>	
In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca Raton campus, SU 133 (561) 297-3880 and follow all OSD procedures.	
<b>14. Honor code policy</b>	
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 unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and place high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. See University Regulation 4.001 at <a href="http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf">http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf</a>	
<b>15. Required texts/reading</b>	
<ol style="list-style-type: none"> <li>1. Official <i>Course Policies</i> document, available on the official course web page (Blackboard).</li> <li>2. Ghilani &amp; Wolf, <i>Elementary Surveying, An Introduction to Geomatics</i>, 12th ed.</li> <li>3. Dewberry, <i>Land Development Handbook</i>, 3<sup>rd</sup> ed.</li> </ol>	
<b>16. Supplementary/recommended readings</b>	
See the official course web site on Blackboard.	
<b>17. Course topical outline, including tentative dates for exams/quizzes, papers, completion of reading, and other exercises</b>	
Lectures	
<i>Date</i>	<i>Topic</i>
Wed Jan 09	Course introduction; coordinate geometry (COGO) computations.
Wed Jan 16	COGO applied to subdivision computations
Wed Jan 23	Area computation review; parcel dimensions governed by predetermined area.
Wed Jan 30	Parcel dimensions from predetermined areas; Newton's method applied to COGO
Mon Feb 04 <sup>***</sup>	<b>***Last day for withdrawal/drop receiving a 25% tuition adjustment***</b>
Wed Feb 06	State plane coordinates for subdividing and platting
Wed Feb 13	Real property boundary aspects of land subdivisions
Wed Feb 20	Regulatory aspects of land subdivision and platting
Wed Feb 27	Mid-term examination
Fri Mar 01 <sup>***</sup>	<b>***Last day for withdrawal/drop without receiving an "F"***</b>
Wed Mar 06 <sup>**</sup>	<b>**Spring Break**</b>
Wed Mar 13	Preliminary project and site analysis.
Wed Mar 20	Land surveying design process
Wed Mar 27	Student presentations of subdivision/platting regulations.
Wed Apr 03	Field trip to a regulatory agency.
Wed Apr 10	Stormwater management design.
Wed Apr 17	Stormwater management design (cont.).
Wed Apr 24	Potable water distribution; domestic waste water collection; street design.
Wed May 01 <sup>*</sup>	<b>*Final Exam*</b>