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| **1. Course title/number, number of credit hours** |
| SUR4463-Subdivision Design  | 2 credit hours |
| **2. Course prerequisites, corequisites, and where the course fits in the program of study** |
| Prerequisites: CGN 2327 – Computer Aided Design or equivalent with minimum grade of “C” and Department PermissionThis course provides an introduction into the principles of the subdivision of real estate, including computation of parcel dimensions and areas, civil/environmental engineering design issues, and regulatory processes |
| **3. Course logistics** |
| *Semester*: Fall 2018This is a live, on-line 2-credit lecture course Class time: Tuesday, 7PM – 10PM |
| **4. Instructor contact information** |
| *Instructor’s name**Office address**Office Hours* *Contact telephone number**Email address* | Hongbo SuBuilding 36, Room 223 TBA9am-12pm, Tuesday and Wednesday561-297-3936suh@fau.edu |
| **5. TA contact information** |
| *TA’s name**Office address**Office Hours* *Contact telephone number**Email address* | TBA |
| **6. Course description** |
| Physical elements of planning subdivision layouts, including circulation, water/sewer, drainage, earthwork grading, erosion control, topography and existing land use factors, geometric analysis procedures, plan/profile views of neighborhood infrastructure, zoning, restrictions, easements and setbacks |
| **7. Course objectives/student learning outcomes/program outcomes** |
| *Course objectives* | 1. Understand how to compute parcel corner coordinates and calculate area of parcels, bearings of lot lines and distances
2. Understand how to layout and plot elevations, curves, plan/profile views, and topographic contours for a subdivision map
3. Understand how to interpret regulatory requirements related to subdivision development
4. Understand sitework, underground utilities, roadways, and drainage calculations for site development
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| *Student learning outcomes**& relationship to Program/ABET**a-k outcomes* | 1. Understand how to compute parcel areas, corner coordinates, and bearings, lengths, and curve data for parcel boundaries (a, e, k).
2. 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).
3. Perform water, sewer, drainage and roadway computations for a subdivision (a, b, c, d, e, f, h, j, k).
4. Be able to prepare a subdivision map based on the design (a, d, g, k).
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| *Relationship to Department educational objectives* | **Objective A: Practice engineering** in the organizations that employ them. | H |
| **Objective B: Advance their knowledge** of 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, an understanding of professional and ethical responsibility, and a willingness to take the initiative and seek progressive responsibilities. | H |
| **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 30%Homework/Class participation 10%Final Exam 35% | *Note*: The minimum grade required to pass the course is C.* *Academic Service-Learning assessments count toward the “Laboratories, homework” component of the grade.*
* *Reflection assignment counts toward the “Laboratories, homework” component of the grade.*
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| **9. Course grading scale** |
| See the supplementary *Course Policies Document*. |
| **10. Policy on makeup tests, late work, and incompletes** |
| *Makeup tests* 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 will be administered and proctored by department personnel unless there are other pre-approved arrangements.*Late work* is not acceptable.*Incomplete grades* 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. |
| **11. Special course requirements** |
| **ACADEMIC SERVICE-LEARNING STATEMENT** This course is designated as an “academic service-learning” course. The assistance you provide to the agency/organization during your academic service-learning (AS-L) experience is a service to the community and will allow you to apply knowledge from the course to local, national, and/or global social issues. Throughout this course you will be participating in AS-L activities while demonstrating civic engagement at campus, local, national, and/or global community levels. You will also reflect on your AS-L experience and the impact on the community as well as your professional development. Academic service-learning notation of hours will post to your transcript with submission of hours to your faculty instructor. An Academic Service-Learning Student Survey is required to be taken at the end of your AS-L project. Please visit the Weppner Center for LEAD & Service-Learning website, www.fau.edu/leadandserve, for the survey link and more information on FAU’s Academic Service-Learning program.Assumption of Risk Statement for Student:I understand that there are certain physical risks inherent in every form of service-learning. I understand the risks associated with this Academic Service-Learning assignment. I nonetheless agree to assume those risks so as to gain the benefits from participation in this valuable learning experience. I hereby release the State of Florida, the Board of Trustees, Florida Atlantic University and its agents and employees from any and all liability associated with my participation in this assignment at Florida Atlantic University. |
| **12. Classroom etiquette policy** |
| University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions. |
| **13. Disability policy statement** |
| In compliance with the American 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) – Boca Rotan, SU 133 (561-297-3880), in Davie LA 131 (954-236-1222) or in Jupiter SR 110 (561-799-8585) and follow SAS procedures. |
| **14. 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 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 [www.fau.edu/regulations/chapter4/4.001\_Code\_of\_Academic\_Integrity.pdf](https://exchange.fau.edu/owa/redir.aspx?C=LzsrykF9ck2R7YW3fuHlLFIz-xy2T9IIh5f4wovKPUUefxEzEO-vRapGunabCX6L64O2eED8PJs.&URL=http%3a%2f%2fwww.fau.edu%2fregulations%2fchapter4%2f4.001_Code_of_Academic_Integrity.pdf) |
| **15. Required texts/reading** |
| Colley, B.C., Practical Manual of Land Development. |
| **16. Supplementary/recommended readings** |
| 1. Ghilani & Wolf, Elementary Surveying, An Introduction to Geomatics, 14th ed.2. Dewberry, Land Development Handbook, 3rd ed. |
| **17. Course topical outline, including tentative dates for exams/quizzes, papers, completion of reading, and other exercises** |
| **Date** | **Topic** |
| Week 1 | Orientation, Introduction, Expectations, Syllabus, Definitions of Platting and Subdivisions |
| Week 2 | Site Analysis. Regulatory Issues, Municipal Requirements, Permits, Real Property Ownership, Boundaries, Legal Descriptions, Easements, Rights of Way, Setbacks |
| Week 3 | Subdivision Layout and Design OverviewIntroduction to Class Project and Expectations |
| Week 4 | Creating Plats, Subdivision Layouts, COGO and State Plane Coordinates, Bearings, Distance Calculations |
| Week 5 | Topography, Condominiums and Commercial Platting |
| Week 6 | Stormwater Management, Drainage and Runoff, Erosion Control  |
| Week 7 | Project Progress ReportReview for Midterm Exam |
| Week 8 | Midterm Exam |
| Week 9 | Spring Break |
| Week 10 | Potable Water Distribution, Domestic Wastewater Collection; Street Design |
| Week 11 | Earthwork |
| Week 12 | Cost Estimating |
| Week 13 | Specifications |
| Week 14 | Project Presentations |
| Week 15 | Final Exam |