

OUTCOMES BASED LEARNING MATRIX

Course: SITE DEVELOPMENT ARCH-115

Department: ARCHITECTURAL TECHNOLOGY

Course Description: This is a basic course to enable a student to utilize a site considering natural amenities, topography and site codes. Lectures include development of recreational, commercial and residential sites. Included is the study of topography, site planning, and grading. Environmental considerations of wind, sun, view, and buffer zones are included for development of site plans. Street contours, parking areas, surface drainage and landscaping are discussed in lectures and implemented in drafting labs which will help in the student's use of 3D modeling. 3 credits

*COURSE OUTCOMES	OUTCOMES ACTIVITIES	ASSESSMENT TOOLS
1. The student shall be able to interpret topography data, elevations, and profiles to analyze site conditions and determine quality of soils	<ul style="list-style-type: none"> - Listen to lecture on topography with presentations of contour models Read assignment Create a model of topography with road layout R, CT, TS, OC, QS 	<ul style="list-style-type: none"> - Build a model of topography that demonstrates understanding of contour elevations - Quiz on new and existing contours R, CT, TS, OC, QS
2. The student shall be able to analyze a site with consideration of site amenities to determine the best use for the site in compliance with zoning	<ul style="list-style-type: none"> - Listen to lecture on natural amenities with examples of local sites - Read assignment - Participate in class discussion of amenities and reading assignment R, W, CT, TS, OC, QS 	<ul style="list-style-type: none"> Quiz on lecture of site amenities and reading assignment for site analysis R, W, CT, TS, OC, QS
3. The student shall identify vehicular and pedestrian traffic patterns, approach to a building, handicap provisions, and service entrances to an office complex to implement the transition from exterior parking to an interior space	<ul style="list-style-type: none"> - Participate in a field trip to an office park, - Take notes and photos for report 	<ul style="list-style-type: none"> - Report on the observations of the office park - Build models and plans based on observations
4. The student shall be able to design parking structures that are compatible to access of buildings which are above, partially below, and below grade to create	<ul style="list-style-type: none"> - Participate in a field trip to observe different configurations of parking structures - Take notes for report 	<ul style="list-style-type: none"> Report on the observations of different types of parking structures to include comparisons of each

a gentle transition from vehicular areas to public spaces		
5. The student shall be able to plan a layout of condominium housing considering access, parking, views, topography, trash collection, and orientation of sun	<ul style="list-style-type: none"> - Participate in a field trip to several alternative design condominium areas - Take notes for report. 	<p>Report on the comparison and character of different condominium areas</p> <p>Create models and plans based on observations</p>
6. The student shall describe zoning pertaining to land use, requirements and property lines	<ul style="list-style-type: none"> - Listen to lecture with zoning maps and codes - Read assignment pertaining to zoning R, W, CT, TS, OC, and QS 	<p>Quiz on interpretation of zoning codes and reading assignments</p> <p>R, W, CT, TS, OC, QS</p>
7. The student shall be able to layout a septic system to include septic tank, distribution box, leaching tile, grease trap, and vents	<ul style="list-style-type: none"> - Listen to lecture with sample plans of leaching field - Read assignment <p>R, W, CT, TS, QS</p>	<p>Quiz on sketching of components of a septic system in plan and notes pertaining to the functioning of the system</p> <p>R, W, CT, TS, QS</p>
8. The student shall be able to interpret field notes and measurements	<p>Listen to lecture of obtaining data to establish elevations at coordinates</p> <p>R, W, CT, OC, TS, and QS</p>	<p>Quiz on plotting coordinates to obtain elevation contour lines</p> <p>R, W, CT, OC, TS, QS</p>
9. The student shall be able to layout structures on a site with consideration of amenities, adjacent topography, structures and contours	<ul style="list-style-type: none"> - Listen to lecture with examples - Read assignments <p>R, W, CT, OC, TS, and QS</p>	<ul style="list-style-type: none"> - Quiz on building site with elevations for topography indicating the drainage - Create final plans with model <p>R, W, CT, OC, TS, QS</p>
10. Describe vehicular and pedestrian circulation	<ul style="list-style-type: none"> - Listen to lecture with examples of buildings in the Boston area - Read assignment <p>R, W, CT, OC</p>	<p>Quiz on layout of circulation on site model for pedestrian, and vehicular circulation</p> <p>R, W, CT, OC, QS</p>
11. The student shall be able to compare and evaluate paving and landscape materials	<ul style="list-style-type: none"> - Listen to lecture on paving materials with comparisons of materials -Read assignment <p>R, W, CT, TS, OC, QS</p>	<p>Quiz on paving, materials, and methods of installation</p> <p>R, W, CT, TS, OC, QS</p>

12. The student shall be able to plan recreation areas with emphasis on drainage, sun and wind	<ul style="list-style-type: none"> - Listen to lecture with reference to Boston area examples - Read assignment R, W, CT, TS, OC, QS	<ul style="list-style-type: none"> - Quiz on sun and wind - Build a model of a topography plan showing drainage and orientation of sun R, W, CT, TS, OC, QS
13. The student shall be able to determine the environmental impact and protection of a site from soil erosion	<ul style="list-style-type: none"> - Listen to lecture - Read assignment R, W, CT, TS, OC.	Quiz on factors of soil erosion and prevention R, W, CT, TS, OC
14. The student shall be able to utilize landscaping as used to define areas, provide protection from wind and provide buffer zones	<ul style="list-style-type: none"> - Listen to lecture - Reading assignment R, W, CT, TS, and OC	<ul style="list-style-type: none"> - Quiz on site model pertaining to defining areas with landscape - Create a site model pertaining to defining areas with landscape. R, W, CT, TS, OC
15. The student shall be able to interpret zoning maps to determine land use	<ul style="list-style-type: none"> - Listen to lecture on zoning maps showing examples while explaining the law that corresponds CT, TS, OC,	Quiz pertaining to zoning R, W, CT, TS
16. The student shall be able to implement handicap requirements as they pertain to a building site	Listen to a lecture on the American Disabilities Act, the building code, and the Architectural Access board requirements for ramps, parking, and accessibility to buildings R, CT, TS, and QS	Quiz on lecture and grade model pertaining to requirements for handicap R, W, CT, TS, OC, QS
17. The student shall describe the significance of vegetation as it applies to soil erosion	<ul style="list-style-type: none"> - Listen to lecture explaining vegetation absorbing water and vegetation used to control soil erosion - Read assignment. R, CT, TS, OC	Quiz on lecture pertaining to soil, stability, and vegetation R, W, CT, TS, OC
18. The student shall utilize utility plans and layouts for site development	<ul style="list-style-type: none"> - Listen to lecture on utility plan - Read assignment. R, W, CT, TS, OC	

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*Try to express an outcome as an infinitive phrase that concludes this sentence: **At the end of the course, the students should be able to . . .** Finding the line between too general and too specific can be difficult. In an English Composition course, for instance, it is probably too general to say, "The student should be able to write effective essays." It is probably too specific to say, "The student should be able to write an introductory paragraph of at least 50 words, containing an attention-getting device, an announcement of the narrowed topic, and an explicit thesis sentence." Just right might read, "The student will write introductions that gather attention and focus the essay."

**Indicate the Core Competencies that apply to the outcomes activities and assessment tools: Critical Thinking (CT); technology skills (TS); oral communications (OC); quantitative skills (QS); reading (R); writing (w).