COURSE INFORMATION FORM

DISCIPLINE: Engineering Technology
COURSE TITLE: Introduction to Residential Architecture

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CATALOG DESCRIPTION
Introduction to residential architectural design and drafting. Course includes residential construction materials and methods, building codes, site selection, home styles, foundation plan, floor plan, electrical and plumbing plans, roof plan, elevations and wall sections, window and door schedules, energy efficiency and community considerations. An emphasis will be placed on design. A complete drawing set will be produced using CADD.

PREREQUISITES
ETEC 152

EXPECTED STUDENT OUTCOMES IN THE COURSE
Upon completion of this course, the student will be able to:
1. Identify home styles and current trends in residential architecture.
2. Identify applicable building codes.
3. Describe site selection considerations.
4. Describe current construction materials and methods.
5. Produce a foundation plan.
7. Explain electrical considerations in residential design.
8. Identify common electrical symbols.
9. Produce an electrical plan.
10. Explain plumbing considerations in residential design.
11. Identify common plumbing symbols.
12. Construct a plumbing plan.
13. Identify roof types.
14. Compare and contrast roof types and materials.
15. Produce a roof plan.
17. Construct typical wall sections.
18. Describe window and door considerations.
19. Identify common window and door symbols.
20. Produce a window and door schedule.
21. Explain environmental and efficiency considerations in residential design.
CLASS-LEVEL ASSESSMENT MEASURES

Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

Daily projects/assignments (5, 6, 9, 12, 15-17, 20)
Daily quizzes (1-4, 7, 8, 10, 11, 13, 14, 18, 19)
Written Exams (1-4, 7, 8, 10, 11, 13, 14, 18, 19)
Final Project (1-21)

PROGRAM-LEVEL OUTCOMES ADDRESSED

General Education Outcomes
Specify which general education outcomes, if any, are substantially addressed by the course by completing the “Course/Program Assessment Matrix” to show the relationship between course and program outcomes and assessment measures.

Occupational Program Outcomes
Specify which occupational program outcomes, if any, are substantially addressed by the course by completing the “Course/Program Assessment Matrix” to show the relationship between course and program outcomes to assessment measures.
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Home Styles
   A. Site selection
   B. Home styles
   C. Neighborhood considerations

II. Construction
   A. Construction materials
   B. Construction methods
   C. Cost considerations
   D. Building Codes

III. Initial layout and design
   A. Design criteria and considerations
   B. Producing a home layout

IV. Foundation
   A. Foundation materials
   B. Foundation construction
   C. Foundation plans

V. Electrical
   A. Electrical design considerations
   B. Electrical codes
   C. Electrical symbols
   D. Electrical plans

VI. Plumbing
   A. Plumbing design considerations
   B. Plumbing codes
   C. Plumbing materials
   D. Plumbing symbols
   E. Plumbing plans

VII. Roof Plans
A. Roofing materials
B. Roof slope
C. Roof plans

VIII. Wall sections
A. Symbols
B. Producing typical wall sections

IX. Windows and doors
A. Selecting windows and doors
B. Window and door symbols
C. Window and door schedules

X. Elevations
A. Requirements
B. Producing elevations
C. Illustrating elevations

XI. Environmental and Efficiency Considerations
A. Alternate heating and cooling systems
B. Insulation
C. Alternate water supplies
D. Green construction materials