

## Architectural/CAD 2 - 23/24

Instructor: Jeff Wusk

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References:

Chief Reference book

Software:

Chief

Course Description:

This class is designed to give students a knowledge and understanding of architect and design terminology. The fundamentals of Computer Aided Drafting/Design will be covered using Chief. Students will be required to design a house (consisting of a floor plan, door and window schedules, elevations, foundations, sections, and a 3D model.

Expectations

1. Be in your seat on time and materials ready to go
2. Bring a note book, pen or pencil to class
3. Answer daily question and write done objectives
4. Remain in your seat until the bell sounds and the teacher dismisses the class.
5. Be responsible and take care of any equipment used in the lab area.
6. Make up all work missed due to an excused absence.
7. Have respect and be polite to others working in the lab.
8. Have self-control when working in the lab.
9. Be reliable in your work, can I count on you to get it done
10. Give the speaker your full attention
11. Pick up after yourself, all trash needs in a trash container
12. Do not throw or drop tools, materials, trash.
13. Use proper language, If your are not sure I will teach you
14. Most of all have FUN!

Course objectives:

The students will be able to understand basics of architectural drawing

The students will be able to read and understand a blue print

The students will have knowledge to assess and complete projects in the future

The students will become familiar with the applications, development and terminology associated with architectural software

The students will be able to execute basic house plan utilizing the walls, doors, Windows, roof, and structural members commands.

The students will be able to start new drawings, work with layers, blocks, and be able to set up the plotter to plot.

The students will be able to understand the principles of design

#### Methods of Evaluation

##### Summative 80%

House design test

Final House design

CAD Software Tests

Essential words test

Final

##### Formative 20%

Unit reviews

Multimedia x1

Technical writing- how to steps- 100 steps= 100%

Business drawings

Practice house drawings x 9

Worksheets

Home measure

#### Course Content:

Careers

House Styles

Different parts of a house

Footings

Joist

Floors

Walls

Roofs

Windows and Doors

Electrical and Mechanical

Kitchen and Bathrooms

Final Project house design

Chief overview and commands

Plotting

Civil

## Syllabus:

1. Rules and expectations
2. Careers in architecture, Cultural influences on architecture, Drive around town and look at different house styles
3. Typical room sizes, planning Individual Rooms Go to Nebraska Furniture Mart and use their templates for room designs <http://www.nfm.com/roomplanner.asp>, measure and evaluate your home assignment
4. Finish planning rooms
5. Designing exterior of a home (roof, windows types, pellawindows.com)
6. Working drawings and specifications (Symbols, types of drawings) Show sample plans
7. Tour local house being built
8. Test over architectural principles
9. Tour Champion homes
10. House Design Tutorial
11. Drawing walls and dimension
12. Creating rooms
13. 3D view and adding floors
14. Adding stairs
15. Add roof and structural support
16. Add doors and windows
17. Interior Design
18. Place Fixtures and furniture
19. Add electrical objects
20. Apply moldings
21. Apply wall coverings
22. Material Management
23. Material Management
24. Material Management
25. Kitchen Design
26. Placing appliances
27. Creating cross sections
28. Landscaping
29. Terrain Perimeter
30. Adding elevation & retaining wall
31. Adding terrain features
32. Deck and porches
33. Building deck and stairs
34. Layout
35. Floor plan
36. Elevation views, Details view
37. Perspective views
38. Guest speaker over building a house
39. Visit city office to learn about city codes and zoning

40. Guest speaker over buying and financing a house
41. Finish projects and grade
42. Civil
43.     Mapping symbols
44.     Measuring Distance and elevations
45.     Surveying Fundamentals
46.     Plot plans
47.     Contour lines
48.     Profiles leveling
49.     Civil engineering Detail Drawing
50.     GIS Geographic Information Systems
51.     GPS Global Positioning System
52. Into in to other free Architect software