ARCH 2310

CLASS PLANNER

CLASS MEETING SUMMARY:

Class Meeting	Date	Class Activity
1	2016-08-25	Project 01 Introduction - Residential Space
2	2016-08-29	Review Case Study Base Information and Reflection
3	2016-09-01	House Plans, Sections, Elevations, Diagrams
4	2016-09-08	Review House Plan, Section, Elevation, Diagrams
5	2016-09-12	Review Spatial Model and Views
6	2016-09-15	**Project 01 Final Presentation and Reflection**
7	2016-09-19	Project 02 Introduction - Space and Structure
8	2016-09-22	Review Climate Space Structure and Material Research
9	2016-09-26	Parti Development
10	2016-09-29	Parti Review #1
11	2016-10-06	Parti Review #2
12	2016-10-13	Drawing Development / Coordination
13	2016-10-17	Drawing Development / Coordination
14	2016-10-20	Drawing Development / Coordination
15	2016-10-24	**Project 02 Final Presentation and Reflection**
16	2016-10-27	Project 03 Introduction - Site Visit + Analysis
17	2016-10-31	Review of Site Analysis
18	2016-11-03	Review of Design Precedent Analysis
19	2016-11-07	Parti Development
20	2016-11-10	Parti Review #1

Class Meeting	Date	Class Activity
21	2016-11-14	Parti Review #2
22	2016-11-17	Site Plan + Site Sections
23	2016-11-21	Site Plan + Site Sections
		Thanksgiving
24	2016-11-28	Plan Development
25	2016-12-01	Plan Development
26	2016-12-05	3D Views
27	2016-12-08	Presentation Mock up
28	2016-12-12	Presentation Mock up Review
29	2016-12-15	Presentation Refinement
30	2016-12-19	**Project 03 Final Presentation and Reflection**

Notes:

COURSE GRADING AND POINT SYSTEM: All assignments are valued at 100 points total unless otherwise noted. To receive 100% of your earned points, you must be present and ready at the beginning of class for all reviews of the assignment. Students not meeting this requirement will have a 15% reduction on their score for the assignment.

REVIEWS: Pin-up reviews require printed or original drawing materials and models at the correct scale. Printing must NOT TAKE PLACE during CLASS TIME. Late printing will result in a deduction of points from the assignment grade.

ASSIGNMENT SUBMISSIONS: ALL assignment submissions must be uploaded to your e-portfolio on a page entitled Design III. A final grade will not be issued until the e-portfolio includes all assignments and the final formal portfolio is submitted.

For each assignment, select one drawing, sketch, or model view to upload to the course OpenLab Site. Provide a hyperlink below your drawing to the Design III page of your e-portfolio. Be sure to check the appropriate CATEGORY tag for each post to the course site.

E-PORTFOLIO REFLECTION: With each assignment submission, provide a written description of your assignment and a short reflection on how the assignment is helping you develop a design process.

CLASS MEETING DETAILS AND ASSIGNMENTS

1 Project 01 Introduction - Residential Space 2016-08-25

i. Discussion: Project Description, OpenLab Orientation, Reflection on Design Process, **Library Visit**

ii. **Assignment A (100 points):** Architect Design Analysis

1. Check out a book from the Atrium Library that includes residential architectural projects. Select a house in the book that has significant information and drawings included. Research the architect and their approach to design. Find 5 architects that relate to your selected architect (architects that practiced at the same time, with a similar approach, who influenced the elected architect, that followed the selected architect.)

2. Format onto a 17"w x 33" tall sheet the base drawings, images, and data about the house. Be sure to include the architect, year it was built, location, square footage, parti, sketches, plans, sections, 3d views, photos, and site plans. Bring prints for pin-up review class meeting #2. Include text description of architect's approach to design.

3. Set up e-portfolio and new page for Design III. Upload all assignments to this page throughout the semester.

iii. Tools: Illustrator, Scanner.

2 Review Case Study Base Information and Reflection 2016-08-29

i. **Pin-Up Review** Base Information and Parti Diagram

ii. Discussion: Spatial Qualities of Houses

iii. Studio Work: Select a residential space from the collection of photos on Prof. Montgomery's Pinterest Board: Interiors https://www.pinterest.com/jason0888/interiors/ Develop hand drafted 1/2"=1'-0" plans, sections, and axon of selected space.

iv. **Assignment B (100 points):** Residential Space Analysis

a. Complete hand drafted 1/2"=1'-0" plan, section, and axonometric view of the residential space.

b. Diagram the qualities of the space (dimension, proportion, use, daylight, transparency, surface, structure) Overlay diagrams on base drawings. Describe the qualities of the space in a 100 word reflection.

c. Format drawings full size onto a presentation board. PRINT and prepare to present the assignment in class meeting #3.

v. Tools: Illustrator, Hand Drafting, Scanner.

3 House Plans, Sections, Elevations, Diagrams 2016-09-01

i. **Pin-Up Review** Residential Space Analysis

ii. Studio Work: Develop hand drafted plans, sections, and axon at 1/4"=1'-0" for selected house from library book.

iii. **Assignment C (100 points):** House Plans, Section, Axon, Diagrams

a. Complete plans, sections, axon at 1/4"=1'-0"

b. Diagram in 3D the parti of the house using the axon as the base. These diagrams should speak for itself. One should be able to understand the overall concept of the house based on your diagrams.

c. Scan and format drawings in Illustrator at full size. PRINT on 17"w x 33" tall sheet and prepare to present the assignment in class meeting #4

iv. Tools: Illustrator, Hand Drafting, Scanner.

4 Review House Plan, Section, Elevation, Diagrams 2016-09-08

i. **Pin-Up Review** House Plans, Section, Axons, Parti Diagrams

ii. Studio Work: Refine the Parti Diagram for the House based on comments.

iii. **Assignment D (100 points):** Residential Space Model and Views

a. Develop a 1/2"=1"-0" Card Model or 3-D Printed Model (extra credit) of Residential Space from Assignment B. Photo document model with at least 3 images shot with controlled background and lighting.

b. Develop a Rhino model of space. Develop 3 views from Rhino model.

c. Format model photos and Rhino views on a 17"w x 33" tall sheet. Bring model and printed sheet to class meeting #5.

iii. Tools: Physical Model Making, Rhino, (Makerbot Optional.)

5 Review Spatial Model and Views 2016-09-12

i. **Pin-Up Review** Residential Space Model and Views

ii. Studio Work: Develop Rhino model of House from assignment C.

iii. **Assignment E (100 points):** Final Presentation of House and Space

a. Complete Rhino model of House from assignment C.

b. Compile Project 01 drawings, model views, sketches, and diagrams into a formal presentation on 34"w x 55" tall sheets.

c. Provide clear text labels and graphics on final board so that the board can be understood without explanation.

iv. Tools: Rhino, Illustrator, Photoshop, Scanner

6 Project 01 Final Presentation and Reflection 2016-09-15

i. Dress Code: Business Casual

ii. Talking Points on Boards

iii. **Post a Reflection** (100 word minimum) to the OpenLab Course site.

7 **Project 02 Introduction - Space and Structure** **2016-09-19**

i. Studio Work: Research climatic response design techniques in Ching's Building Construction Illustrated p.1.10-1.23. Prepare talking points for class discussion.

ii. **Discussion:** Climate, Space, Structure, and Material

iii. **Assignment F (100 points):** Sustainable Design Research

1. Continue research on climatic response design techniques. All students must use Ching and other materials on OpenLAB. Develop summary diagrams and notes of important strategies. Include the issues of solar heat gain and loss, and research the pro's and con's of glazing walls versus punched openings in solid walls.

2. Research structural systems and materials selection strategies in relation to climate responses including bearing walls of concrete, masonry, or wood, as well as frame structures of heavy timber, steel, or concrete. Include in your research roofing system strategies and external envelop strategies for different climate zones.

a. Read through Climate Response research materials on OpenLab course site.

b. Organize a list of bullet points of strategies for building configurations and exterior envelop for assigned climate zone. Add diagram sketches to page. **Note: Upload ONLY your own drawings, not borrowed drawings.)**

3. Format on 17"w x 33" tall sheets and PRINT and prepare to present the assignment in next class.

iv. Tools: Illustrator

8 Review Climate Space Structure and Material Research 2016-09-22

i. **Pin-Up Review** Climate, Space, Structure, and Material

ii. Studio Work: Develop concepts for Modules for Living responding to assigned climate condition.

iii. **Assignment G (100 points):** Site Base Drawings

1. Each student is to produce the following:

a. A Rhino topographic base model

b. Practice site section drawing in AutoCAD with generic massing on site. Add elevation tags noting highest elevation and water level.

2. Format on 34"w x 11" tall sheets and PRINT and prepare to present the assignment in next class.

iv. Tools: Hand sketching/drafting, AutoCAD, Rhino

9 Parti Development 2016-09-26

i. Studio Work: Develop Hand drafted Plans, Sections, and Axons of Living Modules at 1/4"=1'-0.

ii. Discussion: Parti Development: Modules to the Whole

iii. Assignment H (100 points): Modules for Living + Parti Diagrams

a. Build an AutoCAD plan and card model to required scale (3/16"=1'-0") for each program element. The model should reflect full volume of each program space (height, width, length) and may have opening(s) reflecting exterior exposure to view and light. Show furniture diagrammatically in each room. Develop at least one separate model for each requirement of residential architecture:

1. lounge / space for relaxation + conversation
2. eating
3. cooking
4. sleeping
5. w/c+bath/shower+sink
6. stairhall

b. Describe each module with 100 words minimum, including horizontal and vertical dimensional requirements, daylight requirements, view requirements, and spatial (volumetric) quality, and climate response.

c. Parti Concepts

1. Develop (5) configurations of the modules. For each configuration, document with (3) photographs and (1) hand sketch diagram (overlay on one photo of each configuration) with annotations explaining the parti concept.

d. Bring all models and sketch diagrams to present in the next class.

iv. Tools: AutoCAD, Physical model making , Hand sketching, Camera, Illustrator

10 Parti Review #1 **2016-09-29**

i. **Pin-Up Review** Modules, Parti Configurations, and Sketch Diagrams

ii. Studio Work: Study new configurations based on review comments.

iii. Assignment I (100 points): Parti Concept Refinement

a. Develop (2) new configurations of the modules that best responds to the review comments and document each with (3) photos, a floor plan, and a schematic site section for each configuration.

b. Develop a Rhino model of each configuration.

c. Using Rhino models, develop a 3 dimensional parti diagram for each of the 2 configurations. Annotate the diagrams to explain the idea behind the concept. The 3 dimensional parti diagrams should include:

- site topography
- landscape
- view corridors
- approach
- outdoor spaces (terraces, gardens, courtyard, pathways)
- solar design response
- hierarchy of massing / program elements
- vertical circulation

d. Bring all models and drawings to present in the next class.

iv. Tools: Rhino, Hand Drafting, Camera, Illustrator

11 Parti Review #2 2016-10-06

i. Pin-up Review of Rhino Models, Module Configurations, Parti Diagrams, Plans, and Sections

ii. Studio Work: Study final configuration based on review comments.

iii. **Assignment J (100 points):** Digital Model Development

a. Develop final digital model based on selected parti diagram.

b. Integrate digital model into base model of topo. (Ensure building is correctly tied into topo)

c. Upload jpegs of revised model to e-portfolio, at least 8 separate views including:

- top view showing massing integrated into topo with shadows
- axon view from at least 2 angles
- approach view
- waterside view
- 2 interior views of important interior spaces
- View at stairhall

iv. Tools: Sketchup/Rhino, Illustrator, Photoshop

v. Tools: Rhino, Hand Drafting, Physical model making.

12 Drawing Development / Coordination 2016-10-13

i. **Pin-Up Review** Final Parti Configuration, Diagram, Models, and Drawings.

ii. Studio Work: Develop a concept for a site plan for the final parti configuration.

iii. **Assignment K (100 points):** Final House Design Development

a. Develop in AutoCAD floor plans and roof plan (with site topo/site information on all drawings.) Scale: 3/16"=1'-0"

b. Using final Rhino model with site, develop a site axon showing interface of massing with topography and landscape. All trees are to be included on both drawings. Develop access to the house, garden space, and terraces for indoor/outdoor flow..

c. Using final Rhino model with site, develop a 3D site section cut through house and site topography. 3D site section to be rendered (without texture) with shadows.

d. Print all base drawings to scale and bring to next class (CRITICAL REQUIREMENT for 100% Project Grade)

13 Drawing Development / Coordination 2016-10-17

i. **Pin-Up Review** Site Axon

ii. Studio Work: Final Presentation Drawings

iii. **Assignment L (100 points):** Final Presentation Mock Up

a. Final Drawing List:

i. Site Axon (3D view of overall site with house, trees, pathways, terraces, gardens, water…)

ii. 6 Perspective Views of House with trees, pathways, terraces, gardens, water… One view to show approach to main entrance.

iii. 1 3D Site Section cut through RHINO model with shadows, trees, water…

iv. Floor plans of all levels at 1/4″=1′-0″

v. Roof plan at 1/4″=1′-0″

vi. Parti-Diagrams explaining formation of house

b. Format final drawings onto three 33″w x 55″tall final boards in Illustrator. Prepare MOCK UP of final presentation. Print mock-up and bring to next class meeting.

iv. Tools: Hand Drafting, Illustrator, Photoshop.

14 Drawing Development / Coordination 2016-10-20

i. **Pin-Up Review** Final Presentation Mock-Up

ii. Studio Work: Final Presentation Drawings

iii. **Assignment M (200 points):** Final Presentation Drawings

a. Finalize Presentation based on comments and recommendations.

iv. Tools: Illustrator, Photoshop.

15 Project 02 Final Presentation and Reflection **2016-10-24**

i. Dress Code: Business Casual

ii. Talking Points on Boards

iii. Post a Reflection (100 points) (100 word minimum) to the OpenLab Course site.

16 Project 03 Introduction - Site Visit + Analysis **2016-10-27**

i. Site Visit (Meet just outside F Train Roosevelt Island Subway Station at 9:00am)

ii. **Assignment N (100 points):** Site Analysis

a. Develop a site analysis on base drawings. Integrate site photos and 3 dimensional model base drawings. Show the following:

i. Building Site

ii. Sun exposure of building site

iii. Important buildings in the neighborhood

iv. Buildings types in the neighborhood (commercial, residential, civic)

v. Important views FROM building site to surrounding area

vi. Important views TO building site from neighborhood streets, open space

vii. Important open spaces near the site (parks, greens, squares)

viii. Site Circulation Flow (pedestrians, bike, cars, buses, subway)

ix. Trees and Landscape

2. Format on 17"w x 33" tall sheets and PRINT and prepare to present the assignment in next class.

b. Upload jpegs to e-portfolio.

iii. Tools: Sketches, Digital Camera, Rhino/Sketchup

17 Review of Site Analysis 2016-10-31

i. **Pin-Up Review** of Site Analysis

ii. Discussion: Precedent Research and Design Narratives, **Library Visit**

iii. **Assignment O (100 points):** Precedent Research

a. Check out a book that includes examples of libraries or small public buildings.

b. Diagram the buildings plans and sections based on the following criteria: structure, space, and circulation. Diagrams to be hand drafted overlays on drawings and photos of precedent. Scan and format diagrams in Illustrator.

1. Format on 17"w x 33" tall sheets and PRINT and prepare to present the assignment in next class.

iv. Tools: Illustrator, Scanner

18 Review of Design Precedent Analysis **2016-11-03**

i. **OpenLab Review** Precedent Research

ii. Studio Work: Develop a concept for Modules for a Library for major spaces.

iii. **Assignment P (100 points):** Library Program + Modules - Digital

a. Review library spaces on Pinterest board: https://www.pinterest.com/jason0888/library/. Select 3 library interior spaces and add jpegs to eportfolio with 100 word description of each, explaining the qualities that make it a special place.

b. Develop a Digital Plan and Model of Modules. Use 6'x6' grid as basis for all room dimensions (length, width and height). Avoid square rooms. Show furniture diagrammatically in each room.

1. reading room with book collection
2. children's library
3. cafe
4. 2 story lobby with the following:
    - circulation desk with staff office behind
    - stair and elevator access
    - view of reading room
    - access to children's library

c. Save view of each module as a separate jpeg and upload to e-portfolio.

d. Add post to e-portfolio that describes each module with 100 words minimum, including horizontal and vertical dimensional requirements, adjacency requirements, daylight requirements, view requirements, and spatial (volumetric) quality.

iv. Tools: Tools: AutoCAD, Rhino/Sketchup

19 Parti Development 2016-11-07

i. **Review** Modules, Photos, and Descriptions

ii. Studio Work: Study Configurations for Library Parti

iii. **Assignment Q (100 points):** Parti Development

a. Build a card model to required scale (1/16"=1'-0") for each program element. The model should reflect full volume of each program space (height, width, length) and may have opening(s) reflecting exterior exposure to view and light.

b. Configure Modules on Site Model, developing 5 strategies for parti.

c. Photograph each configuration from 3 different viewpoints with controlled background and lighting.

d. Develop diagrams (overlay on photos) for each strategy (5) describing structure, space, circulation.

e. Bring all models, drawings, and photos to present in the next class.

iv. Tools: Physical Model, Hand Sketching / Drafting, Camera

20 Parti Review #1 **2016-11-10**

i. **Review** Parti Strategies on OpenLab and with Modules in Site Model.

ii. Studio Work: Study New Configurations for Library Parti

iii. **Assignment R (100 points):** Parti Concept Refinement

a. Develop (2) new configurations of the modules that best responds to the review comments and document each with (3) photos from 3 different viewpoints with controlled background and lighting.

b. Develop RHINO models of each configuration using the modules or a new model.

c. Develop the following diagrams for each strategy (2) using the RHINO model as a base:

i. structural grid (specify structural material and spanning dimension)

ii. spatial hierarchy

iii. circulation

iv. natural daylighting of the interior

v. views

vi. entry / approach

vii. relationship to public square.

d. Bring all models, drawings, and photos to present in the next class.

iv. Tools: Physical Model, Rhino, Hand Sketching / Drafting, Camera

21 Parti Review #2 2016-11-14

i. **Review** Parti Strategies on OpenLab and with Modules in Site Model.

ii. Studio Work: Study New Configurations for Library Parti

iii. **Assignment S (100 points):** Parti Concept Refinement

a. Develop (1) new configuration of the modules that best responds to the review comments and document with (3) photos from 3 different viewpoints with controlled background and lighting.

b. Develop RHINO model of final configuration.

c. Develop the following diagrams for the final configuration using the RHINO model as a base:

i. structural grid (specify structural material and spanning dimension) spatial hierarchy

ii. circulation

iii. natural daylighting of the interior

iv. views

v. entry / approach

vi. relationship to public square.

d. Bring all models, drawings, and photos to present in the next class.

iv. Tools: Physical Model, Rhino, Hand Sketching / Drafting, Camera

22 Site Plan + Site Sections 2016-11-17

i. **Review** Parti Strategies on OpenLab and with Modules in Site Model.

ii. Studio Work: Develop a digital model of the final parti configuration.

iii. **Assignment T (200 points):** Site Axon and 3D Site Section Development of Final Parti Selection

   a. Using the RHINO site model and final library model, develop a 3D Site Axon showing the following: building massing and shadows, public square, outdoor cafe seating, trees, paving pattern, terraces, stairs, and garden areas, neighboring buildings (include church in existing public square)

   b. Using the RHINO site model and final library model, develop 2 3D Site Sections though the public square and the primary interior spaces of the library as well as through the existing buildings.

   c. Bring all models and sketches to present in the next class.

iv. Tools: Rhino, Illustrator

23 Site Plan + Site Sections 2016-11-21

i. **Pin Up Review** of Site Plans and Site Sections

ii. Studio Work: Plan development at 1/8"=1'-0"

iii. Continue work on **Assignment T**

iv. Tools: Rhino, Illustrator

24 Plan Development 2016-11-28

i. **Pin Up Review** of Site Axon and Site Sections

ii. Studio Work: Plan Dr

iii. **Assignment U (200 points):** Plan Drawings

a. Develop 1 ground level floor plan / site plan

b. Develop upper level plan(s) with site plan information slightly screened

c. Develop 1 roof plan with site plan information slightly screened (use top model view for roof plan base.)

d. Indicate north arrow on all plan drawings

e. Upload plans as jpegs to e-portfolio.

iv. Tools: AutoCAD

25 Plan Development 2016-12-01

i. **Pin-Up Review** of Plan Drawings

ii. Studio Work: Finalize Plan Drawings

iii. continue **Assignment U**

iv. Tools: AutoCAD

26 3D Views **2016-12-05**

i. **Pin Up Review** of Plan Drawings

ii. Studio Work: Perspective development.

iii. **Assignment V (100 points):** 3D View Development of Final Parti Selection

a. Develop 8 3D views of design concept in Rhino. INCLUDE THE FOLLOWING VIEWS:

i. Approach from street to the north (looking south)

ii. Approach from public square.

iii. Entry Lobby with view of stair and opening to reading room

iv. 2 Views of Reading Room

v. 1 View looking from inside library to river

vi. 1 view of structural system

vii. 1 view of circulation system (stairs, elevators, ramps, corridors, walkways…)

b. All views to be rendered with shadows, but WITHOUT texture. Trees may be added in photoshop.

c. Bring all drawings to the next class.

iv. Tools: Rhino, Photoshop

27 Presentation Mock up 2016-12-08

i. **Pin Up Review** of 3D Views

ii. Studio Work: Presentation Mock-up

iii. **Assignment Y (200 points):** Final Presentation Development and Mock-Up

a. Format PRESENTATION MOCK UP (3 33"w x 55"tall boards) in Illustrator with 3D views, site axon, floor plans, parti diagrams, site section, model photos. Add drawing titles.

b. Print half size prints for pin up review. Bring prints to next class.

iv. Tools: AutoCAD, Rhino, Illustrator, Photoshop

28 Presentation Mock up Review 2016-12-12

i. **Pin-Up Review** Presentation Mock Up

ii. Studio Work: Continue Presentation Development

iii. **Continue Assignment Y**

a. Revised presentation based on comments.

b. Print Formal Presentation Boards. All printing must be complete by 8:30am morning of final presentation.

iv. Tools: AutoCAD, Rhino, Illustrator, Photoshop

29 Presentation Refinement 2016-12-15

i. Dress Code: Business Casual

ii. Talking Points on Boards

iii. **Assignment Z (100 points):** Final Portfolio Compilation

a. Create 1 pdf file of each project presentation. Name files according to departmental naming convention.

b. Submit portfolio via dropbox folder or directly loading onto professor's computer.

c. Openlab Reflection: reflect on the design process used in the studio. Also reflect on overall studio experience, highs and lows.

30 Project 03 Final Presentation and Reflection 2016-12-19

i. Dress Code: Business Casual

ii. Talking Points on Boards

iii. **Assignment Z (100 points):** Final Portfolio Compilation

a. Create 1 pdf file of each project presentation. Name files according to departmental naming convention.

b. Submit portfolio via dropbox folder or directly loading onto professor's computer. (grade will not be issued until portfolio is received.)

iv. Post Portfolio Reflection to the OpenLab Course site: reflect on the design process used in the studio. Also reflect on overall studio experience, highs and lows.