

Department of Architectural Technology
Bachelor of Technology in Architectural Technology

ARCH 3510 ARCHITECTURAL DESIGN V

2 class hour, 6 lab hours, 5 credits

Course Description: This studio focuses on the design development and detailing of both a commercial and a residential project. This studio addresses the next level of design after schematic design: design development. This includes the integration of structure, mechanical, lighting, plumbing fixture selection, interior materials, finishes, space programming and furniture layout. Students will be required to meet current design and functional needs of the design problem's program as well as code requirements.

Prerequisites: ARCH 2410 with a grade of C or higher, or AAS degree in architecturally related field

Suggested Text: Architectural Graphic Standards [10th Edition], by Ramsey and Sleeper, published by John Wiley and Sons, Inc., 2000. [ISBN #0471348163]

Suggested Reference: Interior Graphic Standards by McGowan, Maryrose & Kruse, Kelsey, published by John Wiley and Sons, Inc., 2003.

Attendance Policy: More than two-unexcused absences will affect the final grade of the student. Two latenesses equal one absence.

Course requirements: A series of problems will be assigned to be developed by the student and presented to the class through architectural drawings and/or models. Ongoing critiques and final jury presentations will be an integral part of the course.

Grading:

Project 1	40%
Project 2	45%
Class critiques and participation	15%

A final grade of C or higher is required in this course to use it as a prerequisite for subsequent courses.

Academic Integrity: Students and all others who work with information, ideas, texts, images, music, inventions and other intellectual property owe their audience and sources accuracy and honesty in using, crediting and citation of sources. As a community of intellectual and professional workers, the college recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension and expulsion.

Learning Objectives: Upon successful completion of this course the student shall:

1. **Develop** schematic design into design document level drawings. (Knowledge)
2. **Understand** the differences between different building systems (electrical, lighting, plumbing, HVAC and structure) and **integrate** them into the Design Development deliverables. (Knowledge)
3. **Research** materials, furniture and lighting specifications and **integrate** specifications into visual representations (models, drawings) and create presentation boards of selected products. (Knowledge)
4. **Apply** knowledge of building codes pertaining to egress and fire protection/suppression to design without compromising design aesthetics. (Knowledge)

5. **Understand** how humans perceive space and how human perception impacts design. (Knowledge)
6. **Demonstrate** knowledge of different societies' values regarding space and its social implications. (Knowledge)
7. **Distinguish** between media and **determine** the appropriate method and media required to complete a drawing or model. (Gen Ed)
8. **Generate** talking points for persuasive presentation of design. (Gen Ed)
9. **Research** precedents and implement information literacy. (Gen Ed)
10. **Apply** quantitative analysis to design. (Gen Ed)
11. **Collaborate** on group projects. (Gen Ed)
12. **Critique** written reports and oral presentations of fellow students. (Gen Ed)
13. **Produce** orthographic, axonometric, perspective, and architectural vignette drawings. (Skill)
14. **Synthesize** site circulation, zoning, urban context, and views to design. (Skill)
15. **Analyze** and **reduce** complex media (print, visual, sites) to component parts. (Skill)
16. **Show ability** to contribute actively by applying knowledge to the identification and analysis of societal and professional problems to enact solutions. (Gen Ed)

Assessment

To evaluate the students' achievement of the learning objectives, the professor will do the following:

1. **Review** students' creative process (initial sketches through to the final project) by means of frequent pin-ups.
2. **Assess** the students' use of professional vocabulary during oral presentations and written work.
3. **Review** students' ability to incorporate a concept into their design work.
4. **Evaluate** students' ability to write descriptions of both existing spaces and their own designs effectively.
5. **Evaluate** students' participation in class discussions regarding students written and oral presentations.
6. **Review** students' accuracy with applying quantitative information to a design scheme.
7. **Evaluate** students' application of design precedents and product specifications.
8. **Review** students' ability to synthesize circulation, zoning, urban context, and views into a design
9. **Review** students' ability to synthesize construction types, hierarchy, and light into building design.
10. **Review** students' ability to incorporate environmental systems and sustainable concepts into their design work.
11. **Review** of group projects will be based on the completeness of the work as well as the effectiveness of the group's team work and communication skills.
12. **Evaluate** students' ability to diagram complex media.

Course Outline:

Week 1: Introduction to course content with discussion of the various factors affecting the design development of a design problem. Discussion of human space.

Week 2: Introduction Program and space planning Macro.

Week 3: Introduction to Individual Residential Unit. Interior planning design concepts and requirements. Discussion of furniture layout, space planning.

Week 4: Site Lecture: including common exterior spaces. Flooring Lecture

Week 5: Bathrooms and kitchen layouts along with material and fixture selections to be discussed. Enlarged bathroom and kitchen layouts along with material and fixture cuts required.

Week 6: Discussion about working as a team, using consultants and developing a cohesive project. Designing based on the clients program, need and budget. Integration of structural elements, stairs, fenestrations. Energy strategies.

Week 7: Review of project and discussion of presentation techniques and models.

Week 8: Jury critique of Project 1

Week 9: Introduction of Project 2: Commercial Project. Discussion of the differences between Residential and Commercial design in relationship to materials, codes, fixtures and space planning.

Week 10: Discussion of commercial interior materials, finishes and colors. Discussion of a material board and finish schedule and its uses.

Spring Break

Week 11: Discussion of various interior partitions types with emphasis on fire rating. Discussion of various ceiling types and uses. Discussion of the connection of the vertical and horizontal surfaces. Discussion of fixed/built-in cabinetry.

Week 12: Commercial bathroom discussion including material, fixtures and ADA layout. Enlarged bathroom with materials and fixture required.

Weeks 13: Discussion of entrance, signage, exterior space and elevation. Elevation incorporating these elements required.

Week 14: Review and development of all aspects of the design development and detailing of the project as previous discussed. Preparation of final documents for final Jury. The introduction of color and rendering into final presentation drawings.

Weeks 15: Presentation