ARCH 1212   **ARCHITECTURAL DESIGN II: FOUNDATIONS AND VISUAL STUDIES**
                  1 lecture; 8 lab/9 studio hours, 5 credits

Professors: **Eirini Tsachrelia (etsachrelia@citytech.cuny.edu)Ioannis**
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                  Course coordinator, academic year 2021-22
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Meeting Times:

SECTION D466

Monday   11:30 AM – 2:00 PM and 2:30 AM – 5:00 PM

Wednesday   8:30 AM –11:00 AM V833

SECTION D463

Monday   8:30 AM – 11:00 AM and 11:30 AM – 2:00 PM

Wednesday 2:30 PM – 5:00PM V812

Class Format: In Person

All sessions for this course will be held in person.
Note: In person classes will **not** be broadcasted remotely.

Course Description: Design Foundations II is the second course in the one-year foundation sequence which increases the student's ability to perceive visual cues, create visual design, formulate concepts, and render ideas in two- and three dimensions. Students will use a combination of hand and digital skills to aid in the creation and interpretation of three-dimensional constructs and space and the delineation of the same using standard projection systems.

The Visual Studies component of the course builds on the knowledge of architectural representation and visualization obtained in Foundations I and Visual Studies I. The course provides training in design tools that will strengthen visual, verbal, and graphic aspects of design and representation skills and will continue to build design and representation techniques and workflows that will prepare them for future coursework and professional practice.

Course context: This is a required course in the design sequence.

Prerequisites: ARCH 1101: Intro to Architecture and ARCH: 1112 Architectural Design I: Foundations and Visual Studies (or ARCH 1110 + ARCH 1191) both with a minimum grade of C

Required Texts:
Ching, Francis D.K. _Architecture: Form, Space, and Order (latest edition)_. New York, NY: John Wiley & Sons, Inc., 1996 (or most recent). Print.
Software Primers _for Rhino, Illustrator, InDesign, Photoshop, and VRay located at_
   https://openlab.citytech.cuny.edu/fuselab/softwarefabrication-tutorials/
Additional readings will be provided as required.

Recommended Texts:
Chin, Francis D. K. and Steven P. Juroszek. Design Drawing. Hoboken, NJ: John Wiley & sons, 2010.
Dunn, Nick. Architectural Modelmaking. London: Laurence King Pub, 2010.
Hannah, Gail G. Elements of Design: Rowena Reed Kostellow and the Structure of Visual Relationships. New York: Princeton Architectural Press, 2002.
Janson, Alban and Florian Tigges. Fundamental Concepts of Architecture: The Vocabulary of Spatial Situations. Birkhauser, 2014.
Mills, Criss. Designing with Models: A Studio Guide to Making and Using Architectural Design Models. Hoboken, N.J: John Wiley & Sons, 2005.
Rasmussen, Steen E. Experiencing Architecture. Cambridge Mass.: M.I.T. Press, 1964.

Class Participation Policy: No more than 10% absences are permitted during the semester. For the purposes of record, two late arrivals are considered as one absence. Exceeding this limit will expose the student to failing at the discretion of the instructor due to lack of class participation and mastery of class material.

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.

Course Structure: This course is a design studio which will include lectures, student presentations, guest critics, in-class workshops, and charrettes. Each design problem will require students to engage in an iterative design process through which they will acquire new skills in a variety of media. Students will deliver verbal and graphic presentations of their designs that will demonstrate agility with vocabulary and concepts and result in a critical class discussion to assess the quality of the work. Work will be completed both in and outside of class. Students work will be evaluated at each class meeting. Students are encouraged to keep record of their own progress.

Grading: A review of students' work will occur at the end of each project.

Project 01: Bridging Surfaces	20%
Project 02: Urban Threshold	40%
Visual Studies Assignments	20%
Class Participation	10%
Portfolio	10%
TOTAL	**100%**

Sketch Assignments: Throughout the semester students will complete sketches relating to each design project. The sketches will document site conditions, materials, and ideas.

Required Supplies:

- Architectural Scale
- 12" Roll of tracing paper
- Sketchbook
- White Glue
- Olfa Knife and replacement blades
- 12" or 18" metal ruler w/cork backing
- 9" X 12" self-healing cutting mat
- Lead, Lead holder and Sharpener

Also see List of Essential supplies handout
Additional supplies and materials to be discussed in class.

File Naming: All digital files must be submitted in the following format:
Course number semester/year_Professor initials _Project Name_ Student Name (image number) **For example: 1212_ SP23_ETIO_Horizontal Connector_JSmith (01)**

Course Structure: Course will include a combination of the following activities:

- **Lectures:**
  Lectures will be given by a qualified instructor and if warranted invited guest lecturers or experts in the field or subject.

- **Activities:**
  Students will participate in activities that provide them with the opportunity to apply what is learned in a given subject.

- **Research Activities:**
  Students will be given directed readings and be required to correlate their readings with the lab exercises. Supplemental research will be encouraged to promote a greater analytical and critical understanding.

- **Presentations:**
  Students will participate in written, oral and graphic presentation of course subjects and issues identified through their reading, writing, and lab work.

General Education Learning Outcomes / Assessment Methods	
Learning Outcomes	**Assessment Methods**
Upon successful completion of this course the	To evaluate the students' achievement of the

student shall be able to:	learning objectives, the professor will do the following:
1. **Lifelong learning Skills** KNOWLEDE - Show curiosity and the desire to learn. Acquire tools for lifelong learning – how to learn, how they learn, knowledge of resources.	1. **Assess** students' development of sketches and massing models through weekly pin-ups.
2. **Communication** Communicate in diverse settings and groups, using written (both reading and writing), oral (both speaking and listening), and visual means.	2. **Assess** student's presentations during weekly pin-ups to determine how effective they are at communicating their ideas.

National Architectural Accrediting Board (NAAB) Students Performance Criteria (PC/SC)/ Assessment Methods	
Learning Outcomes	**Assessment Methods**
Upon successful completion of this course the student shall be able to: (Realm. Number) title [depth]	To evaluate the students' achievement of the learning objectives, the professor will do the following:
1. (PC.2) Design [introduced] How the program instills in students the role of the design process in shaping the built environment and conveys the methods by which design processes integrate multiple factors, in different settings and scales of development, from buildings to cities.	**Review** students' creative process (initial sketches through to the final project) by means of frequent pin-ups. **Observe** students' progression from simple to complex thinking as shown in sketches and completed projects
2. (SC.5) Design Synthesis [introduced] How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating synthesis of user requirements, regulatory requirements, site conditions, and accessible design, and consideration of the measurable environmental impacts of their design decisions.	**Review** the students' ability to make informed decisions regarding the synthesis of concept, program, site, and structure into a design project by means of frequent pin-ups and project Presentations.
Course Specific Learning Outcomes / Assessment Methods	
Learning Outcomes	**Assessment Methods**
Upon successful completion of this course the student shall be able to:	To evaluate the students' achievement of the learning objectives, the professor will do the following:
1. **Implement** an <u>iterative</u> design process from problem identification, information gathering, solution generation and evaluation, implementation, presentation, and overall project evaluation. (Knowledge)	1. **Review** students' creative process (initial sketches through to the final project) by means of frequent pin-ups. **Observe** students' progression from simple to complex thinking as shown in sketches and completed projects.
2. **Incorporate** design concepts and vocabulary into design process and presentations. (Knowledge)	2. **Review** students' creative process (initial sketches through to the final project) by means of frequent

		pin-ups. **Assess** the students' use of professional vocabulary during oral presentations.
3.	**Produce** both analog and digital orthographic, axonometric, perspective, and architectural vignette drawings. (Skill)	**Review** students' creative process (initial sketches through to the final project) by means of frequent pin-ups. **Review** students' 2-D and 3-D analog and digital representation skills. **Inspect** students' portfolios for quality of documentation and editing as well as organization. **Review** students' drawing and modeling work where students must exhibit their visual representation skills (2-D and 3-D).
4.	**Utilize** analogue and digital media to create drawings and models. (Skill)	3. **Review** students' 2-D and 3-D analog and digital representation skills. **Observe** students' progression from simple to complex thinking as shown in sketches and completed projects. **Review** students' drawing and modeling work where students must exhibit their visual representation skills (2-D and 3-D).
5.	**Recognize** the complexity of the physical world (Knowledge)	4. **Review** students' 2-D and 3-D analog and digital representation skills. **Review** students' drawing and modeling work where students must exhibit their visual representation skills (2-D and 3-D).
6.	**Demonstrate** understanding of computer hardware and software as used in architectural practice (Knowledge)	5. **Review** students' 2-D and 3-D analog and digital representation skills. **Inspect** student digital files for use/application of professional standards. **Review** students' drawing and modeling work where students must exhibit their visual representation skills (2-D and 3-D).
7.	**Document** analogue materials into digital format and process and edit for presentations and portfolio. (Skill)	**Observe** students' use and manipulation of computer hardware and software. **Inspect** student digital files for use/application of professional standards. **Inspect** students' portfolios for quality of documentation and editing as well as organization.
8.	**Create** analog and digital 3-D models of medium geometric complexity. (Skill)	6. **Observe** students' use and manipulation of computer hardware and software. **Inspect** student digital files for use/application of professional standards.
9.	**Manipulate** vector and raster files. (Skill)	7. **Inspect** student digital files for use/application of professional standards.

Weekly Course Outline: [tentative subject to change by the instructor]

Week 1   STUDIO
           Course Introduction
           ISSUE: PROJECT 01_Bridging surfaces
           P01 Assignment 01: Site documentation through photography / image capture.
           Assignment 02: line drawing and positive negative drawings
      VISUAL STUDIES
           Assignment 01: Portfolio: generate initial template (this will be an ongoing project
           throughout the semester)

Week 2   STUDIO
           P01 Assignment 02: 3D abstract study models using linear, planar and volumetric
           language (Based on the 2D collage and drawings) Day 2 Hybrid models.
      VISUAL STUDIES
           Assignment 02: Rhino modeling

Week 3   STUDIO
           P01 Assignment 03: series of iterations of the bridge design proposal (translation of
           abstract design language to architectural proposal)
      VISUAL STUDIES
           Assignment 03: Rhino modeling

Week 4   STUDIO
           P01 Assignment 04: Final model construction
           P01 Assignment 05: Orthographic projections of the final proposal
      VISUAL STUDIES
           Assignment 04a: **Rhino** creating content for presentation – outputting images and
           creating and setting up drawings

Week 5   STUDIO
           P01 Assignment 04 cont.: Final model construction
           P01 Assignment 05 cont.: Orthographic projections
           P01 Assignment 06: Presentation board
      VISUAL STUDIES
           Assignment 05: Composite Drawings Rhino + Illustrator

Week 6   STUDIO
           DUE: PROJECT 01 – FINAL REVIEW
           DUE: PROJECT 01 ARCHIVE
           ISSUE: PROJECT 02_Vertical stage
      VISUAL STUDIES
           DUE: PORTFOLIO
           Assignment 06: PORTFOLIO draft 01 submittal

Week 7   STUDIO
           P02A Assignment 01: Performance Analysis diagram
           P02A Assignment 02: Site Analysis (in conjunction with VSII)
      VISUAL STUDIES
           Assignment 07a**:** Site Analysis: Diagraming with Rhino, Illustrator
           and Photoshop

Week 7   STUDIO
           P02A Assignment 02 cont.: Site Analysis (in conjunction with VSII)P02 Assignment 03:
           Study models: generation of design language and concept development
      VISUAL STUDIES
           Assignment 07b: Workshop Refining Diagrams and presentation layouts

Week 9   STUDIO
           P02A Assignment 04: Model: vertical stage design development
           P02A Assignment 05: Digital model design proposal (in conjunction with VSII)

VISUAL STUDIES

Assignment 08**:** Digital model (Rhino): Different strategies for
Modeling in Rhino.

Week 10   STUDIO

P02A Assignment 04 cont.: Final model: Vertical Stage design
P02A Assignment 05: Digital model (in conjunction with VSII)

VISUAL STUDIES

Assignment 09: Using the modeling techniques introduced last
week create a digital model of your current design proposal. Use the
clipping plane tool to study the sectional spatial qualities of the space. Print
the sectional studies, insert a scale figure and continue to edit the
section in sketch form.

Week 11   STUDIO

P02A Assignment 06: Orthographic projections (in conjunction with VSII)
P02A Assignment 07: Diagrams of design strategy and development (in conjunction with
VSII)
P02 Assignment 08: Final presentation board(s)

VISUAL STUDIES

Assignment 10: Presentation drawings: Adding surface thickness, extracting, cleaning
and articulating plans, elevations, sections and
Section/perspectives from digital models

Week 12   STUDIO

DAY 1   **DUE: PROJECT 02A – REVIEW**
DAY 2   **ISSUE: PROJECT 02B_Thresholds: DUMBO welcome center**
P02B Assignment 01: Program analysis
P02B Assignment 02: Study models welcome center proposal

VISUAL STUDIES

DUE: PORTFOLIO
Assignment 11: Storytelling through diagramming**:** Generate a
sequence diagram to help describe the design development of Project 02

Week 13   STUDIO

P02B Assignment 02 cont.: Models design development welcome center
P02B Assignment 03: Digital Model
P02B Assignment 04: Diagrammatic sequence

VISUAL STUDIES

Assignment 12: Rendered sections: Using a section from project 02 create a composite
drawing that activates the space

Week 14   STUDIO

P02B Assignment 02 cont.: Final Models welcome center
P02B Assignment 04: Diagrammatic sequence
P02B Assignment 04: Drawings: rendered Elevation, plan and sections (in conjunction
with VSII)

VISUAL STUDIES

Assignment 13: Develop digital models and presentation drawings
for Project P02B in ARCH 1210

Week 15   STUDIO

DAY 1   P02B Assignment 03: Final model: Vertical Stage design
DAY 2   **DUE: PROJECT P02B – FINAL REVIEW**

VISUAL STUDIES

DUE: PORTFOLIO

7 -**7**