DESCRIPTION
This course will focus on advanced visual communication methodologies necessary for architectural generation, translation, and output. Students will gain comprehension of 2D and 3D digital design drawing, modeling, and fabrication skills using various pictorial systems such as orthographic, para-line, diagram, and projection views. Generation will be a sequential development that moves through scales of representation via digital modeling, visual programming and CAD/CAM procedures. Attention will also be given to color theory and overall compositional values.

The class will progress through lectures, video tutorials, presentations, and pinup discussions. Topics and assignments will be introduced and developed within class time as a compressive framework through which to explore visual design workflows and output scenarios. The coursework will be treated as an instrument of individual investigation and experimentation. Interim submissions and a final portfolio submission will be the ultimate consideration for grading.

WORK
Class will be held on Friday from 9-11am and Tuesday from 5-6pm in WMB 5.114 (5th floor computer lab) unless otherwise noted. Assignments will be due at the beginning of class or as assigned.
STUDENT LEARNING OBJECTIVES

The learning objectives will be evaluated through the graphic systems and procedures as listed above:

• General introduction to the theoretical underpinnings of current digital technology.
• Historical reference for the factors contributing to the use of technology for visual communication in architecture
• Role of CAD/CAM technology in the present architecture profession.
• Preliminary introduction and translation of complex 3D geometric modeling to modeling techniques.
• General introduction to the techniques of 2D and 3D CAM fabrication.
• Hands-on introduction to the use of the laser cutter, CNC, Kuka Robot and 3D printer.

SCHEDULE

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<tr>
<th>Week</th>
<th>Topic</th>
<th>Assn</th>
<th>%</th>
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<tbody>
<tr>
<td>wk 1-3</td>
<td>Diagram</td>
<td>Figure Ground</td>
<td>15</td>
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<tr>
<td>wk 4-7</td>
<td>Orthographic</td>
<td>Shade/Shadow+Poche’</td>
<td>20</td>
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<td>wk 8-12</td>
<td>Form</td>
<td>Generation &amp; Assembly</td>
<td>30</td>
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<tr>
<td>wk 9</td>
<td>spring break</td>
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<tr>
<td>wk 13-16</td>
<td>Projection</td>
<td>insideOUT</td>
<td>25</td>
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<tr>
<td>wk 17</td>
<td>Portfolio</td>
<td>final submission</td>
<td>10</td>
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</tbody>
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REFERENCES

(A web site on Canvas provides all required assignments, reference materials and copies of the weekly lectures.)

http://issuu.com/ani.arzumanyan/docs/the_new_structuralism_design_engineering_and_arch.


https://thinkparametric.com/library
http://drawingarchitecture.tumblr.com
http://vi.sualize.us/tag/architecture_drawing/
https://dwgmodels.com/
http://lynda.com

HARDWARE/SOFTWARE

It is required that you have a laptop able to run Autodesk Revit Architecture, Rhino and Adobe Suite platform. *You may download and install Autodesk products from: http://students.autodesk.com/

Required Software:

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<tr>
<th>Adobe Suite:</th>
<th>Autodesk:*</th>
<th>Other:</th>
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<tbody>
<tr>
<td>Photoshop CS3</td>
<td>AutoCAD</td>
<td>Rhino</td>
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<td>Illustrator CS3</td>
<td>Revit 2019</td>
<td>Grasshopper</td>
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<tr>
<td>InDesign CS3</td>
<td>Dynamo</td>
<td>Enscape plugin</td>
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<tr>
<td>Acrobat CS3</td>
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EVALUATION
Establishing grades for projects of a creative nature is a more complex matter than grading in other academic areas. While each project contains certain quantifiable elements by which it may be evaluated, a significant portion of each grade is derived from a broader, more subjective set of issues.

Each assignment will be weighted based on its duration and complexity. Your work will be evaluated on its rigor and evolution over the semester. Although grades will be distributed at the completion of interim assignments (90%) and final (10%) portfolio submissions. The instructor and teaching assistant are available for any questions or concerns throughout the semester.

GRADE DESCRIPTIONS
A/A−: excellent
The work submitted surpasses expectations in terms of inventiveness, appropriateness, verbal and visual ability, craft, and personal development. Student pursues ideas and techniques above and beyond what is discussed in class.

B+/B/B−: above average
The work submitted is thorough, diligently pursued, and successfully executed. Student pursues ideas and techniques presented in class and puts in effort to resolve assignment. The work demonstrates potential for excellence and is complete.

C+/C/C−: average
The work submitted meets the minimum requirements. Suggestions made in class are not pursued with dedication and/or the work submitted is incomplete. (Note: C− does not meet the minimum grade to be counted toward the student’s degree.)

D+/D/D−: below average
The work submitted does not address basic skills including graphic skills, verbal clarity or presentation is not level appropriate. Student does not demonstrate the required conceptual and technical rigor expected and/or the work submitted is incomplete.

F: failure
Minimum objectives are not met. Performance is not acceptable.

X: excused incomplete
Given for reasons of illness or family emergency. An incomplete is assigned after consultation with the Associate Deans’ offices. Coursework must be completed prior to the beginning of the following semester.

ATTENDANCE
Attendance is mandatory. Participation is expected. Students with three (3) unexcused absences may be dropped from the course without further notice. The minimum penalty for more than three unexcused absences is a full letter drop in your grade for the course. Please contact the instructor prior to class (briscoed@mail.utexas.edu) if you will be late or miss class.

Religious holy days sometimes conflict with class and examination schedules. If you miss an examination, work assignment, or other project due to the observance of a religious holy day you will be given an opportunity to complete the work missed within a reasonable time after the absence. Please notify each of your instructors as far in advance as possible prior to the classes scheduled on dates you will be absent to observe a religious holy day.

STUDENTS WITH DISABILITIES
Students with disabilities who require special accommodations need to get a letter that documents the disability from the Services for Students with Disabilities area of the Office of the Dean of Students (471-6259 voice or 471-4641 TTY for users who are deaf or hard of hearing). This letter should be presented to the instructor in each course at the beginning of the semester and accommodations needed should be discussed at that time. Five business days before an exam the student should remind the instructor of any testing accommodations that will be needed.