



ARCH 6XXX: The Practice of Architecture 2

College of Architecture / Georgia Institute of Technology

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Credits: 3-0-3 (3 semester hours)

Prerequisites: Graduate standing, or junior or senior standing in architecture undergraduate program with permission and required GPA.

Overview:

Practice 2 is a the companion to the Practice 1 course in that the primary objective is to further deepen students understanding of the processes associated with the various types of architectural practice. In part 2, methods of architectural project delivery and project management, fundamentals of building economics and emergent models of research-driven architectural practice are presented and discussed in depth. These simultaneous claims on architecture by the collective and the individual suggest a rapid oscillation between two often competing orientations: history, its ideological structure, its ethical obligations to society), and a view of architectural practice from its marketplace orientation, considering its role in the dynamics of global capitalism.

In Module 1, Students will examine project delivery basics and particulars, including client roles, project management and financial considerations. Presentations will include in-depth readings and discussion on each standard phase of the design process from Schematic Design through Construction Administration. Likewise, students will focus on alternate project delivery models such as Design/Build, Fast Track and Integrated Project Delivery.

In Module 2, Students will focus applied research and critical reasoning through expanding their knowledge of systems of classification and representation. Structured analysis of methods information representation and methods of inquiry will be presented. Students will collectively read the book *The Craft of Research* and a few other texts with an eye towards understanding how to make an argument. There will be a variety of presentations in person and via Skype by leading local and regional designers. Topics will be varied, including but not limited to architects, practicing artists, engineers, etc - firms that are explicitly engaged in the act of research as an essential component of their business model. Special emphasis will be placed on cross-cultural and cross-media practices.

Course Grading: (each component 25%): 1] short exam on Module 1 content (first 7 weeks), 2] resume / portfolio workshop submittal, 3] short exam on Module 2 (second 7 weeks), and 4] firm organization and RFP workshop(s) submittal. Class attendance will be recorded via a sign-in sheet at each lecture, and an 'extra-credit' component, consisting of an A grade for 2 total absences or less, an A- grade for 3 absences, or a B grade for 4 absences, will factor in as a fifth component in the final course grade evaluation (reducing all components to 20%), if the cumulative grade average across the first four components will benefit from the averaging over five components.

Students with Disabilities may request classroom accommodations via:
Dan Carlson, Asst. Dean / e-mail: dan.carlson@vpss.gatech.edu, or 404-894-2564

Academic Integrity expectations, see: <http://www.deanofstudents.gatech.edu/integrity/>

PROJECT DELIVERY METHODS

Week 1	Introduction	Course orientation; requirements and procedures.
	Project Delivery: introduction to project delivery basics	An overview of the broadening spectrum of current project delivery methods, and how such methods are considered based on relationships between the parties.
Week 2	Project delivery: design phase (part 1)	<p>A look at the design process from a more inclusive perspective, with special emphasis on issues and services not prioritized in the academic studio, such as zoning hearings and building code regulations.</p> <ul style="list-style-type: none"> A. Preliminary construction cost budgeting B. Preliminary constraint analyses <ul style="list-style-type: none"> Regulatory environment (Zoning and Building Codes) <ul style="list-style-type: none"> • AIA/Collins. [Architecture Student's Handbook of Professional Practice], Chapter 10.2, "Building Codes and Standards".
	Project delivery: design phase (part 2)	A continuation of design phase tasks and responsibilities, including construction budgeting and cost control..
Week 3	Project delivery: construction documents phase (part 1)	<p>A look at drawing conventions and coordination, outlining options and variations, including a general discussion of production and quality control.</p> <ul style="list-style-type: none"> A. Mainstream '2D' approaches to working drawings and design details B. Emerging '3D' approaches to construction documentation (BIM) <ul style="list-style-type: none"> • AIA/Fallon & Crocco. [Architecture Student's Handbook of Professional Practice], Chapter 8.3, "Construction Documentation".
	Project delivery: construction documents phase (part 2)	<p>An overview of "non-drawing" document production, focusing on specifications, building component schedules, and integrated databases.</p> <ul style="list-style-type: none"> A. Using "master" specifications B. Integrated drawing/specification databases
Week 4	Project delivery: bidding and negotiation phase (part 1)	<p>An outline of the steps, and options, involved in bidding or negotiation of the construction contract. A review of bid documents as well as the bidding/negotiation process.</p> <ul style="list-style-type: none"> A. Bidding documents B. Construction cost estimating C. Bonds <ul style="list-style-type: none"> • AIA/Charvat. [Architecture Student's Handbook of Professional Practice], Chapter 8.4, "Bidding or Negotiation Phase".
	Project delivery: bidding and negotiation phase (part 2)	<p>An overview of the terms under which various Owner / Contractor relationships are governed, focusing on the 2007 edition of AIA Agreement A107.</p> <ul style="list-style-type: none"> A. Owner-Contractor Agreements based on Stipulated Sums B. Owner-Contractor Agreements based on Cost Plus <ul style="list-style-type: none"> • AIA Document A107, Standard Form of Agreement Between Owner and Contractor (for Project of Limited Scope) - 2007 Edition
5	Project delivery: construction phase (part 1)	

Week

An examination of the construction phase, with particular attention to the architect's roles and services relative to project and field administration, design changes, schedules and payments, and project closeout.

- A. Construction contract administration
- B. Shop drawing and submittal reviews
 - AIA/Atkins. [Architecture Student's Handbook of Professional Practice], Chapter 8.5, "Construction Contract Administration".

Project delivery: construction phase (part 2)

Case studies of construction project processes, including both exemplary and confrontational precedents.

- A. Site observations and reports
- B. Arbitration and dispute resolution
 - AIA Document A201, General Conditions of the Contract for Construction - 2007 ed.

Week 6

Project delivery: Alternative project delivery methods including design-build and its basic variants.

An overview of alternative project delivery systems with a focus on Design-Build, Fast-Track, and Bridging methods.

- A. 'Bridging' project delivery
- B. Integrated Project Delivery in further depth
- C. New trends in CAD and BIM, digital visualization, and integrated databases.
 - AIA. [Architecture Student's Handbook of Professional Practice], Chapter 8.2, "Integrated Project Delivery".

Project delivery: Focus on IPD (Integrated Project Delivery) and BIM technologies

A survey of emerging project delivery systems highlighting Integrated Project Delivery, including the opportunities of the BIM paradigm.

Week 7

The future of practice

The future of the architecture profession is considered with respect to its ability to respond to its rapidly changing socio-economic context.

APPLIED RESEARCH AND CRITICAL POSITIONING

Week 8

Design as Research, Research as Design 1

General overview of the relationship between Design and Research. 2 Case Studies are presented and discussed.
 various websites

Envisioning Information 1

Using Chapter 1 and 2 from Edward Tufte's book "Envisioning Information" and the website "Visual Complexity", students are introduced to exemplar strategies for representing information.
 Visual Complexity Chap 1-3

Week 9

The Craft of Research 1

Part I of student presentations on chapters from the book "The Craft of Research". Student's graphic synopsis of chapters are compiled on t-square for future reference.
 Craft of Research Chap. 1-4

The Craft of Research 2

Part 2 of student presentations on chapters from the book "The Craft of Research". Student's graphic synopsis of chapters are compiled on t-square for future reference.
 Craft of Research Chap. 4-7

Week 10	Envisioning Information 2
	Working with the frameworks established by the previous three weeks, students present findings from the analysis assignment in graphic form, including claims, reasons and supporting
Week 11	Envisioning Information 3
	Working with the frameworks established by the previous three weeks, students present findings from the analysis assignment in graphic form, including claims, reasons and supporting
Week 12	Spring Break
	Spring Break
Week 13	Design as Research, Research as Design 2
	Specific overview of the relationship between Design and Research. 2 Case Studies in the area of Health Care and Design are discussed.
Week 14	Firm Visit 1: Perkins and Will
	Students meet at Perkins + Will's Atlanta Office for a presentation of current national and international research initiatives
Week 15	Design as Research, Research as Design 3
	Specific overview of the relationship between Design and Research. 2 Case Studies in the area of Preservation and Restoration are discussed. Final student teams and projects are discussed and set.
Week 16	Firm Visit 2: Lord Aeck and Sargent
	Students meet at Lord, Aeck and Sargent for a presentation of current preservation and restoration initiatives
Week 17	Design as Research, Research as Design 4
	Specific overview of the relationship between Design and Research. 2 Case Studies in the area of Digital Design and Fabrication are discussed led by the current Ventulett Chair.
Week 18	Student Case Study Presentations 1
	Student Teams in Group I present graphics and research
Week 19	Student Case Study Presentations 2
	Student Case Study Presentations 3
Week 20	Jury Week
	Jury Week

BIBLIOGRAPHY

