course syllabus: construction documents

The products of architecture are not just buildings, but also drawings and models, and writings, each of them a mode of representation of a reality with which architecture is engaged, each of them with some similar concerns, but each somehow keeping a certain degree of independence and autonomy from the other.

Architects do not build buildings. Architects draw. That is all we do, and we return thus to the issue of substance and materiality of practice, which defines the practice itself; the task of the architect, as designer and conceiver of a building, ends when the drawing is finished. The implication of this simple fact being that creativity in architecture occurs only at the moment of representation, that moment full of partialities, delirium, and concealments - that artistic moment.

- Jorge Silvetti

INSTRUCTOR: Joe Colistra, Instructor

DESCRIPTION: This 3 credit course introduces students to the concepts and techniques of construction documents, the tools of our craft. The issues involved in developing a building from conceptual design will be explored through a series of both individual and group exercises. Students will create a detailed set of construction documents including: site plan, floor plans, elevations, reflected ceiling plans, roof plan, building sections, wall sections, interior elevations, and details. As in previous years, all drawings must be done on the computer using a CAD software program. Students are expected to have a minimum proficiency with computer drafting.

REQUIRED TEXTS: The students should already own or have access to: Architectural Graphic Standards, Wiley and Sons Building Construction Illustrated, Francis Ching

GRADING: Grading for the course will be based on a mid-term (20%), a final exam (20%), drawing exercises (50%), and participation (10%).

SCHEDULE: Thursdays, 5:00 – 7:45

OBJECTIVES: The course will focus on the following National Architectural Accrediting Board Criteria:

Life Safety: Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their subsystems.

Building Envelope: Understanding of the basic principles that inform the design of the building envelope systems.

Legal Responsibilities: Understanding of architects’ legal responsibilities with respect to public health, safety, and welfare; property rights; zoning and subdivision ordinances; building codes; accessibility and other factors affecting building design, construction, and architecture practice.

Building Code Compliance: Understanding of the codes, regulations, and standards applicable to a given site and building design, including heights and areas, allowable constructions, types, separation requirements, occupancy requirements, means of egress, fire protection, and structure.

Materials and Assemblies: Understanding the principles, conventions, standards, applications, and restrictions pertaining to the manufacture and use of construction materials, components, and assemblies.

Building Economics and Cost Control: Awareness of the fundamentals of development financing, building economics, and construction cost control within the framework of a design project.

Design Development: Ability to assess, select, configure, and detail as an integral part of the design appropriate combinations of building materials, components, and assemblies to satisfy the requirements of building programs.

Technical Documentation: Ability to make technically precise descriptions and documentation of a proposed design for purposes of review and construction.
Instructor Bio:

Joe Colistra is a Principal with the firm in situ DESIGN. The firm’s recent work includes the Ekeley Optics Lab Renovation at the University of Colorado at Boulder, Trellis Townhomes, Merchants Row Brownstones, Wash Park Eco-Homes, and major housing projects for the Housing Authorities of Denver, Boulder, Aurora, and Pueblo. He is also completing the Fourth Quarter Housing project for formerly homeless veterans funded by Denver’s Road Home Program.

He has recently served as a Board Member for the Denver Chapter of the American Institute of Architects and is currently on the Board of the Five Points Business District.

He has been teaching Design Studios and seminars on Building Technology in the Department of Architecture since 1999.

Joe received his Bachelor of Environmental Design from Miami University (Oxford, Ohio) and a Master of Architecture from the University of Colorado at Denver. He is a licensed architect.