Addendum to Part Four (IV): Supplemental Information

IV.1 Course Descriptions -- Revised

IV.1.a. First Year (Foundations) – No Changes

IV.1.b. Design Studio (Core/Professional)

- ARCH 2026 Architectural Design IV
- ARCH 3016 Architectural Design V
- ARCH 3026 Architectural Design VI
- ARCH 4016/4026 Comprehensive Design Studio
- ARCH 5016 Fifth Year Option I Studios (multiple)
- ARCH 5026 Fifth Year Option II Studios (multiple)

IV.1.c. History/Theory

- ARCH 2233/2233H Architectural History I
- ARCH 2243/2243H Architectural History II

IV.1.d. Technology

- ARCH 2132 Environmental Technology I
- ARCH 3134 Building Materials and Assemblies
- ARCH 4154 Environmental Technology II and Building Systems

IV.1.e. Practice

- ARCH 5314 Professional Practice

IV.1.f. University Core – No Changes

IV.1.g. Electives

- ARCH 4723H Honors Architectural Research Methods

IV.1.b. Design Studio (Core/Professional)

ARCH 2026, **Architectural Design IV**
6 Credits

Course Description:
Introduction of building typologies and design processes, architectural form and space, basic structural principles and enclosure systems, and essential life safety requirements for buildings.

Course Goals & Objectives:
- A well-developed ability to conceptualize and illustrate, by diagrams and otherwise, a provisional response to requirements that are defined in the project brief, and to do so with confidence and quickly.
- An ability to organize and apply the elements of a program and to understand and incorporate things as required by codes and by common sense.
- A high level of competence in the use and application of iterative and transformational processes.
- Strong capabilities in drawing, sketching and communication.
- An ability to understand and distinguish great work from that which is merely mediocre. A well developed, critical 'eye.
- Understanding of the quantities and qualities of space, form and surface.
- Understanding tectonics and the quantities, qualities and characteristics of materials and assemblies.

Student Performance Criteria Addressed:
A.6. Fundamental Design Skills
B.2. Accessibility
B.5. Life Safety

Topical Outline:
Design speculation, iteration and development (75%)
Drawing and other representational techniques (25%)

Prerequisites:
ARCH 2016: Architectural Design III.

Textbooks:
Eisenman, Peter. *Ten Canonical Buildings*, Rizzoli, New York, 2008.
Schneider, Friederike. *Floor Plan Manual, Housing*. Birkhauser, Basel, 1994.

Offered:
Spring only, annually

Faculty Assigned:
Amber Ellett, Visiting Assistant Professor
Lynn Fitzpatrick, Clinical Assistant Professor
Greg Herman, Associate Professor
Justin Hershberger, Visiting Assistant Professor
Marc Manack, Assistant Professor
Allison Turner, Visiting Assistant Professor
David Buege, Professor

ARCH 3016, Architectural Design V
6 Credits

Course Description:
3rd Year Fall Studio promotes a more comprehensive and integrated approach to design, concentrating the focus on the relationships between site, program and constructed form. Studio work is structured to evidence three modes of thinking: analytical, technical, and experiential.

Course Goals & Objectives:

- To develop ability to employ typological and organizational strategies toward site/ program/space relationships;
- To explore the roles and relationships of a selected iterative program in service to site/ program/spatial typologies;
- To develop skill in presenting investigative findings through clear, precise diagrams.
- To advance a student's understanding of the generative role structure plays in determining form/space relationships;
- To continue developing each student's ability to use orthographic drawings and diagrams to explain architectural ideas.

Student Performance Criteria Addressed:

A. 7. Use of Precedents
B. 1. Pre-Design
B. 4. Site Design
C. 1. Collaboration

Topical Outline:

Typological precedent analysis. (15%)
Diagrammatic analysis of program, site, and parti investigations - hand, hybrid, digital. (15%)
Technical documentation – digital documentation in plan, section, elevation, axonometric. (25%)
Experiential documentation – 3 dimensional representation of space – hand, hybrid, digital. (25%)
Physical investigation and documentation in 3 dimensional models. (20%)

Prerequisites:

ARCH 2026 – Architectural Design VI
ARCH 2123 – Architectural Structures II

Textbooks/Learning Resources:

Ching, Onouye, and Zuberbuhler. *Building Structures Illustrated* (Wiley. 2009)

Offered:

Fall only; annually

Faculty Assigned:

Frank Jacobus, Assistant Professor
Charles Rotolo, Clinical Assistant Professor
Greg Herman, Associate Professor
Angela Carpenter, Visiting Assistant Professor
Heather McArthur, Lecturer
Russell Rudzinski, Clinical Assistant Professor
Santiago Perez, Assistant Professor
Lynn Fitzpatrick, Clinical Assistant Professor
Rich Brya, Lecturer
Alison Turner, Visiting Assistant Professor

ARCH 3026, Architectural Design VI
6 Credits

Course Description:
3rd Year Spring Studio is referred to as the 'Building Technology Studio', engendering a more critical focus on the articulation of the building envelope and its means of assembly.

Course Goals & Objectives:
- To develop ability to integrate structural and building envelope systems through research and application of traditional and emerging material systems;
- To develop the ability to generate material form and surface in response to specific programmatic, site and climatic project requirements;
- To advance a student's facility with contemporary BIM and parametric modeling tools.
- To advance a student's understanding of envelope detailing toward execution of more articulated design proposals;
- To continue developing each student's ability to use orthographic drawings and diagrams to explain architectural ideas.

Student Performance Criteria Addressed:
A. 4. Technical Documentation
A. 5. Investigative Skills
B. 10. Building Envelope Systems

Topical Outline:
Typological precedent analysis. (15%)
Diagrammatic analysis of program, site, and parti investigations – hybrid and digital. (15%)
Technical documentation – digital documentation in plan, section, elevation, axonometric. (25%)
Physical investigation and articulation in 3 dimensional models. (25%)
Experiential documentation – 3 dimensional representation of space – hybrid and digital. (20%)

Prerequisites:
ARC 3016, Architectural Design V
ARC 3134, Building Materials and Assemblies

Textbooks/Learning Resources:
Watts, Andrew. *Modern Construction Handbook* (Springer Wien. 2010)

Offered:
Spring only; annually

Faculty Assigned:
Frank Jacobus, Assistant Professor
Charles Rotolo, Clinical Assistant Professor
Santiago Perez, Assistant Professor
Angela Carpenter, Visiting Assistant Professor
Heather McArthur, Lecturer
Russell Rudzinski, Clinical Assistant Professor
Lynn Fitzpatrick, Clinical Assistant Professor
Rich Brya, Lecturer
Alison Turner, Visiting Assistant Professor

ARCH 4016 or ARCH 4026 Comprehensive Design Studio
6 Credits

Course Description:
Emphasis is on criticality and performativity through consideration of typology, context, program and technology (environmental/ structural/ constructional) to accomplish at multiple scales substantial and substantive design resolutions.

Course Goals & Objectives:
- Achieve a comprehensive design that exhibits criticality and sophistication, particularly in regard to the interrelation of human experience, place and tectonics, and also, a rigorous synthesis and resolution of the *design research* at the contextual (site), technical, programmatic, aesthetic, formal and conceptual levels.
- Achieve *tectonic resolution* in the synthesis of form, space and surface; resulting from the poetic and technical expression of environmental efficacy, materiality, structure, and precise detailing as an act of **both** making and revealing.
- Understand, conceptually integrate and competently resolve structural and environmental systems, building envelope systems, sustainability, ADA and life-safety provisions, and building assemblies; each addressed at the appropriate context: urban, building, envelope, and detail.
- Document the design project at multiple scales via analytical diagrams, physical models, digital/ hand drawing techniques, and other products.
- Demonstrate competency to communicate through representation the resolution of building systems and their integration.

Student Performance Criteria Addressed:
B.6. Comprehensive Design

Topical Outline:
Design Thinking Skills
Technical Documentation
Investigative Skills
Ordering Systems
Historical Tradition and Global Culture
Structural Systems
Accessibility
Sustainability
Site Design
Life Safety
Environmental Systems (HVAC, Lighting, Acoustics
Building Systems Integration and Architectural Detailing and Materials

Prerequisites:
ARCH 3026

Co-requisite:
ARCH 4154

Textbooks/Learning Resources:
Topical materials provided throughout the semester

Offered:
Fall and Spring, annually

Faculty Assigned:
Tahar Messadi, Associate Professor
Alison Turner, Visiting Assistant Professor

ARCH 5016 / 5026, Fifth-Year Option Studios

6 Credits

Course Description:

Fifth year will provide students, faculty, and visiting faculty opportunities for speculative design, research, and civic engagement in a range of studio settings. In these upper tier studios, the design-centered approach will remain the focal strength in the pursuit of creative activities, and in the resolution of complex problems pertaining to the public realm within which architecture contextually operates. Projects will be developed around diverse and tangible architectural issues that advance the profession and/or find resonance with the community and the city. They will also become the venue for collaborative design and for making opportunities with public entities, community groups and professionals in other disciplines and industries. The fifth year educational program is positioned to instill agency in students as they advance into the profession and multiple forms of practice. Students will have the choice to progress into prospective work that may represent a faculty research interest with emphasis on the incubation of speculative endeavors, or to engage into projects initiated by faculty, which also challenge students to work on 21st century issues. In the spring semester, students may enroll in a new studio setting or may continue in their fall semester setting (space permitting). Professional electives and seminars may be developed by faculty to align more closely or act as a companion course with a particular studio.

Faculty studios (in-house or visiting): Studios defined by faculty
John G. Williams Distinguished Visiting Professor: Noted practitioners and leaders in the architectural profession
Design-Build: Active community impact through service and community-oriented projects
University of Arkansas Community Design Center: Guided community and urban design foci

Honors Thesis

In the fall semester, honors students will select a "professional honors" elective relevant to their chosen thesis topic as preparation for an honors thesis in the spring. In the spring semester, each design studio setting may offer an honors component for participating honors students. Approval by the honors committee of the student's request is contingent upon evidence of the quality and merits of their thesis proposal and likelihood for a high level of success working independently. For those students enrolled in studios who wish to graduate with honors, there will be a set of criteria and assignments defined for them by their advisor(s) and studio instructor(s).

Course Goals and Objectives:

- Augment students' ability to develop an architectural design proposal by engaging a coherent line of design inquiry.
- Develop a mode of inquiry that calls upon analytical thinking and making.
- Instill criticality, analysis, and synthesis skills.
- Introduce students to present-day issues and problems – a model for creative practice.
- Build the capacity for students to effectively operate in differing settings: public entities, community groups, etc.
- Generate design / research scopes that expose students to: 1) specific areas that support the practice of architecture such as tectonic studies, environmental issues, formal/spatial studies; 2) multiple settings (urban, suburban, and exurban).
- Establish a culture in which information, arguments, and design proposals are intelligently visualized.

Student Performance Criteria Addressed:

A. 11. Applied Research
C. 09. Understanding Community & Social Responsibility

Topical Outline:

Varies according to specific studio setting

Prerequisites:

ARCH 4026

Textbooks / Learning Resources:

Varies according to specific studio setting

Offered:

Fall and spring semesters, annually

Faculty Assigned:

Varies according to specific studio setting; see teaching assignments matrix

ARCH 5016 / 5026, Option Studio: UACDC
6 Credits

Course Description:
Students, collaborating with staff, explore a repertoire of place-building design models emphasizing feedback between environmental processes and infrastructural design.

Course Goals and Objectives:
- Introduce students to multivariate, complex socio-environmental problems—wicked problems—for which design has a unique capacity to deliver integrated solutions. This initiates the question of creative practice and the role of "critical practitioner" or instrumental thinking in upper division students.
- Engage multiple decision-making domains through allied knowledge fields and multidisciplinary practices in the course of authoring design proposals.
- Introduce research and/or case study components into problems of "context production" to enhance design intelligence.
- Establish an outreach culture in which information, arguments, and design proposals are intelligently visualized so that they may be usefully engaged by lay audiences.

Student Performance Criterion Addressed:
A. 11. Applied Research
C. 09. Understanding Community & Social Responsibility

Topical Outline:
N/A

Prerequisites:
Core Design Studio Sequence

Textbooks/Learning Resources:
Alexander, Christopher, et al. *A New Theory of Urban Design,* New York: Oxford University Press, 1987.
Duany, Andres and DPZ. *Theory and Practice of Agrarian Urbanism*, London: The Prince's Foundation for the Built Environment, 2011.
Gorgolewski, Mark, et al. *Carrot City: Creating Places for Urban Agriculture,* New York: The Monacelli Press, 2011.
Lynch, Kevin. *The Image of the City*, Cambridge, Massachusetts: The MIT Press, 1960.

Offered:
Fall and Spring, annually

Faculty Assigned:
Stephen Luoni, Distinguished Professor
Jeffrey Huber, Project/Program Manager

ARCH 5016 / 5026, Design Build Studio
6 Credits

Course Description:

The primary task of this studio is the design and construction of a small, affordable house. Typically site selection mandates situating the project in an urban, working-class neighborhood. All phases of studio work immerse students deeply in the community, working with clients, professional architects, building officials, trades people, consultants, and suppliers, as well as collaborating with one another. As a result, students learn the importance of drawings, documentation, and communication relative to the actual processes of building, and as operative elements of critical practice and design.

In recent academic years, the University of Arkansas Design Build program partnered with the Downtown Little Rock community Development Corporation (DLRCDC) to build houses in the Pettaway Park neighborhood south of McArthur Park. The DLRCDC is a non-profit focused on creating and maintaining affordable homes in Downtown Little Rock. One of the initiatives of the DLRCDC is to collaborate with public, private, and non-profit organizations to achieve their goals.

Course Goals & Objectives:

By combining aspects of both traditional architectural practice and design-build practice, students are expected to learn the direct correlation between the ideas contained in drawings and the artifacts to be made. This increases understanding of the built world and also teaches empathy for those of the building industry. In this studio setting, students learn by doing – a visceral and powerful way to learn. Additionally the course develops proficiency in Revit and a basic understanding of BIM technology in order to streamline the construction document phase, allowing all students to work on construction documents.

Student Performance Criteria Addressed:

A. 11. Applied Research
C. 09. Understanding Community & Social Responsibility

Topical Outline:

Design work – 50%
Construction in field – 50%

Prerequisites:

ARCH 4026

Offered:

Fall and Spring semesters, annually

Faculty Assigned:

Mark Wise, Visiting Assistant Professor
Justin Hershberger, Visiting Assistant Professor

ARCH 5016-001, 5TH YEAR OPTION STUDIO I
6 credits

Course Description:
With the opening of the High Line in New York, and the completion of other notable works such as Steven Holl's Linked Hybrid project in Beijing, and recent proposals by Foreign Office and Future Systems, MVRDV, Zaha Hadid and OMA, there is clearly a renewed interest in urban spaces that employ three-dimensional networks of pedestrian systems. While designing mixed-use urban infill buildings, students will explore new, three-dimensional urban typologies within the context of the Highline and New York's unique history of multilevel urban propositions.

Course Goals & Objectives:
- The studio will have a research and design component. Examples of skyway cities will be studied to understand their physical and spatial characteristics and the forces driving their development. Students will explore the architectural implications of these systems through a series of focused design studies that will provide a departure point for a critical analysis of this new urban form. An interdisciplinary approach including architecture, urban design and landscape architecture will be encouraged.
- A mature capacity for critically engaged design work will be evidenced through:
    - Synthesis of Research, Intent and Iterative Exploration.
    - Self-initiated critical engagement of the technologies and methods of design challenging architects as critical thinkers and practitioners in contemporary culture; Ecological, Digital, Material, & Spatial processes of design engagement.
    - Effective, responsible & creative resolution of the design problem
    - Evidence of both individual development of work, and collaborative discussion, dialog, and dissemination of ideas, knowledge and skills.

Student Performance Criterion/a Addressed:
A. 11. Applied Research
C. 09. Understanding Community & Social Responsibility

Topical Outline:
Mapping the City and Skyway Nomenclature (20%)
Concept Studies (20%)
Mixed Use Development (40%)
Structure and Skin (20%)

Prerequisites:
ARCH 4016 Comprehensive Studio, Completion of Study-Abroad Program

Textbooks/Learning Resources:
DeLanda, Manuel. *The Non-Linear City,* in Eco-Tec: Architecture of the In-Between. (New York: Storefront Books, 1999)
Wigley, Mark. *Network Fever,* in Grey Room 04. (MIT Press Journals, 2001)
1-Week Research Trip: London, UK and NYC (High-Line Site Research)

Offered:
Fall, 2012

Faculty Assigned:
Santiago R. Perez, Assistant Professor
Vincent James, John. G. Williams Distinguished Visiting Professor
Jennifer Yoos, John. G. Williams Distinguished Visiting Professor

ARCH 5026, Option Studio, Design X: Museum of the Hardwood Tree
6 Credits

Course Description:
Advanced studio engages community input / precedent study for the design of a museum to showcase historical artifacts produced by the Arkansas wood products industry.

Course Goals & Objectives:
- To respectfully consider input from project stakeholders and community lay members from Ft. Smith, Arkansas, and to produce work responsive to their programmatic directives.
- To convey that work via public presentation to community members.
- To consider the institution of the 'museum' and to interpret it appropriately for this application.\
- To achieve a comprehensive design that conveys rigorous synthesis and resolution of the design research at the contextual (site), programmatic, aesthetic, formal and conceptual levels.
- To achieve tectonic resolution and articulation of form, space and surface; resulting from the poetic expression of structure, materiality and detail as an act of both making and revealing.
- To document the process and outcome of the design project at multiple scales via analytical diagrams, physical models, digital and hand drawing techniques, and other products

Student Performance Criteria Addressed:
This studio is offered as an ELECTIVE and contributes to an understanding of criteria:
A. 11. Applied Research
C. 9. Community and Social Responsibility

Topical Outline:
Pre-design documentation and research (15%)
Design and presentation (85%)

Prerequisites:
Senior standing

Textbooks/Learning Resources (selected):
museums / exhibit design
- Goethe Institut, New Museum Buildings in the Federal Republic of Germany, DAM: Frankfurt a. M., 1985.
- Lorenc, Jan, Lee Skolnick, Craig Berger, What is Exhibition Design? Mies, Switzerland : RotoVision, 2007.
- Lotus International; 1982 / II, Issue 35. Essays on developments in museums / museum culture.
- Pevsner, Nikolaus, "Museums," A History of Building Types, Princeton: Princeton University Press, 1976.

typology
- Argan, Giulio Carlo, "On the Typology of Architecture," Theorizing a New Agenda for Architecture, Princeton: Princeton University Press, 1996.
- Colquhoun, Alan, Typology and Design Method, Perspecta Vol. 12, New Haven: Yale University School of Architecture, 1969.
- Moneo, Rafael, "On Typology," Oppositions 13, Cambridge: MIT Press, summer 1978.
- Vidler, Anthony, "The Third Typology," Oppositions 7, Cambridge: MIT Press, 1977.

Offered:
Spring semester 2013

Faculty Assigned:
Gregory Herman

IV.1.c. History/Theory

ARCH 2233 / ARCH 2233H, History of Architecture I
3 Credits

Course Description:
History of Architecture I provides a foundation in global architectural history and theory from the earliest signs of spatial intentions to circa 1400.

Course Objectives:
- To assess built form historically and contextually in terms of the human experience of the cosmos, social relations, and prevailing political structures and religious philosophies
- To evaluate historical architecture occupationally in terms of use, ritual, and social access (class and gender)
- To survey the impact of architectural theory and practice (i.e., the changing role of the architect) on design in pre-modern civilizations
- To acquire a disciplinary vocabulary for describing historical architecture, materials, and technology
- To amass a repertoire of architectural precedents that can be deployed in resolving contemporary design problems
- To characterize the fundamentals of early city planning in Western and non-Western cultures
- To distinguish diverse design principles in the religious (and sometimes political) architecture of non-Western cultures: Japan, India, Mesoamerica, and Islamic Middle East.
- To interpret the qualities of vernacular architecture, especially residences

Student Performance Criteria Addressed:
A.9. Historical traditions and global culture

Topical outline:
Prehistoric through Bronze-Age architecture and theory (15%)
Classical Greek and Roman architecture and theory (22%)
Medieval Europe religious and civil architecture and theory (27%)
Architecture traditionally considered non-Western (17%)
Urbanism, all periods and including non-Western (10%)
Vernacular housing, all periods including non-Western (9%)

Prerequisites:
None; but in most cases, concurrent enrollment in ARCH 2016 and ARCH 2113

Textbooks/Learning Resources:
Spiro Kostof, *A History of World Architecture: Settings and Rituals*, 2nd ed. (Oxford University Press, 1995)
Select film clips shown in class or on reserve.
Additional readings on reserve or available through online databases.

Offered:
Fall only; annually

Faculty Assigned:
Kim Sexton, Associate Professor
Brian Poepsel, Visiting Instructor (2013)

ARCH 2243 / 2243, History of Architecture II
3 Credits

Course Description:
History of Architecture II provides a foundation in global architectural history and theory from the Renaissance to circa 1860.

Course Objectives:
- To assess built form historically and contextually in terms of the human experience of early modernity, its organizational and revolutionary social and religious changes, and emerging territorial states and colonialism/imperialism
- To evaluate historical architecture occupationally in terms of use, ritual, and social access (class, ethnicity, and gender), as populations move from group-think into nationalism
- To survey the impact of architectural theory and practice (i.e., the professionalization of the architect) on design, as early modern societies become science-centered and academies of architecture emerge
- To enlarge one's disciplinary vocabulary for describing historical architecture, materials, and technology
- To amass a repertoire of architectural precedents and typologies that can be deployed in resolving contemporary design problems
- To characterize the radical shifts in city planning created in early modern Western and non-Western cultures
- To distinguish diverse design principles in the religious and political architecture of non-Western cultures: Japan, India, the Islamic Middle East, and Sub-Saharan Africa
- To apply specialized interpretive principles to prepare vernacular architecture, especially residences, for analysis

Student Performance Criteria Addressed:
A.9. Historical traditions and global culture

Topical outline:
Renaissance through Baroque architecture and theory (34%)
Enlightenment through 19th-century architecture and theory, Europe and the US (25%)
Architecture traditionally considered non-Western (15%)
Urbanism, all periods and including non-Western (9%)
Vernacular housing, all periods, especially colonial America (12%)
Architecture and ethnicity in colonial environments (5%)

Prerequisites:
In most cases ARCH 2233 / 2233H and concurrent enrollment in ARCH 2026 and 2124

Textbooks/Learning Resources:
Spiro Kostof, *A History of World Architecture: Settings and Rituals*, 2nd ed. (Oxford University Press, 1995)
Select film clips shown in class or on reserve.
Additional readings on reserve or available through online databases.

Offered:
Spring only; annually

Faculty Assigned:
Kim Sexton, Associate Professor
Brian Poepsel, Visiting Instructor (2014)

IV.1.d. Technology

ARCH 2123, Architectural Structures II
3 credits

Course Description:
Introduction to the basic theories of structures, structural behavior, and the design of simple structural systems capable of resisting gravity and lateral forces.

Course Goals & Objectives:
- Students will gain a basic understanding of structural behavior as an extension of ARCH 2113
- Students will gain a basic understanding of the organization of framing systems.
- Students will gain a basic understanding of the location and strategies for lateral force resisting elements for building structures.
- Students will gain a basic understanding of reinforced concrete building system types.
- Students will gain a basic understanding of reinforced concrete frame components and their design.

Student Performance Criteria addressed:
B. 9. Structural Systems
B. 3. Sustainability – materials & resources

Topical Outline:
Structural Systems (25%)
Structural design - wood (25%)
Structural design – steel (25%)
Structural design – concrete (25%)

Prerequisites:
ARCH 2113

Textbooks/Learning Resources:
Barry Onouye / Kevin Kane. *Statics and Strength of Materials for Architecture and Building Construction, 4th Edition* (Prentice Hall. 2011)
Francis D.K. Ching, Barry Onouye, Douglas Zuberbuhler. *Building Structures Illustrated* (Wiley. 2009)
Edward Allen / Joseph Iano. *Fundamentals of Building Construction, 5th Edition* (Wiley. 2009)
R.E. Shaeffer. *Reinforced Concrete - Preliminary Design for Architects and Builders* (McGraw-Hill. 1992)

Offered:
Spring only; annually

Faculty assigned:
Edward Richardson Brya, Lecturer
Dr. Jerry Wall, Professor

ARC 3134, Building Materials and Assemblies
4 Credits

Course Description:
Introduction to building materials and methods of assembly: history, properties, use and configuration - both traditional and contemporary, in the service of building construction; their impact on the form, expression and performance of the architectural structure and envelope.

Course Goals & Objectives:
- To provide architecture students in the 3rd year of their program core curriculum with a working knowledge of building materials and their impact in the design process
- To broaden students' technical aptitude through application of material principles and concepts
- To develop technical documentation skills through application of digital tools.

Student Performance Criteria Addressed:
A. 4. Technical Documentation
B. 5. Life Safety
B. 10. Building Envelope Systems
B. 12. Building Materials and Assemblies

Topical Outline:
Stereotomic: site manipulation, earthwork, and foundation strategies, material and spatial potential of subtractive structural form - masonry, stone and concrete bearing wall systems.(30%)
Tectonic: material and spatial potential of additive structural form - wood, concrete, and steel frame systems.(30%)
Textile: the building envelope and the dynamic implications of the liberation of building enclosure from its structure, as defined by masonry & stone, wood, metal and glass cladding systems.(30%)
Life Safety: the building code, egress and accessibility. (10%)

Prerequisites:
ARCH 2132 – Environmental Technology I
ARCH 2113 – Architectural Structures I
ARCH 2123 – Architectural Structures II

Textbooks/Learning Resources:
Ching, Francis D.K., *Building Construction Illustrated – 4th Ed.* (Wiley. 2008) – primary textbook
Allen and Iano, *Fundamentals of Building Construction – 5th Ed.* (Wiley. 2009)
Ching, Onouye, and Zuberbuhler, *Building Structures Illustrated* (Wiley.
2009)
Ching and Winkel, *Building Codes Illustrated – 4th Ed.* (Wiley. 2012)

Offered:
Fall only; annually

Faculty Assigned:
Charles Rotolo, Clinical Assistant Professor

ARCH 4154, Environmental Technology 2 and Building Systems
4 Credits

Course Description:
This course covers mechanical systems, electric lighting, acoustics, fire safety, water-waste, transportation, envelope environmental response-details. These systems are integrated in the comprehensive design studio project.

Course Goals & Objectives:
- To make the student aware of the different types of HVAC systems and to understand their integration to the building fabric.
- To develop an understanding of lighting systems and their design integration.
- To comprehend acoustical techniques developed for better hearing and communication between people, and for sound isolation of noise from adjacent spaces and the exterior environment.
- To understand water-sewer, fire safety, transportation, and ways to integrate them into the building design.

Student Performance Criteria Addressed:
B. 8. Environmental Systems
B. 9. Structural Systems
B.11. Building Service Systems

Topical Outline:
HVAC Systems (20%)
Electric Lighting (15%)
Acoustics (15%)
Code (10%)
Water and waste (10%)
Fire protection (5%)
Transportation (10%)
Sustainability (5%)
Building Systems Integration and Architectural Detailing (10%)

Prerequisites:
ARCH 3134 – Building Materials and Assemblies
ARCH 2132 – Environmental Technology I
ARCH 2113 – Architectural Structures I
ARCH 2123 – Architectural Structures II

Corequisite:
ARCH 4016 Comprehensive Design Studio (Fall) or ARCH 4026 Comprehensive Design Studio (Spring)

Textbooks/Learning Resources:
Mechanical and Electrical Equipment for Buildings, 11th. Ed., Stein & S. Reynolds, Wiley&Sons, NY, 2010
Handouts-Environmental Technology 2 Class Notes available from http://comp.uark.edu/~tmessadi
Building Systems Integration for Enhanced Environmental Performance, Shahin Vassigh and Jason R. Chandler, J. Ross Publishing, 2011
The Building Systems Integration Handbook, AIA and Richard Rush, John Wiley & Sons Inc, 1986.

Offered:
Fall and Spring

Faculty assigned:
Tahar Messadi, Associate Professor
Alison Turner, Visiting Assistant Professor

IV.1.e. Practice

ARCH 5314, Professional Practice
3 Credits

Course Description:
The aim of this course is to elucidate for students all aspects of the transition from academia to professional practice including the process of turning designs into buildings.

Course Goals & Objectives:
Develop understanding in the breadth of issues that give context to architectural practice including:

- The profession: licensure, organizations, career options
- Ethical and legal issues surrounding the profession
- Roles and responsibilities of the architect: before, during, and after a project
- Practice: firm types, development and office management
- Project delivery: methods, advantages/disadvantages
- Project management: effective communication and leadership
- Construction documents: preparation, format, management
- Building codes and regulations
- Contracts: relationships between architects, owners, and contractors
- Leadership in the profession: practice and service

Student Performance Criteria Addressed:
B.7. Understanding Financial Considerations
C.3. Understanding Client Role in Architecture
C.4. Understanding Project Management
C.5. Understanding Practice Management
C.6. Understanding Leadership
C.7. Understanding Legal Responsibilities
C.8. Understanding Ethics and Professional Judgment

Topical Outline:
Financial Considerations (15%)
Client Role in Architecture (15%)
Project Management (15%)
Practice Management (15%)
Leadership (10%)
Legal Responsibilities (10%)
Ethics and Professional Judgment (15%)
Community and Social Responsibility (5%)

Prerequisites:
Fifth Year Standing or Instructor Approval

Textbooks/Learning Resources:
American Institute of Architects, *The Architecture Student's Handbook of Professional Practice, 14th ed.* (John Wiley & Sons, 2009)

Offered:
Fall only, annually

Faculty Assigned:
Marc Manack, Assistant Professor
Bob Kohler, Lecturer

IV.1.g. Electives

ARCH 4723H, Honors Architectural Research Methods
3 Credits

Course Description:
This course helps build the student's understanding of research and design methods and assists in the development of a topic and method for conducting their honors thesis.

Course Goals and Objectives:
- Students will add depth to their understanding of the influence of paradigms (e.g., positivism, constructivism, critical theory, deconstruction, etc.) and theories on architectural research.
- Students will understand the types and purposes of various quantitative, qualitative and design research methods.
- Course will help students define the purposes of a thesis and articulate the parts of a thesis
- Course will help students identify a variety of viable thesis topics and select, narrow, and articulate one thesis topic.
- Course will help students develop a prospectus (including a proposed thesis schedule).
- Course will help students understand the day-to-day routine of doing a thesis.
- Students will identify a thesis chair and committee.

Student Performance Criterion Addressed:
Not Applicable

Topical Outline:
Not Applicable

Textbooks / Learning Resources:
Groat, L., & Wang, D. (2002). *Architectural Research Methods* (John Wiley & Sons)
Kubler, G. (1962). *The Shape of Time* (Yale University Press)

Offered:
Fall only, annually

Faculty Assigned:
Frank Jacobus, Assistant Professor
Brian Poepsel, Instructor