

## IV.2 Course Descriptions

### KGAR 511 Immersion I: Seeing Architecture (6 credits)

#### Course Description

Through direct observation, students learn to see at different scales (material, structure, infrastructure, cityscape), engage architectural communication, product and practice, and draw relationships to precedents.

#### Learning Outcomes

In KCAR 511, the student will

- Become familiar with architectural discourse.
- Learn how to see at multiple scales.
- Understand the dynamic nature of architecture and urbanism.
- Understand the importance of identifying and learning from precedents.
- Become familiar with the changing role of the architect.
- Learn how to support direct observation with indirect study.

#### NAAB Student Performance Criteria Introduced and Developed

No SPCs are demonstrated in this course. Those introduced and developed include

A2 Design Thinking Skills	B3 Sustainability
A5 Investigative Skills	B4 Site Design
A7 Use of Precedents	B12 Building Materials and Assemblies
A9 Historical Traditions and Global Culture	C1 Collaboration
A10 Cultural Diversity	C2 Human Behavior
B2 Accessibility	C8 Ethics & Professional Judgment
	C9 Community & Social Responsibility

#### Topical Outline

Learning to look	25%
Scope of the discourse	25%
The value of precedents	25%
Challenges of change	25%

#### Prerequisite

Admission to the MArch Program or permission of the Program.

#### Textbooks/Learning Resources

Students engage and document the city and region directly through field trips. The instructor provides a bibliography. Students are introduced to KCAD and FSU libraries and databases, and use various media for research, documentation and presentation.

**Offered fall semester of the first year program**

**Faculty to be determined**

## **KGAR 512 Studio I: Principles and Processes: Objects (6 credits)**

### **Course Description**

Working from Immersion I's lessons and observations, students design, draw and make at full scale to solve a small but open-ended body/space problem.

### **Learning Outcomes**

In KGAR 512, the student will

- Engage in design thinking about problems of human occupation of space and place.
- Learn the process of group and individual critique in developing solutions.
- Acquire familiarity with the fundamental issues of context, place, sustainability, access, ethics and social responsibility.
- Use a variety of techniques and media to test and express each stage of the design process visually and physically.

### **NAAB Student Performance Criteria Introduced and Developed**

No SPCs are demonstrated in this course. Those introduced and developed include

A1 Communication Skills	B2 Accessibility
A2 Design Thinking Skills	B3 Sustainability
A5 Investigative Skills	B4 Site Design
A6 Fundamental Design Skills	C1 Collaboration
A7 Use of Precedents	C2 Human Behavior
A8 Ordering Systems Skills	C8 Ethics & Professional Judgment
A9 Historical Traditions & Global Culture	C9 Community & Social Responsibility
A10 Cultural Diversity	

### **Topical Outline**

Design thinking as methodology	25%
Design principles	25%
Design systems, skills, process	25%
Visual communication skills	25%

**Prerequisite:** KGAR 511 Seeing Architecture

**Corequisite:** KGAR 513 Design Communication I

### **Textbooks/Learning Resources**

The instructor provides a bibliography. Students will draw on the KCAD and FSU libraries and databases, and use appropriate software for research, documentation and presentation.

**Offered fall semester of the first year program**

**Faculty: Juli Brode and Adam Clark**

## **KGAR 513 Seminar I: Design Communication 1 (3 credits)**

### **Course Description**

Students investigate architectural communication conventions, and develop the habit of manifesting ideas in 2D and 3D form for testing, developing and communicating.

### **Learning Outcomes**

In KGAR 513, the student will

- Learn the conventions of architectural communication.
- Understand historical developments in architectural communication.
- Learn to project space through 2D and 3D drawings.
- Become familiar with choosing media and means for effective communication.
- Practice communicating Studio I design ideas.

### **NAAB Student Performance Criteria Introduced and Developed**

No SPCs are demonstrated in this course. Those introduced and developed include

A1 Communication Skills	A4 Technical Documentation
A2 Design Thinking Skills	A6 Fundamental Design Skills
A3 Investigative Skills	A8 Ordering Systems Skills

### **Topical Outline**

Principles of design communication	25%
History of design communication	25%
Visual communication skills	50%

**Prerequisite:** KGAR 511 Seeing Architecture

**Corequisite:** KGAR 512 Principles and Processes: Objects

### **Textbooks/Learning Resources**

The instructor provides a bibliography. Students use appropriate analog and digital equipment and techniques for investigation, communication, documentation, and presentation.

**Offered fall semester of the first year program**

**Faculty: Adam Clark**

## **KGAR 521 Immersion 2: How Things Work (6 credits)**

### **Course Description**

Students develop conceptual understanding of how things work: materials / methods, structures / systems, societies / cultures, forces of nature and our historical responses.

### **Learning Outcomes**

In KCAR 521, the student will

- Begin to understand architecture as a set of responses to natural and social forces.
- Become familiar with materials and methods of construction.
- Understand basic concepts of structures and systems.
- Develop appreciation for transdisciplinary perspectives on the built environment.

### **NAAB Student Performance Criteria Introduced and Developed**

No SPCs are demonstrated in this course. Those introduced and developed include

A1 Communication Skills	B8 Environmental Systems
A2 Design Thinking Skills	B9 Structural Systems
A5 Investigative Skills	B12 Building Materials and Assemblies
A7 Use of Precedents	C1 Collaboration
C8 Ethics & Professional Judgment	

### **Topical Outline**

Nature-science-technology and architecture	35%
Nature-culture-aesthetics and architecture	35%
Transdisciplinary perspectives	30%

### **Prerequisite**

Completion of the first semester of the first year program or its equivalent.

### **Textbooks/Learning Resources**

The instructor provides a bibliography. Students will draw on the KCAD and FSU libraries and databases, and use appropriate laboratories, equipment and software for research, documentation and presentation.

**Offered spring semester of the first year program**

**Faculty to be determined**

## **KGAR 522 Studio II: Making and Meaning: Systems (6 credits)**

### **Course Description**

Working from Immersion II's lessons, students apply design thinking and critical thinking to a structure/building/site problem that encompasses context and human social experience.

### **Learning Outcomes**

In KGAR 522, the student will

- Engage design thinking and critical thinking in addressing a problem at a scale requiring multiple systems across the fundamental issues of place, materials, structures and forces.
- Engage in direct site/place investigation as part of the design process.
- Integrate representation and communication skills in the design process.
- Practice ethics and social responsibility in design.
- Demonstrate foundational understanding of historical and contemporary constructions of science, technology and culture.

### **NAAB Student Performance Criteria Developed**

No SPCs are demonstrated in this course. Those developed include

A1 Communication Skills	B9 Structural Systems
A2 Design Thinking Skills	B10 Building Envelope Systems
A5 Investigative Skills	B11 Building Service Systems
A6 Fundamental Design Skills	B12 Building Materials and Assemblies
A7 Use of Precedents	C2 Human Behavior
A8 Ordering Systems Skills	C8 Ethics & Professional Judgment
B8 Environmental Systems	C9 Community & Social Responsibility

### **Topical Outline**

Critical thinking for design development	30%
Design thinking for systems development	35%
Design development in response to social experience	35%

**Prerequisite:** KGAR 521 Immersion II, and KGAR 512 Studio I or equivalent

**Corequisite:** KGAR 523 Seminar II

### **Textbooks/Learning Resources**

The instructor provides a bibliography. Students will draw on the KCAD and FSU libraries and databases, and use appropriate media for research, documentation and presentation.

**Offered spring semester of the first year program**

**Faculty to be determined**

## **KGAR 523 Seminar II: Design Communication 2 (3 credits)**

### **Course Description**

Focusing on emerging techniques, students become familiar with new approaches to drawing and fabricating as they continue to practice the conventions of architectural communication.

### **Learning Outcomes**

In KGAR 523, the student will

- Learn emerging techniques for architectural communication.
- Practice the conventions of 2D and 3D representation.
- Learn fabrication techniques for different representation scales.
- Practice choosing media and means for effective communication.
- Develop skills and processes for communicating Studio II design ideas.

### **NAAB Student Performance Criteria Introduced and Developed**

No SPCs are demonstrated in this course. Those developed include

A1 Communication Skills	A6 Fundamental Design Skills
A3 Investigative Skills	A8 Ordering Systems Skills
A4 Technical Documentation	

### **Topical Outline**

Emerging representation techniques	35%
Fabrication for different scales	35%
Developing representation skills and processes	30%

**Prerequisite:** KGAR 512 Seminar I or equivalent

**Corequisite:** KGAR 522 Studio II

### **Textbooks/Learning Resources**

The instructor provides a bibliography. Students use appropriate analog and digital equipment and techniques for investigation, communication, documentation, and presentation.

**Offered spring semester of the first year program**

**Faculty to be determined**

## **KGAR 551 Summer Studio: Design and Building Science (3 to 6 credits)**

### **Course Description**

Students explore through hands-on projects how materials work and go together, why buildings stand up, and how structural and environmental systems work together.

### **Learning Outcomes**

In KCAR 551, the student will

- Develop a foundation in structural systems selection and design.
- Develop a foundation in environmental systems selection and design.
- Explore systems integration in a design project.
- Use Granger Center laboratories to investigate the science of building.

### **NAAB Student Performance Criteria Developed**

No SPCs are demonstrated in this course. Those developed include

A1 Communication Skills	B4 Site Design	C1 Collaboration
A4 Technical Documentation	B5 Life Safety	C4 Project Management
A5 Investigative Skills	B6 Comprehensive Design	C5 Practice Management
A10 Cultural Diversity	B8 Environmental Systems	C6 Leadership
A11 Applied Research	B9 Structural Systems	C8 Ethics & Prof. Judgment
B2 Accessibility	B10 Building Envelope Systems	C9 Community & Social Responsibility
B3 Sustainability	B12 Building Materials & Assemblies	

### **Topical Outline**

Varies by offering. An approximation:

Exploring materials and assemblies	25%
Experimenting with structural systems	25%
Experimenting with environmental systems	25%
Testing how these integrate through and with design	25%

### **Prerequisites**

Completion of first-year program or equivalent, plus evaluation of individual prior course work

### **Textbooks/Learning Resources:**

Instructor will determine texts as needed. The Granger Center laboratories at Ferris State University will be the primary learning resource.

**Offered the summer preceding the second year of the program**

**Faculty to be determined**

## **KGAR 531 Immersion III: Critique of Architecture (6 credits)**

### **Course Description**

Students engage diachronic, cross-contextual and critical histories of architecture and urbanism, and the rebuttal/response of 21<sup>st</sup> century architectural issues – technologies, resources, cultures, aesthetics, ethics, leadership.

### **Learning Outcomes**

In KGAR 531, the student will

- Demonstrate understanding of world history of the built environment, architecture and city planning, theories of architecture and their basis in culture and society, environment and technology.
- Demonstrate understanding of ethics and professional judgment in architecture in global and historic context.
- Demonstrate understanding of the architect's leadership role and its historic and cultural context.
- Use research to critically challenge current architectural theories.
- Use the understanding gained in the course to project architectural futures.

### **NAAB Student Performance Criteria Demonstrated**

- A9 Historical Traditions and Global Culture: an understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.
- C6 Leadership: an understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.
- C8 Ethics and Professional Judgment: An understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.

### **NAAB Student Performance Criteria Developed**

A1 Communication Skills	A7 Use of Precedents	B3 Sustainability
A2 Design Thinking Skills	A11 Applied Research	C2 Human Behavior
A5 Investigative Skills	B1 Pre-Design	C9 Community & Social Responsibility

### **Topical Outline**

World architecture history	30%
Architecture theory	30%
Ethics	20%
Leadership	20%

### **Prerequisite**

Second-year standing in program (first year for 2-year MArch students)

### **Textbooks/Learning Resources**

The instructor provides a bibliography. Students will draw on the KCAD and FSU libraries and databases, and use appropriate software for research, documentation and presentation.

### **Offered fall semester of the second year program (first year of 2-year MArch)**

**Faculty:** Brian Craig, Laura Whatley, Erica Morowski



## **KGAR 532 Studio III: Site : Tectonics : Sustainability (6 credits)**

### **Course Description**

Students engage a tectonic, place-making exploration of design principles and processes, creating sustainable solutions that are responsive to site, ecology and program.

### **Learning Outcomes**

In KGAR 532, the student will

- Demonstrate an integrated, collaborative approach to place-making.
- Demonstrate understanding of site design through response to site characteristics within a design problem.
- Research and practice environmental principles within design projects, including an understanding of how to optimize, conserve and reduce the environmental impacts of building construction.
- Research natural and formal ordering systems and how they relate to design organization within a specific context.
- Use a variety of techniques and media to express each stage of the design process visually.

### **NAAB Student Performance Criteria Demonstrated**

- A3 Visual Communication Skills: the ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.
- A6 Fundamental Design Skills: the ability to effectively use basic architectural and environmental principles in design.
- A8 Ordering Systems Skills: an understanding of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two-and three-dimensional design.
- B3 Sustainability: the ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.
- B4 Site Design: the ability to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.

### **NAAB Student Performance Criteria Introduced and Developed**

A1 Com Skills	A9 Hist Trad/Glob Cult	B7 Finan. Cons.	B12 Bldg Mat/Assemblies
A2 Des Thk Skills	A11 Applied Res	B8 Env. Syst	C2 Human Behavior
A4 Tech Doc	B1 Pre-Design	B9 Struc Syst	C6 Leadership
A5 Invest Skills	B2 Accessibility	B10 Bldg Env Syst	C8 Ethics & Prof Jdgmt
A7 Use of Precdnt	B6 Compreh. Des	B11 Bldg Serv Syst	C9 Com & Soc Responsibility

### **Topical Outline**

Site Analysis and Design	30%
Principles of Sustainable Design	30%
Design systems, skills, process	20%
Visual communication skills	20%

### **Prerequisite**

Second-year standing in program (first year for 2-year MArch students)

### **Textbooks/Learning Resources**

The instructor provides a bibliography. Students will draw on the KCAD and FSU libraries and databases, and use appropriate software for research, documentation and presentation.

### **Offered fall semester in the second year program**

**Faculty:** Juli Brode, Adam Clark

**KGAR 503 Elective/Special Topic: Design/Build: A Sustainable Approach (2 semesters, 3 credits per semester)**

**Course Description**

Using the single-family home as a vehicle, this course explores the design-build process from community engagement through design and delivery of a sustainable solution.

**Learning Outcomes**

In KGAR 503, the student will

- Identify and engage community members and partner organizations to define a project that addresses a real-world problem and will become the focus of the year's work.
- Communicate and maintain relations with community members, partner organizations, and city planners throughout the project.
- Learn leadership and team skills, act as a member of a design-build team, consisting of the individuals in the class.
- Manage the delivery of a design/build project, inclusive of project schedules, budgets and human resource needs, increasing understanding of the implications each has for the project.
- Implement and manage changes during project progress.
- Research, identify and evaluate relevant sustainable principles; determine and implement effective approaches, materials, systems and methods.
- Create a set of design objectives, explore architectural solutions, selecting a preferred direction.
- Develop the design objectives through building solutions, systems and methods.
- Fabricate the design solution, gain familiarity with tools, materials and methods of construction through direct engagement.

**NAAB Student Performance Criteria Introduced and Developed**

No SPCs are demonstrated in this course.

**Topical Outline**

Community engagement and problem definition	15%
Leadership and team work	10%
Project planning and management	20%
Architectural design	20%
Material and systems research, prototyping, and construction	35%

**Prerequisite**

Second-year standing in program (first year for 2-year MArch students), or permission of program

**Textbooks/Learning Resources**

The instructor provides a bibliography. Students will draw on the KCAD and FSU libraries and databases, and use appropriate laboratories, equipment and software for research, documentation and presentation.

**Offered fall semester 2014.** This course is structured as an elective special topic. It is a two-semester sequence, with carryover of learning outcomes, continuing into the spring semester. It may or may not recur in future years.

**Faculty:** Juli Brode, Adam Clark, Brian Craig

## **KGAR 541 Immersion IV: Building Systems Integration (6 credits)**

### **Course Description**

Students explore the theory and practice of accessibility, life-safety, environmental, structural, and service systems, with emphasis on how they interact and collectively inform building design.

### **Learning Outcomes**

In KGAR 541, the student will

- Gain understanding of how environmental, structural, and building service systems are effectively integrated with each other within building design.
- Demonstrate understanding of structural design and the selection of structural systems.
- Demonstrate understanding of environmental systems and the response of environmental systems selection and design to climate, resources, and emerging and traditional technologies.
- Demonstrate understanding of building service systems selection and design.
- Demonstrate understanding of sustainable systems interaction and integration.
- Become familiar with universal design principles and life-safety systems design.

### **NAAB Student Performance Criteria Demonstrated**

- B8 Environmental Systems: an understanding of the principles of environmental systems design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics, including the use of appropriate performance assessment tools.
- B9 Structural Systems: an understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.
- B10 Building Envelope Systems: an understanding of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.
- B11 Building Service Systems: an understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems.

### **Student Performance Criteria Developed**

A1 Communication Skills	B3 Sustainability	B12 Building Materials & Assemblies
A4 Technical Documentation	B4 Site Design	C1 Collaboration
B2 Accessibility	B5 Life Safety	C7 Legal Responsibilities

### **Topical Outline**

Structural Systems	25%
Environmental Systems	25%
Building Service Systems	20%
Systems Integration	20%
Universal Design and Life Safety Systems	10%

### **Prerequisites**

Completion of Summer Building Science and Studio/Immersion III (KGAR 551) or the equivalent undergraduate preparation.

### **Textbooks/Learning Resources**

The instructor provides a bibliography. Students draw on KCAD and FSU libraries, databases, shops and laboratories, and use appropriate software for research, documentation and presentation.

**Offered spring semester of the second year program**

**Faculty to be determined**

## KGAR 542 Studio IV: Systems Thinking for Sustainable Architecture (6 credits)

### Course Description

Students focus on integrated development and documentation of building design. A comprehensive, sustainable architectural project emerges, incorporating place, process, principles, technology, materials and systems.

### Learning Outcomes

In KGAR 542, the student will

- translate abstract ideas, interpret information, test alternatives leading to integrated design solutions.
- demonstrate an understanding of cultural and historic context in place-making.
- select structural and environmental systems and demonstrate their integration in a building design.
- demonstrate ability to design accessible sites, buildings and systems.
- apply the basic principles of life-safety systems with an emphasis on egress.
- create technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of building materials and systems.

### NAAB Student Performance Criteria Demonstrated

- A4 Technical Documentation: the ability to make technically clear drawings, write outlines specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.
- B6 Comprehensive Design: the ability to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales while integrating the following SPC:

A2 Design Thinking Skills	A9 Historical Traditions & Global Culture	
A4 Technical Documentation	B2 Accessibility	B4 Site Design
A5 Investigative Skills	B3 Sustainability	B8 Environmental Systems
A8 Ordering Systems	B5 Life Safety	B9 Structural Systems

- B2 Accessibility: the ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities.
- B5 Life Safety: ability to apply the basic principles of life-safety systems with an emphasis on egress.
- B12 Building Materials and Assemblies: an understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.

### Student Performance Criteria Developed

A1 Communication Skills	A7 Use of Prec.	B7 Financial Consid	C1 Collaboration
A2 Des. Thinking Skills	A8 Ordering Syst Skills	B8 Env Syst	C2 Human Behavior
A3 Vis. Comm. Skills	A9 Hist Trad/Glob Cult	B9 Struct Syst	C7 Legal Responsibility
A5 Technical Documentation	B3 Sustainability	B10 Bldg Env Syst	C8 Ethics/Prof Judgment
A6 Accessibility	B4 Site Design	B11 Bldg Serv Syst	C9 Com/Soc Responsibility

### Topical Outline

Program analysis	10%
Site analysis	10%
Materials selection	10%
Systems integration	25%
Comprehensive integration	30%
Technical documentation	15%

**Prerequisite:** KGAR 541 Building Systems Integration

### Textbooks/Learning Resources

The instructor provides a bibliography. Students will draw on the KCAD and FSU libraries and databases, shops and laboratories, and use appropriate software for research, documentation and presentation.

**Offered spring semester in the second year of the program**

**Faculty to be determined**

## **KGAR 611 Immersion V: Critical Travel (6 credits)**

### **Course Description**

Students engage place-making by studying off-campus, using design research to understand the interactions of social context, cultural diversity, and human behavior with the built environment.

### **Learning Outcomes**

In KGAR 611, the student will

- Demonstrate an understanding of the built environment's impact on issues of social and environmental justice and the inverse ability of social and environmental justice to inform the built environment.
- Demonstrate an understanding of the role of research in design and architectural practice as they shape culture and human behavior through the form of the built environment.
- Evaluate and document visually, textually, diagrammatically, and orally the key physical, social, political, historical, cultural, and economic context of a specific site within the built environment.
- Synthesize contextual research into strategic design guidance that considers social and cultural influences to enhance place-making in the built environment.

### **NAAB Student Performance Criteria Demonstrated**

- A5 Investigative Skills: the ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes
- A10 Cultural Diversity: an understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects
- C2 Human Behavior: an understanding of the relationship between human behavior, the natural environment and the design of the built environment

### **NAAB Student Performance Criteria Developed**

A1 Communication Skills	B1 Pre-Design	C8 Ethics & Professional Judgment,
A7 Use of Precedents	B2 Accessibility	C9 Community & Social Responsibility
A9 Hist. Traditions & Global Culture	B3 Sustainability	
A11 Applied Research	B4 Site Design	

### **Topical Outline**

History of the city	20%
Urban theory: sociology, geography, contexts	25%
Human behavior in the built environment	25%
Political and cultural origins and issues of urban form	20%
Research and documentation methods	10%

### **Prerequisites**

Studio/Immersion IV (KGAR 542) or permission of instructor.

### **Textbooks/Learning Resources**

The instructor provides a bibliography. Students travel with laptops/tablets equipped with appropriate software for documenting, designing, graphics, writing, and research.

**Offered fall semester of the third year program**

**Faculty to be determined**

## **KGAR 612 Studio V: Urban Collaborative (6 credits)**

### **Course Description**

Grounded in the research developed in KCAR 6x1, students explore the relationship between architecture, culture, and urban form through the design of a site-specific architectural intervention.

### **Learning Outcomes**

In KGAR 612, the student will

- Identify and document visually, textually, diagrammatically, and verbally the key physical, social, political, historical, cultural, and economic factors impacting a specific site and associated design project.
- Demonstrate the use and integration of precedent in design research and problem solving.
- Interact collaboratively within a design team and with community leaders and project constituents.
- Develop a socially, economically, and environmentally responsive architectural intervention.

### **NAAB Student Performance Criteria Demonstrated**

- A7 Use of Precedents: the ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.
- C1 Collaboration: the ability to work in collaboration with others and in multidisciplinary teams to successfully complete design projects
- C9 Community and Social Responsibility: an understanding of the architect's responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.

### **NAAB Student Performance Criteria Developed**

A1 Commun. Skills	A9 Hist. Trad & Global Culture	B7 Financial Considerations
A2 Design Thinking Skills	A10 Cultural Diversity	C2 Human Behavior
A3 Visual Commun. Skills	A11 Applied Research	C4 Project Management
A4 Tech. Documentation	B2 Accessibility	C5 Practice Management
A5 Investigative Skills	B3 Sustainability	C6 Leadership
A6 Fund. Design Skills	B4 Site Design	C7 Legal Responsibility
A8 Ordering Systems Skills	B5 Life Safety	C8 Ethics & Judgment

### **Topical Outline**

Learning from and working with community	20%
Research and documentation of place	20%
Developing responsive urban and architectural design	60%

### **Prerequisite**

KCAR 542 Studio IV: Systems Thinking for Sustainable Architecture

### **Textbooks/Learning Resources**

The instructor provides a bibliography. Students will draw on the KCAD and FSU libraries and databases, and use appropriate software systems for research, documentation and presentation.

**Offered in the fall semester in the third year of the program**

**Faculty to be determined**

## KGAR 613 Practice Seminar: Critical Practice of the Profession (3 credits)

### Course Description

Students investigate the role of design, collaboration, project delivery, client relationships and ethical behavior in building and maintaining a sustainable professional practice.

### Learning Outcomes

In KGAR 613, the student will

- Understand broadly the historical trajectory of global architectural practices
- Document an understanding of standard and alternative firm types, sizes, and structures.
- Investigate interdisciplinary combinations of architecture and other practices with cultural, civic or economic organizations.
- Analyze multiple forms of project delivery and demonstrate an understanding of the impact of project delivery on contractual roles and responsibilities of project team members.
- Identify stages of a project and the key elements and team participation at each stage necessary for successful project management.
- Interpret situations faced in professional practice and recommend appropriate action based upon the roles and ethical responsibilities of the architect.
- Demonstrate an understanding of licensure and continuing education requirements.

### NAAB Student Performance Criteria Demonstrated

- B7 Financial Consideration: an understanding of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.
- C3 Client Role in Architecture: an understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.
- C4 Project Management: an understanding of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods.
- C5 Practice Management: an understanding of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.
- C7 Legal Responsibilities: an understanding of the architect's responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.

### NAAB Student Performance Criteria Developed

A1 Commun. Skills	A9 Hist. Trad & Glob. Culture	B3 Sustainability	C8 Ethics & Judgmt
A4 Tech. Doc.	A10 Cultural Diversity	B4 Site Design	C6 Leadership
A5 Investig. Skills	A11 Applied Research	C1 Collaboration	C9 Community & Social
A7 Use of Precedents	B2 Accessibility	C2 Human Behavior	Responsibility

### Topical Outline

Forms of practice across time and place	25%
Forms of project delivery	20%
Roles and responsibilities of the project team	20%
Legal and ethical responsibilities	20%
Licensure and professional development	15%

**Prerequisite:** Completion of the second-year course of study

**Textbooks/Learning Resources:** The instructor provides a bibliography. Students draw on the KCAD and FSU libraries and databases, and use appropriate software for research, documentation and presentation.

**Offered in the fall semester in the third year of the program**

**Faculty to be determined**

## **KGAR 621 Thesis Preparatory Seminar (3 credits)**

### **Course Description**

The student focuses on independent design research, analysis, and critical readings, and develops a written thesis proposal to solve an original, architecturally relevant problem.

### **Learning Outcomes**

In KGAR 621, the student will

- Identify an appropriate research topic for an architectural thesis.
- Conduct a comprehensive literature review for the topic and provide analysis and commentary in development of the thesis proposal.
- Engage in multiple methods of design research and analysis in development of the thesis proposal.
- Document visually, textually, diagrammatically, and orally research undertaken in development of the thesis proposal, including a comprehensive program.
- Synthesize independent research and analysis to define the thesis proposal and establish a development plan.

### **NAAB Student Performance Criteria Demonstrated**

A1 Communication Skills: the ability to read, write, speak and listen effectively.

B1 Pre-Design: the ability to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.

### **NAAB Student Performance Criteria Developed**

A2 Design Thinking Skills

A11 Applied Research

A5 Investigative Skills

C2 Human Behavior

A7 Use of Precedents

C6 Leadership

A9 Hist. Traditions & Global Culture

C9 Community & Social Responsibility

A10 Cultural Diversity

### **Topical Outline**

Research development	20%
Critical readings and discussions	20%
Comprehensive program development	30%
Thesis proposal development and critique	30%

### **Prerequisite**

Studio V (KGAR 612): Urban Collaborative

### **Textbooks/Learning Resources**

The instructor provides a bibliography of common transdisciplinary readings, and each student develops and documents a thesis-specific bibliography. Students will draw on the KCAD and FSU libraries and databases, and use a wide range of research and representation media and techniques appropriate for research, documentation and presentation.

**Offered spring semester in the third year of the program**

**Faculty to be determined**



## **KGAR 622 Studio VI: Thesis (6 credits)**

### **Course Description**

Each student defines and presents an unsolved, architecturally relevant problem and develops, proposes and defends a solution through design research, thinking and communication.

### **Learning Outcomes**

In KGAR 622, the student will

- Collaborate with faculty and professional advisors to realize an architectural thesis.
- Develop and define a sustainable approach to architecture and its practice.
- Integrate research results, technical skills, and knowledge of craft and communication in producing a project that exhibits empathy and understanding of a specific culture and place.
- Defend an individual thesis through critical re-evaluation and communicate results in a clear and compelling form.

### **NAAB Student Performance Criteria Demonstrated**

- A2 Design Thinking Skills: the ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.
- A11 Applied Research: an understanding of the role of applied research in determining function, form, and systems and their impact on human conditions and behavior.

### **NAAB Student Performance Criteria Developed**

A1 Communication Skills	A8 Ordering Systems Skills	C1 Collaboration
A3 Visual Comm. Skills	A9 Hist. Trad. & Global Culture	C2 Human Behavior
A5 Investigative Skills	A10 Cultural Diversity	C6 Leadership
A6 Fund. Des. Skills	A11 Applied Research	C9 Comm & Soc Responsibility
A7 Use of Precedents		

### **Topical Outline**

Research and pre-design	15%
Development of the thesis argument and consideration of counter-arguments	20%
Development of project for presentation and critical review	65%

### **Corequisite**

KGAR 623 Thesis Proseminar

### **Prerequisite**

KGAR 612 Studio V: Urban Collaborative

KGAR 621 Thesis Preparatory Seminar

### **Textbooks/Learning Resources**

The instructor provides a bibliography of common readings, and each student develops and documents a thesis-specific bibliography. Students will draw on the KCAD and FSU libraries and databases, and use a wide range of research and representation media and techniques appropriate for research, documentation and presentation.

**Offered spring semester in the third year of the program**

**Faculty to be determined**

## **KGAR 623 Thesis Proseminar (3 credits)**

### **Course Description**

The student focuses on thesis development with emphasis placed on continued research, written, diagrammatic, and oral communication, and peer review.

### **Learning Outcomes**

Building on work undertaken in KGAR 621 Thesis Preparatory Seminar, students will

- Engage in multiple methods of design research and analysis in development and defense of an architectural thesis.
- Engage in active, constructive critique of fellow students' work.
- Document visually, textually, diagrammatically, and orally research undertaken in development and defense of the thesis.
- Synthesize design research in a manner that is effectively communicated to both architectural and non-architectural audiences.
- Synthesize the independent research and analysis undertaken into a final, public thesis defense.

### **NAAB Student Performance Criteria Developed**

No SPCs are demonstrated in this course. Those developed include

A1 Communication Skills	A10 Cultural Diversity
A2 Design Thinking Skills	A11 Applied Research
A5 Investigative Skills	C2 Human Behavior
A7 Use of Precedents	C6 Leadership
A9 Hist. Traditions & Global Culture	C9 Comm. & Social Responsibility

### **Topical Outline**

Research development	10%
Visual communication development	10%
Verbal communication development	10%
Development of the argument	10%
Development of peer review	15%
Critical readings and discussions	15%
Final thesis defense preparation	30%

### **Corequisite**

KGAR 622 Thesis Studio VI

### **Prerequisite**

KGAR 621 Thesis Preparatory Seminar

### **Textbooks/Learning Resources**

The instructor provides a bibliography of common readings, and each student develops and documents a thesis-specific bibliography. Students will draw on the KCAD and FSU libraries and databases, and use a wide range of research and representation media and techniques appropriate for research, documentation and presentation.

**Offered spring semester in the third year of the program**

**Faculty to be determined**