

Architecture

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COLLEGE OF APPLIED SCIENCES AND ARTS

Graduate Faculty:

Anz, Craig K., Associate Professor, Ph.D., Texas A&M, 1991; 2009.

Brazley, Michael D., Associate Professor, Ph.D., University of Louisville, 2002; 2004.

Cho, Siwon, Associate Professor, Ph.D., Virginia Tech, 2008; 2009.

Davey, Jon, Professor, M.S., Southern Illinois University Carbondale, 1987; 1981.

Dobbins, John, Associate Professor and *Head*, Master of Architecture program, M. Arch., M. B. A., University of Illinois, 1986; 1995.

González-Torres, Rolando, Associate Professor, *Emerita*, Ph.D., Universidad Politécnica de Cataluña, 2008; 2013.

Kidd, Laura K., Associate Professor, Ph.D., Iowa State University, 1994; 1996.

LaGarce, Melinda, Associate Professor, *Emerita*, M.F.A., Texas Technology University, 1972; 1989.

Lee, Seung-Hee, Professor, Ph.D., The Ohio State University, 1998; 2012.

McDonald, Shannon Sanders, Associate Professor, M. Arch., Yale University, 1992; 2011.

Morthland, Laura, Associate Professor, M.A., University of Oregon, 2003; 2006.

Poggas, Christy, Assistant Professor, *Emerita*, M.S. Ed., Southern Illinois University Carbondale, 1990. B.Arch., University of Arizona, 1975; 2003.

Smith, Peter B., Associate Professor, M. Arch., University of Illinois, 1980; 2001.

Swenson, Robert, Associate Professor, *Emeritus*, M. Arch., Yale University, 1969; 1999.

Wendler, Walter V., Professor and *Director*, *Emeritus*, Ph.D., University of Texas, 1991, M. Arch, University of California, Berkley, 1975; 2001.

Wessel, Stewart P., Professor, M.F.A., University of North Texas, 1992; 1996.

White, David, Associate Professor, *Emeritus*, M. Arch., Southern Illinois University Carbondale, 1991; 1998.

Workman, Jane, Professor, *Emerita*, Ph.D., Purdue University, 1982; 1989.

Master of Architecture

The Master of Architecture degree is a first professional degree intended for individuals who have completed a pre-professional undergraduate degree in architecture or architectural studies and requires a minimum of 42 semester hours that can be completed over a 15 month period including a summer, fall, spring and summer semester sequence.

The core of the architecture program is the design studio. In the Graduate program students are exposed to concentrations in community and regional design, technology, theory and building design. Students are required to take advanced courses in research methods, programming and professional practice. Students receive a rigorous and demanding education that will

prepare them for a variety of architectural intern positions.

The focus of the program will develop through the:

- Traditional program strength in technological innovation and practice connected to architectural theory.
- Service and discovery related to the regional and global culture and environment as a unique model and framework for the study of architecture.
- Investigation of the work and legacy of R. Buckminster at Southern Illinois University as it impacts twenty-first century architecture.

The entire undergraduate and graduate curriculum is designed to fulfill National Architectural Accrediting Board (NAAB) requirements and conditions for a professional degree in architecture. The Master of Architecture degree is fully accredited by the National Architectural Accrediting Board (NAAB) and meets educational requirements for licensure in Illinois and other states as well as National Council of Architectural Registration Boards (NCARB) certification requirements.

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

The NAAB grants candidacy status to new programs that have developed viable plans for achieving initial accreditation. Candidacy status indicates that a program should be accredited within 6 years of achieving candidacy, if its plan is properly implemented.

Vision and Mission

The SIU architecture graduate program invites students to unleash their potential and join in the exploration, development, and creation of architecture in the heartland of America. It is our vision to be an architectural program of excellence built upon the cultural and environmental heritage of the Southern Illinois region that provides a superior education and produces the highest quality architectural scholarship and research to serve our global communities.

Through our cultural heritage, environmental context and the tradition of integrating emerging technology and innovative practice, the mission of the architecture faculty and students is to explore, create, and develop architecture as a synthesis of design excellence, artistic expression, technology and community involvement.

Goals

- Our graduates are lifelong learners, leading citizens and professionals in communities throughout the world.
- We provide for the development of individual creativity through the expression of human, social and environmental values.

- We serve our communities through problem solving and creative efforts in the addressing of regional issues.
- We seek to fulfill the vision expressed by Ernest Boyer and Lee Mitgang in Building Community to:
 - Produce architecture that enhances the quality of life of our communities, serves the needs of clients, uplifts the human spirit, preserves the environment, provides social justice and expands aesthetic frontiers.
 - Pursue the scholarship of discovery, integration, application and teaching.
 - Provide a curriculum that is liberal, flexible and integrated both within the discipline of architecture and in connections with other disciplines in the design-build process.

Application Requirements and Procedures

A complete application consists of:

1. The Master of Architecture application form
2. Graduate School application
3. Application fee of \$65
4. Portfolio
 - Examples of work should include design studio work, professional presentation drawings, and any related expressions that demonstrate the applicant's design and communication abilities. Professional work should include a statement from the employer stating the role of the applicant in the process and product of the work.
 - Preferred sizes: (8 ½" x 11") or (11" x 17"). Use a PDF file.
 - Maximum number of pages: 25
 - Maximum weight: 16 ounces
 - Covers and binding: simple and easy to read
 - Portfolios cannot be returned to the applicant.
5. Three letters of recommendation
6. Official transcripts from all institutions attended
7. Statement of purpose expressing academic and professional career goals and plans

International applicants also need to supply TOEFL (Test of English as a Foreign Language) scores that satisfy the Graduate School requirements and Certification of Finances for Admission to the Graduate College.

Graduate Record Examination (GRE) is not required for the Master of Architecture Program. However, many scholarship and fellowship opportunities do require the GRE. Applicants are encouraged to submit test scores.

Application materials are reviewed by the faculty of the School of Architecture. Each submission is evaluated individually and the decisions are based upon the quality of the portfolio, the strength of the academic record, the letters of recommendation, professional experience and the commitment and clarity expressed in the letter of intent.

Contact:

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Curriculum Guide

The curriculum has been created to provide a superior architectural education and satisfy NAAB "Student Performance Requirements". All applications will be reviewed to ascertain fulfillment of the educational criteria of the SIU undergraduate program. Any deficiencies will be defined upon acceptance into the program as well as the necessary course requirements to eliminate those deficiencies. Those requirements must be fulfilled prior to completion of the Master of Architecture degree.

The graduate curriculum consists of 42 semester credit hours which must be completed prior to awarding of the Master of Architecture degree.

Summer I Semester

ARC 550	Regional Architecture Studio	6
TOTAL		6

Fall Semester

ARC 500-3	Research Methods and Programming	3
ARC 541-3	Arch. Systems & the Environment	3
ARC 551-6	Comprehensive Architecture Design Studio	6
ARC 591-3	Architectural Professional Practice I	3
TOTAL		15

Spring Semester

ARC 532-3	Global Traditions in Architecture	3
ARC 552-6	Graduate Architectural Design Thesis I	6
ARC 592-3	Architectural Professional Practice II	3
Elective		3
TOTAL		15

Summer II Semester

ARC 554-6	Design/Thesis II –or-	6
ARC 593-6	Architectural Research Paper –or-	6
ARC 599-6	Thesis	6
TOTAL		6

Integrated Path to Architectural Licensure (IPAL) Option

The Integrated Path to Architectural Licensure program is offered in an online format as an option for students. This Program consists of 51 graduate credits total. In addition to 39 hours of the 42-credit graduate program shown above, four courses are completed: ARC 594, 595, 596, and 597. The elective shown in the 42-credit graduate program is replaced by one of these courses. All four courses are completed to fulfill the IPAL option.

To be admitted to the IPAL option, applicants must have documented work experience of at least 2000 hours on their National Council of Architectural Registration Boards Council Record, also known as the Architectural Experience Program (formerly known as the Intern Development Program). Applicants must also be working in a firm that is willing to

partner with the applicant and the School of Architecture to document IPAL requirements for the applicant during their time in the program. Applicants should verify that their state of first licensure permits taking the Architecture Registration Exam before completing the professional degree.

Students may be admitted to the Master of Architecture program without being admitted to the IPAL option. Students may complete one of the four IPAL courses as their elective provided their total educational record fulfills National Architectural Accrediting Board requirements for a professional degree.

Courses (ARC)

ARC 500-3 Research Methods and Programming. The foundational study of research methods and programming that serve architectural studies. This course investigates the co-application of multiple methodologies for the development of research topics and architectural programs. The conclusion of the course is the definition of an individual thesis project to be completed in the Graduate Program. Restricted to enrollment in M. Arch. program.

ARC 502-3 Architecture Seminar. Study of current trends and topics in architecture. Assigned readings and investigations are completed on approved topics chosen by the student. Students have the option of completing in situ study during the course.

ARC 510-3 Construction Management and Operations: Construction Safety Management. Introduce principles of safety and health in the construction industry and their relationship to Construction Management and Operations (COMO). Include identification of safety and health hazards, risk reduction measures, personal protection, and safety attitudes and training. Explore Occupational Safety and Health Regulations for Construction.

ARC 511-3 Construction Management and Operations: Time, Value and Risk Management. Overview of management issues and scheduling for a project. Explain importance of time and risk management in construction and construction business. Study how fundamentals of scheduling, liability, and value are interrelated and explore impacts on project, scope, and budget. Apply constructability, sustainability, return on investment strategies, quality management terms and definitions throughout project phases.

ARC 512-4 Construction Management and Operations: Construction Project Management. This is a two-part course beginning with an overview of the project management process followed by a more in-depth examination of the activities needed to successfully initiate, plan, schedule, and control the time, schedule, scope, and cost factors of a project. The second part of the course conducts a more focused and in-depth application to the CM process and services.

ARC 513-3 Construction Management and Operations: Budget and Cost Management. Provide overview of various estimating tools and methods for managing budgets, project estimates, and costs during program, construction and facilities management phases. Identify roles and responsibilities for controlling and monitoring project cost. Identify and develop methods for creating valid project estimates and budgets. Explore Integrated Project Delivery (IPD) for budget and cost management.

ARC 531-3 Seminar: Architectural History. A seminar devoted

to the teaching, investigation and discussion of the history of architecture. Students have the opportunity to investigate historical precedents and the context within which these ideas have developed. The connection to the contemporary architectural setting and current concepts will be developed and discussed.

ARC 532-3 Global Traditions in Architecture. Seminar to discuss architecture beyond the tradition of Western civilization. Focus is upon the architecture of Asia, the Middle East and North America. Primitive, pre-industrial vernacular as well as cultural specific high style architecture is included. The course format is: lectures, assigned reading, class discussion and individual research reports.

ARC 541-3 Architectural Systems and the Environment. Provides an overview of building technology and systems and the role of building systems performance in providing architectural and human environments and their subsequent impact upon the natural environment. The course builds upon the philosophical ideas of sustainable design and resource consumption tools. Concurrent enrollment in ARC 551 is required. Restricted to enrollment in M. Arch program.

ARC 550-6 Regional Architecture Studio. Architectural design studio focused upon regional architecture and planning. The studio addresses regional architectural issues building upon the local culture and design traditions. Restricted to enrollment in the M. Arch. program. Studio Fee: \$72.

ARC 551-6 Comprehensive Architecture Design Studio. Arch. design studio focused upon comprehensive design of a large-scale urban building as fulfillment of the total integration of architectural systems and design criteria. This course serves as the culmination of the fulfillment of student performance criteria through the integration of all major building and urban systems while addressing the current human, social, and environmental issues. Prerequisite: ARC 550. Co-requisite: ARC 541. Restricted to enrollment in M. Arch program. Studio Fee: \$72.

ARC 552-6 Graduate Architectural Design Thesis I. Initial development of individual design thesis project in a studio setting. The studio will consist of design project or an individual student thesis project as developed in ARC 500-3. Approval of thesis project by graduate faculty is required. Prerequisite: ARC 500 and 551. Restricted to enrollment in M. Arch. program. Studio Fee: \$72.

ARC 554-6 Graduate Architectural Design/Thesis II. A continuation of ARC 552 in the conclusion, presentation and final approval of the individual design/thesis project in a studio setting. This course is taken by students who wish to graduate through the department. Prerequisite: ARC 552. Studio Fee: \$72.

ARC 555-6 Urban Design & Community. (Same as ARC 451) Study of urban design and community as cultural and spatial development of human settlement patterns. All previous design course experience will be brought to bear on the architectural projects within the context of urban and community criteria. Restricted to major. Studio fee: \$72.

ARC 556-6 Design VI: Integration. (Same as ARC 452) This comprehensive design studio focuses the knowledge and skills developed in all previous courses on a single project. The course emphasizes the design integration of the building's

structural and environmental systems. Restricted to major in architectural studies. Studio fee: \$72.

ARC 562-3 Analysis & Lateral Forces. (Same as ARC 462) Continuing study of framing materials and systems for buildings using advanced concepts of structural analysis. Included are earthquake resistant structures, wind resistant design, composite beams, plastic theory, statically indeterminate structures, long spans, moment distribution, multi-story structures, and other related topics. Restricted to major.

ARC 570-3 Architectural Visualization. This course is designed to give the student a fundamental understanding of the practices of 3D architectural modeling and visualization. Themes emphasized are: 3D modeling; still frame rendering; animation production; image editing and post production. Restricted to enrollment in M. Arch. program.

ARC 581-1 to 12 Special Projects. Investigation of individual problems in architecture under the supervision of a faculty member. Restricted to M. Arch. majors. Special approval needed from the instructor.

ARC 582-1 to 6 Special Readings in Architecture. Assigned readings in an area of architecture under the supervision of a faculty member. Restricted to M. Arch. majors. Special approval needed from the instructor.

ARC 583-3 Environmental Design II: Energy & Systems. (Same as ARC 481, ID 481) The study of the influence of energy, human comfort, climate, context, heating, cooling and water on the design of buildings and sites. The design of passive and active environmental systems and strategies for sustainability. Restricted to major.

ARC 584-3 Environmental Design III: Lighting & Acoustics. (Same as ARC 482, ID 482) This course provides a comprehensive overview of the luminous and sonic environments with emphasis on energy conscious design. Restricted to major.

ARC 591-3 Architectural Professional Practice I. Introduction to the organization, management, and practice of architecture as a business and profession. Emphasis is placed on the range of services provided, professional ethics, business management, marketing, contracts and negotiations, design cost analysis/controls, and other aspects of professional practice. Restricted to enrollment in M. Arch. program.

ARC 592-3 Architectural Professional Practice II. The development of the study and discussion of architectural professional practice issues including leadership, legal responsibilities, ethics and professional judgment. Restricted to enrollment in M. Arch. program.

ARC 593-6 Architectural Research Paper. This course is for students who wish to perform individual research in architecture on an approved topic. Prerequisite: ARC 552. Restricted to enrollment in M. Arch. program.

ARC 594-3 Programming & Analysis. The purpose of this course is to discuss the programming and analysis of a new architectural project. Included in the review of these topics will be related discussions with regard to project type, client needs, site and context. As part of the learning process, students will be expected to participate in class discussion as well as complete projects which are designed to develop critical thinking, speaking, and writing skills. Prerequisite: ARC 592 with a grade of B- or better.

ARC 595-3 Project Planning + Design. The course discusses the preliminary design of a building & the site of a new

architectural project. Included in the review of these topics will be related discussions with regard to project type, client needs, site and context. As part of the learning process, students will be expected to participate in class discussion as well as complete projects which are designed to develop critical thinking, speaking, writing skills, and architectural design skills. Prerequisite: ARC 594 with a minimum grade of B-.

ARC 596-3 Project Development + Documentation. The purpose of this course is to review the integration & detailing of a new architectural project. Included in the review of these topics will be related discussions with regard to building systems, assemblies, code, and cost. As part of the learning process, students will be expected to participate in class discussion as well as complete projects which are designed to develop critical thinking, speaking, writing, and architectural design skills. Prerequisite: ARC 595 with a minimum grade of B-.

ARC 597-3 Construction + Evaluation. The purpose of this course is to review the construction and evaluation of a new architectural project. Included in the review of these topics will be related discussions with regard to construction and post-occupancy evaluation. As part of the learning process, students will be expected to participate in class discussion as well as complete projects which are designed to develop critical thinking, speaking, and writing skills. Prerequisite: ARC 596 with a minimum grade of B-.

ARC 599-6 Thesis. Graded S/U or DEF only. Prerequisite: ARC 552. Restricted to enrollment in M. Arch. program.

ARC 601-1 Continuing Enrollment. For graduate students who have not finished their degree program and who are in the process of working on their thesis, research paper, or capstone project course (ARC 554). Concurrent enrollment in any other course is not permitted. Graded S/U or DEF only.