

ARCHITECTURE (ARC)

ARC101 Shop Stewardship Materials and Processes (1 course hour)

Introduction to a wide range of materials and their manipulation with hand and power tools, cutting, assembly, and finishing in a model shop setting. Introduction to architectural models and flat work. REGISTRATION: Architecture students should try to take this class in the Fall. Art/Design students should enroll for Spring if at all possible. Interior Design students may enroll either semester.

Course offered: FA, SP

ARC122 Communication and Architectonics (4 course hours)

Graphic and spatial communications through a series of short, 2D and 3D composition explorations; developing the conventions of diagram, plan, section, elevation and model.

Course offered: SP

ARC222 Construction Tectonics / Assemblies (3 course hours)

Introduction to the role of architect, building, zoning codes, and building systems with an emphasis on wood light frame construction and assemblies typical of residential buildings. Systems and assemblies studied include wall, roof and foundation enclosure, structural, HVAC, and electrical.

Course offered: SP

ARC231 Global History of Architecture I (3 course hours)

The establishment of building traditions throughout the globe, emphasizing the means by which attitudes about environment, ecology, religion, government, and leisure contribute to decisions about place, context, materials, and methods of structural and ornamental design. Focus on the canon and customs from the ancient Mediterranean to medieval Europe, with additional studies on the Fertile Crescent, India, Japan and China, and Muslim empires.

Course offered: FA

ARC231H Global History of Architecture I-Honors (3 course hours)

The establishment of building traditions throughout the globe, emphasizing the means by which attitudes about environment, ecology, religion, government, and leisure contribute to decisions about place, context, materials, and methods of structural and ornamental design. Focus on the canon and customs from the ancient Mediterranean to medieval Europe, with additional studies on the Fertile Crescent, India, Japan and China, and Muslim empires. REGISTRATION: This section is designed for students admitted into the Judson Honors Program only. Intended for Honors Program students only.

Course offered: FA

ARC232 Global History of Architecture II (3 course hours)

Developments within, and in response to, building traditions that emphasize the response of architects to changes in intellectual culture, religious belief and practice, technology, and social structures beginning in the fifteenth century. Focus on the transformation of architectural literacy and professionalism among practitioners in Europe, its colonies, and the US.

Pre-requisites: C- or better in ARC231

Course offered: SP

ARC232H Global History of Architecture II-Honors (3 course hours)

Developments within, and in response to, building traditions that emphasize the response of architects to changes in intellectual culture, religious belief and practice, technology, and social structures beginning in the fifteenth century. Focus on the transformation of architectural literacy and professionalism among practitioners in Europe, its colonies, and the US. REGISTRATION: This section is designed for students admitted into the Judson Honors Program only. Intended for Honors Program students only.

Pre-requisites: C- or better in ARC231

Course offered: SP

ARC251 Heuristics and Architectonics (4 course hours)

Introduction to concept generators and heuristic design process through architectonic explorations.

Pre-requisites: C- or better in ARC122

Course offered: FA

ARC252 Architectural Design Explorations (4 course hours)

Explorations of architectural strategies in space, place, site, massing, and tectonics including an introduction to digital modeling and fabrication. Course requires a laptop computer per department specifications; contact department for details.

Pre-requisites: C- or better in ARC251

Course offered: SP, SU

ARC310 Digital Design Simulation (3 course hours)

Develops critical approaches to theories of digital design, fabrication, simulation, and information modeling emphasizing the changing role of integrated design and analysis.

Requires acceptance into Architecture 3rd year

Course offered: FA

ARC310H Digital Design Simulation-Honors (3 course hours)

Develops critical approaches to theories of digital design, fabrication, simulation, and information modeling emphasizing the changing role of integrated design and analysis.

Requires acceptance into Architecture 3rd year

Course offered: FA

ARC312 Building Integration and Construction Documents (3 course hours)

The course ARC 312 Building Integration & Construction Documents is focused on the optimization and integration of building systems, and its subsequent coordination in the form of construction documents. The course will deploy the use of digital tools to produce building performance analysis to optimize building designs. Also, with the use of digital tools, students will develop a general set of construction documents departing from performance analyses and systems coordination.

Requires acceptance into Architecture 3rd year

Course offered: SP

ARC321 Theories of Environmental Stewardship (3 course hours)

Introduction to the ecological and environmental systems issues of architectural design, Lectures and problems related to vernacular and environmental principles that impact architecture.

Requires acceptance into Architecture 3rd year

Pre-requisites: C- or better in PHY237

Course offered: FA

ARC322 Advanced Construction Tectonics and Assemblies (3 course hours)

Continues the exploration of the role of the architect, building codes, and building systems with an emphasis on construction and assemblies typical of commercial buildings. Systems and assemblies studies include wall, roof, and structural. Material exploration and utilization includes concrete, steel, and glass curtain wall. Student project includes a scaled building enclosure model.

Requires acceptance into Architecture 3rd year

Pre-requisites: C- or better in ARC222

ARC332 Architecture of Cities (3 course hours)

Topics in city- and landscape-making are investigated chronologically; long-standing cultural habits, political and religious representation, effects of the modern economy, American suburbanization, and Western intellectual history for the city. Major attention given to Western cities and landscapes, lesser to non-Western cities. Fulfills: GEN301 Equivalent

Requires acceptance into Architecture 3rd year

Pre-requisites: C- or better in ARC232

Course offered: FA

ARC341 Theories of Architectural Structure (4 course hours)

An introductory course in statics and strength of materials for architects, with a specific focus on the conceptual relationships between structure and form. Structural concepts including static systems, tension/compression, bending and shear stress, combined stresses, strain, cross-sectional considerations, and the physical behavior of structural materials will be addressed abstractly.

Pre-requisites: C- or better in PHY237

Course offered: FA

ARC351 Intermediate Architecture Design Studies (5 course hours)

Intermediate design method and systems thinking in the context of phenomenological explorations of light, material and form. Students explore poetic optimism in the creative enterprise in problems related to the natural environment and the interface of humans with each other and all of creation.

Course offered: FA

ARC352 Elective Architecture Design Studies (5 course hours)

Intermediate design method and systems thinking in an open-elective studio approach. This non-prescriptive studio allows alternative exploration of design subject at the discretion of the design studio critic.

Pre-requisites: C- or better in ARC351

Course offered: SP

ARC352H Elective Architecture Design Studies - Honors (5 course hours)

Intermediate design method and systems thinking in an open-elective studio approach. This non-prescriptive studio allows alternative exploration of design subject at the discretion of the design studio critic. REGISTRATION: This section is designed for students admitted into the Judson Honors Program only

Intended for Honors Program students only

Pre-requisites: C- or better in ARC351

Course offered: SP

ARC381 Architectural Study Tour (5 course hours)

Observe and analyze selected European urban sites and architecture using various methods and media. Visits to museums may be included. On-site design project may be featured. REGISTRATION: This course is open to any Art, Design, Architecture, or Interior Design student accepted to third-year. This course has additional supply and trip/travel fees (contact department for details) and will require the student to attend informational meetings for itinerary, required preparations and specific details.

Requires acceptance into Architecture 3rd year

Course offered: SU

ARC395 CPT Applied/Experiential Learning (0 course hours)

This course provides students with an opportunity to gain practical work experience, linking that experience to the Bachelor of Arts in Architecture course learning outcomes. Students will submit papers providing a job description, resume, and correlation of the work experience with courses in which the student is enrolled for the respective term, or the previous if the internship occurs during summer. REGISTRATION: Students may work any number of hours per week throughout the academic term, must be enrolled in at least two other undergraduate courses leading to their degree, and maintain a 3.0 GPA. A maximum of four Experiential Learning courses can be taken; however, only one can be taken in any academic term. There are no undergraduate credit hours for this course. Students must obtain the permission of the department chair to enroll; international students must also obtain permission from the PDSO.

Permission of dept chair

Course offered: FA, SP, SU

ARC400 Topics in Architecture (1-3 course hours)

Customized courses dealing with specific topics not covered in the regular course offerings.

ARC410 Advanced Digital Design (3 course hours)

Advanced exploration of theories of digital design informing all stages of architectural production. Facilitates exploration of analytical, parametric, environmental and material dimensions of digital design in architecture. REGISTRATION: Intended for architecture majors of senior standing.

Limited to Seniors only

Pre-requisites: C- or better in ARC310

Course offered: SP

ARC411 Adv Digital Representation II (3 course hours)

This course extends the representational capabilities of the student through various means of web related media; as particularly related to the digital medias of modeling, graphic, and web systems. Students will explore communication and publication strategies through Internet and Intranet systems as they potentially relate to architectural practice. Students will visit offices in the region that utilize web resources in creative and critical ways, and become familiar with the different possibilities for digital architectural communication. Students will utilize Adobe Go-Live, Live Motion, Auto CAD 2000, Form-Z, Photoshop and Illustrator.

ARC421 Environmental Technology II (3 course hours)

Environmental systems that are part of architecture including acoustics, electric lighting, and day lighting. Lectures and problems that integrate these systems in architecture.

Co-requisites: ARC451

Pre-requisites: C- or better in ARC321

Course offered: FA

ARC421H Environmental Technology II-Honors (3 course hours)

Environmental systems that are part of architecture including acoustics, electric lighting, and day lighting. Lectures and problems that integrate these systems in architecture.

Intended for Honors Program students only

Co-requisites: ARC451

Pre-requisites: C- or better in ARC321

Course offered: FA

ARC422 Environmental Technology III (3 course hours)

A comprehensive overview of environmental systems that serve large buildings including HVAC, electrical transportation, communication, and water systems.

Co-requisites: ARC452

Pre-requisites: C- or better in ARC421

Course offered: SP

ARC422H Environmental Technology III-Honors (3 course hours)

A comprehensive overview of environmental systems that serve large buildings including HVAC, electrical transportation, communication, and water systems.

Intended for Honors Program students only

Co-requisites: ARC452

Pre-requisites: C- or better in ARC421

Course offered: SP

ARC429 Multiculturalism and Architecture (3 course hours)

True Architecture transcends different cultures, civilizations and time. Architecture is practical in a global community and in a pluralistic society. In this course, students are challenged to be aware of the images, patterns, and aesthetics that impact this pluralistic society, and to design responsibly. Diverse non-western communities often approach built form in unique and meaningful ways that reflect their culture, environmental and historical origins. Unfortunately, these ways are not always understood and therefore not represented in the subsequent Architecture produced. This course is intended to encourage students to be aware and sensitive to the diverse issues and patterns that generate the imagery of these built forms and what the implication can be in creating responsive Architecture. This course is an architectural exploration of the ethnicity and the cultural significance of the uniqueness of three contemporary Global Communities and Civilizations. The three cultures investigated are: (1) the African community, (2) the Asian community, and (3) the Native American Community.

ARC441 Adv Architectural Structures (4 course hours)

Structural design and analysis of buildings for architects, including steel, concrete, timber, and long-span structures. Applications of concepts of tension/compression, bending and shear stress, combined stresses, structural connections, load resolution, member sizing and wind loading on multi-story buildings. Course content addresses traditional as well as current techniques, applications, materials, and methods for designing structural solutions.

Pre-requisites: C- or better in ARC341

Course offered: SP

ARC442 Advanced Architectural Drawing (3 course hours)

Using a series of studio exercises and sketchbooks, it will expose the student to the intersection of various types of drawing to develop a unique blend of controlled sketching with architectural sensibilities and conventions. The student will be introduced to the history tools and techniques of sketching as applied to architectural subjects. The use of black and white will be emphasized with limited exposure to color. The study of shades and shadow casting, or sciography, will also be covered in some detail.

ARC451 Integrative Architectural Design Studies I (5 course hours)

Advanced integrated architectural design thinking and making with particular considerations of light, structure, acoustics, and material in the shaping of educational and/or ecclesiastical environments that include assembly spaces.

Co-requisites: ARC421

Pre-requisites: C or better in ARC352

Course offered: FA

ARC452 Integrative Architectural Design Studies II (5 course hours)

Advanced integrated architectural design thinking and making with particular considerations of building envelope, environmental systems, life safety, accessibility, conveyance, and sit in the shaping of public oriented building type.

Co-requisites: ARC422

Pre-requisites: C- or better in ARC451

Course offered: SP

ARC452H Integrative Architectural Design Studies II - Honors (5 course hours)

Advanced integrated architectural design thinking and making with particular considerations of building envelope, environmental systems, life safety, accessibility, conveyance, and sit in the shaping of public oriented building type. REGISTRATION: This section is designed for students admitted into the Judson Honors Program only

Intended for Honors Program students only

Co-requisites: ARC422

Pre-requisites: C- or better in ARC451

Course offered: SP

ARC462 Preceptorship Preparation (1 course hour)

The course prepares students for internship and preceptorship experiential learning as students complete the undergraduate program. Students explore histories of practice and professionalization, the topographies of contemporary practice, and strategies for professional development.

Course offered: SP

ARC556 Architectural Practice, Leadership and Ethics (2 course hours)

An introduction to and survey of the professional practice of architecture. Course content includes a reflection upon the Preceptorship program, a survey of the history of professional practice, a review of the policies of NCARB, IDP, local and national AIA, a familiarization with the various routes to licensure, exposure to a variety of practice types, and career paths within the board context of professional practice.

Course offered: SU

ARC575 Community Outreach Studio (4 course hours)

Advanced design studio positioning community outreach and Christian engagement as a vehicle for environmental and social justice.

Course offered: SU

ARC580 Programming and Research Methods in Architecture (4 course hours)

This course is an introduction to architectural programming, project scheduling, cost estimating, and case study research. Students will produce a research and program compendium in preparation for the Cumulative Studio or Thesis project.

Course offered: SU

ARC581 Architectural Study Tour (5 course hours)

Observe and analyze selected European urban sites and architecture using various methods and media. Visits to museums may be included. On-site design project may be featured. REGISTRATION: This course is available to graduate students in Architecture only upon permission of the department. This course has additional supply and trip/travel fees (contact department for details) and will require the student to attend informational meetings for itinerary, required preparations and specific details.

ARC600 Topics in Architecture: (3 course hours)

Customized courses dealing with specific topics not covered in the regular course offerings.

ARC610 Advanced Digital Design I (3 course hours)

Advanced Exploration of theories of digital design informing all stages of architectural production. Facilitate exploration into analytical, parametric, environmental and material dimensions of digital design in architecture.

Course offered: SP

ARC611 Advanced Digital Representation II (3 course hours)

This course extends the representational capabilities of the student through various means of web related media; as particularly related to the digital medias of modeling, graphic, and web systems. Students will explore communication and publication strategies through Internet and Intranet systems as they potentially relate to architectural practice. Students will visit offices in the region that utilize web resources in creative and critical ways, and become familiar with the different possibilities for digital architectural communication. Students will utilize Adobe Go-Live, Live Motion, Auto CAD 2000, Form-Z, Photoshop, and Illustrator.

Course offered: FA

ARC616 Architectural Rendering in Watercolor (3 course hours)

This course is intended to introduce the students to the history tools, and techniques of watercolor rendering as applied to architectural spaces. This is primarily a studio course, meaning that most of the time will be spent practicing rendering techniques, both in and out of class.

Course offered: FA

ARC629 Multiculturalism and Architecture (3 course hours)

True Architecture transcends different cultures, civilizations and time. Architecture is practical in a global community and in a pluralistic society. In this course, students are challenged to be aware of the images, patterns, and aesthetics that impact this pluralistic society, and to design responsibly. Diverse non-western communities often approach built form in unique and meaningful ways that reflect their culture, environmental and historical origins. Unfortunately, these ways are not always understood and therefore not represented in the subsequent Architecture produced. This course is intended to encourage students to be aware and sensitive to the diverse issues and patterns that generate the imagery of these built forms and what the implication can be in creating responsive Architecture. This course is an architectural exploration of the ethnicity and the cultural significance of the uniqueness of three contemporary Global Communities and Civilizations. The three cultures investigated are: (1) the African community, (2) the Asian community, and (3) the Native American Community.

Course offered: FA

ARC642 Advanced Architectural Drawing (3 course hours)

Using a series of studio exercises and sketchbooks, it will expose the student to the intersection of various types of drawing to develop a unique blend of controlled sketching with architectural sensibilities and conventions. The student will be introduced to the history tools and techniques of sketching as applied to architectural subjects. The use of black and white will be emphasized with limited exposure to color. The study of shades and shadow casting, or sciography, will also be covered in some detail.

Course offered: SP

ARC651 Advanced Architecture and Urbanism Studio (7 course hours)

Advanced Studio involving the analysis of urban patterns at a variety of scales, investigates the contribution of building and site design to challenges in formal context, sustainability, urban regeneration, and the vitality of social systems.

Course offered: FA

ARC652 Advanced Architecture Studio (7 course hours)

Advanced studio offering elective variety to prepare students for design in contemporary practice: intense investigations include typology, tectonics, sustainability (design, materials, and systems), and context.

Pre-requisites: ARC651

Course offered: SP

ARC656 Architectural Practice, Law, and Management (3 course hours)

A seminar that continues the content of Professional Practice I, extending the subject into areas of law, ethics, regulation, professional registration, marketing, finance, business accounting, business structure, project delivery methods, contracts, and client relations.

Pre-requisites: ARC556

Course offered: FA

ARC671 Advanced Case Studies in Sustainable Design (3 course hours)

This course investigates contemporary approaches to sustainable design. Students gain an understanding of relationships between radical energy conservation and production measures including: politics of green design, design for passive, measuring and controlling energy and material movement, designing for renewable energy and site regeneration, life cycle implications of design, and post-occupancy assessment and retro-commissioning. Students gain critical practice knowledge, and complete the course prepared to understand green building design certification of various types (i.e. LEED, LBC, Cradle to Cradle, ect.)

Course offered: SP

ARC681 Architecture Thesis Project I (7 course hours)

The Architecture thesis makes an original, critical, and supported argument adding to the disciplinary discourse; original, meaning that the argument is unique and authored by the student; critical in that the investigation is advanced in the light of present scholarship, the history of architecture, and biblical wisdom; supported, meaning that the argument is defended intellectually and under girded by the student's research including case studies. The investigative medium may be writing or it may be design; however, the original and critical nature of an investigation by design must be articulated in words as must be the scholarly context and the supporting research. The proportion between written and design components may vary but the design portion must be substantive. The written and design components of the Thesis shall demonstrate excellence of high degree in scholarship, design, use of media, and presentation.

Course offered: FA

ARC682 Architecture Thesis Project II (7 course hours)

Continuation and completion of ARC681. Includes reviews by faculty committee as scheduled by committee chair, final presentation to committee, and written documentation.

Pre-requisites: ARC681

Course offered: SP

ARC686 Independent Study in Architecture: (1-5 course hours)

Students pursue a topic of their choice under the guidance of a professor in the department. Additional criteria and approvals may be found in the "Alternative Credit and Special Course Arrangement" section of the online catalog.

ARC688 Directed Research in Architecture: (1-6 course hours)

Intensive research experience under direction of divisional faculty member. Additional criteria and approvals may be found in the "Alternative Credit and Special Course Arrangement" section of the online catalog.

ARC691 Christian Worldview in Architecture (3 course hours)

The Worldview and Architecture Seminar presents the opportunity for a capstone critical study of worldview, of theological implications, and evangelical approaches, in the philosophy and practice of architecture.

Course offered: SP

ARC693 Grad Architectural Theory Seminar (3 course hours)

This seminar focuses on advanced topics in history, theory, and criticism. Students select from varying and diverse topics such as urbanism, sustainability, design methodology, aesthetics, ethics and law, history of technology, and architecture in relation to other arts and Christian faith.

Pre-requisites: ARC231 and ARC232 and ARC332

Course offered: FA

ARC695 CPT Applied/Experiential Learning (0-1 course hours)

This course provides students with an opportunity to gain practical work experience, linking that experience to the Master of Architecture course learning outcomes. Students will submit papers providing a job description, resume, and correlation of the work experience with courses in which the student is enrolled for the respective term, or the previous if the internship occurs during summer. REGISTRATION: Students may work any number of hours per week throughout the academic term, must be enrolled in at least two other graduate courses leading to their degree, and maintain a 3.0 GPA. A maximum of four Experiential Learning courses can be taken; however, only one can be taken in any academic term. There are no graduate credit hours for this course. Students must obtain the permission of the department chair to enroll; international students must also obtain permission from the PDSO.

Permission of dept chair

Course offered: FA, SP, SU