Student Learning Outcomes for ARCH undergraduate classes

ARCH 100 Introduction to the Built Environment (3)
Student Learning Outcomes:
Interdisciplinary Connections
-Awareness of connections to other disciplines
Analysis/Research
-Awareness of the role of analysis and research in design
-Ability to research and analyze an architectural precedent
Theory/History Application
-Understand the basic role of historical precedents
Design Methodology
-Awareness of the role of design methods
-Ability to apply one or more design methods in a design problem
Communication (Oral, Written, Graphic)
-Understanding of how to verbally present simple design concepts to classmates clearly and succinctly
-Ability to write a simple design concept
-Ability to represent architectonic space and form using primary common graphic conventions
Technology
-Ability to use basic materials (e.g., wood, paper, plastics, plaster) in constructing small objects
Practice (Global, Asia-Pacific)
-Awareness of basic practice models in the environmental design disciplines

ARCH 101 Basic Architecture Studio (4)
Student Learning Outcomes:
Interdisciplinary Connections
-Awareness of connections to other disciplines
Analysis/Research
-Awareness of the role of analysis and research in design
-Ability to research and analyze an architectural precedent
Theory/History Application
-Awareness the basic role of historical precedents
-Awareness the basic role of theory in design practices
Design Methodology
-Awareness of the role of design methods
Communication (Oral, Written, Graphic)
-Understanding of how to verbally present simple design concepts to classmates clearly and succinctly
-Ability to clearly and critically explain concepts in writing
Technology
-Awareness the basic role of technology in the built environment
Practice (Global, Asia-Pacific)
-Awareness of basic practice models
-Ability to complete simple design exercise with a small group

ARCH 132 Design Communication (4)
Student Learning Outcomes:
Interdisciplinary Connections
-Awareness of connections to art and design disciplines
-Awareness of how to incorporate one or more design discipline into design project
Analysis/Research
-Understanding of role of graphic analysis in design
-Ability to use simple common hand and computer techniques to analyze simple architectonic constructs
Theory/History Application
-Understanding of the application of history and theory in design
-Ability to apply basic conceptual ideas in a design project
Design Methodology
-Awareness of the role of various graphic techniques in design process
-Understanding of the role and application of ordering systems in design.
-Ability to apply a variety of hand and basic computer graphic techniques in a design process
Communication (Oral, Written, Graphic)
-Ability to verbally present simple design concepts to classmates clearly and succinctly
-Ability to write a design concept clearly and succinctly
-Ability to represent architectonic space and form using conventional and unconventional graphic conventions
Technology
-Ability to use materials and media (wood, paper, plastics, plaster) to make representational and small objects
Practice (Global, Asia-Pacific)
-Awareness of the role of design communication in design practice
ARCH 200 Professional Practice of Architecture (3)
Student Learning Outcomes:
Interdisciplinary Connections
- Awareness of the connections of practice to global issues
Analysis/Research
- Ability to use simple common hand and computer techniques to analyze and diagram business and technological systems
Theory/History Application
- Understanding of the relationship of history and theory with professional practice
Design Methodology
- Awareness of the role of various design processes in practice
Communication (Oral, Written, Graphic)
- Ability to verbally present practice concepts to classmates clearly and succinctly
- Ability to describe practice issues clearly and critically in writing
Technology
- Ability to use materials and media (wood, paper, plastics, plaster) to make representational and small objects
Practice (Global, Asia-Pacific)
- Understanding of primary practice models in the environmental design disciplines
- Understanding of global forces in relationship to practice
- Understanding of the role of technology in contemporary practice

ARCH 201 Architecture Studio (4)
Student Learning Outcomes:
Interdisciplinary Connections
- Understanding of connections to social, cultural, and environmental disciplines
- Understanding of how to incorporate social, cultural, and environmental knowledge and factors into a design project
Analysis/Research
- Understanding of the role of analysis and research in design
- Ability to research and analyze architectural and other precedents/models
- Ability to research and analyze the issues affecting a design and evolve the design
Theory/History Application
- Understanding of the role of historical factors and theory in design
- Understanding of how to apply historical knowledge and theoretical concepts in a design
Design Methodology
- Understanding of how to self-consciously apply a design method effectively in a design problem
Communication (Oral, Written, Graphic)
- Ability to verbally present a moderately complex design concept to classmates clearly and succinctly
- Ability to write design concepts clearly, succinctly, and critically
- Ability to represent architectonic space and form using traditional and computer graphic techniques and conventions
Technology
- Awareness of the basic role of technology in architecture
- Awareness of the application of building materials and structures in a small architectural design
- Awareness of the application of sustainable design principles and structures in a small architectural design
Practice (Global, Asia-Pacific)
- Awareness of global practice models
- Ability to undertake a simple analysis exercise with a small group

ARCH 235 Computer Applications in Architecture (3)
Student Learning Outcomes:
Interdisciplinary Connections
- Understanding of connections to disciplines investigating digital and physical realms and their relationships
- Understanding of how to apply semiotic understanding in a design project
Analysis/Research
- Understanding of role of computer applications in design analysis and research
- Ability to research and analyze architectural and other precedents/models using computer methods
- Ability to research and analyze the issues affecting a design and evolve the design using computer methods
Theory/History Application
- Understand the theoretical positions concerning computer applications in design
- Ability to apply basic theoretical concepts in computer-aided design
Design Methodology
- Ability to understand and self-consciously apply computer-aided design methods effectively in a design problem
Communication (Oral, Written, Graphic)
- Ability to represent architectonic concepts, space, and form using computer graphic techniques and conventions
Technology
- Awareness of the basic role of computer technology in architecture and design
- Ability to apply basic computer techniques to conceptualize, evolve and represent an architectural design
Practice (Global, Asia-Pacific)
- Awareness of the role of computer technology in global practice
- Ability to successfully complete a simple design exercise with a small group using computer-aided communication technology
ARCH 271 World Architecture and Urbanism A (3)
Student Learning Outcomes:
Interdisciplinary Connections
-Understanding of connections to social, cultural, and environmental disciplines
Analysis/Research
-Understanding of the role of analysis and research in architectural history
-Ability to research and analyze architectural and other precedents/models
Theory/History Application
-Understanding of the role of historical factors and theory in design
-Awareness of how to apply historical knowledge and theoretical concepts to design
Design Methodology
-Awareness of how design methods were used in various historic periods
Communication (Oral, Written, Graphic)
-Ability to describe historical issues clearly and critically in writing
Technology
-Awareness of role and application of technology in architecture
-Awareness of the role and application of building materials, structures, and environmental controls in architecture
Practice (Global, Asia-Pacific)
-Awareness of architectural practice models seen in history

ARCH 272 World Architecture and Urbanism B (3)
Interdisciplinary Connections
-Understanding of connections to social, cultural, and environmental disciplines
Analysis/Research
-Understanding of the role of analysis and research in architectural history
-Ability to research and analyze architectural and other precedents/models
Theory/History Application
-Understanding of the role of historical factors and theory in design
-Awareness of how to apply historical knowledge and theoretical concepts to design
Design Methodology
-Awareness of how design methods were used in various historic periods
Communication (Oral, Written, Graphic)
-Ability to describe historical issues clearly and critically in writing
Technology
-Awareness of role and application of technology in architecture
-Awareness of the role and application of building materials, structures, and environmental controls in architecture
Practice (Global, Asia-Pacific)
-Awareness of architectural practice models seen in history

ARCH 320 Introduction to Architectural Systems A (3)
Student Learning Outcomes:
Interdisciplinary Connections
-Understanding of connections to social, cultural, scientific, and environmental disciplines, including those pertinent to the Asia-Pacific region.
-Ability to incorporate social, cultural, and environmental knowledge and factors into constrained design projects
Analysis/Research
-Ability to research and analyze basic architectural systems
Theory/History Application
-Understanding of the relation of theory to architectural systems
Design Methodology
-Understanding of design methods used to evolve building systems
Communication (Oral, Written, Graphic)
-Ability to verbally present system concepts and designs to classmates clearly and succinctly
-Ability to write systems concepts clearly, succinctly, and critically
-Ability to represent building systems using traditional and computer graphic techniques and conventions
Technology
-Awareness of the role of sustainable design strategies and technology in architecture and their application in a moderately complex architectural design.
-Understanding of sustainable design principles and systems in a moderately complex architectural design
Practice (Global, Asia-Pacific)
-Awareness of the role of technology in professional practice
ARCH 321 Introduction to Architecture Systems B (3)
Student Learning Outcomes:
Interdisciplinary Connections
- Understanding of connections to social, cultural, scientific, and environmental disciplines, including those pertinent to the Asia-Pacific region.
- Ability to incorporate social, cultural, and environmental knowledge and factors into constrained design projects
Analysis/Research
- Ability to research and analyze basic architectural systems
Theory/History Application
- Understanding of the relation of theory to architectural systems
Design Methodology
- Understanding of design methods used to evolve building systems
Communication (Oral, Written, Graphic)
- Ability to verbally present system concepts and designs to classmates clearly and succinctly
- Ability to write systems concepts clearly, succinctly, and critically
- Ability to represent building systems using traditional and computer graphic techniques and conventions
Technology
- Understanding of the role of sustainable design strategies and technology in architecture and their application in moderately complex buildings.
- Understanding of sustainable design principles and systems in a moderately complex architectural design
Practice (Global, Asia-Pacific)
- Understanding of the role of environmental systems and sustainable design in professional practice

ARCH 322 Sustainable Systems (3)
Student Learning Outcomes:
Interdisciplinary Connections
- Understanding of connections to social, cultural, scientific, and environmental disciplines, including those pertinent to the Asia-Pacific region.
- Ability to incorporate social, cultural, and environmental knowledge and factors into constrained design projects
Analysis/Research
- Ability to research and analyze basic architectural systems
Theory/History Application
- Understanding of the relation of theory to architectural systems
Design Methodology
- Understanding of design methods used to evolve building systems
Communication (Oral, Written, Graphic)
- Ability to verbally present system concepts and designs to classmates clearly and succinctly
- Ability to write systems concepts clearly, succinctly, and critically
- Ability to represent building systems using traditional and computer graphic techniques and conventions
Technology
- Understanding of the role of sustainable design strategies and technology in architecture and their application in moderately complex buildings.
- Ability to apply sustainable design principles and systems in a moderately complex building and site systems design
Practice (Global, Asia-Pacific)
- Understanding of the role of environmental systems and sustainable design in professional practice

ARCH 341 Intermediate Architecture Studio A (4)
Student Learning Outcomes:
Interdisciplinary Connections
- Understanding of connections to social, cultural, scientific, and environmental disciplines, including those pertinent to the Asia-Pacific region.
- Ability to incorporate social, cultural, and environmental knowledge and factors into design project
Analysis/Research
- Ability to research and analyze moderately complex architectural and other precedents/models
- Ability to research and analyze technical and climatic issues affecting a design and evolve the design
Theory/History Application
- Understanding of historical knowledge and theoretical concepts in a design
Design Methodology
- Ability to understand and self-consciously select and apply an effective a design method in a design problem
Communication (Oral, Written, Graphic)
- Ability to verbally present a complex design concept to classmates clearly and succinctly
- Ability to write design concepts clearly, succinctly, and critically
- Ability to represent moderately complex architectonic space and form using traditional and computer graphic techniques and conventions
Technology
- Awareness of the role of sustainable design strategies and technology in architecture and their application in a moderately complex architectural design.
- Understanding of sustainable design principles and systems in a moderately complex architectural design
Practice (Global, Asia-Pacific)
- Awareness of the role of technology in relation to global practice models
- Ability to successfully complete a moderately complex analysis exercise with a small group
ARCH 342 Intermediate Architecture Studio B (4)
Student Learning Outcomes:
Interdisciplinary Connections
- Understanding of connections to social, cultural, scientific, environmental, and environmental design disciplines, including those pertinent to urban development in the Asia-Pacific region.
- Ability to incorporate social, cultural, landscape, and environmental knowledge and factors into design project
Analysis/Research
- Ability to research and analyze complex buildings building complexes, sites, and their relationships
- Ability to research and analyze technical, climatic, and site/landscape issues affecting a design and evolve the design
Theory/History Application
- Ability to apply historical knowledge and theoretical concepts in a moderately complex design
Design Methodology
- Ability to understand and apply an effective a design method in a moderately complex site and building design problem
Communication (Oral, Written, Graphic)
- Ability to verbally present a moderately complex design concept to classmates and professionals clearly and succinctly
- Ability to write advanced design concepts clearly, succinctly, and critically
- Ability to represent moderately complex architectonic space and form using traditional and computer graphic techniques and conventions
Technology
- Understanding of the role of climate, culture, and sustainable design strategies in architecture
- Understanding of building materials, structures, and passive design strategies in a moderately complex architectural design
- Understanding of sustainable design principles and structures in a complex architectural design
Practice (Global, Asia-Pacific)
- Awareness of site conditions response in professional practice settings
- Ability to successfully complete a moderately complex analysis exercise with a medium-sized group

ARCH 371 Design Theory (3)
Student Learning Outcomes:
Interdisciplinary Connections
- Understanding of connections to social, cultural, political, scientific, and environmental disciplines
Analysis/Research
- Understanding of the role of analysis and research in design theory
- Ability to research and analyze architectural and other precedents/models
Theory/History Application
- Understanding of the role and application of historical factors and theory in design
Design Methodology
- Understanding of the relation of theoretical models and design methods in various historic periods
Communication (Oral, Written, Graphic)
- Ability to describe theoretical issues clearly and critically in writing
- Ability to represent historic architectonic space and form using basic traditional and computer graphic techniques and conventions
Technology
- Awareness of role and application of technology in architecture
- Understanding of the role of building materials, structures, and environmental controls in architecture in relation to theory
Practice (Global, Asia-Pacific)
- Awareness of the theory of design practice
- Ability to undertake a simple analysis exercise with a small group

ARCH 415 Concentration Architecture Studio (6)
Student Learning Outcomes:
Interdisciplinary Connections
- Understanding of connections of a concentration area to social, cultural, political, and technological disciplines
- Ability to incorporate social, cultural, landscape, and environmental knowledge and factors into a "real world" design project
Analysis/Research
- Ability to research and analyze technical, contextual, and pragmatic issues affecting a design and evolve the design
Theory/History Application
- Ability to apply historical knowledge and theoretical concepts in a design
Design Methodology
- Ability to understand and self-consciously select and apply an effective a design method in a design problem
Communication (Oral, Written, Graphic)
- Ability to verbally present a complex design concept to design professionals clearly and succinctly
- Ability to write design concepts clearly, succinctly, and critically understandable by professional and lay audiences
- Ability to represent moderately complex architectonic space and form using traditional and computer graphic techniques and conventions
Technology
- Ability to apply basic understanding of integrative building technologies and construction cost in a complex design
Practice (Global, Asia-Pacific)
- Ability to successfully complete a moderately complex design with a medium-sized professional group
ARCH 433 Professional Practice Law and Ethics (3)

Student Learning Outcomes:

Interdisciplinary Connections
- Understanding of the connections of practice to global issues

Analysis/Research
- Ability to use hand and computer techniques to analyze and diagram business and technological systems

Theory/History Application
- Understanding of the relationship of history and theory with ethical considerations in professional practice

Design Methodology
- Understanding of the role of various design processes in practice

Communication (Oral, Written, Graphic)
- Ability to verbally present practice concepts to classmates clearly and succinctly
- Ability to describe practice issues clearly and critically in writing

Technology
- Understanding of the role and application of communication technologies in design practice

Practice (Global, Asia-Pacific)
- Understanding of primary practice models in the environmental design disciplines
- Understanding of global forces in relationship to practice
- Awareness of the role of legal issues in contemporary practice
- Understanding of project organization, management, and delivery models