2016 COURSE DESCRIPTIONS – Bachelors of Architecture

Number & Title of Course (total credits awarded): ARC 102: Architecture Design II (6 credits)

Course Description (limit 25 words):

Architectural response to shelter, space, and setting requirements. Programming, program analysis and design, anthropometrics, architecture psychology.

Course Goals & Objectives (list):

- Collaborate and cooperate by working as members of a design team
- Test theories and methods of inquiry
- Examine and comprehend the fundamental principles present in relevant precedents and make informed choices about the incorporation of such principles in architecture and urban design projects
- Endeavor to interpret and respond to natural and built site characteristics
- 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
- Develop a coherent rationale for the programmatic and formal precedents employed
- Prepare a comprehensive program for an architectural project
- Employ basic methods of data collection and analysis
- Address the diversity of needs, values, norms, abilities, and patterns
- Explore fundamentals of visual perception

Student Performance Criterion/a addressed (list number and title)

Primary:

- A2 Design Thinking Skills (A)
- A6 Use of Precedents (A)
- B1 Pre-Design (A)

Topical Outline (include percentage of time in course spent in each subject area):

Design, Drawing, and other representational techniques (60%)
Directed Research/Use of Precedents (20%)
Pre-design (20%)

Prerequisites: ARC 101, Co-requisite ARC 112 and ARC 122

Textbooks/Learning Resources: Refer to syllabus

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Frank Martinez, Cristina Canton, Alice Cimring, Cayetana de la Quadra-Salcedo, Oscar Machado
2015: Oscar Machado, Wyn Bradley, Alice Cimring, Jaime Correa

Number & Title of Course (total credits awarded): ARC 112: Drawing II (3 credits)

Course Description (limit 25 words): Focused on acquiring 3-D visual communication skills to express architectural ideas. Topics include: principles of composition, perspective drawings, and graphic techniques.

Course Goals & Objectives (list):

- Acquire graphic, artistic, and narrative communicative skills in regards to 3-D architectural representations.
- Employing a variety of analogue and digital drawing techniques by engaging the student's artistic means, and by representing rational ideas and empirical experiences in a concise manner.
- Engage in the graphic celebration of two important anniversaries: the 50th anniversary of Le Corbusier's passing and the 80th birthday of the introduction of Frank Lloyd Wright's Usonian Home in the landscape of America.

Student Performance Criterion/a addressed (list number and title)

Primary:

- A5: Ordering Systems (A)

Secondary:

- A1: Professional Communication Skills (A)

Topical Outline (include percentage of time in course spent in each subject area): Refer to Syllabus

Prerequisites: ARC111

Textbooks/Learning Resources: Refer to syllabus

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Jaime Correa, Germane Barnes, Oscar Machado, Edgar Sarli, Jorge Trelles
2015: Jaime Correa, Victor Deupi, Oscar Machado, Jorge Trelles

Number & Title of Course (total credits awarded): ARC 122: Architecture Theory II (1 credit)

Course Description (limit 25 words): Understanding the relationship between human needs, behavior, cultural diversity, social equity, and professional judgment and responsibility in design.

Course Goals & Objectives (list):

- Explore theories on the basic principles of human spatial behavior and motivation
- Understand the reasons for individual and cultural differences in human spatial behavior while comprehending people, place, and context
- Understand basic design principles for health, welfare and place making in the built environment and for the practice of architecture, including advocacy, and the need to act legally, ethically, and critically for the good of the client, society, and the public.
- Understand the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the responsibility of the architect to ensure equity of access to sites, buildings, and structures
- Understand the ethical issues involved in the exercise of professional judgment in architectural design and practice
- Understand the role of the NCARB Rules of Conduct and the AIA
- Recognize the disparate needs of client, community, and society.
- Explore and Understand the application of the basic principles in the design of urban space: plazas, streets, greens and parks of various scales, campuses, and outdoor spaces

Student Performance Criterion/a addressed (list number and title)

Primary:

- A8: Cultural Diversity and Social Equity (U)

Secondary:

- D5: Professional Conduct (U)

Topical Outline (include percentage of time in course spent in each subject area):

Basic Principles (30%)
Design Praxis (20%)
Architecture (20%)
Urban Design (20%)
Tests (10%)

Prerequisites: ARC 121. Co-requisite: ARC 102 (Architecture Majors only)

Textbooks/Learning Resources: Refer to syllabus

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Frank Martinez
2015: Frank Martinez

Number & Title of Course (total credits awarded): ARC 204: Architecture Design IV (6 credits)

Course Description (limit 25 words):

Studio engages two projects exploring three materials: wood, concrete, and steel. The projects are designed to introduce thinking about design through construction and structure.

Course Goals & Objectives (list):

- Prepare for upper level studios and electives that are self-guided
- Introduce materials and methods of construction
- Develop sensitivity to form, texture of materials, and techniques of construction

Student Performance Criterion/a addressed (list number and title)

Primary:

- A2: Design Thinking Skills (A)
- A3: Investigative Skills (A)
- A4: Architecture Design Skills (A)

Secondary:

- B5: Structural Systems (A)
- B8: Building Materials & Assemblies (U)

Topical Outline (include percentage of time in course spent in each subject area): Refer to syllabus

Prerequisites: ARC101, ARC102, ARC203

Textbooks/Learning Resources: Refer to syllabus

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Adib Cure, Richard John, Veruska Vasconez, Rocco Ceo
2015: Germane Barnes, Cristina Canton, Sonia Chao, Richard John, Joachim Perez

Number & Title of Course (total credits awarded): ARC 231: Building Technology II Structural Systems (3 credits)

Course Description (limit 25 words):
Structural systems: the tectonics, patterns and behavior of the elements of building structures. Topics: Equilibrium, stability, vertical and lateral loads, building envelope and financial considerations.

Course Goals & Objectives (list):

- Students will learn the fundamentals of Statics and Strength of Materials.
- Students will learn principles of structural analysis.
- Students will learn to identify loads as applied to buildings and structures.
- Students will learn the fundamentals of elastic analysis applied to determinant structural elements and configurations.
- Students will explore patterns of structure and form through physical modeling and finite element software.
- Students will explore the financial considerations in selection andoptimization of a structural system

Student Performance Criterion/a addressed (list number and title)

Primary

- B3. Codes and Regulations (A)
- B4. Technical Documentation (A)
- B5. Structural Systems (A)

Secondary

- B10. Financial Considerations (U)

Topical Outline (include percentage of time in course spent in each subject area):
Regular Weekly Problem Assignments (Individual) 20%
In-Class Participation with iClicker (Individual) 15%
In-class Exercises (Individual) 15%
Semester Projects: (Group) 25%
Final Examination: Monday, **May 2, 2016, 8:00 PM – 10:30 PM** (Individual) 25%

Prerequisites: Physics 103 or an equivalent that includes Newtonian mechanics.

Textbooks/Learning Resources: Schodek, D & Bechthold, M. ***Structures*** 7e. (Pearson/ Prentice Hall 2014) (Required)
Ching, F. D. K., Onouye, B. and Zuberbuhler, D. ***Building Structures Illustrated*** (Wiley. 2009) (Recommended)

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Denis Hector
2015: Denis Hector

Number & Title of Course (total credits awarded): ARC 268 History of Architecture II (3 credits)

Course Description (limit 25 words): ARC 268 introduces students to the history of architecture globally and across a variety of cultures with a particular focus on 1650 to the present.

Course Goals & Objectives (list):

- Students will gain an understanding of the architecture of global and traditional cultures
- Students will develop skills in the visual analysis of architecture
- Students will develop critical thinking and writing skills

Student Performance Criterion/a addressed (list number and title)

Primary

- A3 Investigative Skills (A)
- A7 History and Global Culture (A)

Secondary

- A1 Professional Communication Skills (A)
- A6 Use of Precedents (A)

Topical Outline (include percentage of time in course spent in each subject area): Refer to syllabus

Prerequisites: ARC 276 or permission of instructor

Textbooks/Learning Resources: Marian Moffett, Michael Fazio, and Lawrence Wodehouse. Buildings Across Time: An Introduction to World Architecture. 4th edition. Boston: McGraw-Hill, 2008. ISBN-10: 007305304x

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Katherine Wheeler

2015: Katherine Wheeler

Number & Title of Course (total credits awarded): ARC 306 Integrated Design Studio (6 credits)

Course Description (limit 25 words): Students will understand that architecture in its physical manifestation is a result of an integrative process, given meaning by the intent of the Architect.

Course Goals & Objectives (list):

- Synthesize a wide range of variables into an integrated design solution
- Comprehend the importance of research pursuits to inform the design process
- Use creative and critical thinking skills to generate and evaluate design options across the different systems and scales in their project evaluate
- Synthesize variables from diverse and complex systems into an integrated architectural solution
- Responding to environmental stewardship goals across multiple systems for an integrated solution

Student Performance Criterion/a addressed (list number and title)

Primary

- C1 Research
- C2 Integrated Evaluations and Decision Making Process
- C3 Integrative Design

Secondary

- B3 Codes and Regulations

Topical Outline (include percentage of time in course spent in each subject area): Refer to syllabus

Prerequisites: ARC101, ARC102, ARC203, ARC204, ARC305

Textbooks/Learning Resources: Refer to syllabus

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Armando Montero, Steven Fett, Adam Krantz, Edgar Sarli, David Trautman

2015: Armando Montero, Jaya Kader, Adam Krantz, Edgar Sarli, David Trautman, Jorge Trelles

Number & Title of Course (total credits awarded): ARC 363: Environmental Building Systems II (3 credits)

Course Description (limit 25 words): This course explored the principles and applications of light and acoustics. Topics include light-planning for sunlight, interior and exterior illumination, and sound- properties.

Course Goals & Objectives (list):

- Students will acquire fundamental lighting and acoustics design skills
- Students will acquire knowledge of the fundamental elements of lighting and acoustic systems
- Students will be asked to produce fully functional lighting and acoustics design and their performance simulation and evaluation documents
- Students will be introduced to a variety of lighting and acoustics principles and will be encouraged to develop an awareness of their environmental impact

Student Performance Criterion/a addressed (list number and title)

Primary

- B6 Environmental Systems (A)
- B9 Building Service Systems (U)

Secondary

- B7 Building Envelope Systems and Assemblies (U)
- B8 Building Materials and Assemblies (U)

Topical Outline (include percentage of time in course spent in each subject area):

Lighting Fundamentals (20%)
Daylight Design (20%)
Electric Lighting Design (20%)
Acoustic Fundamentals (20%)
Acoustic System Design (20%)

Prerequisites: None

Textbooks/Learning Resources: Readings are assigned throughout to enhance the course content and studio projects.

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Juhong Park
2015: Juhong Park

Number & Title of Course (total credits awarded): CAE 313 Structural Systems II (3 credits)

Course Description (limit 25 words):
The students will learn application of fundamental methods of structural systems, the bending action of beams, and geotechnical conditions and foundation systems.

Course Goals & Objectives (list):

- Students will acquire knowledge regarding gravity and lateral loads on structural systems
- Students will apply code requirements for structural systems
- Students will acquire knowledge of different structural materials and systems (Steel, Wood, Concrete, and Masonry)
- Students will be asked to produce assignments that show ability to calculate loads, forces, and stresses within structural systems
- Students will be introduced to the detailing of structural connections

Student Performance Criterion/a addressed (list number and title)

Primary

- B3 Codes and Regulations (A)
- B5 Structural Systems (A)

Topical Outline (include percentage of time in course spent in each subject area):

Exams (80%)
Homework and Participation (20%)

Prerequisites: CAE 213

Textbooks/Learning Resources: Forms and Forces, Edward Allen and Waclaw Salewski, John Wiley & Sons 2009

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Matthew Trussoni
2015: Matthew Trussoni

2016 COURSE DESCRIPTIONS – Masters of Architecture

Number & Title of Course (total credits awarded): ARC 605 Architectural Design Studio II (6 credits)

Course Description (limit 25 words): Studio explores skills in design, composition, and architecture theory and precedent. It serves as an introduction to programming, zoning and codes, and building placement and siting.

Course Goals & Objectives (list):

- Ability to gather, assess, record, and comparatively evaluate relevant information in order to support conclusions related to the specific project or assignment
- Ability to effectively use basic formal, organization and environmental principles and the capacity of each to inform two- and three- dimensional design
- Ability to examine and comprehend the fundamental principles present in relevant precedents and to make informed choices about the incorporation of such principles into a project
- Understanding of the parallel and divergent histories of architecture and the cultural norms of a variety of indigenous, vernacular, local, and regional settings in terms of their political, economic, social, ecological, and technological factors
- Ability to respond to site characteristics, including urban context and developmental patterning, historic fabric, soil, topography, ecology, climate, and building orientation, in the development of a project design

Student Performance Criterion/a addressed (list number and title)

Primary

- A4 Architectural Design Thinking Skills (A)
- A6 Use of Precedents (A)
- B2 Site Design (A)

Secondary

- B3 Codes and Regulations (A)
- B7 Building Envelope Systems and Assemblies (U)
- B9 Building Service Systems (U)
- C3 Integrative Design (A)

Topical Outline (include percentage of time in course spent in each subject area):

Attendance and Participation (20%)
Project I: Collective Project (20%)
Project II: Individual Project (30%)
Project I & II: Individual Presentation (30%)

Prerequisites: ARC 604

Textbooks/Learning Resources: Refer to course syllabus

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Teofilo Victoria
2015: Teofilo Victoria

Number & Title of Course (total credits awarded): ARC 613 Computing and Media II (3 credits)

Course Description (limit 25 words): Representation of built environment through lenses of Digital Media and Visual Communication skills. Applying principles of 3D Computer Modeling and Advanced Visualization techniques and tools.

Course Goals & Objectives (list):

- Students will develop a set of architectural drawings using the latest digital software while complimenting established methods of drawing such as freehand and mechanical drafting
- Students will utilize new tools and media instruments to visualize architecture with digital modeling and advanced rendering techniques
- Students will be exposed to topics which include principles of composition, perspective renderings, materials and methods of construction explored in the creation of 3D Digital Models
- Students will be introduced to other digital tools used including digital fabrication techniques and topics
- Students will be asked to include a production of a physical model using digital fabrication machines

Student Performance Criterion/a addressed (list number and title)

Primary

- A1 Professional Communication Skills (A)

Topical Outline (include percentage of time in course spent in each subject area):

Research Component (25%)
Class Participation & Attendance (10%)
Growth Factor (15%)
Final Outcome (50%)

Prerequisites: ARC 612

Textbooks/Learning Resources: Refer to course syllabus

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Rafael Tapanes
2015: Rafael Tapanes and Steven Brooke

Number & Title of Course (total credits awarded): ARC 631: Building Technology II Structural Systems (3 credits)

Course Description (limit 25 words): Structural systems: the tectonics, patterns and behavior of the elements of building structures. Topics: Equilibrium, stability, vertical and lateral loads, building envelope and financial considerations.

Course Goals & Objectives (list):

- Develop a basis for deciphering structural form and composing structural systems

Student Performance Criterion/a addressed (list number and title)

Primary

- B3 Codes and Regulations (A)
- B4 Technical Documentation (A)

Secondary

- B5 Structural Systems (A)
- B10 Financial Considerations (U)

Topical Outline (include percentage of time in course spent in each subject area):

Regular Weekly Problem Assignments (20%)
In-Class Participation with iClicker (15%)
In-class Exercises (15%)
Semester Projects (25%)
Final Examination (25%)

Prerequisites: Physics 103 or an equivalent that includes Newtonian mechanics

Textbooks/Learning Resources: Schodek, D & Bechthold, M. ***Structures*** 7e. (Pearson/ Prentice Hall 2014)
Refer to course syllabus for further reading recommendations

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Denis Hector
2015: Denis Hector

Number & Title of Course (total credits awarded): ARC 668 History of Architecture II (3 credits)

Course Description (limit 25 words): Introduces students to the history of architecture globally and across various cultures with a focus on architecture and culture from 1650 to the present.

Course Goals & Objectives (list):

- Students will gain an understanding of the architecture of global and traditional cultures
- Students will develop skills in the visual analysis of architecture
- Students will develop critical thinking and writing skills

Student Performance Criterion/a addressed (list number and title)

Primary

- A3 Investigative Skills (A)
- A7 History and Global Culture (A)

Secondary

- A1 Professional Communication Skills (A)
- A6 Use of Precedents (A)

Topical Outline (include percentage of time in course spent in each subject area):

Critical Thinking (25%)
Writing (30%)
Reading (10%)
Lecture (25%)

Prerequisites: ARC 276 or permission of instructor

Textbooks/Learning Resources: Marian Moffett, Michael Fazio, and Lawrence Wodehouse. Buildings Across Time: An Introduction to World Architecture. 4th edition. Boston: McGraw-Hill, 2008. ISBN-10: 007305304x

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Katherine Wheeler
2015: Katherine Wheeler

2016 COURSE DESCRIPTIONS – Electives

Number & Title of Course (total credits awarded): ARC 518 618 Documentation of Historic Architecture (3 credits)

Course Description (limit 25 words): An advanced drawing/research course that covers the documentation and submission standards for the Historic American Building Survey (HABS) set forth by the National Park Service.

Course Goals & Objectives (list):

- Students will acquire the ability to analyze and assess historic sites for documentation, create detailed field notes, and understand and apply different types and levels of documentation that follow National Park Service Standards for submission to the Library of Congress
- Students will acquire the ability to work in teams to draw, measure, and record building plans, sections, elevations, and details
- Students will squire an understanding of urban and architectural design concepts relevant to tropical urban sites including: block structure, commercial spatial requirement, circulation, ventilation, massing, arrangement, composition, and assembly of diverse building materials
- This course will give students a fundamental knowledge of how to record historic sites or any existing conditions built or natural conditions that may require further study, preservation, alteration of addition

Student Performance Criterion/a addressed (list number and title)

Primary

- B4 Technical Documentation

Secondary

- A7 History and Global Culture
- D2 Project Management

Topical Outline (include percentage of time in course spent in each subject area):

Design, Drawing and other Representational Techniques (60%)
Presentation Skills (20%)
Analytical Skills (20%)

Prerequisites: ARC 306 or ARC 503, ARC 111 and ARC 112, or ARC 511

Textbooks/Learning Resources:

Recording Historic Structures. Second Edition. Edited by John A. Burns. NPS 2004.
HABS Guideline: Recording Structures and Sites with HABS Measured Drawings. 2005, 2008.
HABS Standards: Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation

Offered (semester and year): Spring, annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Ricardo Lopez
2015:Ricardo Lopez

Number & Title of Course (total credits awarded): ARC 574 674 Renaissance Architecture (3 credits)

Course Description (limit 25 words): Exploring topics of Renaissance revival, architectural practice, religious orders and book illustrations in 15th to 18th century Europe.

Course Goals & Objectives (list):

- Students will study the major monuments of Renaissance and Baroque architecture and understand them in their social, political, and economic context
- Students will be exposed to the global culture of the Early Modern period
- Students will research and write about the legacy of Renaissance and Baroque architecture in the United States
- Students will develop writing skills through analysis and research papers and through online discussion forums

Student Performance Criterion/a addressed (list number and title)

Primary

- A3 Investigative Skills
- A7 History and Global Culture
- C1 Research

Topical Outline (include percentage of time in course spent in each subject area):

Attendance and Participation (5%)
Writing Assignments (35%)
Online Discussion Forums (15%)
Exams (45%)

Prerequisites: ARC 267, ARC 268

Textbooks/Learning Resources:

Christoph Luitpold Frommel, *The Architecture of the Italian Renaissance*, New York & London: Thames & Hudson, 2007.
Frederique Lemerle and Yves Pauwels, *Baroque Architecture 1600-1750*, Paris: Flammarion, 2008.

Offered (semester and year): Spring, alternating years

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Victor Deupi
2015: N/A

Number & Title of Course (total credits awarded): ARC 581 681 Programming for Architecture (3 credits)

Course Description (limit 25 words): Introduce the fundamental concepts of programming and apply these programming concepts to applications in architecture focusing on parametric design.

Course Goals & Objectives (list):

- Students will understand and implement algorithms
- Students will acquire knowledge of fundamental object-oriented programming concepts
- Students will understand the use of programming as a tool and how it can be used within the Architectural design process
- Students will understand parametric modeling and how it differs from the common additive 3D modeling process
- Students will be expected to produce an architectural proposal using parametric modeling within the design process

Student Performance Criterion/a addressed (list number and title)

Primary

- A3 Investigative Skills (A)
- A5 Ordering Systems (A)
- Research (U)

Secondary

- A1 Professional Communication Skills (A)
- A2 Design Thinking Skills (A)
- A4 Architectural Design Skills (A)

Topical Outline (include percentage of time in course spent in each subject area):

Design (20%)
Programming and Fundamental Concepts (70%)
Analytical Skills (10%)

Prerequisites: N/A

Textbooks/Learning Resources: Refer to syllabus

Offered (semester and year): Spring 2016

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Christopher Chung
2015: N/A

Number & Title of Course (total credits awarded): ARC 582 682 Evidence Based Design Research with Healthcare Focus (3 credits)

Course Description (limit 25 words): Learn basic tools to gather and analyze sources of evidence, and conduct research to inform EBD. Explore research methods, data collection tools, and analysis techniques.

Course Goals & Objectives (list):

- Ability to critically identify, organize and analyze relevant sources of evidence to answer architectural research inquiries
- Ability to critically interpret relevant sources of evidence towards the construction of arguments and research questions, claims or hypotheses
- Understanding of strengths and limitations of different research design approaches
- Understanding of multiple research methods, tools, and techniques particularly those employed in a Post-Occupancy Evaluation methodology
- Ability to conduct a systematic research investigation in response to an architectural research inquiry towards generating new architectural knowledge

Student Performance Criterion/a addressed (list number and title)

Primary

- A3 Investigative Skills (A)
- A6 Use of Precedents (A)
- C1 Research (U)
- C2 Integrated Evaluation and Decision-Making Design Process (A)

Topical Outline (include percentage of time in course spent in each subject area):

EBD Research Introduction (30%)
EBD Research Methods Exploration (35%)
EBD Research Application (30%)
Attendance and Participation (5%)

Prerequisites: None

Textbooks/Learning Resources:

Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 4th Edition, John W Creswell, Sage Publications (2014)

Offered (semester and year): Spring

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Deborah Franqui
2015: Joanna Lombard

Number & Title of Course (total credits awarded): ARC 582 682, Furniture Design and Fabrication (6 credits)

Course Description (limit 25 words): Through sketches, drawings, models, mockups, and working drawings, students develop furniture projects that they engage in building. Topics include material considerations, technique, and tool use.

Course Goals & Objectives (list):

- Design from concept to creation is learned
- The design and making exercise provides a small scale architectural problem to be addressed individually and developed into a tangible final product.
- Material usage is learned along with structural considerations and proper application.
- Organization, time management, and real world proess/procedural management are learned.
- -Final presentations culminate in the form of a public gallery exhibition.

Student Performance Criterion/a addressed (list number and title)

Primary:

- A2. Design thinking skills (A)
- A3. Visual Communication skills (A)
- B12. Building material assemblies (U)
- A5. Investigative Skills (A)

Topical Outline (include percentage of time in course spent in each subject area):

Design, Drawing (20%)
Hands on involvement in making (60%)
Presentation (20%)

Prerequisites: None.

Textbooks/Learning Resources: None.

Offered (semester and year): Fall, annually; Spring 2016 (due to scheduling conflict)

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Austin Matheson
2015: Austin Matheson

Number & Title of Course (total credits awarded): ARC 583 683 Contemporary Latin American Architecture (3 credits)

Course Description (limit 25 words): History and theory course that examines how architecture and the built environment are shaped by, and shape, globalization through Places, Practices, and Pedagogies.

Course Goals & Objectives (list):

- Raise questions of *to whom* and *by what* is a nation's architecture represented by
- Enable students to study colonial and post-colonial Latin American societies and to identify the forces of change and the nature of the struggle to achieve it
- Understand the hybridity as an inherent quality of national identity
- Understand the nature of forms as reflections of the specific state of transition that a society is undergoing

Student Performance Criterion/a addressed (list number and title)

Primary

- A3 Investigative Design Skills (A)
- A6 Use of Precedents (A)
- A7 History and Global Culture
- A8 Cultural Diversity and Social Equity (U)

Secondary

- A8 Ordering Systems Skills (U)
- B3 Sustainability (A)
- B5 Life Safety (A)
- B10 Envelope Systems (U)

Topical Outline (include percentage of time in course spent in each subject area): Refer to syllabus

Prerequisites: None.

Textbooks/Learning Resources: None.

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Jose A. Gelabert-Navia

2015: Jose A. Gelabert-Navia

Number & Title of Course (total credits awarded): ARC 584 684 Adaptation to Climate Change (3 credits)

Course Description (limit 25 words): Elective seminar that introduces students to climate change science, and the possible human response through mitigation and, with greater emphasis on adaptation

Course Goals & Objectives (list):

- Basic knowledge of current climate change science
- Through understanding of the two types of constructive human response: mitigation and adaptation
- Communication skills development on the topic through verbal, written and graphic presentations
- Introduction to scientists and other researchers, government officials, NGO advocates, and protagonists from a variety of disciplines
- Basic understanding of the designer's civic role as initiator of public discussion and proponent of creative solutions to problems in the physical environment

Student Performance Criterion/a addressed (list number and title)

Primary:

- A1 Professional Communication Skills (A)
- A2 Design Thinking Skills (A)
- A3 Investigative Skills (A)
- C3 Integrated Evaluations and Decision-Making Design Process (A)

Secondary:

- C1 Research (U)
- D1 Stakeholder Roles in Architecture (U)

Topical Outline (include percentage of time in course spent in each subject area):
Class participation, discussion, and readings (25%)
Editorial Essay (25%)
Adaptation Solution Proposal (25%)
Final in-class Essay (25%)

Prerequisites: None

Textbooks/Learning Resources: Required readings assigned on a weekly basis

Offered (semester and year): Spring 2016, Spring 2015

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Elizabeth Plater-Zyberk
2015: Elizabeth Plater-Zyberk

Number & Title of Course (total credits awarded): ARC 585/685 Making Without Boundaries: Bio-Inspired Furniture Making (3 credits)

Course Description (limit 25 words): This course explores the principles and applications of digital design and fabrication. Topics include computer programming, algorithmic design, artificial intelligence, and digital fabrication tools.

Course Goals & Objectives (list):

- Students will acquire fundamental knowledge in computational design and digital fabrication
- Students will acquire knowledge of algorithmic and systemic thinking
- Students will be asked to produce fully functional software that generates functional objects
- Students will be introduced to a variety of computational thinking such as abstraction, modularization, incremental iteration, and reflection-in-action

Student Performance Criterion/a addressed (list number and title)

Primary

- A2 Design Thinking Skills
- A3 Investigation Skills

Secondary

- C1 Research
- A5 Ordering Systems

Topical Outline (include percentage of time in course spent in each subject area):

Procedural Programming (25%)
Object-oriented Programming (25%)
Computational Algorithms (25%)
Digital Fabrication (25%)

Prerequisites: None.

Textbooks/Learning Resources: Readings are assigned throughout the course.

Offered (semester and year): Fall 2015, Spring 2016

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Juhong Park
2015: Juhong Park

Number & Title of Course (total credits awarded): ARC 585/685 Sustainability and the Built Environment (3 credits)

Course Description (limit 25 words): This course introduces students to current best practices in green building design and construction, while they research local and international examples of sustainable architecture.

Course Goals & Objectives (list):

- Students will gain fundamental knowledge of green building design, construction and operations and a number of leading industry green building standards such as LEED
- The green building principles and concepts acquired will provide a foundation for students preparing to pass their LEED professional credentialing exams
- Students will develop speaking and presentation skills and be able to address key stakeholders related to building projects
- Students will develop and present a master plan and schematic design for regenerative local building

Student Performance Criterion/a addressed (list number and title)

Primary

- A2 Design Thinking Skills
- B1 Pre-Design
- B2 Site Design
- B6 Environmental Systems
- B8 Building Materials and Assemblies
- C2 Integrated Evaluations and Decision Making Design Process

Secondary

- A1 Professional Communication Skills
- A8 Cultural Diversity and Social Equity
- B3 Codes and Regulation

Topical Outline (include percentage of time in course spent in each subject area):

Sustainable Design and Construction Techniques (60%)
Presentation Skills (10%)
Analytical Skills (30%)

Prerequisites: None

Textbooks/Learning Resources: Readings assigned throughout the course duration.

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Johnathan Burgess, Greg Hamra
2015: N/A

Number & Title of Course (total credits awarded): ARC 594/694 GIS in Urban Design (3 credits)

Course Description (limit 25 words): Students will learn data mapping, analysis and visualization towards architecture, urban design and planning practices through the application of GIS mapping methods.

Course Goals & Objectives (list):

- Students will be introduced to a set of GIS tools that are useful for mapping, analysis, visualization and design processes
- Students will be provided an introduction to the evidence-based architecture and urban design methodology
- Students will be learning systematic approach of data-driven design
- Students will comprehend critical concepts including big data visualization, scientific analysis, and computational simulation in contemporary architecture and urban design fields

Student Performance Criterion/a addressed (list number and title)

Primary

- A1 Professional Communcation Skills (A)
- A5 Ordering Systems (A)
- B6 Environmental Systems (A)

Secondary

- C1 Research (U)

Topical Outline (include percentage of time in course spent in each subject area):

Mapping Skills (30%)
Visualization Skills (40%)
Analytical Skills (30%)

Prerequisites: None.

Textbooks/Learning Resources: Readings are assigned throughout the duration of the course.

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Li Yi
2015: Li Yi

Number & Title of Course (total credits awarded): ARC 622 History Theory III: Housing, Transport, and Infrastructure (3 credits)

Course Description (limit 25 words):
The course explores housing and infrastructure as major constituents of the urban fabric, with emphasis on typo-morphological questions and architectural composition in dense urban environments.

Course Goals & Objectives (list):

- Understanding the link and impact of major housing types and principles on the urban fabric including infrastructure and transportation
- Clarification of the intellectual background of the major periods in the modern history of housing
- Appreciation and conceptual understanding of the link between built result, development process, finance, design principles, and urban ideologies
- Understanding of the link between housing design and market drivers, including issues like affordability, sustainability, and foreign investment
- Analysis of the local housing market in Miami-Dade County

Student Performance Criterion/a addressed (list number and title)

Primary

- A1 Professional Communication Skills
- A8 Ordering Systems
- C2 Integrated Solutions

Secondary

- A7 History and Global Culture
- B3 Codes and Regulations

Topical Outline (include percentage of time in course spent in each subject area):

Design, Drawing and other representational techniques (30%)
Presentation Skills (20%)
Analytical Skills (50%)

Prerequisites: Graduate standing or permission of instructor

Textbooks/Learning Resources: Refer to syllabus

Offered (semester and year): Spring, Annually

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):

2016: Eric Firley
2015: Carie Penabad