

## ARCHITECTURE AND COMMUNITY DESIGN

### ASSESSMENT REPORT ACADEMIC YEAR 2018 – 2019 REPORT DUE DATE: 11/01/2019

- Who should submit the report? – All majors, minors (including interdisciplinary minors), graduate and non-degree granting certificate programs of the College of Arts and Sciences.
- Programs can combine assessment reports for a major and a minor program into one aggregate report as long as the mission statements, program learning outcome(s) evaluated, methodology applied to each, and the results are clearly delineated in separate sections
- Undergraduate, Graduate and Certificate Programs must submit separate reports
- It is recommended that assessment report not exceed 10 pages. Additional materials (optional) can be added as appendices
- Curriculum Map should be submitted along with Assessment Report

#### Some useful contacts:

1. Prof. Alexandra Amati, FDCD, Arts – [adamati@usfca.edu](mailto:adamati@usfca.edu)
2. Prof. John Lendvay, FDCD, Sciences – [lendvay@usfca.edu](mailto:lendvay@usfca.edu)
3. Prof. Mark Meritt, FDCD, Humanities – [meritt@usfca.edu](mailto:meritt@usfca.edu)
4. Prof. Michael Jonas, FDCD, Social Sciences – [mrjonas@usfca.edu](mailto:mrjonas@usfca.edu)
5. Prof. Suparna Chakraborty, AD Academic Effectiveness – [schakraborty2@usfca.edu](mailto:schakraborty2@usfca.edu)

#### Academic Effectiveness Annual Assessment Resource Page:

<https://myusf.usfca.edu/arts-sciences/faculty-resources/academic-effectiveness/assessment>

Email to submit the report: [assessment\\_cas@usfca.edu](mailto:assessment_cas@usfca.edu)

Important: Please write the name of your program or department in the subject line.

For example: FineArts\_Major (if you decide to submit a separate report for major and minor);  
FineArts\_Aggregate (when submitting an aggregate report)

## I. LOGISTICS

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1. Please indicate the name and email of the program contact person to whom feedback should be sent (usually Chair, Program Director, or Faculty Assessment Coordinator).

Seth Wachtel

slwachtel@usfca.edu

2. Please indicate if you are submitting report for (a) a Major, (b) a Minor, (c) an aggregate report for a Major & Minor (in which case, each should be explained in a separate paragraph as in this template), (d) a Graduate or (e) a Certificate Program

Major and Minor

3. Please note that a Curricular Map should accompany every assessment report. Has there been any revisions to the Curricular Map?

No

## II. MISSION STATEMENT & PROGRAM LEARNING OUTCOMES

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1. Were any changes made to the program mission statement since the last assessment cycle in October 2018? Kindly state “Yes” or “No.” Please provide the current mission statement below. If you are submitting an aggregate report, please provide the current mission statements of both the major and the minor program

### Mission Statement (Major/Graduate/Certificate):

(Yes, changes based on feedback from last assessment cycle)

*The Architecture and Community Design Program at the University of San Francisco combines an introduction to the disciplines of architecture, urban design, city planning, and landscape design with a strong emphasis on the social sciences and the humanities. The program draws from the university's diverse resources and faculty to form a unique interdisciplinary curriculum of study, which reflects the university's mission and commitment to building community toward a more just and humane world. The program emphasizes the critical role of analytical approaches and design strategies in negotiating between individual and collaborative acts of making, within the larger framework of political, social, and cultural issues. Guided by faculty, students engage with and learn from the city and surroundings through innovative architectural design and real world projects that make a significant difference in the lives of underserved communities. Through this process, students learn to become impassioned readers, interpreters, actors, and designers of their cities, institutions, and communities.*

### Mission Statement (Minor):

(Yes, changes based on feedback from last assessment cycle)

*The Minor program in Architecture and Community Design provides an introduction to the critical role of analytical approaches and design strategies in negotiating between individual and collaborative acts of making, within the larger framework of political, social, and cultural issues. Guided by faculty, students engage with and learn from the city and surroundings through innovative architectural design and real world projects that make a significant difference in the lives of underserved communities. Through this process, students learn to become impassioned readers, interpreters, actors, and designers of their cities, institutions, and communities.*

**2. Were any changes made to the program learning outcomes (PLOs) since the last assessment cycle in October 2017?**

Kindly state “Yes” or “No.” Please provide the current PLOs below. If you are submitting an aggregate report, please provide the current PLOs for both the major and the minor programs.

Note: Major revisions in the program learning outcomes need to go through the College Curriculum Committee (contact: Professor Joshua Gamson, [gamson@usfca.edu](mailto:gamson@usfca.edu)). Minor editorial changes are not required to go through the College Curriculum Committee.

**PLOs (Major/Graduate/Certificate):**

(No changes)

*ARCD Major Program Learning Outcomes are organized into three categories:*

- A) understanding context (history, culture, community)*
- B) gaining technical skills and knowledge*
- C) exercising social responsibility (environmental as well as social justice)*

- 1. Students will gain foundational knowledge of the historic development of architecture and cities and an overview of theories, analyses and criticisms related to historical buildings, landscapes and cities.*
- 2. a. Students will gain an understanding of basic visual principles, concepts, and modes of architectural representation.*
  - b. Students will learn to observe, analyze and represent the built environment.*
  - c. Students will learn concepts of space planning, spatial and formal expression.*
  - d. Students will obtain an understanding of structure and material in design and construction of buildings.*
  - e. Students will understand the role of society and culture in the process of architectural design.*
- 3. Students will gain knowledge and understand the importance of using architectural skills to work with diverse communities both locally and internationally to create positive social change in the built environment.*
- 4. Students will gain knowledge and understand the various factors that affect the relationship of ecology and environment to cities and buildings.*

**PLOs (Minor):**

(No changes)

*The primary difference between the ARCD Major and ARCD Minor Program Learning Outcomes is in the area of technical skills development and deeper conceptual and contextual understanding.*

*ARCD Minor Program Learning Outcomes are organized into three categories:*

- A) understanding context (history, culture, community)*

- B) gaining introductory technical skills and knowledge*
- C) exercising social responsibility (environmental as well as social justice)*

1. *Students will gain an overview of the historic development of architecture and cities and an overview of theories, analyses and criticisms related to historical buildings, landscapes and cities.*
2. *a. Students will gain a basic understanding of visual principles, concepts, and modes of architectural representation.*
  - f. Students will learn techniques to observe, analyze and represent the built environment.*
  - g. Students will become familiar with the role of society and culture in the process of architectural design.*
3. *Students will gain knowledge and understand the importance of using architectural skills to work with diverse communities both locally and internationally to create positive change in the built environment, both socially and ecologically.*

3. State the particular Program Learning Outcome(s) you assessed for the academic year 2018-2019.

**PLO(s) being assessed (Major/Graduate/Certificate):**

*PLO 2*

- a. Students will gain a basic understanding of visual principles, concepts, and modes of architectural representation.*
- b. Students will learn techniques to observe, analyze and represent the built environment.*
- c. Students will become familiar with the role of society and culture in the process of architectural design.*

**PLO(s) being assessed (Minor):**

*PLO 2*

- a. Students will gain a basic understanding of visual principles, concepts, and modes of architectural representation.*
- d. Students will learn techniques to observe, analyze and represent the built environment.*
- e. Students will become familiar with the role of society and culture in the process of architectural design.*

### III. METHODOLOGY

Describe the methodology that you used to assess the PLO(s).

For example, “the department used questions that were inputted in the final examination pertaining directly to the <said PLO>. An independent group of faculty (not teaching the course) then evaluated the responses to the questions and gave the students a grade for responses to those questions.”

**Important Note** – WSCUC advises us to use “direct methods” which relate to a direct evaluation of a student work product. “Indirect methods” like exit interviews or student surveys can be used only as additional complements to a direct method.

For any program with fewer than 10 students: If you currently have fewer than 10 students in your program (rendering your statistical analysis biased due to too few data points), it is fine to describe a multi-year data collection strategy

here. It would be important to remember that every 3 years, we would expect you to have enough data to conduct a meaningful analysis.

**Important:** *Please attach, at the end of this report, a copy of the rubric used for assessment.*

### **Methodology used (Major/Graduate/Certificate):**

*Note: The courses assessed are only open to ARCD majors and ARCD minors.*

*We continued to implement the 3-question survey to all graduating seniors, as noted below. Students were given time in the required final course ARCD 430: Professional Practice/Internship and capstone studio ARCD 400: Community Design Outreach. Additionally, since 2012 we have been collecting digital archives of student work coming from the courses. These include images of models, scans of drawings, exams, and papers.*

#### *Methodology*

*As a broad overall assessment, all students answer the following three questions twice during their studies - once within the first semester, and once in the final semester before they graduate. Time shall be set aside in the ARCD 110: Architecture Studio 1 course for the first two questions, and in ARCD 100: Intro to Architecture & Community Design for the third question. As graduating seniors, the first two shall be answered again in ARCD 400SL: Community Design Outreach Studio and the third in ARCD 430: Professional Practice/Internship course.*

- 1. Name and describe one of the most important considerations before beginning design.*
- 2. Draw a sketch of the room you are in now, using whatever technique and mode of graphic expression you would like. (could be a floor plan or a perspective, for example)*
- 3. Describe the role and responsibilities of the architect in a project, and in society.*

*Each of these activities will indicate the growth and development of socially responsible environmental designers, as well as provide a holistic assessment of our three broad Program Learning Outcomes.*

*The long-term plan is a multi-year student response to these three questions at the start and then the end of their studies in order to measure how much they have learned in the areas of our Program Learning Outcomes.*

### **Methodology used (Minor):**

*Note: The courses assessed are only open to ARCD majors and ARCD minors.*

*We continued to implement the 3-question survey to all graduating seniors, as noted below. Students were given time in the required final course ARCD 430: Professional Practice/Internship and capstone studio ARCD 400: Community Design Outreach. Additionally, since 2012 we have been collecting digital archives of student work coming from the courses. These include images of models, scans of drawings, exams, and papers.*

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#### IV. RESULTS & MAJOR FINDINGS

What are the major takeaways from your assessment exercise?

This section is for you to highlight the results of the exercise. Pertinent information here would include:

- a. how well students mastered the outcome at the level they were intended to,
- b. any trends noticed over the past few assessment cycles, and
- c. the levels at which students mastered the outcome based on the rubric used.

To address this, among many other options, one option is to use a table showing the distribution, for example:

Level	Percentage of Students
Complete Mastery of the outcome	8.7%
Mastered the outcome in most parts	20.3%
Mastered some parts of the outcome	66%
Did not master the outcome at the level intended	5%

#### Results (Major/Graduate/Certificate):

##### Methodology

- a. how well students mastered the outcome at the level they were intended to,

*Each of the direct data results arise in specific contexts, informed by the synthesis of skills picked up over the students' four years in the ARCD Major program. Taken together, they show a steady increase in complexity and quality over the full program period. This is especially true in areas displaying incorporation of new techniques of analysis and graphic representation.*

*The "exit and diagnostic survey" was administered for the third time this academic year in a continuing effort to concisely track the three primary PLOs. The same questions were given to both the first-year and fourth-year students in order to establish a baseline with which to compare answers. The first-year written replies were understandably more idealistic and less nuanced than those of the seniors. The seniors' answers tended toward a purer focus on the fundamental points of architecture. Because the questions were general in focus and not fully contextualized in any particular class, the survey replies displayed a briefness of effort – the design sketches, while technically acceptable, were less imaginative than hoped and were generally void of people and context. The verbal replies ranged from very thoughtful answers to pat responses based on what the writer thought was expected.*

- b. any trends noticed over the past few assessment cycles, and
- 1. *First Year students are increasingly aware in nearly equal number to senior about the fundamental activities of architecture and environmental design professionals. They may be more limited in the range and details of this knowledge, but these are present by their final year in the ARCD program.*
- 2. *First Year students are consistently limited in their ability to represent physical space through drawing.*
- 3. *First year students are increasingly mentioning climate issues in their responses.*

4. *The one area in which the quality does not seem to have changed significantly over the years is writing. In part to address this issue, we have introduced a required course, Architectural Theory and the Written Word, which has a significant amount of reading and writing content. The prominence of writing as a formal product in the environmental design disciplines is emphasized. Initial sampling of work products is promising for future assessments in this area of learning. This is further supported by the Honors thesis project courses, where the quality of writing from this self-selected group is higher than the general major population. Neither sample has impact on ARCD Minors as these students do not have access to these majors-only courses.*
  5. *Many seniors incorporated environmental and cultural sustainability issues into their survey responses. This is reassuring, since we have been trying to emphasize in the pedagogy that an integrated systems approach to design is equally important as technical knowledge and skills in any one area.*
- c. the levels at which students mastered the outcome based on the rubric used.
1. *Forth Year students have consistently filled in the major gaps in understanding the theory and practice within the range of architecture related professions.*
  2. *Forth Year students have consistently reached fully functional levels of the technical skill needed to work in architecture related professions and/or attend graduate school.*
  3. *As ARCD faculty continue to strive each year to raise the learning outcomes of each class of students, we are both proud that of our pedagogical messages are getting through, but still find new ways to help students synthesize even more aspects of environmental design, so that they can readily access and consider all they have learned when approaching each new problem.*

*It is worth noting that ARCD majors are not expected to be fully formed practitioners by the time they graduate. Their introduction to architecture related fields should be complete, but their toolbox is merely fuller than when they came to us. It is also important to note that each cohort of students develops a distinct culture and personality of their own, and this can express itself in distinct differences in group proclivity toward different aspects of professional training and theory.*

*Also worth mentioning is growing anecdotal evidence of higher than expected achievement by our students that we are receiving from practitioners in the industry and professors at graduate programs. This feedback gives us confidence that we are striking the correct balance between design theory and history and the technical and practical skills, all of which are needed to succeed and thrive in the architecture related professions.*

## **Results (Minor):**

*Note: Since many ARCD Minors begin as ARCD Majors and have completed the 100 level courses, our First Year assessments are viewed through an ARCD Major lens.*

### **Methodology**

- a. how well students mastered the outcome at the level they were intended to,

*Each of the direct data results arise in specific contexts, informed by the synthesis of skills picked up over the students' 20 or more units in the ARCD Minor program. Taken together, they show a steady increase in complexity and quality over the full program period. This is especially true in areas displaying incorporation of new techniques of analysis and graphic representation.*

*The "ARCD exit and diagnostic survey" was administered for the third time this academic year in a continuing effort to concisely track the three primary PLOs. The same questions were given to both the*

*first-year and fourth-year students in order to establish a baseline with which to compare answers. The first-year written replies were understandably more idealistic and less nuanced than those of the seniors. The seniors' answers tended toward a purer focus on the fundamental points of architecture. Because the questions were general in focus and not fully contextualized in any particular class, the survey replies displayed a briefness of effort – the design sketches, while technically acceptable, were less imaginative than hoped and were generally void of people and context. The verbal replies ranged from very thoughtful answers to pat responses based on what the writer thought was expected.*

- b. any trends noticed over the past few assessment cycles, and
- c. *First Year students are increasingly aware in nearly equal number to seniors about the fundamental activities of architecture and environmental design professionals. Freshmen may be more limited in the range and details of this knowledge, but these are present by their final year in the ARCD Minor program. We also expect that some of this maturity may also be the result of students' primary majors in other disciplines.*
- d. *First Year students are consistently limited in their ability to represent physical space through drawing.*
- e. *First year students are increasingly mentioning climate issues in their responses.*
- f. *Many seniors incorporated environmental and cultural sustainability issues into their survey responses. This is reassuring, since we have been trying to emphasize in the pedagogy that an integrated systems approach to design is equally important as technical knowledge and skills in any one area.*
- g. the levels at which students mastered the outcome based on the rubric used.

*Many of our pedagogical messages are getting through, but we still need to help students synthesize the many aspects of environmental design, so that they can readily access and consider all they have learned when approaching each new problem. Since ARCD majors are not expected to be fully formed practitioners by the time they graduate, it is even more the case for ARCD minors. Their introduction to architecture related fields is a broad introduction, but even with this limited exposure, the minor is of value for student pursuing management field, computer science, Real Estate, Environmental Studies, and other relatable fields where design thinking, computer graphics, and the ability to read the complexity of situations are of importance.*

## V. CLOSING THE LOOP

1. Based on your results, what changes/modifications are you planning in order to achieve the desired level of mastery in the assessed learning outcome? This section could also address more long-term planning that your department/program is considering and does not require that any changes need to be implemented in the next academic year itself.

### **Closing the Loop (Major/Graduate/Certificate):**

- a. *The assessment tool is providing expected results, but we would like to finetune the tool so we can see more nuanced data. Two changes could help; a) more explanation at the start of the survey so that all students take the assessment response more seriously and b) gain more thoughtful answers by making the questionnaire a take-home assignment.*
- b. *To increase student awareness of the types of design interaction required in the role and responsibilities of the architect in a project, and in society, we can develop more opportunities for ARCD students to collaborate on projects with peers in other majors. The expectation is that this would facilitate the practice of exercising quick resourcing of their skills and knowledge in varied human and physical contexts.*

- c. *The human centered design emphasis that is taught and desired by faculty can be reinforced by emphasizing that this be made explicit in all the visual, verbal and written assignments in all studio courses.*
- d. *Ongoing, but provide more instruction to faculty to build in interaction points or assignments across concurrent courses. For Freshmen this would be Intro to ARCD, Architectural History, Design Studio, Architectonics 1 & 2, and Fabrication Lab. For Seniors this would be Community Design Outreach, Architectural Theory, Practicum Internship, Engineering Design & Testing, International Projects, and Construction Innovation Lab.*

### **Closing the Loop (Minor):**

- e. *The assessment tool is providing expected results, but we would like to finetune the tool so we can see more nuanced data. Two changes could help; a) more explanation at the start of the survey so that all students take the assessment response more seriously and b) gain more thoughtful answers by making the questionnaire a take-home assignment.*
- f. *To increase student awareness of the types of design interaction required in the role and responsibilities of the architect in a project, and in society, we can develop more opportunities for ARCD students to collaborate on projects with peers in other majors. The expectation is that this would facilitate the practice of exercising quick resourcing of their skills and knowledge in varied human and physical contexts.*
- g. *The human centered design emphasis that is taught and desired by faculty can be reinforced by emphasizing that this be made explicit in all the visual, verbal and written assignments in all studio courses.*
- h. *Ongoing, but provide more instruction to faculty to build in interaction points or assignments across concurrent courses. For Freshmen this would be Intro to ARCD, Architectural History, Design Studio, Architectonics 1 & 2, and Fabrication Lab. For Senior ARCD minors this would be Community Design Outreach and having faculty assist each individual student in making connections to their concurrent, but non-ARCD courses.*

2. What were the most important suggestions/feedback from the FDCC on your last assessment report (for academic year 2016-2017, submitted in October 2017)? How did you incorporate or address the suggestion(s) in this report?

### **Suggestions (Major/Graduate/Certificate):**

- a. *A comment about the Mission Statement, "How does the faculty fit in this picture?", was addressed by adding, "Guided by faculty, students engage with and learn..."*
- b. *A suggestion to further differentiate the major and minor programs was incorporated by explaining the difference between First Year majors and minors and 4<sup>th</sup> Year ARCD majors and minors. To reiterate; first years are almost all ARCD majors who choose not to continue in the major, but value the time and learning they have put in during the first year, so stay on to become ARCD minors. The 4<sup>th</sup> Year minors therefore have less in-depth learning and more modest technical skills and understanding, so the LO expectations are necessarily adjusted for minors to take more account of the contributions from the LOs from their major and how it impacts the specific Community Outreach projects they are working on for their capstone ARCD Minor studio course.*
- c. *A question about how we were able to separate majors/minors from non-majors/minors, guided us to clarify that most ARCD courses are taken by ARCD majors and minors and not the general student population.*

### **Suggestions (Minor):**

- a. *A comment about the Mission Statement, “How does the faculty fit in this picture?”, was addressed by adding, “. Guided by faculty, students engage with and learn...”*
- b. *A suggestion to further differentiate the major and minor programs was incorporated by explaining the difference between First Year majors and minors and 4<sup>th</sup> Year ARCD majors and minors. To reiterate; first years are almost all ARCD majors who choose not to continue in the major, but value the time and learning they have put in during the first year, so stay on to become ARCD minors. The 4<sup>th</sup> Year minors therefore have less in-depth learning and more modest technical skills and understanding, so the LO expectations are necessarily adjusted for minors to take more account of the contributions from the LOs from their major and how it impacts the specific Community Outreach projects they are working on for their capstone ARCD Minor studio course.*
- c. *A question about how we were able to separate majors/minors from non-majors/minors, guided us to clarify that most ARCD courses are taken by ARCD majors and minors and not the general student population.*

## ADDITIONAL MATERIALS

(Any rubrics used for assessment, relevant tables, charts and figures should be included here)

ARCD MAJOR CHECKLIST

<b>Year 1: Tools for Community Design</b>	
ARCD-100	Intro to Architecture & Community Design
ARCD-104	Fabrication Lab
ARCD-110	Architecture Studio 1
ARCD-150	Architectonics 1
ARCD-101	History of Architecture 1
ARCD-120	Architecture Studio 2
ARCD-151	Architectonics 2
<b>Year 2: Reading the Context</b>	
ARCD-102	History of Architecture 2
ARCD-230	Architecture Studio 3
ARCD-203	History of Architecture 3
ARCD-240	Architecture Studio 4
ARCD Electives – see below	
<b>Year 3: Broadening the Horizon</b>	
ARCD-204	History of Architecture 4
ARCD-350	Architecture Studio 5
ARCD Electives – see below	
<b>Year 4: Into the Community</b>	
ARCD-400	Arch Studio 7: Community Design Outreach (SL)
ARCD-401	Intro to Architectural Theory
ARCD-430	Professional Practice/Internship
ARCD Electives – see below	
<b>Free Electives</b>	
ARCD-220	Landscape Architecture Studio
ARCD-250	CADD 1
ARCD-270	BIM & Applications
ARCD-290	Community Engagement
ARCD-300	CADD 2
ARCD-310	Intro to Construction Materials
ARCD-312	Environmental Control Systems
ARCD-320	Sustainable Design
ARCD-322	Sustainable & Equitable Architecture
ARCD-325	Intro to Landscape Architecture
ARCD-340	International Projects
ARCD-345	International Development & Community Outreach SL
ARCD-348	International Immersion SL
ARCD-360	Intro to Structural Engineering
ARCD-370	Construction Innovation Lab
ARCD-372	Engineering, Design and Testing
ARCD-390	Architecture in SF Symposium
ARCD-410	Portfolio Lab
ARCD-498	Honors Thesis Preparatory Seminar
ARCD-499	Honors Thesis Seminar
ART - 366	Woodworking
<b>Total Units Required for Major= 48</b>	

ARCD Major PLOs, Courses, Curricular Map:

A	B	C	D	E	F	G	H
Program Learning Outcomes X Courses	PLO1	PLO2	PLO3	PLO4	PLO5		
1. Students will gain foundational knowledge of the historic development of architecture and cities and an overview of theories, analyses and criticisms related to historical buildings, landscapes and cities.		2. a. Students will gain an understanding of basic visual principles, concepts, and modes of architectural representation. b. Students will learn to observe, analyze and represent the built environment. c. Students will learn concepts of space planning, spatial and formal expression. d. Students will obtain an understanding of structure and material in design and construction of buildings.		3. Students will gain knowledge and understand the importance of using architectural skills to work with diverse communities both locally and internationally to create positive social change in the built environment.	4. Students will learn about the various factors that affect the relationship of ecology and environment to cities and buildings.	5. Students will be introduced to the concepts and methods of civil and structural engineering.	
<b>Courses or Program Requirement</b>	I=Introductory, D=Developing, M=Mastery	Course	I=Introductory, D=Developing, M=Mastery	Course	I=Introductory, D=Developing, M=Mastery		
<b>MAJOR REQUIREMENTS IN BOLD TYPE</b>							
<b>ARCD 100: Intro to Architecture &amp; Community Design (2 units)</b>	I	ARCD 100		ARCD 100	I		
ARCD 101: Architecture History I (2 units)	I	ARCD 101		ARCD 101			
ARCD 102: Architecture History II (2 units)	D	ARCD 102		ARCD 102			
ARCD 104: Fabrication Lab I (1 units)		ARCD 104	I	ARCD 104			
ARCD 110: Architecture Studio I (4 units)	I	ARCD 110	I	ARCD 110			
ARCD 120: Architecture Studio II (4 units)	I	ARCD 120	D	ARCD 120	I		
ARCD 150: Architectonics I (2 units)		ARCD 150	I	ARCD 150			
ARCD 151: Architectonics II (2 units)		ARCD 151	I	ARCD 151			
ARCD 203: Architecture History III (2 units)	D	ARCD 203		ARCD 203			
ARCD 204: Architecture History IV (2 units)	D	ARCD 204		ARCD 204			
ARCD 220: Landscape Architecture Studio (2 units)		ARCD 220	I	ARCD 220			
ARCD 230: Architecture Studio III (4 units)	D	ARCD 230	D	ARCD 230	D		
<b>ARCD 240: Materials &amp; Methods of Architecture (formerly Studio IV) (4 units)</b>		ARCD 240	D	ARCD 240			
ARCD 250: Computer-Aided Design and Drawing I (4 units)		ARCD 250	I	ARCD 250			I
ARCD 270: BIM and Applications (2 units)		ARCD 270	D	ARCD 270	D		
ARCD 300: Computer-Aided Design and Drawing II (2 units)		ARCD 300	D	ARCD 300			
ARCD 310: Introduction to Construction Materials (4 units)		ARCD 310	D	ARCD 310			D
ARCD 312: Environmental Control Systems (4 units)		ARCD 312	D	ARCD 312			D
ARCD 320: Sustainable Design (4 units)		ARCD 320	D	ARCD 320	D		D
ARCD 322: Sustainable and Equitable Design (4 units)		ARCD 322	D	ARCD 322	D		D
ARCD 325: Introduction to Landscape Architecture (2 units)	I	ARCD 325	D	ARCD 325	D		D
ARCD 340: International Projects (2-4 units)	D	ARCD 340	D	ARCD 340	D		D
ARCD 345SL: International Development & Community Outreach (SL) (4 units)		ARCD 345SL		ARCD 345SL	D		D
ARCD 348SL: International Outreach Immersion (SL) (4 units)		ARCD 348SL		ARCD 348SL	D		D
ARCD 350: Architecture Studio V (4 units)	D	ARCD 350	D	ARCD 350	D		
ARCD 360: Introduction to Structural Engineering (4 units)		ARCD 360	D	ARCD 360			D
ARCD 370: Construction Innovation Lab (2-4 units)		ARCD 370	D	ARCD 370	D		D
ARCD 372: Engineering, Design and Testing (2-4 units)		ARCD 372	D	ARCD 372	D		D
ARCD 400SL: Community Design Outreach Studio (Service-Learning) (4 units)	M	ARCD 400SL	M	ARCD 400SL	M		M
ARCD 401: Architectural Theory and the Written Word (4 units)	M	ARCD 401		ARCD 401	M		
ARCD 410: Portfolio Lab (2 units)		ARCD 410		ARCD 410			
ARCD 430: Professional Practice/Internship (4 units)		ARCD 430		ARCD 430	M		
ARCD 498: Thesis Preparation Seminar (2 units)	M	ARCD 498	M	ARCD 498	M		
ARCD 499: Honors Thesis Seminar (2 units)	M	ARCD 499	M	ARCD 499	M		
<b>ARCD MAJOR REQ'TS OUTSIDE ARCD CURRICULUM</b>							
MATH 107: Calculus for the Liberal Arts or MATH 109: General Calculus							
PHYS 100 w/Lab or PHYS 110 w/Lab or PHYS 130 w/Lab							I

### ARCD Major PLOs, ILO Curricular Map:

	A	B	C	D	E	F
		PLO1	PLO2	PLO3	PLO4	PLO5
1	Institutional Learning Outcomes X Program Learning Outcomes	1. Students will gain a broad understanding of the historic development of architecture and cities and an overview of theories, analyses and criticisms related to historical buildings, landscapes and cities.	2. a. Students will gain an understanding of basic visual principles, concepts, and modes of architectural representation. b. Students will learn to observe, analyze and represent the built environment. c. Students will learn concepts of space planning, spatial and formal expression. d. Students will obtain an understanding of structure and material in design and construction of buildings. e. Students will understand the role of society and culture in the process of architectural design.	3. Students will gain knowledge and understand the importance of using architectural skills to work with diverse communities both locally and internationally to create positive social change in the built environment.	4. Students will learn about the various factors that affect the relationship of ecology and environment to cities and buildings.	5. Students will be introduced to the concepts and methods of civil and structural engineering.
2	Institutional Learning Outcomes					
3	1. Students reflect on and analyze their attitudes, beliefs, values, and assumptions about diverse communities and cultures and contribute to the common good.	X			X	
4	2. Students explain and apply disciplinary concepts, practices, and ethics of their chosen academic discipline in diverse communities.	X	X		X	
5	3. Students construct, interpret, analyze, and evaluate information and ideas derived from a multitude of sources.	X	X		X	X
6	4. Students communicate effectively in written and oral forms to interact within their personal and professional communities.	X	X		X	X
7	5. Students use technology to access and communicate information in their personal and professional lives.		X			X
8	6. Students use multiple methods of inquiry and research processes to answer questions and solve problems.	X	X		X	X
9	7. Students describe, analyze, and evaluate global interconnectedness in social, economic, environmental and political systems that shape diverse groups within the San Francisco Bay Area and the world.	X			X	
10						
11		Key				
12		I = Introductory				
13		D = Developing				
14		M = Mastery				

### ARCD MINOR CHECKLIST

The Minor in Architecture and Community Design is designed to provide the non-architecture Major with an appreciation of design, architectural history, urban planning, technical skills, and community outreach as it relates to architecture and landscape design projects in underserved communities. Twenty (20) units are required.

Students are required to maintain a minimum GPA of “C” (2.0) to be awarded a Minor, which is then reflected in their transcripts. Interested students should contact a faculty member in Architecture and Community Design to review the requirements, course prerequisites, and complete the paperwork to declare the ARCD Minor.

Required courses (10 units):

ARCD-100 Intro to Architecture and Community Design (2 units),

ARCD-110 Studio 1 (4 units)

ARCD-400 Community Design Outreach (4 units)

Select a minimum of two of the following (4 units, satisfies Core F):

ARCD-101 History of Architecture 1 (2 units)

ARCD-102 History of Architecture 2 (2 units)

ARCD-203 History of Architecture 3 (2 units)

ARCD-204 History of Architecture 4 (2 units)

Select a minimum of one of the following (4 units):

ARCD-120 Studio 2 (4 units)

ARCD-320 Sustainable Design (4 units)

ARCD-345 Community Development and Outreach (4 units)

Select a minimum of one of the following electives:

ARCD-150 Architectonics 1 (2 units)

ARCD-151 Architectonics 2 (2 units)

ARCD-220 Landscape Architecture Studio (2 units)

ARCD-250 CADD 1 (4 units)

ARCD-270 BIM & Applications (2 units)

ARCD-300 CADD 2 (2 units)

ARCD-310 Intro to Construction Materials (4 units)

ARCD-312 Environmental Control Systems (4 units)

ARCD-325 Intro to Landscape Architecture (2 units)

ARCD-340 International Projects (2-4 units)

ARCD-360 Intro to Structural Engineering (4 units)

ARCD-370 Construction Innovation Lab (2-4 units)

ARCD-372 Engineering, Design and Testing (2-4 units)

ARCD-401 Intro to Architecture Theory and the Written Word (4 units)

## **ARCD Minor PLO x Courses Curricular Map**

	A	B	C	D	E	F
1		PLO1	PLO2	PLO3	PLO4	PLO5
2	Institutional Learning Outcomes X Program Learning Outcomes	1. Students will gain a broad understanding of the historic development of architecture and cities and an overview of theories, analyses and criticisms related to historical buildings, landscapes and cities.	2. a. Students will gain an understanding of basic visual principles, concepts, and modes of architectural representation. b. Students will learn to observe, analyze and represent the built environment. c. Students will learn concepts of space planning, spatial and formal expression. d. Students will obtain an understanding of structure and material in design and construction of buildings. e. Students will understand the role of society and culture in the process of architectural design.	3. Students will gain knowledge and understand the importance of using architectural skills to work with diverse communities both locally and internationally to create positive social change in the built environment.	4. Students will learn about the various factors that affect the relationship of ecology and environment to cities and buildings.	5. Students will be introduced to the concepts and methods of civil and structural engineering.
3	Institutional Learning Outcomes					
4	1. Students reflect on and analyze their attitudes, beliefs, values, and assumptions about diverse communities and cultures and contribute to the common good.	x		x		
5	2. Students explain and apply disciplinary concepts, practices, and ethics of their chosen academic discipline in diverse communities.	x	x	x	x	
6	3. Students construct, interpret, analyze, and evaluate information and ideas derived from a multitude of sources.	x	x	x	x	x
7	4. Students communicate effectively in written and oral forms to interact within their personal and professional communities.	x	x	x	x	x
8	5. Students use technology to access and communicate information in their personal and professional lives.		x		x	x
9	6. Students use multiple methods of inquiry and research processes to answer questions and solve problems.	x	x		x	x
10	7. Students describe, analyze, and evaluate global interconnectedness in social, economic, environmental and political systems that shape diverse groups within the San Francisco Bay Area and the world.	x		x		
11		Key				
12		I = Introductory				
13		D = Developing				
14		M = Mastery				

### ARCD Minor PLO x ILO Curricular Map

	A	B	C	D	E	F
1		PLO1	PLO2	PLO3	PLO4	PLO5
2	Institutional Learning Outcomes X Program Learning Outcomes	1. Students will gain a broad understanding of the historic development of architecture and cities and an overview of theories, analyses and criticisms related to historical buildings, landscapes and cities.	2. a. Students will gain an understanding of basic visual principles, concepts, and modes of architectural representation. b. Students will learn to observe, analyze and represent the built environment. c. Students will learn concepts of space planning, spatial and formal expression. d. Students will obtain an understanding of structure and material in design and construction of buildings. e. Students will understand the role of society and culture in the process of architectural design.	3. Students will gain knowledge and understand the importance of using architectural skills to work with diverse communities both locally and internationally to create positive social change in the built environment.	4. Students will learn about the various factors that affect the relationship of ecology and environment to cities and buildings.	5. Students will be introduced to the concepts and methods of civil and structural engineering.
3	Institutional Learning Outcomes					
4	1. Students reflect on and analyze their attitudes, beliefs, values, and assumptions about diverse communities and cultures and contribute to the common good.	x		x		
5	2. Students explain and apply disciplinary concepts, practices, and ethics of their chosen academic discipline in diverse communities.	x	x	x	x	
6	3. Students construct, interpret, analyze, and evaluate information and ideas derived from a multitude of sources.	x	x	x	x	x
7	4. Students communicate effectively in written and oral forms to interact within their personal and professional communities.	x	x	x	x	x
8	5. Students use technology to access and communicate information in their personal and professional lives.		x		x	x
9	6. Students use multiple methods of inquiry and research processes to answer questions and solve problems.	x	x		x	x
10	7. Students describe, analyze, and evaluate global interconnectedness in social, economic, environmental and political systems that shape diverse groups within the San Francisco Bay Area and the world.	x		x		