ROADMAP
Entering the Architecture & Allied Professions

Architecture
at El Camino College

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T.O.C

Architecture ROADMAP

About this...

The purpose of this presentation is to provide insight into the profession and demonstrate how the program at El Camino College prepares students for a start in their pursuit of an architecture or allied career.

1.0 **Defining Architecture**
2.0 **Making Buildings & Sites**
3.0 **The Architecture Program**
4.0 **Architecture Beyond ECC**
5.0 **Future Program Changes**

Cathedral of Santa Maria del Fiore - "Il Duomo", Florence, Italy – Filippo Brunelleschi

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Slide 3:

To Clarify…

This is architecture…   **This is not.**

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Slide 4:

Essentially, Architecture is:

a. **The Synergy of Art + Science**
b. **About Problem Solving via Design Thinking**
   - *Tackling environmental & social challenges*
   - *Supporting community economic development needs*
   - *Addressing the client's work scope & requirements*
c. **Providing Shelter**
d. **Experiential & Placemaking**
e. **Environmental Stewardship**

Bosjes Chapel, Witzenberg District, Western Cape, South Africa – Steyn Studio

1.1 Defining Architecture

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Architecture can also be these…

Gardens by The Bay, Singapore – Wilkinson Eyre with Grant Associates
Landscape Architecture

Le Germain Restaurant & Bar, Paris – India Mahdavi
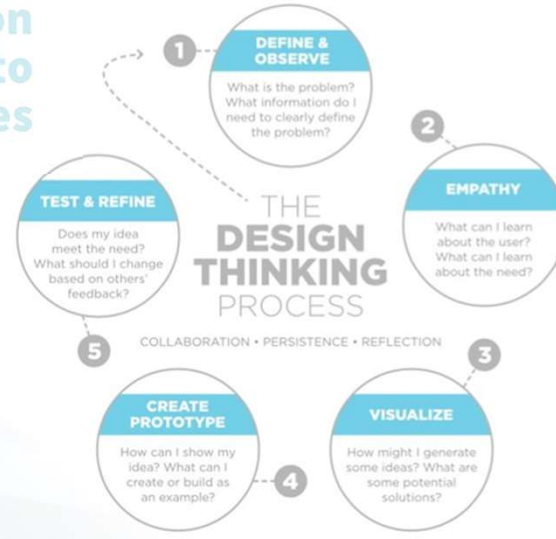**Interior Design/ Architecture**

Superkilen Park, Copenhagen – BIG Studio
Urban Design & Planning

Allied Professions

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Architecture depends on
DESIGN THINKING to
solve challenges

THE **DESIGN THINKING** PROCESS

1 DEFINE & OBSERVE — What is the problem? What information do I need to clearly define the problem?

2 EMPATHY — What can I learn about the user? What can I learn about the need?

3 VISUALIZE — How might I generate some ideas? What are some potential solutions?

4 CREATE PROTOTYPE — How can I show my idea? What can I create or build as an example?

5 TEST & REFINE — Does my idea meet the need? What should I change based on others' feedback?

COLLABORATION • PERSISTENCE • REFLECTION

The Art of Education | www.theartofed.com

Design Thinking

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2.0

Beyond the Object…

Architecture Represents:

The Heydar Aliyev Center, Baku, Azerbaijan – Zaha Hadid

Visual Poetry

"Architecture is Firmness, Commodity & Delight" - *Vitruvius*

Ville Savoye, Poissy (Paris), France – Le Corbusier

Storytelling

"Architecture is a visual art and the buildings speak for themselves." – *Julia Morgan*

Pantheon, Rome, Italy – Marcus Agrippa

Human History

"The history of architecture is the history of the struggle for light." – *Le Corbusier*

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Thoughtful Design

a. **Results in Visual Poetry**
  - *It underscores Form, Space & Journey*
  - *It demonstrates Context, Concept, & Precedent*

b. **Happens via Storytelling**
  - *It is done using Visual Communications*
  - *It centers around the pitch of the Big Idea*

c. **Represents Human History**
  - *It becomes a Record of the Past & Present*
  - *It Showcases the Future*

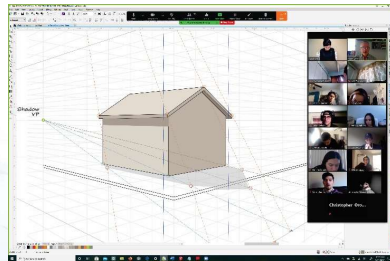**2.1 Making Buildings & Sites**

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The Architecture Program

The Mission…

The Educational Mission of the Architecture Department at El Camino College is to empower all students from all socio-economic, ethnic or racial backgrounds, for university transfer and career opportunities by embracing the nexus between art and science that defines architecture.

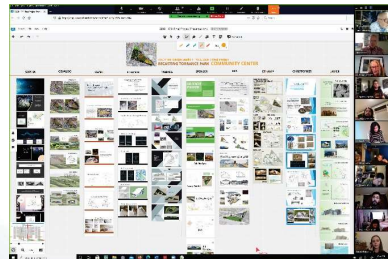*The Great Court, British Museum, London, UK – by Foster and Partners*

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[Online] Shade/Shadow demonstration via Artboard

[In-Person] model-making during Design Studio

[In-person] Site Analysis group review

[Online] Final Presentation review via ConceptBoard

The Learning Environment

In-Person + Online = Hybrid Learning

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Program Tracks:

- **Design & Theory Application**
- **Architecture History & Design Theory**
- **Graphic Communications**
- **Construction Documentation**
- **Methods & Materials**
- **Environmental Practices**
- **Digital Media**

CAD, BIM & Digital Media

Construction Documentation

History & Design Theory

Problem Solving thru **DESIGN** (Art + Science)

Graphic Communications

Technology & the Environment

Materials & Methods

The significance of Design Studio in an architecture education cannot be overstated. Design Studio is central to any university-level architecture program and is where students spend more than a third of their time during their education.

3.1 The Architecture Program

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The process of design is **cyclical and iterative**, which can be defined as a six-part process. The architecture design process can be approached in a number of ways by different designers, but generally it will follow a very similar pattern

— *First in Architecture*

ANALYSE THE REQUIREMENTS
2

WHAT IS THE PROBLEM CHALLENGE?
1

GENERATE DIFFERENT IDEAS
3

THE DESIGN PROCESS

IMPROVE THE DESIGN
6

DEVELOP THE CONCEPT
4

PRESENT AND GET FEEDBACK
5

The Design Process

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Academic Navigation:

SEQUENCE & BLOCK SCHEDULE: The information below is offered as a guide to help students plan their academic schedule. Certain courses are developed as foundational classes benefiting subsequent courses. The schedule is a recommendation that should be considered in order to achieve the best possible learning outcome.

DEGREE – A.S. in Architecture (for transfer)

FIRST YEAR (*Mondays & Wednesdays unless otherwise noted*)

				10 units
FALL				
ARCH 100	Orientation to Architecture	required	Online	1 unit
ARCH 107	Architecture History I	required	Monday	3 units
ARCH 119	Computer Applications I	required		3 units
ARCH 170	Graphic Communications I	required		3 units
SPRING				10 units
ARCH 108	Architecture History II	required	Monday	3 units
ARCH 171	Graphic Communications II	required		3 units
ARCH 199	Design Studio I	required		4 units

SECOND YEAR (*Tuesdays & Thursdays unless otherwise noted*)

				9 units
FALL				
ARCH 150A	Construction Documentation I	required		3 unit
ET 101	Sustainability Theory	(elective)	Tuesday	3 units
ARCH/ ET 165	Design Studio II	elective*		3 units
SPRING				9 units
ARCH 150B	Construction Documentation II	required		3 unit
ET 102	Sustainability Systems	(elective)	Tuesday	3 units
ARCH 179	Design Studio III	elective*		4 units

TOTAL UNITS REQUIRED: 36-40 minimum

By offering a sequenced & blocked schedule, students can take a comprehensive and long-range view of the courses needed to maximize program success.

3.2 The Architecture Program

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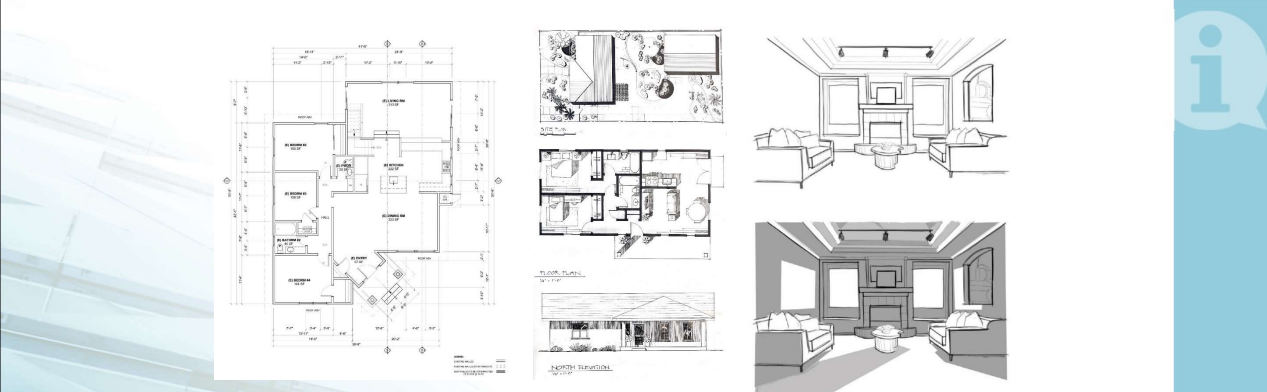**Student Projects from Design Studio**

The design process at the ECC Architecture Program is extensive and provides students with the skills to develop solutions that address the myriad of challenges in our built environment.

Course Outcomes

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Student Projects from Graphic Communications & Construction Documentation

The *Graphic Communications* & *Construction Documentation* courses at the ECC Architecture Program are extensive support classes that provide students with the essential skills to demonstrate and communicate their design solutions.

Course Outcomes

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Emphasis on Sustainability:

The **Architecture Program** places a significant emphasis on sustainable design. As such, courses in the **Environmental Technology (ET)** Department offer students an opportunity to identify challenges in our environment to explore and deploy sustainable principles, theory and practices in their coursework.

Sample of ET Classes
- **Sustainable Theory & Ecological Awareness**
- **Energy & Renewable Technologies**
- **Sustainable Practices & Site Development**
- **Materials and Methods**

*NOTE: Though separate departments, **Architecture & Environmental Technology** are intertwined in their goal to advocate for effective environmental stewardship.*

Bahrain World Trade Center, Manama, Bahrain – by Atkins

3.3 The Architecture Program

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Currently, the Architecture Program offers both an
***Associate of Science in Architecture** and*
*a **Certificate of Achievement***

Associate in Science Degree
Program Requirements:
At least 50% of the major requirements for the
Associate in Science Degree must be completed at
El Camino College.
Required Core Units: 26 units, 39-40 TOTAL UNITS

Transfer: *CSU & New School of Architecture*

*NOTE: Additional degree & certificate programs in **Architecture + Environmental Technology** are currently being explored.*

Certificate of Achievement
A Certificate of Achievement will be granted upon
completion of all program requirements. At least
50% of the requirements for the certificate must be
completed at El Camino College.
Required Core Units: 26 units, 39-40 TOTAL UNITS

Degrees & Certificates

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MINA GREAS
Architect

Teaching Focus:
*Professional Practice
Sustainable Theory*

REUBEN JACOBS
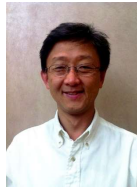Designer/ CAD Specialist

Teaching Focus:
*Design Studio
CAD*

PEGGY JOHNSON
Architect

Teaching Focus:
*History & Design Theory
Graphic Communications*

HENRY MERA
Architect

Teaching Focus:
*BIM
Digital Media*

RICHARD SONG
Architect

Teaching Focus:
History & Design Theory

GUILLERMO VILLAVICENCIO
Engineer - Structural

Teaching Focus:
*Structures
Materials & Methods*

DAN RICHARDSON
Designer/ Builder

Teaching Focus:
*Design Studio
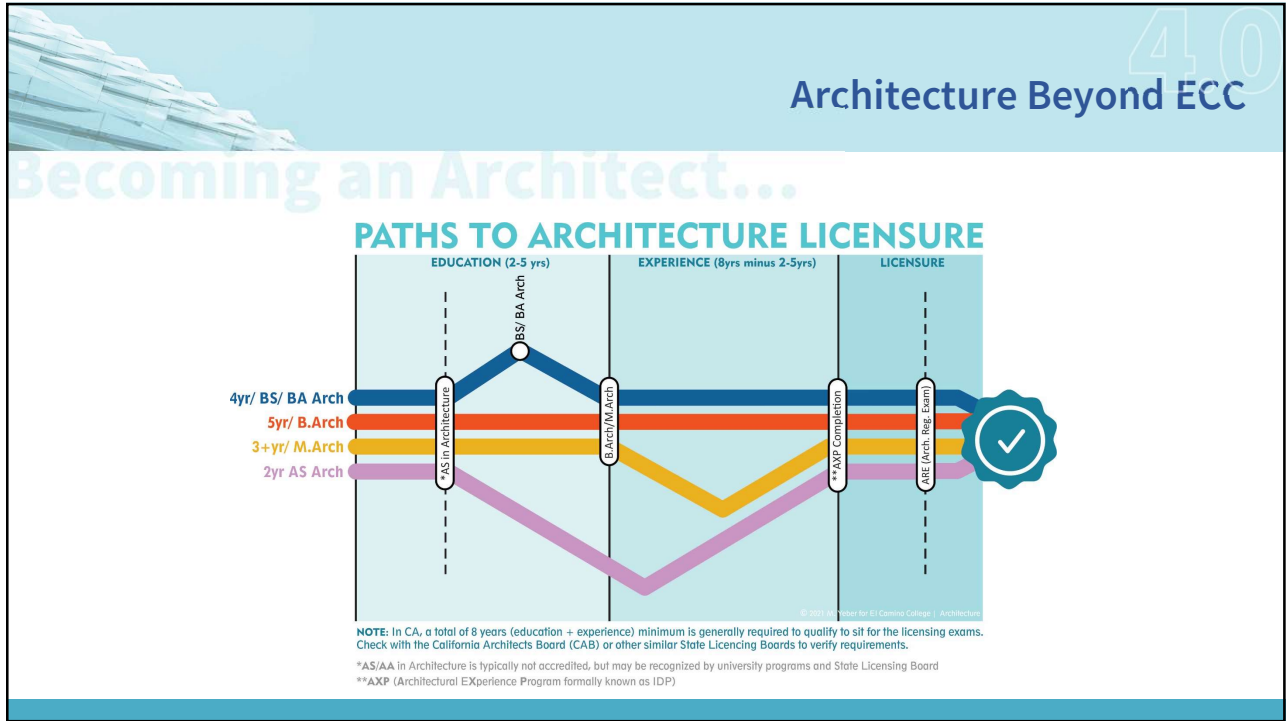Construction Documentation
Sustainable Practices*

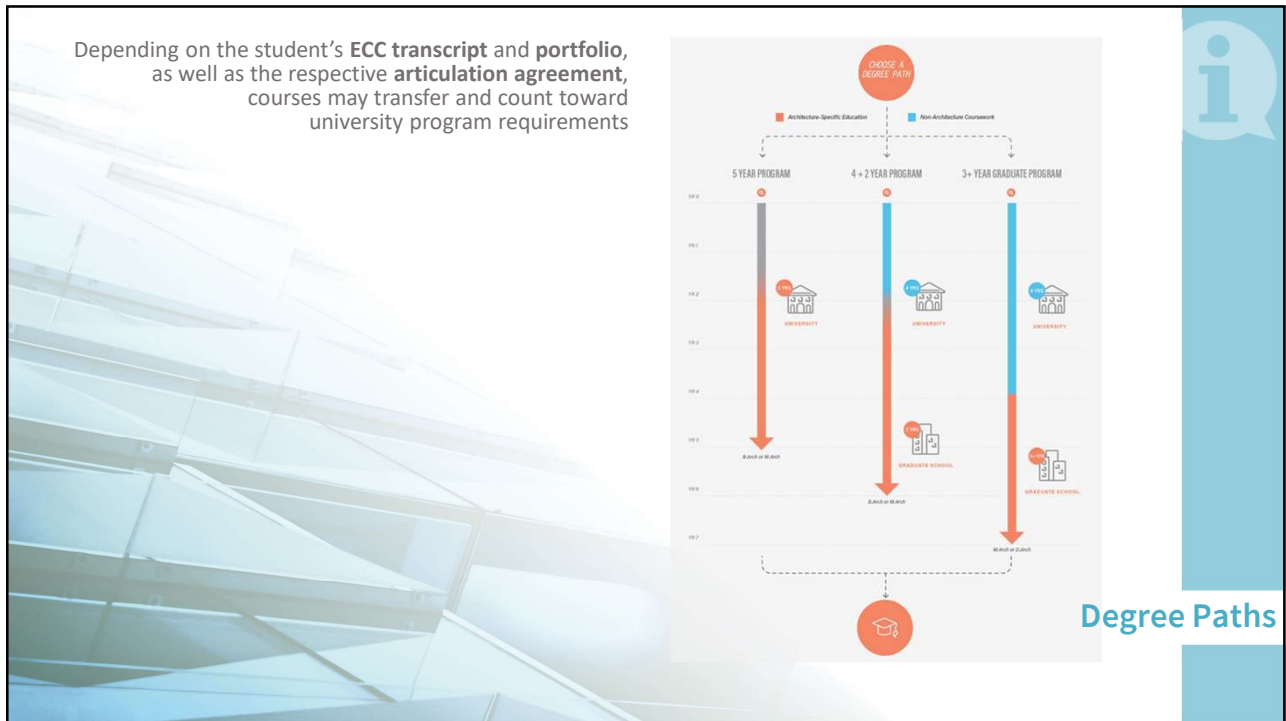**MARC YEBER**
Urban Designer

Teaching Focus:
*Design Studio
Graphic Communications
Sustainable Applications*

The Architecture & Environmental Technology Faculty come from academically diverse backgrounds. Covering the fields of architecture, urban design/planning, landscape architecture, engineering, and environmental design, these professionals provide instruction to best prepare students for a career that shapes our built environment.

Faculty

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Architecture Beyond ECC

Becoming an Architect...

PATHS TO ARCHITECTURE LICENSURE

| EDUCATION (2-5 yrs) | EXPERIENCE (8yrs minus 2-5yrs) | LICENSURE |

- 4yr/ BS/ BA Arch
- 5yr/ B.Arch
- 3+yr/ M.Arch
- 2yr AS Arch

NOTE: In CA, a total of 8 years (education + experience) minimum is generally required to qualify to sit for the licensing exams. Check with the California Architects Board (CAB) or other similar State Licencing Boards to verify requirements.

*AS/AA in Architecture is typically not accredited, but may be recognized by university programs and State Licensing Board
**AXP (Architectural EXperience Program formally known as IDP)

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Depending on the student's **ECC transcript** and **portfolio**, as well as the respective **articulation agreement**, courses may transfer and count toward university program requirements

Degree Paths

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1. Transfer Possibilities

- **4 yr BA or BS in Architecture + M.Arch** *(NAAB Accredited)*
- **5 yr B.Arch** *(NAAB Accredited)*
- **Allied Disciplines**
  - *Landscape Architecture*
  - *Regional & Urban Planning*
  - *Environmental Design*
  - *Interior Architecture/Design*
  - *Real Estate & Development*
  - *Engineering*
- **3+ yr Master's Preparation** *(leading to M.Arch, M.LArch or other)*

4.1 Architecture & Beyond

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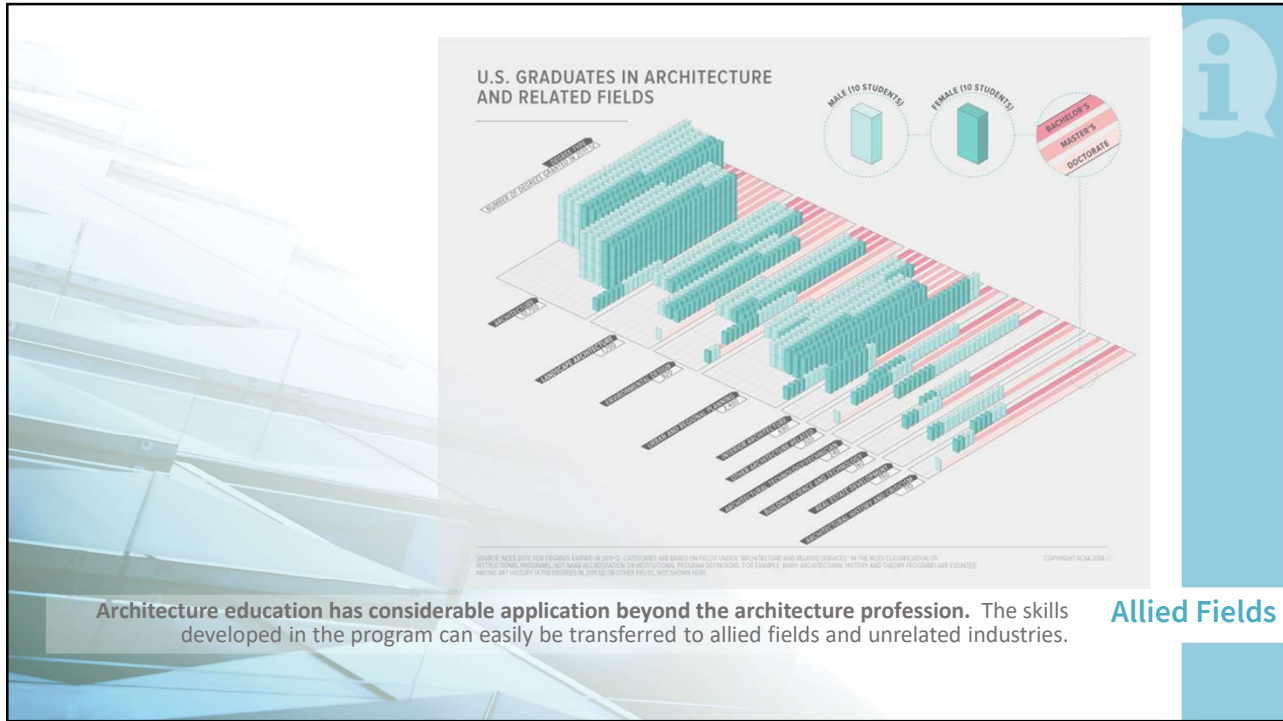# Transfer Possibilities to a University Architecture Program in CA

	CALIFORNIA INSTITUTION	ACCREDITED DEGREE		NUMBER OF DESIGN STUDIOS	
1	Academy of Art University	B.Arch (5-yr)	M.Arch (2-yr)	10/ 4 Studios	
2	University of California/ Berkeley	n/a	M.Arch (3-yr)	4/6 Studios	
3	University of California / Los Angeles	n/a	M.Arch (3-yr)	4/6 Studios	LA County
4	California Baptist University	n/a	M.Arch (3-yr)	4/6 Studios	
5	California College of the Arts	B.Arch (5-yr)	M.Arch (2-yr)	10/ 4 Studios	
6	California State Polytechnic University – Pomona	B.Arch (5-yr)	M.Arch (2-yr)	10/ 4 Studios	LA County
7	California State Polytechnic University – San Luis Obispo	B.Arch (5-yr)	M.Arch (2-yr)	10/ 4 Studios	
8	New School of Architecture & Design	B.Arch (5-yr)	M.Arch (2-yr)	10/ 4 Studios	
9	Southern California Institute of Architecture (SCI-ARC)	B.Arch (5-yr)	M.Arch (2-yr)	10/ 4 Studios	LA County
10	University of Southern California	B.Arch (5-yr)	M.Arch (2-yr)	10/ 4 Studios	LA County
11	Woodbury University	B.Arch (5-yr)	M.Arch (2-yr)	10/ 4 Studios	LA County (& SD)

NOTE: UC & California Baptist Architecture Programs offer an BS or BA in Architecture

There are multiple opportunities to pursue an architecture education within California and beyond. The institutions listed above highlight only the CA accredited programs in architecture. These institutions, as well as others, may also provide accredited programs in other allied fields.

Academic Pursuits

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Architecture education has considerable application beyond the architecture profession. The skills developed in the program can easily be transferred to allied fields and unrelated industries.

Allied Fields

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Some of the Career Paths Associated with the Profession

ARCHITECTURE
1. Design/ Technical Architect
2. BIM (*Building Infor Model*) Manager
3. Interior Architect
4. Historic Preservation
5. Project/ Construction Manager
6. Specifications Writer
7. Lighting Consultant
8. Sustainability Consultant
9. Adaptive Reuse Specialist
10. Structural Engineer
11. Plan Checker (*Building & Safety*)
12. Urban Designer

LANDSCAPE ARCHITECTURE
1. Landscape Architect
2. Horticulturist/ Arborist
3. Irrigation Consultant
4. Lighting Consultant
5. Pool/ Fountain Consultant
6. Hydrologist
7. Habitat Restoration Specialist
8. Environmental Consultant
9. Nature Conservationist
10. Grading Specialist
11. Sustainability Specialist
12. Urban Designer

PLANNING
1. Community Planner
2. Mobility Planner
3. Environmental Planner
4. Housing Specialist
5. Sustainability/ Resiliency Officer
6. EIR Consultant
7. Historic Preservation Consultant
8. Economic Development
9. Real Estate Developer
10. Outreach & Engagement Specialist
11. Land-Use/ Entitlement Consultant
12. Urban Designer

Careers

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2. Jump into Career

POSSIBLE ROLES

- Drafting/ Production
- Digital & Physical Model-making
- Illustration & Presentation
- Construction Administration
- Entitlement Expediting
- Marketing & Business Development

4.2 Architecture & Beyond

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3. Career Enrichment

OTHER EDUCATION OBJECTIVES

- Professional Development
- Change of Career
- Skill Building
- Continuing Education

4.3 Architecture & Beyond

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To find out more about pursuing an education and career in architecture or allied profession, check out the following sites.

[ARCH Career Guide]
http://www.archcareersguide.com/

[Study Architecture]
https://studyarchitecture.com/

[the Student Architect]
https://thestudentarchitect.com/start-here

[ArchDaily: 21 Careers]
https://www.archdaily.com/798632/21-careers-you-can-pursue-with-a-degree-in-architecture

[Times Higher Education: The Architecture Degree]
https://www.timeshighereducation.com/student/subjects/what-can-you-do-architecture-degree

Resources

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The Future of ECC Architecture

5.0

Proposed Changes Include…

In the 2022-2023 School Year & Beyond

- **Addition of an Introductory Design Studio** [Arch 149]
  - *Offering four (4) Design Studios for better transfer & career opportunities*
  - *Renumbering, updating content & course sequencing*
  - *Improving course content to better align with various architecture schools*
- **New Topic Classes**
  - *Urban Sketching, Portfolio Development, and Building/ Green Codes*
  - *Utilizing evening timeslots; winter & summer sessions*
- **Expansion of Environmental Technology Department**
  - *Developing of new degrees & certificates to better reflect industry changes*
  - *New topic classes covering Environmental Planning and Landscape Architecture*

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THANK YOU for Helping to Guide our
Students to Success

For Additional Information, please contact
Dan Richardson at *drichardson@elcamino.edu*

ARCHITECTURE + ENVIRONMANETAL TECHNOLOGY
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