# B.S. in Architectural Studies

College of Architecture & The Built Environment





## Welcome!

This is an introduction to the Bachelor of Science in Architectural Studies Program at Thomas Jefferson University in Philadelphia.

In this presentation we will review:

- A Program Description
- The Plan of Study
- Minors & Graduate Programs
- Outcomes
- Facilities & Career Services
- Sample Student Work
- Faculty & Alumni Profiles





## David Kratzer, AIA

DIRECTOR, ARCHITECTURE PROGRAMS The RHJ Associates P.C. Term Chair for Architecture



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Please email me with any questions or requests as these are exciting times

### College of Architecture & The Built Environment (CABE)

- Balance between theory and practice, design excellence and making
- Unique combination of disciplines = interdisciplinary collaboration

**CREATE WHAT'S NEXT** 

- Preparing to be future leaders in their fields
- Core Values

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Sustainability Social Equity Design Excellence



### College of Architecture & The Built Environment

Nexus Learning: A Core Teaching Value Active, Collaborative Real-World Learning Infused with the Liberal Arts / Hallmarks

Emphasis on Developing Curiosity and Confidence Empathy and Collaboration Initiative and Ethical Reflection Contextual Understanding/Global View



## Bachelor of Science in Architectural Studies Program

- A 4-year pre-professional design and technology degree program
- For students interested in working within the architectural profession but not as a licensed architect
- Students set up curricular programs around their personal interests from courses within CABE and the University



### Bachelor of Science in Architectural Studies

The core of the program is the Bachelor of Architecture Foundation Courses

- Students complete the first three semesters of the • Bachelor of Architecture Program including design studios, visualization courses, history and technology courses
- After foundation courses, students develop • concentrations & minors to complete a personalized curriculum
- Students can apply to transfer to BArch program after foundation courses if desired

JEFFERSON [PHILADELPHIA UNIVERSITY + THOMAS JEFFERSON UNIVERSITY]

#### BACHELOR OF SCIENCE IN ARCHITECTURE STUDIES

FOUR YEAR CURRICULUM 2019-2020

CURRICULAR			ïii					
SEQUENCE	YEAR 1		YEAR 2		YEAR 3		YEAR 4	
DESIGN + REPRESENTATION	ARFD-101 DESIGN 1 Interdisc Explorations ADFND 4CR	ARCH-102 DESIGN 2 Architectural Graphics 4CR	ARCH-213 DESIGN 3 Urban Site & Context 4CR	ARCH-214 DESIGN 4 Natural Site & Context 4CR	ARCH-311 DESIGN 5 Urban Operations Social Issues 6CR	ARCH-312 DESIGN 6 Urban Tectonics 6CR	ARCH-401 DESIGN 7 Nexus Experience Options 6CR	ARCH-412 DESIGN 8 Compre- hensive Project 6CR
	ARFD-103 VIS 1 Drawing + Orthogonal Projection ADFND 3CR	ARFD-108 VIS 2 Tech & Graphic Rep Adobe/CAD ADFND 3CR	ARDS-208 VIS 3 Digital Modeling Rhinoceros ARCHDSN 3CR			ARCH-308 VIS 4 Adv Mdl (Rhino GH VRAY Lumion DigiFA8) 3CR		CAPSTONE PROJECT 3CR
HISTORY + THEORY			AHST-205 HISTORY 1 Ancient to Medieval AHIST 3CR	AHST-206 HISTORY 2 Renaissance Baroque AHIST 3CR	AHST-305 HISTORY 3 Early Modern AHIST 3CR	ASHST-306 HISTORY 4 Contemp AHIST 3CR		ARCH-371 THEORY SEMINAR 3CR
TECHNOLOGY	ылти ; итто то сиссоция ася	MATH 2 OR ELECTIVE 3CR		ARCH-303 STRUCTURES 1 - Linear Forces 3CR	ARCH-304 STRUCTURES 2 - Columns Beams BCR			
	ENVIRO- MENTAL SCIENCE 3CR	PHYS-101 GENERAL PHYSICS 3CR	ARDS-210 TECH 1 Materials & Methods ARCHDSN 3CR	ARCH-212 TECH 2 Passive Systems + Envelope 3CR	ARCH-313 TECH 3 Dynamic Systems 3CR	ARCH-314 TECH 4 Applied Systems + Performance 3CR		ARCH-416 TECH 5 REVIT + Documents BCR
PROFESSIONAL PRACTICE								
HALLMARKS	9999-303 9991996 9994996 9994999 909							
							**************************************	
ELECTIVES	CABE ELECTIVE 12 CR MINORS SND - Sustainable Design RED - Real Estate Development GEO - GeoDesign CM - Construction Administration HP - Historic Preservation HPB - High Performance Building			ELECTIVE	ELECTIVE	ELECTIVE	ELECTIVE	ELECTIVE
				3CR	3CR	3CR	3CR	3CR
				ELECTIVE	ELECTIVE	ELECTIVE	ELECTIVE	ELECTIVE
				3CR	3CR	3CR	3CR	3CR

### Bachelor of Science in Architectural Studies

The core of the program is the Bachelor of Architecture Foundation Courses

- Students can apply to transfer to BArch Program after foundation courses if they desire to become registered architects
- BArch students can also transfer to the BS Arch Studies Program
- Upon graduating with a BS Arch Studies degree, students can enter and complete the Master of Architecture Program in 2 years to be eligible for architectural licensure













## Bachelor of Science in Architectural Studies Elective/ Minor Sequence

The elective sequence sets up focused Minors, Certificates & Combined UG+G Degrees

- Students declare a minimum of 2 minors in areas of interest
- These choices can lead to Accelerated Combined UG+G Degrees
- Primary Concentrations include
  - Historic Preservation
  - Architectural Design Technology
  - Architectural Photography
  - Custom Concentrations in any CABE Program



### College of Architecture & Built Environment Minors - minimum 12 credits Historic Preservation Photography **Interior Design** Landscape Design or Planning Sustainable Design **Construction Management** GeoDesign GIS **Business** Real Estate Development



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## College of Architecture & Built Environment Graduate Programs

Master of Architecture MS in Architecture MS in Construction Management MS in GeoDesign MS in Historic Preservation MS in Interior Architecture MS in Real Estate Development MS in Sustainable Design





## College of Architecture & Built Environment Accelerated Dual Degrees

Through coordination of your minors, you can continue into a graduate degree adding to your professional competitiveness

Accelerated Undergraduate Degree + Graduate Degree

B.S. Arch Studies + M. Architecture B.S. Arch Studies + M.S. Historic Preservation

Undergraduate Degree + Graduate Degree B.S. Arch Studies + any Master in CABE



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## College of Architecture & Built Environment Study Abroad

### Semester-long Programs

UARC Rome

**DIS Copenhagen** 

IE Univ. Segovia

**Bauhaus Germany** 

Nexus Abroad Summer Programs

Central Europe, Southern Europe, India Faculty-led Short Courses

South Africa

Czech Republic

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RETENTION RATE

85%

Retention Rate for CABE in 2018

### PLACEMENT RATE

100%

First Destination Report Class of 2019: Employment and Graduate School Success Rate for CABE

#### DISTINCTIONS

1 Fulbright Teaching Scholar: Professor Chris Harnish

FIVE TIME WINNER of John Stewardson Fellowship Competition

### AWARDS

### EMPLOYERS OF JEFFERSON GRADUATES

- 1<sup>st</sup> Prize in 2020, 2018, 2017, 2016, 2014 of John Stewardson Fellowship Competition (all PA Architecture Programs)
- Architect Magazine Studio Prize, 2019
- 1<sup>st</sup> Prize: 2014 ACSA International Student Steel Design Competition
- 1st Prize for Office Building: 2019 DOE Race to Zero Competition

- Gensler
- HOK
- Jacobs
- WRT
- Stantec
- Kieran Timberlake

- Ballinger
- WRT
- Nelson Worldwide
- Michael Graves
- EwingCole
- SmithGroup





## Architect (this data may fluctuate for allied disciplines)

### OUTLOOK

"Architects plan and design structures, such as private residences, office buildings, theaters, factories, and other structural property."

"Employment of architects is projected to grow 8 percent from 2018 to 2028, faster than the average for all occupations." MAX \$138,120 MEDIAN \$79,380

\$48,020

**SALARIES** 

START

Sources: U.S. Bureau of Labor Statistics https://www.bls.gov/oes/2018/may/oes171011.htm



### **College Facilities**

CABE has state of the art studio spaces with individual computer screens, distanced learning labs, computer labs, and active learning classrooms

Mirrors professional work environments





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### **College Facilities**

FabLabs: Analog and digital fabrication spaces

Comprehensive wood-shop

Laser cutters

**CNC** Router

Over 30 3-D printers in studios

SEE Gallery









### PROFESSIONAL CONNECTIONS

## **Career Services**

- Design Expo
- Portfolio Preparation
- On-Line portfolios
- Interview Days
- Professional Internships for Credit



### Hand Drawing Versus Computer Drawing

A common question we receive is which type of drawing does our program emphasize? The answer is both. We believe the ability to sketch, hand draw, diagram and build models are fundamental architectural skills just as much as being proficient in digital rendering. Programs we use: Microsoft Office

Adobe Creative Suite AutoDesk (AutoCad & Revit) Rhinoceros



M.ARCH & INTD | Melanie Perkins, Samantha Oriente, Tianyi Xie

"The only other sound's the sweep of easy wind" "To watch his woods fill up with snow"

#### PROJECT PROPOSITION

- Different varieties of line weights
- Warm lighting from within
- Look down on nature floor
- Bring nature in
- Rectilinear
- Hike to location
- Journey; Exploration
- Raised off ground
- Secluded vs Open
- Balanced







### SAMPLE STUDENT WORK

## Student Work Visualization Projects

The ability to visualize building projects and excel in rendering, Ai and VR software is an ever expanding portion of the architecture profession



## **Student Work Research Projects**

It is extremely important for future professionals to utilize research as a fundamental design tool to better our built environment

Home

POVERTY FOR OR AGAINST?

Darren Conlen

The bible states, "the poor ye have with you always" and thus far has not been proven wrong. Poverty (not to be confused with homelessness) has been a constant problem for the lowest 20% of Americans for decades. In the following section we will see how America compares to world poverty rates, the history of poverty in America, and even try to draw conclusions about the culture of boverty in Philadelbhia.



U.S. Poverty Rate: 1959 to 2009

#### Poverty in America vs. World Poverty

America is undeniably the wealthiest country in the world. Our GDP is greater than the sum of 47 other countries put together - you should note that this includes China and India. In contrast, however these countries hold 53% of the world's population proving that America undeniably has the lion's share of wealth in the global economy. In fact the average American makes 46 to 92 times more money annually than average member of the lower 56% of the world's population. With all these resources it becomes difficult to believe that we possess a poverty rate of over 20%, while countries such as Denmark boast only a 2.4% poverty rate. (American Wealth)

#### **Definition of Poverty**

Poverty should not be confused with homelessness. Poverty, simply stated, is the threshold below which families or individuals are considered to be lacking the resources to meet the basic needs for healthy living. According to the US government the absolute poverty line is defined as \$22,350 for a family of four, based on a study by the Department of Agriculture who did a study to determine the minimum cost a person could provide themselves with enough groceries to sustain proper nutrition, and then multiplied it by three, knowing that the average family spends 1/3 of their earnings on food. This definition is somewhat ambiguous and can be easily critiqued however it is useful in that we are able to determine that over thirty-five million Americans are living in poverty right now, (Waxman)

#### America and the War on Poverty

Poverty in America has been a long-standing issue in America. On January 8, 1964 President Lyndon B. Johnson announced in his State of the Union address that the United

#### Geo-Design and Mapping

#### Introduction

There are 7153 Residents in Cobble Hill and the average age is 42 years and the Homeowners are 33%. Cobble Hill is a populated place located in Kings County and it's primary state is New York, its location is as follows, latitude 40.6875 and longitutde -73.9980556 West and it's Elevation is 23 Feet above MSL (7 Meters)

Mapping Buildings in Cobble Hill

There are quite a few residence in Cobble Hill, the listing are as follows, The Greek Revival Home which is located in 491 Henry Street, the tower and home buildings located in

431 Hicks street, Workingman's Cottages which is located in 12 Warren Place, the townhouse located in 166 Amity Street, Cobble Hill is an interesting place to be you can expericence the Church Christ, Cobble Hill park, the Dudley Memorial and the 236 Kane Street Synagogue.









The Greek Revival Home















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### **Student Work** Architectural Technology **Environmental Performance Projects**

How well a building operates in concert with our environment is critical

In this example, students assisted with the US Dept. of Energy Solar Decathlon project for environmental performance

#### THERMAL CONTROL



#### TECHNICAL INFORMATION

WALLS R-52		Prefab. Straw bale wall system w./ cont. Wood fiber insul.				
EXT. FLOORS R-16		4" rigid stone wool insul.				
FOUNDATION	R-38	Insulated concrete forms				
ROOF	R-45	8" stone wool insul + 3" wood fiber insul.				
WINDOWS	U-Value .15	Triple pane alum. clad wood windows				











## Suzanna Barucco, MA

ADJUNCT PROFESSOR M.S. HISTORIC PRESERVATION PROGRAM B.S. ARCHITECTURAL STUDIES, HISTORIC PRESERVATION

MA in Historic Preservation Planning, Cornell University

Ms. Barucco is principal of sbk + partners, LLC, a historic preservation consulting practice providing professional services for the assessment, preservation, restoration, rehabilitation and adaptive reuse of historic buildings, sites and landscapes.

#### COURSES

- ARST-621 ISSUES IN CONTEMPORARY PRESERVATION
- ARST-603/ARST-403 RESTORATION AND REHABILITATION OF MODERNIST BUILDINGS
- ARCH-508-1 DESIGN 10: ARCHITECTURE, ADAPTIVE REUSE

### ALUMNI PROFILE

## **TJ Burghart**

MASS DESIGN GROUP KIGALI, RWANDA

BArch with minor in Arch. History/Theory CLASS OF 2014

AIAS Director Freedom by Design Formerly AmeriCorps Construction Crew Leader at Habitat for Humanity Philadelphia Inc.

"I view architecture as a tool that has implications beyond its walls through the process. Spaces are where people come together to live. Details and moments of these spaces influence our daily experience and shape who we are. As a recent graduate, I continually seek to understand how we can improve our quality of life".

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### ALUMNI PROFILE



## Allee Berger Davis

SENIOR ARCHITECTURAL HISTORIAN RICHARD GRUBB ASSOCIATES PHILADELPHIA, PA

B.S. Architectural Studies, Historic PreservationConcentrationCLASS OF 2010M.S. Historic Preservation, University of PennsylvaniaCLASS OF 2013

After graduating from Philadelphia University with a concentration in Historic Preservation, Allee continued her preservation studies at UPenn. She has served as Senior Architectural Historian at Richard Grubb Associates for nearly seven years after serving as Outreach and Preservation Director at SS United States Conservancy for seven years. Currently she is President ofDocomomo US/Greater Philadelphia. She advocates for and creates awareness of Modern Sites, Buildings, Neighborhoods and Landscapes. Allee has also served in the Steering Committee of the Young Friends of the Preservation Alliance for Greater Philadelphia, aimed at engaging young residents of the city on preservation issues related to the urban fabric of Philadelphia.

### ALUMNI PROFILE



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## Skylar Tibbits

ASSISTANT PROFESSOR MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE, MA

BArch with minor in Experimental Computation CLASS OF 2008 M.S. Design Computation, MIT M.S. Computer Science, MIT

Skylar Tibbits is a co-director and founder of the Self-Assembly Lab housed at MIT's International Design Center. The Self-Assembly Lab focuses on self-assembly and programmable material technologies for novel manufacturing, products and construction processes.



# Jefferson

Thomas Jefferson University