2019-2020 ACADEMIC PROGRAM ASSESSMENT REPORT

DEPARTMENT/PROGRAM: ARCHITECTURE / BACHELOR OF ARCHITECTURE

The **BACHELOR OF ARCHITECTURE (B-ARCH)** is a Professional Program in Architecture accredited by the National Architectural Accrediting Board. The program can be entered with a GPA above 3.00 or below if a portfolio supports the case for admission for students with non-architectural degrees, or at foundation or intermediate levels if the student has positive records on other programs accredited by NAAB.

MISSION STATEMENT LAST SUBMITTED: The Gerald D. Hines College of Architecture and Design offers its students a platform of integrated disciplines – architecture, interior architecture and industrial design – from which to negotiate the complexities of contemporary practice in a world that is grappling with diminishing economic and natural resources, the realities of post disaster re- construction, and, at the same time, continued, rapid urbanization. Faculty and students work together in a studio- centric curriculum, supported by a premier digital fabrication facility. Open studios seamlessly incorporate coursework into project-based learning through material investigations and applied research. At the Gerald D. Hines College of Architecture and Design, making is not simply an action or a craft, but a form of critical thinking, calling forth innovative solutions for contemporary conditions. Our programs foster an environment where ideas find form, where practices that are socially equitable and fundamentally ecological establish a model from which to develop Houston's future and to inform and shape design strategies globally.

The Academic Program Assessment Report of the B-ARCH Program at the Gerald D. Hines College of Architecture and Design for the academic year 19-20 is structured over three Student Learning Outcomes:

- Student Learning Outcome 1: **Design**
- Student Learning Outcome 2: **Tecnology Proficiency**
- Student Learning Outcome 3: **Architectural Registration Exam (ARE)**

Results arer basedon the assessment of external reviewers and external constituencies.

This year the board of reviewers has been structure by the following criteria:

- One member selected of a peer Institution at any of the Texas State Universities. Criteria- System Similarity
- One member selected of a peer institution of the South Coast. Criteria- Environmental and Geographical Similarity.
- One member of a peer Institution of a high ranked program in the Nation. Criteria- Undergraduate Referential Program

46 projects of Professional Level has been assessed by the board of reviewers:

- Professor of Architecture at the College of Architecture at Texas Tech University, Urs Peter Flueckiger.
- Favrot Associate Professor at Tulane School of Architecture, Kentaro Tsubaki.
- Assistant Professor of Architecture at Syracuse University, Marcos Parga.

STUDENT LEARNING OUTCOMES

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Student Learning Outcome 1: Students will demonstrate the ability to produce comprehensive and holistic self-initiated design proposals that take into account the effective integration of structural, constructional, legal, and environmental building systems (where and when appropriate), as well as mastery in constructing a design argument that combines environmental, social, economic, and aesthetic concerns. This goal will focus on the DESIGN elements of the proposals.

Student Learning Outcome Assessment: A group of external evaluators reviewed every single of three different sections of fifth year projects of Arch 5500 (the culminating design project level for a UH architecture undergraduate student) at the end of each spring semester for the following criteria: Design, Technology, Creativity, Appropiate to context, Craft and Precedent Proficiency. The external evaluators will vary from year to year. For this rating cycle they included: Professor of Architecture at the College of Architecture at Texas Tech University, Urs Peter Flueckiger, Favrot Associate Professor at Tulane School of Architecture, Kentaro Tsubaki and Assistant Professor of Architecture at Syracuse University, Marcos Parga. The Arch 5500 Projects are rated on the following scale: Exemplary = 10-9, Better = 8-9, Acceptable = 6-7, Developing = 4-6, Faulting = 3-4, Unnaceptable = 0-3.The ratings given by the external reviewers are averaged together to create each student's performance rating in each criteria. Students who earn an average of "Acceptable" on their Design element demonstrate highly skilled abilities in their programmatic organization, contextual response, material form, and deveopment of their Arch 5500 Project. The results were analyzed by the Undergraduate Director. The results are projected over a bar table of 20 colums extrapolating the total number of 46 assessed projects to the number of 20.

Performance Standard: We expect that 90% of our students will earn an average rating of "Acceptable" or better on the DESIGN element on the Arch 5500 Project.

Assessment Results & Analysis: In 2019-2020, 26% of the student's work assessed by external reviewers over the work produced in three sections choossen ramdonly of professional Level Course Arch 5500 (N = 46 assessed projects) earned an average of "Acceptable" or better on their DESIGN ELEMENT. The standard was not met.

This lack of success demonstrates a persistent need to stress the conceptual and critical design thinking of each student as well as implement their capacity on representing the built environment and the relationship with the design output. A change on the level assessed that transits from multiple portions of courses (Arch 4501, Arch 3501 and Arch 1500) in previous years, is implemented in this report of Academic year 2019-20 to better access in a singular and comprehensive project at the end of the curriculum of the Undergraduate Architecture B Arch.

Year: 2019-20	N	Design	Technology Proficciency	Creativity	Appropiate to context	Craft	Precedent
2019-2020 Percentage of students earning a rating of "acceptable" or better or the number of project assessed	46	26%	10%	10%	59%	15%	19%

(See attached graphic evaluation of Arch 5500 projects / Spring 2020.)

Since this method of assessment varies from previous academic years, Historically this will mark the first record.

Year: 2019-20	N	Design
2019-2020 Percentage of students earning a rating of "acceptable" or better	46	26%

Program Improvement Plans: Once the first assessment has been completed, the program has observed results to implement pedagogical capacities in two lines: stress those academic areas where student will gain more capacity for better results, and stress the

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studio problems that will implement the weaker aspects that the assessment show. A restricting of the Professional Level Curriculum to better coordinate faculty in the topic studios has been implemented on Fall 2020 and Spring 21.

Student Learning Outcome 2: Students will demonstrate the ability to produce comprehensive and holistic self-initiated design proposals that take into account the effective integration of structural, constructional, legal, and environmental building systems (where and when appropriate), as well as mastery in constructing a design argument that combines environmental, social, economic, and aesthetic concerns. This goal will focus on the TECHNICAL PROFICIENCY elements of the proposals. Technical Proficiency is a comprehensive and integrated understanding of the performative aspects of building design including: structural, environmental, sustainable, social, and legal systems critical to diverse professional considerations.

Student Learning Outcome Assessment: A group of external evaluators reviewed every single of three different sections of fifth year projects of Arch 5500 (the culminating design project level for a UH architecture undergraduate student) at the end of each spring semester for the following criteria: Design, Technology, Creativity, Appropiate to context, Craft and Precedent Proficiency. The external evaluators will vary from year to year. For this rating cycle they included: Professor of Architecture at the College of Architecture at Texas Tech University, Urs Peter Flueckiger, Favrot Associate Professor at Tulane School of Architecture, Kentaro Tsubaki and Assistant Professor of Architecture at Syracuse University, Marcos Parga. The Arch 5500 Projects are rated on the following scale: Exemplary = 10-9, Better = 8-9, Acceptable = 6-7, Developing = 4-6, Faulting = 3-4, Unnaceptable = 0-3.The ratings given by the external reviewers are averaged together to create each student's performance rating in each criteria. Students who earn an average of "Acceptable" on their Design element demonstrate highly skilled abilities in their programmatic organization, contextual response, material form, and development of their Arch 5500 Project. The results were analyzed by the Undergraduate Director. The results are projected over a bar table of 20 colums extrapolating the total number of 46 assessed projects to the number of 20.

Performance Standard: We expect that 90% of our students will earn an average rating of "Acceptable" or better on the TECHNICAL PROFICIENCY on the Arch 5500 Project.
Assessment Results & Analysis: In 2019-2020, 26% of the students works assessed who produced an Arch 5500 Project (N = 46) earned an average of "Acceptable" or better on their TECHNICAL PROFICIENCY. The standard was. not met.

This lack of success demonstrates a persistent need to stress the conceptual and critical design thinking of each student. A restricting of the top level project Curriculum to better coordinate faculty in the studio sequence was implemented over the course 19-20 and is directly geared towards focusing on this issue.

Year: 2019-20	N	Design	Technology Proficciency	Creativity	Appropiate to context	Craft	Precedent
2019-2020 Percentage of students earning a rating of "acceptable" or better or the number of project assessed	46	26%	10%	10%	59%	15%	19%

(See attached graphic evaluation of Arch 5500 projects / Spring 2020.)
Since this method of assessment varies from previous academic years, Historically this will mark the first record.

Year: 2019-20	N	Technical Proficiency
2019-2020 Percentage of **BARCH** students earning a rating of **"acceptable" or better**	46	26%

Program Improvement Plans: Once the first assessment has been completed, the program will observe results to implement pedagogical capacities in two lines: stress the technology curriculum to implent the deficitary areas of knowledge, and stress the relationship between

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studio and technological courses across curriculum. A restricting of the Professional Level Curriculum to better coordinate faculty in the topic studios has been implemented on Fall 2020 and Spring 21. The Technological curriculum has been discussed over the academic year 19-20 and recalibration of contents and integration of the two areas of Technology and Studio have been implemented.

Student Learning Outcome 3: Students ability to pass the standardized Architectural Registration Exam (ARE) will be closely monitored. The ARE is administered by the National Council of Architectural Boards (NCARB), and is one of the requirements necessary to become a registered architect in all of the fifty states.

Student Outcome Assessment: Students desiring to become a registered architect must sit for this exam. We will review the annual statistics of passing rates for our students and each accredited program in the U.S. published by NCARB. The University of Houston passing rates are compared with the National Average and other professional architecture programs in Texas. However, these data do not disaggregate our undergraduate student performances from our graduate student performances, or separate student performance by program.

Performance Standard: We expect the passing rate for our students to equal or surpass the national passing rate.

Assessment Results & Analysis: In 2019, the National average passing rate across sections was 54.33% and the UH average was 39.83% (N = NA). The standard was not met.

The ARE 5.0 replaced the 4.0 licensing exam in June, 2018. Attached is a six year comparison of UH CoAD results to the National pass rates of the ARE 4.0 and 5.0. The detail on number of attempts in the ARE 5 by school is no longer available, but for the ARE 4, National attempts declined significantly, about 25%, in 2017 as the ARE 5 was phased in. ARE 4 retired June 30, 2018. The National pass rate for each section hovers around 54% for all sections. As an overall raw average, we are 14% below the 2019 national average.

Going forward, the ARE 5.0 is based on multiple choice questions alone and does not include any drawing or vignette components.

It is important to note our graduate and undergraduate ARE results are not segregated, so there is no way to distinguish between results for the two programs. Finally, test results reflect a lag from graduation time and also include even longer lag time from students who retest.

The data published for the previous-years shows the University of Houston having a consistent gap of around 12% between the National Average and the pass rate achieved by UH students. Being over 10 percentage points below the National Average Passing Rate remains cause for concern. College wide, UH is below the 2019 National Average in all categories except Construction & Evaluation.

Historically,

Year	National Pass Rate%		UH Pass Rate%		N
2019-2020	(ARE5) 54.3		(ARE5) 39.8		N/A
2018-2019	(ARE 4) 58	(ARE5) 55.8	(ARE4) 50	(ARE5) 43.6	N/A
2017-2018	(ARE 4) 66	(ARE5) 54.8	(ARE4) 54	(ARE5) 44.6	N/A
2016-2017	64		54		882
2015-2016	64		55		801

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Program Improvement Plans: We are continually emphasizing those areas of knowledge and skills being tested by the ARE as part of the professional curriculum in order to increase the passing rate. We have systemically integrated professional content into our coursework. However as is typical in our discipline, (amplified by the requirement of a multiple yearlong internship IDP) there is a substantial delay (often of five to ten years) from graduation to exam completion so the lag in rates (time between cause and effect) is substantial.

Program Highlights:
In 2019-2020, the BARCH students of Arch 5500 (N = 119) earned 4 competition/exhibition/scholarship recognitions.

Winners of the 2020 ACSA Design Awards included:
Carlos Soto for The Sky House
International Exhibition
Khoi Bui, Carlos Soto Castellanos, Jacob Ehninger, Paul Garrison, Hicham Ghoulem, Otilia Gonzalez, Ruben Mendoza, and Kaleb Williams, Emily McDougal, Khoi Bui, Carlos Soto Castellanos, Kaleb Williams, and Paul Garrison, lead by Peter Zweig presented their work City of Refugees as part of the ANCB program Borders and Territories: Identity in Place in Berlin.

Attachments:
UH Architecture Undergraduate Program of Bachelor of Architecture Project Evaluations
ARE National Pass Rates 5.0
ARE Pass Rates by School 5.0

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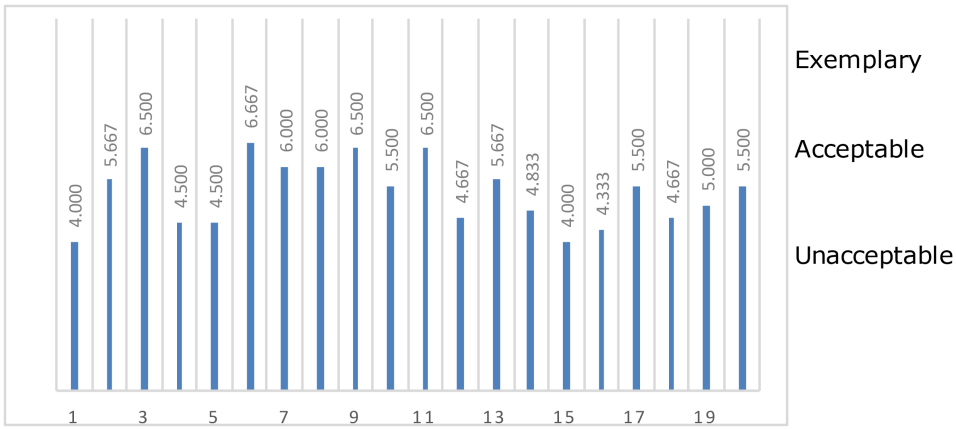
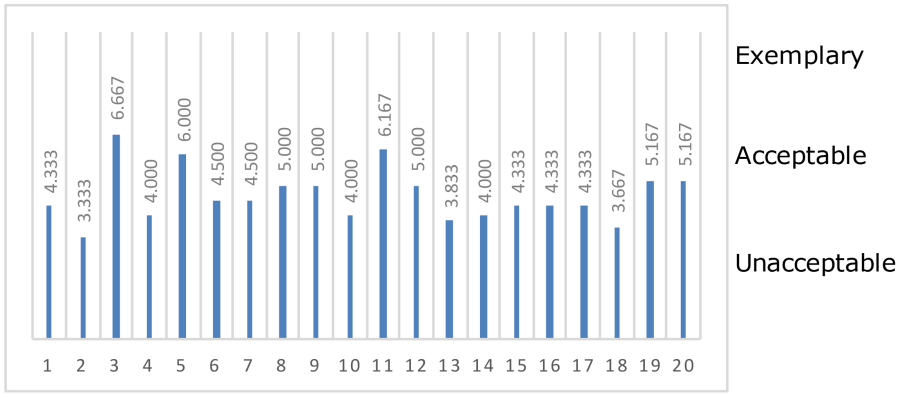
UH Architecture Undergraduate Program of Bachelor of Architecture Project Evaluations

Design



Each Bar Represents One Student

Technology



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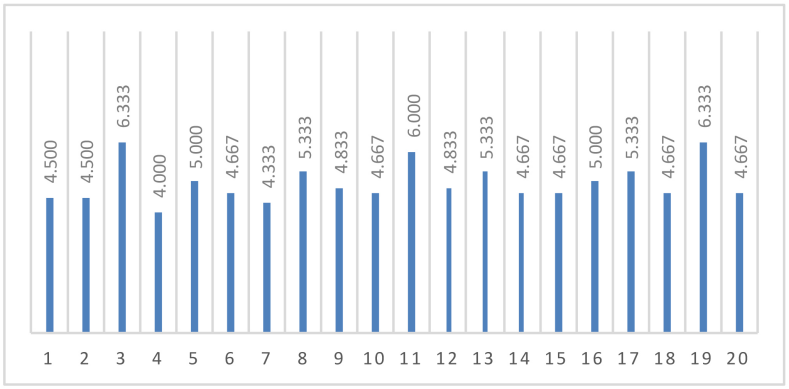
Creativity



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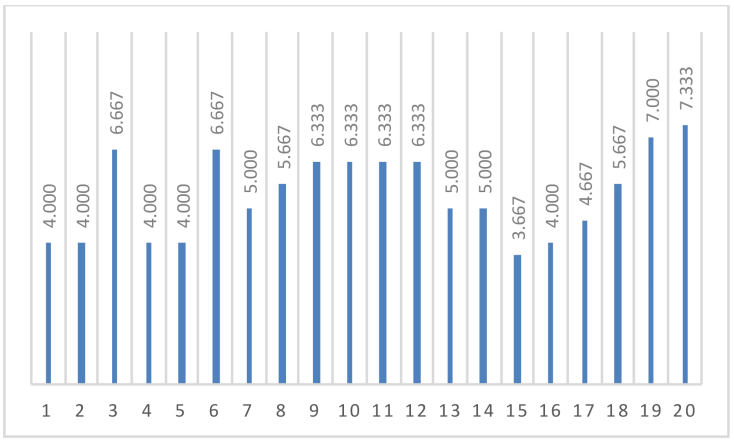
Appropiate Responsiveness to Context / Community /



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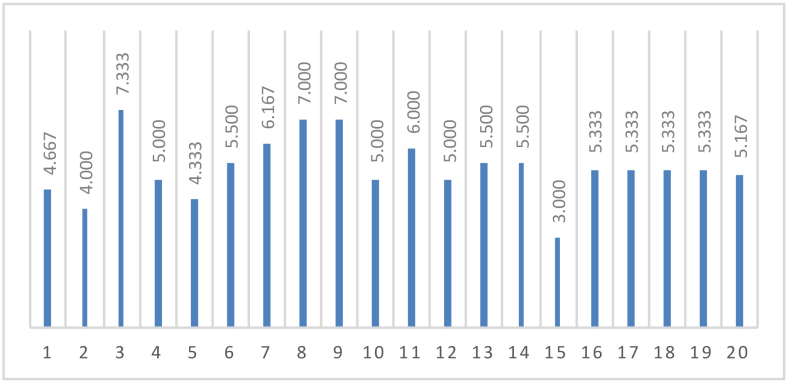
Craft



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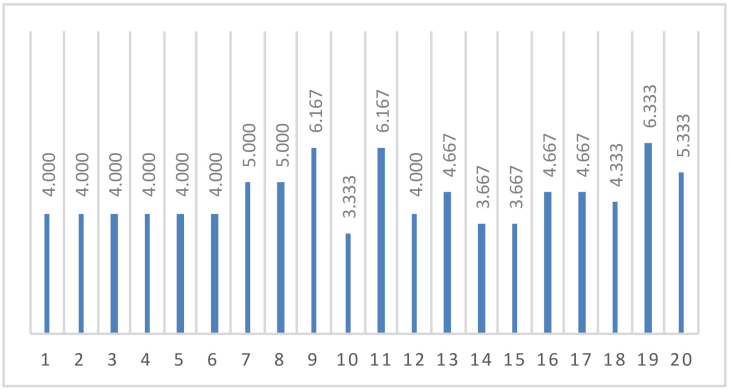
Precedent / Reflection



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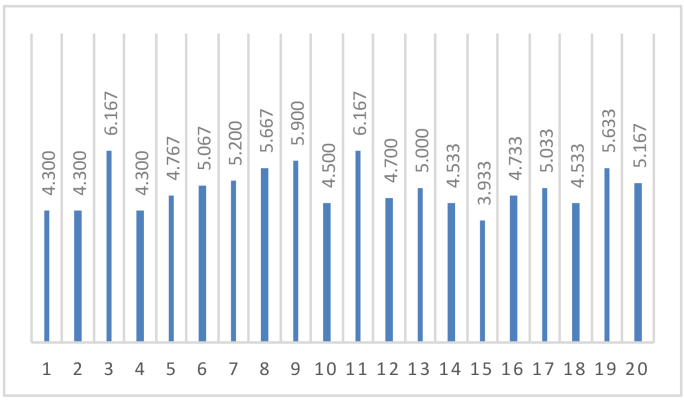
All Criteria



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National ARE 5.0 Pass Rates

Division	November 1, 2016 - June 30, 2017	2017	2018	2019
Practice Management	47%	50%	51%	49%
Project Management	56%	59%	62%	63%
Programming & Analysis	53%	53%	53%	52%
Project Planning & Design	50%	50%	46%	42%
Project Development & Documentation	56%	56%	53%	50%
Construction & Evaluation	53%	61%	70%	70%
Number of Candidates Testing	**4,092**	**7,657**	**15,493**	**18,605**

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UH ARE 5.0 Pass Rates

University Name	Division Name	2017	2018	2019
University of Houston	Construction & Evaluation	50%	50%	55%
	Practice Management	48%	41%	40%
	Programming & Analysis	50%	42%	36%
	Project Development & Documentation	42%	45%	33%
	Project Management	52%	49%	45%
	Project Planning & Design	26%	35%	30%