IIT College of Architecture: Submittal to Undergraduate Studies Committee   Fall 2018
RE: Change of Program CIP Code

TO: IIT Undergraduate Studies Committee Chair: Gregory Pulliam

The College of Architecture plans to submit a change to the Classification of Instructional Program (CIP) code for our Bachelor of Architecture (B.Arch) program in the fall of 2018. Specifically, we intend to change the code from 04.0201: Architecture, to 04.0902: Architectural and Building Sciences/Technology.

Justification for the Change of CIP Code

Introduction
Architectural design is increasingly focused on the application of technology to the design of buildings. Architects use technical design expertise in the application and integration of computer, construction and mechanical system technologies during the building design process. Architectural design also uses new materials and technologies used in various building elements, and is closely aligned with advances in building science.
Our students are rigorously trained in structural, mechanical, electrical, plumbing and construction technologies, in addition to using the latest advances in digital technologies. They should be given the opportunity to take advantage of the extended OPT training program as well.

Recruiting
As of 2016, non US students who have earned degrees in certain science, technology, engineering and math (STEM) fields, may apply for a 24 month extension of their post completion OPT employment for a total of 36 months. STEM Optional Practical Training (OPT) Visa extensions Program administered by the Department of Homeland Security (DHS) can be seen as a **significant benefit for recruiting international students** who wish to stay and work in the US post-graduation.

Research
The increased focus on STEM in research has led several funding agencies, particularly federal ones, to develop funding programs that either give preferences to STEM designated disciplines or in some cases are limited to those disciplines. Currently, architecture is not recognized as one of those disciplines. **Being recognized as a STEM discipline by funding agencies will allow architectural faculty to pursue these funding programs** as well as increase their chances of success in obtaining funding in general.

Out of the 22 faculty research areas of interests identified by ACSA in their index of scholarship, seven directly relate to STEM research including Building Systems, Digital Fabrication, Prefabrication, Industrial + Product Design, Materials Research, Structural Design, Sustainability + High Performance Built Environment, and Prefabrication + Modular Construction.

The CIP code description for Architectural and Building Sciences/Technology. 04.0902, copied below, specifically notes the Bachelor of Architecture degree as an example of a program that can be designated under Architectural and Building Sciences/Technology.

Architectural and Building Sciences/Technology. 04.0902

A program that focuses on the application of advanced technology to building design and construction, retrofitting existing buildings, and efficient operation of buildings, including lighting and daylight design, acoustics, solar design,

building conservation, and energy-conscious design. Includes instruction in architecture, building technology, civil and structural engineering, mechanical engineering, environmental control systems, sustainability, and computer tools and applications. Examples: [Architectural and Building Sciences/Technology (BArch, BA/BS)], [Architectural and Building Sciences/Technology (MArch/MA/MS)], [Architectural and Building Sciences/Technology (PhD)]

Accreditation

The National Architectural Accrediting Board (NAAB) is the sole agency authorized to accredit U.S. professional degree programs in architecture, The College of Architecture has two NAAB-accredited degrees: the Bachelor of Architecture and the Master of Architecture professional degree programs. Both hold eight-year terms of accreditation with the NAAB.

The CIP code change will not affect the current nor future accreditation status of the IIT Bachelor of Architecture. The National Architecture Accrediting Board (NAAB) states that the NAAB Conditions for Accreditation do not require programs to operate under a specific CIP code.

Precedent

Other U.S. architecture programs have successfully changed their CIP code to Architectural and Building Sciences/Technology. 04.0902. The University of Southern California for instance offers a five year, 160 credit, Bachelor of Architecture degree with the CIP code 04.0902.

As shown in the attached curriculum diagrams, the USC B.Arch curriculum parallels the IIT B.Arch almost perfectly in terms of the courses required. In fact, the IIT B.Arch curriculum has an additional nine credit hours of required study.

Instructions in Building Sciences and Technology addressing the proficiency in the area of civil and structural engineering, mechanical engineering, computational tools are a significant part of the architecture curriculum.

Around a third of the required courses (in credit hours) are building science and technology related, equivalent to the design instruction courses in NAAB accredited professional programs

BACHELOR OF ARCHITECTURE

2018 CURRICULUM

Curriculum

1ST YEAR FALL (ELEMENTS)	HRS.	1ST YEAR SPRING (UNIT)	HRS.
ARCH 113 Architecture Studio I	6	ARCH 114 Architecture Studio II	6
ARCH 100 Introduction to Architecture	3	ARCH 108 Design Communications II	3
ARCH 107 Design Communications I	3	AURB 201 The Metropolis	3
MATH 119 Geometry for Architects	3	MATH 122 Introduction to Calculus	3
Humanities 200+ Elective	3	Total Hours	15
Total Hours	18		

2ND YEAR FALL (HOUSE)		2ND YEAR SPRING (MULTIPLE)	
ARCH 201 Architecture Studio III	6	ARCH 202 Architecture Studio IV	6
AAH 119 History of World Architecture I	3	AAH 120 History of World Architecture II	3
ARCH 207 Design Communications III	3	ARCH 215 Site Design, Planning, and Ecology	3
PHYS 200 Energy, Waves, Mtrls, & Forces	4	ARCH 230 Structural Systems	3
Total Hours	16	Humanities/Social Science 100+ Elective	3
		Total Hours	18

3RD YEAR FALL (HYBRID)		3RD YEAR SPRING (NEIGHBORHOOD)	
ARCH 305 Architecture Studio V	6	ARCH 306 Architecture Studio VI	6
ARCH 334 Material: Metal	3	ARCH 335 Material: Cementitious	3
ARCH 403 Mechanical and Electrical Building Systems for Architects I	3	ARCH 404 Mechanical and Electrical Building Systems for Architects II	3
AURB 465 Contemporary Urbanism	3	ARCH 321 Contemporary Architecture	3
Social Science 300+ level Elective	3	Humanities 300+level Elective	3
Total Hours	18	Total Hours	18

4TH YEAR FALL (INSTITUTION)		4TH YEAR SPRING (INSTITUTION)	
ARCH 417 Architecture Studio VII	6	ARCH 418 Architecture Studio VIII (CBD)	6
ARCH 482 Material: Fibrous or ARCH 483 Material: Transparent	3	Non-Architectural Elective	3
		ARCH 413 Architectural Practice	3
Architectural History Elective	3	Architecture Elective	3
Architecture Elective	3	IPRO Elective	3
Social Science 300+level Elective	3	Total Hours	18
Total Hours	18		

5TH YEAR FALL (METROPOLIS)		5TH YEAR SPRING (METROPOLIS)	
ARCH 419 Cloud Studio X: Metropolis	6	ARCH 420 Cloud Studio X: Metropolis	6
Architecture Elective	3	Architecture Elective	3
Social Science 300+level Elective	3	Architecture Elective	3
IPRO Elective	3	Humanities 300+level Elective	3
Total Hours	15	Total Hours	15
		TOTAL CREDIT HOURS	169

USC Bachelor of Architecture: 160-Unit Sample Curriculum

	Year One, Semester One	Units		Year One, Semester Two	Units
102aL	Architectural Design I	4	102bL	Architectural Design I	4
105L	Fundamentals of Design Communication	2	214ag*	World History of Architecture	3
114	Architecture: Culture and Community	2	PHYS 125Lg*	Physics for Architects	4
GE	General Education Seminar	4	WRIT 150	Writing and Critical Reasoning-Thematic Approaches	4
MATH 108 or	Contemporary Precalculus, or General Education	4			
		Total Units: 16			**Total Units: 15**
	Year Two, Semester One			**Year Two, Semester Two**	
202aL	Architectural Design II	6	202bL	Architectural Design II	6
213ag* **	Building Structures and Seismic Design	3	211	Materials and Methods of Building Constructio	3
214bg*	World History of Architecture	3	213bg* **	Building Structures and Seismic Design	3
	General Education	4		General Education	4
		Total Units: 16			**Total Units: 16**
	Year Three, Semester One			**Year Three, Semester Two**	
215	Design for the Thermal and Atmospheric Envir	6	302bL	Architectural Design III	6
302aL	Architectural Design III	6	315	Design for the Luminous and Sonic Environmer	3
313	Design of Building Structures	3	411	Architectural Technology	3
314	History of Architecture: Contemporary Issues	3		General Education	4
		Total Units: 15			**Total Units: 16**
	Year Four, Semester One			**Year Four, Semester Two**	
402aL	Architectural Design IV	6	402bL	Architectural Design IV	6
WRIT 340	Advanced Writing	4	525	Professional Practice: Pre-Design, Project and (	3
	Electives	4		Architecture History Elective	2-4
	General Education	4		Electives	3-5
		Total Units: 18			**Total Units: 16**
	Year Five, Semester One			**Year Five, Semester Two**	
500aL	Comprehensive Architectural Design	6	502aL	Architectural Design V	6
501	Critical Topics in Architecture	2	526	Professional Practice: Legal & Economic Context, Project Documentation	3
	Electives	8		Electives	7
		Total Units: 16			**Total Units: 16**