Professional Preparation for Architectural Engineering Technology Students

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Abstract:

The University of Hartford's Architectural Engineering Program (AET) or prearchitecture program is based on the blending academic-based theoretical studies with professionally based problem solving. Our objective has always been "to prepare students for a variety of professional careers in the design and building industries". As a practice based academic our goal has been to strengthen architectural education through design studio projects that foster real world projects and professional challenges.

Through our third year design curriculum we provide "prepare students" through an annual Career Day and Architectural Experience Program to review Education + Experience + Examination and review the objectives of the Architectural Experience Program (AXP) is to prepare aspiring architects for competent practice. It is an opportunity to learn more about AXP, the Experience Component of Licensure, Career Services, and the Master of Architecture (MArch) Program at the University of Hartford. We also require students to create a resume, cover letter, and portfolio for review and complete an ethics component related to their studio projects.

Preparedness for what lies ahead is essential to making meaning of the Architectural Engineering Technology curriculum and academic experience. Through our third year design studio we successfully help prepare our students for the professional ahead.

College Mission:

The mission of the College of Engineering, Technology, and Architecture is to a deliver a high-quality education and prepare individuals for professional careers in engineering, technology, and architecture, or for further graduate studies. Preparing individuals to function as effective members of a global society, our programs promote technical excellence, reasoning ability, communication and interpersonal skills, and an understanding of ethical and moral issues. Our graduates are strongly encouraged to pursue professional registration in their chosen fields. Programs are available to both day and evening students. Practice-oriented educational experiences are offered at the undergraduate and graduate levels.

Architecture at the University of Hartford Overview:

The Department of Architecture program at the University of Hartford objective has always been "to prepare students for a variety of professional careers in the design and building industries". Established in 1991 as a four-year pre-architecture program, it is one of only six baccalaureates degree program in the United States that has received TAC/ABET accreditation. The program has grown considerably in the last twenty five years. As a practice based academic our goal has been to strengthen architectural education through design studio projects that foster real world projects and professional challenges.

Building Community: A New Future for Architecture Education and Practice:

<u>In Building Community: A New Future for Architecture Education and Practice</u>, Boyer and Mitgang focused Goal Four on "A Connected Curriculum". Published over twenty years ago their research regarding architectural education and practice are still relevant today. Boyer and Mitgang argue, "(schools) must, first of all, arm students with skills and knowledge needed to enter the profession as reasonably competent beginners. Graduates should also leave school liberally educated – able to communicate clearly in written language and speech, and aware of the ethical and moral issues needed to guide practitioners through a lifetime of civically responsible practice in a multicultural and interdependent world." They continue, "The good news is that architecture, by nature and tradition, holds vast potential as a model for the integration and application of learning, largely because of its most distinctive feature – *the design studio*."

Architectural Engineering Technology Program Description

Our undergraduate program is a pre-professional degree program, the first part of the department's 4+2 NAAB-accredited graduate degree program. Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as a NAAB-accredited degree.

In the U.S., most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited

professional education. However, the pre-professional degree is not, by itself, recognized as a NAAB-accredited degree. Hartford's undergraduate program is a pre-professional degree program, the first part of the department's 4+2 NAAB-accredited graduate degree program.

National Council of Architectural Registration Boards

According to National Council of Architectural Registration Boards (NCARB), "Beginning a career in architecture is similar to designing a building—it starts with a vision. NCARB is here to help turn your vision into a reality with the guidance and resources you'll need to advance from student to practicing architect. Before you can call yourself an architect, you have to earn a license by completing your state's specific education, experience, and examination requirements. NCARB has all the tools and resources to help you succeed."

NCARB does research "by the numbers". According to NCARB in 2016 there are 109,748 architects in the United States. There were 41,423 licensing candidates with 21,214 reporting hours, 7,985 reporting hours and testing, and 12,224 testing last year.

"For most licensure candidates, the first step to becoming an architect is enrolling in a program accredited by the National Architectural Accrediting Board (NAAB). NAAB data reveals that while the pool of new enrollments during the 2015-2016 school year grew by 4 percent, the number of graduates declined by 5 percent. However, overall enrollments increased slightly for the first time since 2010."

Getting students enrolled in to the University of Hartford's Architectural Engineering Technology program is just the start. Our student's generally come to the University of Hartford with the goal of becoming a licensed architect. In any case we see our role as to encourage students and help get them to licensure or to meet their other professional goals and aspiration.

Integrating Career and Licensure Data into the Curriculum

As the University of Hartford's Architecture Licensing Coordinator and a third year architecture design studio leader we integrate career and licensure data into the third year curriculum. In response to feedback from an earlier ABET visit it became apparent that we were successfully helping some students with career preparation but it was not an across the board program. At the time the NCARB requirement for participating in the Intern Development Program (IDP) was to be in your third year of a 4+2 professional degree program. We also found that by the fall of their third year students (and their families) were looking ahead to what lie ahead after college. I began the Career Day for my third year studio although to be clear all students are invited and welcome to attend. The date is set for the Monday of Thanksgiving week and it has been a success tradition for nearly a decade. In that time period IDP has changed to AXP and in addition to the State of Connecticut IDP Coordinator or the AXP Licensing Coordinator and the University Career Services representative we have added the Master of Architecture Graduate Coordinator.



Career Day and Architectural Experience Program

The objective of the Architectural Experience Program (AXP) is to prepare aspiring architects for competent practice. Find out more about AXP, the Experience Component of Licensure, Career Services, and the MArch Program at the University of Hartford.

Education + Experience + Examination

Monday, November 21, 2016 1:30 PM HJG Lower Level Studio

Michael Ayles, AIA State of Connecticut Licensing Advisor

Ricky Barrett University of Hartford Career Services, Assistant Director

Professor Daniel Davis, AIA, LEED AP University of Hartford Graduate Program Director

Become an Architect – The Basics (from NCARB)

The road to becoming an architect is less complicated than you might think, and NCARB is here to help. We have the guidance and resources you'll need to advance from student to practicing architect.

Before you can call yourself an architect, you have to earn a license by completing your state's specific requirements. Each of the 54 U.S. licensing boards sets requirements for licensure in their jurisdiction, but they all include three core components: education, experience, and examination.

Ready to get started? Learn more about the basics of becoming an architect.

Education

The first step to following your dream is finding a school that will support your career goals. Most states require a degree from a program accredited by the National Architectural Accrediting Board (NAAB).

No matter where you intend to practice, you'll have to earn and document a certain amount of professional experience to ensure you're ready to be an architect. Our Architectural Experience $\operatorname{Program}^{\mathbb{M}}(\operatorname{AXP}^{\mathbb{M}})$ provides a framework to guide you through developing and recording that experience. And the best part? You can start as soon as you graduate from high school.

Examination

Another key part of becoming an architect is completing the Architect Registration Examination[®] (ARE[®]). With exam divisions designed to reflect the current profession, the ARE ensures that you're ready to practice architecture independently.

Licensure and Certification

Once you've met the education, experience, and examination requirements, as well as any additional requirements set by your licensing board, you can apply for a license to practice architecture in your jurisdiction. After you're licensed, you can advance you career and streamline your ability to practice across borders by earning an NCARB Certificate.





Career Preparation and Portfolio Review:

In addition to attending the Career Day we have added the following requirements to the third year curriculum:

Cover Letter - In a competitive job market, a strong cover letter will help you get noticed by prospective employers. The cover letter sends the right message using our online tools. (Career Services)

Resume - Your résumé is your personal branding tool, and you will use it to market your skills, experiences, education and accomplishments to employers. Get started using our online tools, and make sure to schedule an appointment with a career advisor who can look over your resume. (Career Services)

Portfolio - "The portfolio is a creative act, showing your skills and imagination, but it is also an act of communication and a tool for self-promotion. Demonstrate originality and inventiveness but accept the restrictions and conventions of professionalism, and show that you can get your ideas across in terms that working architect and designers can understand." – Harold Linton

As the semester comes to a close students are asked to sign up for a one on one meeting with the faculty member to meet and "interview". During the "mock interview" or "Portfolio Review" students share their cover letter, resume, and the beginning of their portfolio. It is a great opportunity for students to think about what's ahead and be prepared. Since the course runs in the fall semester it also gives them something to share with their families over break. Many of them use the break to focus on further developing their cover letters, resumes, and portfolios, even applying for upcoming internships.

Closure:

Professional Preparation is an essential part of any AET program. Our third year students are encouraged to think about their futures. Our annual Career Day and Portfolio Review give them an opportunity to be ready to look for internships or apply to graduate programs. Preparedness for what lies ahead is essential to making meaning of the Architectural Engineering Technology curriculum and academic experience. Through our third year design studio we successfully help prepare our students for the profession opportunities ahead.

Bibliographic Information:

Boyer and Mitgang, *Building Community: A New Future for Architecture Education and Practice*, 1996.

www.hartford.edu

www.ncarb.org

www.portfoliodesign.com

Third Year Studio Class Student Photos with permission and thanks.

Biographical Information:

ELIZABETH PETRY, AIA is an Associate Professor of Architecture at the University of Hartford and the University of Hartford's Architecture Licensing Coordinator. She has over 25 years of academic experience and over 35 years in the profession focused primarily on health, housing, and education. Petry holds a baccalaureate degree and professional degree Master of Architecture, from the University of Illinois, Champaign – Urbana.