

**BOARD OF HIGHER EDUCATION**  
**REQUEST FOR BOARD ACTION**

**COMMITTEE:** Assessment and Accountability                      **NO.:** AAC 08-10  
**COMMITTEE DATE:** April 17, 2008  
**BOARD DATE:** April 25, 2008

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**MOVED:**                      The Board of Higher Education hereby approves the application of  
**Wentworth Institute of Technology** to award the **Master of**  
**Architecture.**

Authority:                      Massachusetts General Laws Chapter 69, Section 30  
Contact:                        Aundrea Kelley, Director for Academic Policy

# BOARD OF HIGHER EDUCATION

April 2008

## **Wentworth Institute of Technology**

### Master of Architecture

#### **INTENT**

Wentworth Institute of Technology (WIT) has submitted a proposal to offer a Master of Architecture. The proposal for a graduate professional degree program is directly related to the Institute's recent strategic planning initiatives. The proposed M.Arch program is intended to maintain full NAAB accreditation as a first professional degree in architecture and continue to set a high priority on preparing students for challenging professional roles. It is also meant to continue to provide an essential credential for graduates who wish to pursue professional architectural licensure through the Intern Development Program (IDP) and Architectural Registration Exams (ARE). The program requires all students to initiate an IDP file, thereby making the first key step towards professional licensure.

The program is designed to offer a broadly based education in design and building technology, which may also be applied to a range of allied fields. While the majority of Wentworth alumni elect to pursue careers in architecture, other graduates have been successful in a variety of related field—graphic design, theater and lighting design, industrial design, construction and facilities management, etc.—as well as careers in research and academia. It is expected that graduates of the proposed program will have pursue similarly diverse career options.

#### **INSTITUTIONAL OVERVIEW**

Founded in 1904, Wentworth Institute of Technology is a private New England Association of Schools and Colleges (NEASC) -accredited coeducational institution of higher education, located in Boston, that offers bachelor degrees in fifteen majors—including architecture, interior and industrial design, computer science, engineering, engineering technology, and management. The core values of the Institute have been an emphasis on undergraduate teaching, the integration and application of technology through extensive laboratory and studio training, and the professional orientation of its programs and graduates.

From its beginnings in 1911, Wentworth has offered both day and evening programs of study. Initially, these were primarily one-year apprentice courses for skilled workmen and two-year courses for those wishing additional practical experience in preparation for roles as master mechanics and foremen. Since 1911, Wentworth's charter has been amended several times, reflecting the evolution of its mission and educational goals. In 1956, the Commonwealth of Massachusetts granted Wentworth Institute the power to award associate degrees. In 1970, Wentworth College of Technology was chartered to grant Bachelor of Science in Engineering Technology degrees. In 1977, Wentworth Institute and Wentworth College were merged into Wentworth Institute of Technology, and in 1984 the Institute was empowered to grant degrees at the associate and baccalaureate level in fields of science, engineering and technology. Also in the 1980s, the Commonwealth authorized the Institute to offer a first professional degree program in Architecture, and this program achieved NAAB accreditation in 1992. Wentworth's

enrollment has expanded to over 3,500 students per year, and the campus now presents a 35-acre residential college setting. The Institute has graduated more than 33,000 students, many of whom have assumed leadership roles in the professions, industry, education and government.

For the past ten years the various constituencies (AIA, ACSA, NCARB) of the National Architectural Accrediting Board—(NAAB) have engaged in an extensive debate concerning the nomenclature for the degree(s) students receive from accredited schools of architecture. Many participants have felt that the time students spend on a bachelor of architecture (B.Arch) degree is equivalent to what students in other programs spend achieving a master's degree. As a result of these discussions, in the 1990's the NAAB began to accredit master of architecture (MArch) programs that no longer sprang from a bachelor's degree: students enter a MArch program as freshmen.

More recently, the NAAB put a moratorium on the creation of new B.Arch programs. Although the moratorium was recently lifted, most newly developed accredited architecture programs have elected to offer a MArch or higher. In New England, with the exception of one school, all day programs are phasing out, or have already phased out, their B.Arch programs in favor of a MArch. The two most recent professional architecture programs (University of Massachusetts Amherst and Massachusetts College of Art and Design) have been, or are being, created as MArch degrees. In the last year the absence of a M.Arch degree option at Wentworth has become of concern to parents and students considering the Institute. Wentworth feels that it must change to remain competitive.

U.S. Employment Projections (2004 to 2014) indicate 37,000 total job openings projected by 2014. Students in the Department are drawn from across the world. New England, however, remains the major source for students. In 2006, of 876 total students, 602 came from New England, including 385 from Massachusetts. Demand for Wentworth's professional architecture program continues to be strong. There were 120 applications to the Department's professional program in fall 2006. Given a final class of 50, the Department actually enrolled 42 percent of the students who applied for the program. Based on physical resources, the target number for the BArch program has been 50. In the M.Arch program that number will increase to 84.

## **CURRICULUM** (Attachment A)

The Master of Architecture curriculum provides one year of intensely focused study within one of the previously chosen concentrations. A special topic studio, required courses on theory and methods of research, and thesis preparation prepare the student for a final semester master's thesis, and supporting advanced topic course work. This final year offers each student the opportunity to fully develop and defend original research in the form of a thesis and completes the student's NAAB-required course of study, rendering them eligible to sit for the professional architecture licensure exam.

## **ADMISSIONS AND ENROLLMENT PROJECTION**

Students applying to the Master of Architecture (M.Arch) program must have successfully completed Wentworth Bachelor of Science curriculum requirements with a minimum 2.5 GPA in the student's required architectural courses. The selection of students admitted to the M.Arch

program will be made by the department faculty, based on the student's overall qualifications, portfolio, and the faculty's evaluation of the student's potential for success in the program. TOEFL is required of foreign student applicants.

### **PROGRAM ENROLLMENT PROJECTION – Master of Architecture**

	<b># of Students Year 1*</b>	<b># of Students Year 2</b>	<b># of Students Year 3</b>	<b># of Students Year 4</b>
New Full Time	47	75	80	85
Continuing Full Time	0	0	0	0
New Part Time	0	0	0	0
Continuing Part Time	0	0	0	0
<b>Totals</b>	<b>47</b>	<b>75</b>	<b>80</b>	<b>85</b>

## **RESOURCES**

### *Faculty*

The Institute has an already established faculty and staff in its architecture program, expects to hire new faculty as required by enrollment growth.

### *Facilities*

The Architecture Department shares the three-story red brick building with other design- and construction-related programs at the Institute. This proximity encourages interaction with related fields of study. Shared technology and laboratories, lecture rooms, meeting spaces and exhibit areas foster community among the many disciplines cohabiting the Annex building. All facilities used by the Department are fully accessible. The Annex Central has a large lecture hall (seating 271), numerous shared classrooms and computer laboratories, exhibition and related spaces. The Annex South is home to the Departments of Design and Facilities, and Civil, Construction and Environment. The entire Annex North is devoted to Architecture facilities: studios, department offices, classrooms and meeting spaces, model shop facilities, ancillary slide library, and material and document resource space.

All lecture, seminar, and conference rooms in the Annex, and most on campus are fully electronically mediated, with overhead digital projectors and retractable screens. The Annex Auditorium is equipped to provide flexibility for individual lectures, graphic presentations and panel discussions between multiple speakers. Its media features include a state-of-the-art digital A/V component—allowing for multiple image projection—dimming and preset lighting capability, display walls, and proximity to the Casella Gallery for exhibitions of work by visiting

speakers. Portable digital projection equipment is available for use in all classroom and studio spaces and is arranged by faculty through the Office of Information Technology.

### *Library*

The Library is housed on two levels in Beatty Hall, which is located in the center of the campus and is open seven days a week, 85 hours per week (longer during finals).

Currently, the Library owns about 78,000 titles and is part of Fenway Libraries Online (FLO) and the New England Library Information Network (NELINET), a regional member of OCLC—an international bibliographic service that is shared by about 60,000 libraries in 96 countries around the world. In addition, the Library and Architecture Department have created an image database of over 25,000 images appropriate to the study of architecture, urban design, urban planning, and landscape studies. To supplement this database, the Library provides access to images through commercial subscription services, which are available to students at all times via online Library access.

A professional reference librarian is available at all times and also employs an Instructional Services Coordinator who oversees bibliographic instruction and information literacy classes and services. Since the fall term of 2004 four librarians have been engaged in an information literacy initiative with the architecture department. The Library Task Force for Graduate Architecture Curriculum assesses and recommends necessary improvements to the current library collections and information technology resources in support of graduate research.

### **BUDGET** (See Attachment B)

### **PROGRAM GOALS AND ASSESSMENT**

Current Department assessment occurs through the lens of:

- The NAAB Perspectives
- Fulfilling the Department's Mission Statement
- Faculty, Student, Administration, and Graduate Assessment

Assessment procedures have become formalized to help meet both institutional and NAAB mandates, as well as advancing the vision of the Department's Mission Statement. Given the NAAB's role as the sole agency authorized to accredit U.S. professional degree programs in architecture, the Department has embraced NAAB's perspectives and pursues assessment of its progress toward meeting them.

The Department Head and the Program Coordinators have met weekly and at length for the past 3 ½ years, primarily to launch and guide numerous departmental initiatives. The Department has a standing Assessment Committee, charged with the development and implementation of an array of assessment instruments and procedures. The faculty as a whole has been actively engaged in a wide range of assessment processes, from individual course evaluation and development to Department-wide issues, such as generating a formal Studio Culture Policy and a new Mission Statement. Forums for discussion include weekly faculty

meetings, regular and active committee participation and an annual in-house retreat, as well as remarkably strong collegial interaction in a variety of settings. Student and alumni assessment include surveys, evaluation forms and focus groups. Architectural events in the Boston area, such as the Build Boston Conference and Exhibition, provide a reception venue for alumni to meet and converse with current faculty. Design review critics also provide useful commentary on course content and student achievement.

## **EXTERNAL EVALUATION**

The External Review Committee comprising Urs P. Gauchat, Dean, New Jersey Institute of Technology, School of Architecture; and Team Chair, Hazel Ruth Edwards, Ph.D., AICP, Associate Professor, School of Architecture and Planning, The Catholic University of America; Robert J. Krawczyk, Associate Professor, Director of the Undergraduate Program, Illinois Institute of Technology; and Stephen Schreiber, FAIA, Director and Professor, Architecture and Design Program, University of Massachusetts Amherst, visited the campus in November 2007.

The Committee applauded the effort that had gone into the application and felt that with some modifications and clearer firm commitment from the central and departmental administrations in the areas of faculty and fiscal support, the M.Arch Program would be positioned to act as a catalyst to leverage Wentworth to a graduate-level institution.

The institutional response clearly addressed the team's concerns and provided documentation comprising a number of exhibits in support of a strong financial and administrative commitment from the Institute administration, including a well credentialed faculty, a professionally oriented program design inclusive of NAAB-defined learning outcomes required for a first professional M.Arch degree, and the building of a strong graduate student culture. Admissions policies were also modified to include applicants to the Master of Architecture program who have earned a BS in Architecture (or its equivalent) from another NAAB-accredited institution to also apply for entry to the Master of Architecture program. In addition the minimum GPA for admissions was upgraded from 2.5 to 3.0.

On March 7, 2008, the Institute received notification that at its February 2008 meeting, the National Architectural Accrediting Board approved the nomenclature change of its professionally accredited architecture program from Bachelor of Architecture to Master of Architecture.

A public hearing was scheduled for Wednesday, April 16, 2008, at 10:30 a.m.

## **STAFF ANALYSIS AND RECOMMENDATION**

After a thorough review of all documentation submitted, including the proposal, external review, institutional response and supplemental documentation, and following several discussions with College faculty and administrative leadership, Board staff is satisfied that the proposal meets the requirements outlined for NEASC accredited institutions in 610 CMR 2.08 and recommends approval of the petition of Wentworth Institute of Technology to offer the Master of Architecture.

Attachment A: Curriculum

**Graduate Program Curriculum Outline**

Design Track

<b>Major Required (Core) Courses (Total # of courses required = 6)</b>		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
ARCH825	Pro. Practice II: Project Management	4
ARCH916	Studio VII: Special Topics (Design)	6
ARCH926	Theory Methods (Design)	4
ARCH936	Thesis Preparation (Design)	4
ARCH956	Studio VIII: Thesis (Design)	6
ARCH976	Advanced Topics (Design)	4
Subtotal # Core Credits Required		28

Technology Track

<b>Major Required (Core) Courses (Total # of courses required = 6)</b>		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
ARCH825	Pro. Practice II: Project Management	4
ARCH917	Studio VII: Special Topics (Technology)	6
ARCH927	Theory Methods (Technology)	4
ARCH937	Thesis Preparation (Technology)	4
ARCH967	Studio VIII: Thesis (Technology)	6
ARCH977	Advanced Topics (Technology)	4
Subtotal # Core Credits Required		28

Built Heritage/Community Design Track

<b>Major Required (Core) Courses (Total # of courses required = 6)</b>		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
ARCH825	Pro. Practice II: Project Management	4
ARCH919	Studio VII: Special Topics (BH/CD)	6
ARCH929	Theory Methods (BH/CD)	4
ARCH939	Thesis Preparation (BH/CD)	4
ARCH969	Studio VIII: Thesis (BH/CD)	6
ARCH979	Advanced Topics (BH/CD)	4
Subtotal # Core Credits Required		28

Design Track

<b>Elective Course Choices (Total courses required = 2)</b>		
	Students will choose from departmental electives. Note that courses will be offered to students in the Master of Architecture in Design at a higher level.	
	Subtotal # Elective Credits Required	8
<b>Curriculum Summary</b>		
	Total number of courses required for the degree	45
	Total credit hours required for the BS-Architecture degree	137
	Total credit hours required in the 5 <sup>th</sup> year for the Master of Architecture	36
	Total credit hours required for degree	173
<i>Prerequisite, Concentration, Dissertation or Other Requirements:</i> Not applicable.		

Technology Track

<b>Elective Course Choices (Total courses required = 2)</b>		
	Students will choose from departmental electives. Note that courses will be offered to students in the Master of Architecture in Technology at a higher level.	
	Subtotal # Elective Credits Required	8
<b>Curriculum Summary</b>		
	Total number of courses required for the degree	45
	Total credit hours required for the BS-Architecture degree	137
	Total credit hours required in the 5 <sup>th</sup> year for the Master of Architecture	36
	Total credit hours required for degree	173
<i>Prerequisite, Concentration, Dissertation or Other Requirements:</i> Not applicable.		

Built Heritage / Community Design Track

<b>Elective Course Choices (Total courses required = 2) (attach list of choices if needed)</b>		
	Students will choose from departmental electives. Note that courses will be offered to students in the Master of Architecture in Built Heritage/Community Design at a higher level	
	SubTotal # Elective Credits Required	8
<b>Curriculum Summary</b>		
	Total number of courses required for the degree	45
	Total credit hours required for the BS-Architecture degree	137
	Total credit hours required in the 5 <sup>th</sup> year for the Master of Architecture	36
	Total credit hours required for degree	173
<i>Prerequisite, Concentration, Dissertation or Other Requirements:</i> Not applicable.		

Attachment B

**NEW ACADEMIC PROGRAM BUDGET**

<b>Expense</b>	<b>2007/08</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>
Administration	331,551	344,814	347,160	361,047
Full-time Faculty	1,351,889	1,405,965	1,415,537	1,472,159
Part-time Faculty	470,000	488,800	492,128	511,813
Benefits (at 25%)	538,361	559,895	563,707	586,256
Subtotal	2,691,801	2,799,474	2,818,532	2,931,275
Operating	179,954	187,152	188,426	195,963
Capital	750,000	850,000	50,000	50,000
Library	71,628	77,358	80,881	87,351
Other				
Subtotal	1,001,582	1,114,510	319,307	333,314
<b>TOTAL</b>	<b>3,693,383</b>	<b>3,913,984</b>	<b>3,137,839</b>	<b>3,264,589</b>

<b>Income</b>	16,220,750	17,129,600	17,706,200	18,462,600
Tuition	20,150			
Estimated Tuition		21,200	22,300	23,400
Est # Students	805	808	794	789