

**BOARD OF HIGHER EDUCATION**

**REQUEST FOR COMMITTEE AND BOARD ACTION**

**COMMITTEE:** Assessment and Accountability

**NO.:** AAC 10-18

**COMMITTEE DATE:** April 27, 2010

**BOARD DATE:** May 4, 2010

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**BOSTON ARCHITECTURAL COLLEGE  
MASTER OF DESIGN STUDIES**

**MOVED:** The Board of Higher Education hereby approves the Articles of Amendment of **Boston Architectural College** to award the **Master of Design Studies**.

Authority: Massachusetts General Laws Chapter 69, Section 30 et seq.

Contact: Dr. Francesca B. Purcell, Associate Commissioner for Academic and P-16 Policy

## **BOARD OF HIGHER EDUCATION**

April 2010

Boston Architectural College

Master of Design Studies

### **INTENT**

In June 2009, the Boston Architectural College (BAC) filed a petition with the Department of Higher Education to seek approval to award the Master of Design Studies with concentrations in sustainable design and historical preservation. The degree builds on the College's existing Bachelor of Design Studies and graduate certificate programs in historic preservation and sustainable design. The proposed degree will provide students advanced academic preparation and training for senior staff roles in architecture, interior design and landscape architecture organizations where sustainable design and historical design are a growing focus. Organizations and careers include city planning agencies; university, hospital and other institutional facilities groups; environmental consultants; preservation management organizations; conservation and archaeological consultants; and managers of historic properties. The focus of the proposed program aligns with the College's mission and its tradition of allowing students to attend courses while working full time by utilizing a low-residency delivery model.

According to the U.S. Department of Energy, the production and operation of architecture accounts for almost half of all greenhouse gas emissions and slightly less than half of North America's annual energy consumption. These general statistics are put in context by a Brookings Institution study conducted by Arthur C. Nelson which projects that by 2030, the U.S. will need a total of approximately 427 billion square feet of built space to accommodate growth. About 82 billion of that will be replacement of existing space, and 131 will be new space. These statistics suggest that, by 2030, about half of the buildings in which Americans live, work and shop will be built after 2000. The other half will require significant renovation. These projections suggest an increased demand for highly skilled designers with advanced training and education in design studies.

### **INSTITUTIONAL OVERVIEW**

Originally founded in the 1880s as a club for architects in the Boston area, the Boston Architectural College is a private institution located in Boston's Back Bay offering bachelor's and master's degree in architecture, interior design, landscape architecture and design studies. The College is accredited by the New England Association of Schools and Colleges (NEASC). Historically the College has maintained a commitment to making design education both accessible and affordable through a policy of "open admission" and has maintained its ties to the professional community through a commitment to a concurrent academic and practice-based education that allows students to work during the day and attend classes in the evening. Since 1997, the College has expanded the number of programs and course offerings to meet the institution's practice-based educational mission. The College is currently authorized to

confer the Bachelor of Architecture, Bachelor of Interior Design, Bachelor of Design Studies, Bachelor of Landscape Architecture, Master of Architecture, Master of Interior Design, and, most recently, the Master of Landscape of Architecture approved in November 2009.

Motivated by the increasing importance of educational attainment in the design fields, the BAC has begun to offer all of its professional degrees at both the baccalaureate and master’s levels. The BAC now seeks to offer a Master of Design Studies.

**ACADEMIC AND RELATED MATTERS**

*Curriculum (Attachment A)*

The proposed Master of Design Studies requires 10 to 14 courses depending on the election of 1.5- or 3-credit electives for a total of 33 credits. Both concentrations require a capstone and a leadership course. Each concentration requires four concentration-specific core courses and 12 elective credits. Students in the historic preservation must take six elective credits having to do with the history of the designed environment. Electives for the sustainable design concentration will be restricted to the courses related to the concentration.

Practice-engaged learning is integrated throughout the curriculum as well as a common course in design research and a capstone project. The program’s capstone project advances leadership aspirations by enabling participants to engage an independent design or research project foundational to their professional goals. The BAC intends to enroll a mixture of graduate students in the proposed MDS program, both with and without prior design education, reflecting the interdisciplinary nature of the field. The proposed Master of Design Studies will be delivered through a low-residency model including two on-campus, intensive sessions with the rest of the curriculum delivered through online, technologically mediated instruction. The program can be completed in four semesters.

*Tuition and Fees*

Graduate tuition is \$8,556 based on full-time enrollment of 6-10 credits per semester.

*Admission*

Requirements for admission include: a bachelor’s degree, admissions essay, college transcripts, and evidence of ability to succeed in graduate-level coursework, and evidence of match between student expectations and opportunities offered by the program.

*Projected Enrollment*

The BAC projects a total of 16 new students in the first semester of the program and eventually 81 students by the end of the fourth year of enrollment.

	# of Students Year 1	# of Students Year 2	# of Students Year 3	# of Students Year 4*
New Full Time	16	25	38	47
Continuing Full Time		14	23	34
New Part Time				
Continuing Part Time				
Totals	16	39	61	81

## RESOURCES

### *Human Resources*

The startup of the proposed Master of Design Studies will be administered by the existing full-time executive director of education initiatives. The College intends to hire a director of the Master of Design Studies in August 2010 who will have overall administrative responsibility for the program and will also teach in the program. This faculty member will be expected to have a professional design degree and experience in college teaching and administration. A recruitment coordinator will be hired in August 2011.

Approximately 25 part-time adjunct or “volunteer” faculty who currently teach design courses in various programs at the College will also teach graduate-level courses in the proposed program. Many “volunteer” faculty are paid with modest honoraria and see the opportunity to take the BAC’s teaching courses free of charge as an incentive to teach at the BAC. The College also anticipates needing to hire additional adjuncts and states that the Boston area offers substantial resources to support this need.

### *Library*

The BAC’s library collection includes the major reference books and journals for the design fields. The BAC also belongs to consortia and has developed partner agreements with local institutions in order to expand graduate-level materials and resources.

### *Physical Resources*

The BAC owns and occupies two integrated structures at 320-322 Newbury Street in Boston and recently renovated space nearby at 100 Massachusetts Avenue. The BAC has four teaching labs with 16 computers in each lab and a 25 station working lab available to all students. The computer labs are updated every three years with some of the older computers being recycled in a “rendering farm” to allow students to produce complex animations in a shorter time. The software critical to the program is available for student use. ArcGIS is available in one of the teaching labs for the teaching and application of Geographic Information Systems, while all of the labs have AutoCAD, Sketchup, FormZ, Rhino, Revit, Artlantis, Photoshop, Piranesi and 3D Studio Max.

### *Online Resources*

In 2003, based on the success of its on-campus sustainable design certificate and an interest in sustainable design nationwide, the BAC decided to launch a completely online version of the sustainable design certificate. Online education was deemed the ideal way of distributing valuable education to professionals and green building enthusiasts at any location in the U.S. and abroad as well as to current BAC degree students. The College also offers online courses in the Master of Architecture program. Since 2006, 53 faculty have delivered online courses to approximately 1,386 students.

To support the online component of the proposed MDS program, the College developed an online team that will support and prepare new faculty in instructional practices and emerging technologies as well as support and assist students in using the technological. The online team consists of the Vice President of Online Education, three full-time instructional designers, two half-time freelance instructional designers, a manager of online administration, and a manager of online technology.

Students taking online courses are supported by two primary digital tools: *Angel*—a typical Learning Management System (LMS) which provides a software template for organizing typical course information such as readings, syllabi, discussions, grading rubrics, assignments, quizzes, etc., and *VoiceThread*—which enables interactive communication between students, faculty, and guests in written, spoken and/or drawn formats.

#### *Financial Resources (Attachment B)*

The BAC submitted a business plan that delineates revenues, program direct costs and indirect costs for the period 2008-2009 (planning years) through 2013-14 showing that revenue would exceed total cost by the second full year of enrollment of the proposed program.

## **EVALUATION**

The proposed program was evaluated by Vincent L. Michael, Ph.D., Director of the Historic Preservation Program at the School of the Art Institute of Chicago and Steven A. Moore, Ph.D., Bartlett Cocke Regents Professor of Architecture and Planning at the School of Architecture at University of Texas at Austin. The evaluators reviewed the petition and appendices in January 2010 for a focused review. A physical site visit was deemed unnecessary by DHE staff because of a recent July 2009 visit by a committee to evaluate the Master of Landscape Architecture (MLA).

The visiting committee found that the BAC is poised to offer a high-quality graduate degree and made a number of recommendations to ensure that this potential is more clearly developed. The recommendations involve developing a more explicit differentiation between the requirements of a graduate versus an undergraduate program, such as demonstrating how the expectations for scholarly work of MDS faculty will exceed those expected for faculty working only at the undergraduate level, further developing masters-level requirements in the syllabi, and offering faculty support and development opportunities.

Other recommendations clustered around the low-residency delivery model of the program. The committee recommended that BAC describe how this method of delivery responds to the changing professional environment of the design fields and fulfills its overall mission. The evaluators also advised the College to ensure the involvement of full-time faculty in the planning and implementation of the on-campus intensives, given their importance to the overall delivery of the program.

The evaluators also noted that the College's intention to admit only those students who can benefit from the precise curriculum being developed for each concentration marks a departure from the traditional open admissions policy of the institution and the appropriate distinction of standards for undergraduate and graduate education in an era challenged by environmental and historical conditions.

The BAC responded substantively to all of the visiting committee's recommendations providing further explanation on the distinction between the proposed graduate program and current undergraduate programs and the low-residency model of the proposed program. In addition, the College more clearly elaborated upon hiring plans, scheduling of the on-campus intensives and faculty engagement and development. Upon review of the institutional response, the visiting committee found that the processes for curricular refinement are in place and the responses clear and adequate.

## **PUBLIC HEARING**

The required public hearing was held in the Department of Higher Education office on Thursday, April 22, 2010, at 10:30 a.m. No comments were offered in opposition to the proposed program.

## **STAFF ANALYSIS AND RECOMMENDATION**

After a thorough evaluation of all documentation submitted, staff are satisfied that the proposed the Master of Design Studies at the Boston Architectural College meets the criteria set forth in 610 CMR 2.08(3) in the Degree-Granting Regulations for Independent Institutions of Higher Education accredited by the New England Association of Schools and Colleges. Recommendation is for approval.

## ATTACHMENT A: CURRICULUM OUTLINE

<b>Major Required (Core) Courses (number varies by concentration)</b>		
Course Number	Course Title	Credit Hours
<b>COURSES REQUIRED IN BOTH CONCENTRATIONS</b>		
SITBD30	MDS Capstone	6
TMTBD1	Leadership	3
<b>COURSES REQUIRED IN SUSTAINABLE DESIGN CONCENTRATION</b>		
ASTBD1	Design Research Methods	3
ASTBD2	Research Project	3
SITBD20	Studio with Intensive: Sustainability in Nature, Neighborhood and City	3
SITBD21	Studio with Intensive: Energy and the Built Environment	3
<b>COURSES REQUIRED IN HISTORIC PRESERVATION CONCENTRATION</b>		
SITBD40	Studio with Intensive: Traditional Building	3
SITBD41	Studio with Intensive: Historic Research and Documentation	3
TM7231	Preservation Philosophy and Practice	3
TM7232	Preservation Law, Planning and Finance	3
	Subtotal # Required credits in each Concentration	21
<b><i>Elective Course Choices (Total credits required = 12)</i></b>		
AS7202	Critical Regionalism	3.0
AS7576	Ecology	3.0
HT7110	American and Contemporary Architecture	3.0
HT7120	Architecture Design History B	3.0
HT7125	Exploring American Historic Design	3.0
HT7280	19 <sup>th</sup> Century American Buildings: Types, Architecture and Elements	3.0
HT7330	Santa Fe Travel intensive	1.5
HT7520	Sustainable Design as a Way of Thinking	1.5
HT7521	Learning From History of Sustainable Design	1.5
HTTBD1	American Building 17 <sup>th</sup> – 19 <sup>th</sup> Centuries	3.0
TM 7317	The Zero Energy Home: What, How and If	1.5
TM7374	Getting the Green Building You Want Construction Management	1.5
TM7376	Greening Existing Buildings	1.5
TM 7377	Greening the City	1.5
TM 7378	Sustainable Neighborhoods	1.5

TM 7379	The Urgent and Hopeful Future of Sustainable Design	1.5
TM 7415	Site Design, Landscape and Site-Water Issues	1.5
TM 7428	Green Practice: Energy and Air Quality Principles	1.5
TM 7515	Building Envelope	1.5
TM 7570	Environmental Systems	1.5
TM7573	Traditional Materials and Construction	1.5
TM 7600	Sustainable Transportation	1.5
TM7603	Sustainable Communities, Land Use, Transportation and Planning	1.5
TM 7603	Sustainable Communities: Land Use, Transportation and Planning	1.5
TM 7710	High Performance Design and the LEED Rating System	1.5
TM 7715	Sustainable Design in Practice	1.5
TM 7810	Sustainable Design and BIM (Building Information Modeling)	1.5
	Subtotal # elective credits in each Concentration	12

<b>Curriculum Summary</b>	
Total number of courses required for the degree	10 to 14 depending on selection of 1.5 or 3 credit electives
Total credit hours required for degree	33

**Prerequisite, Concentration, Dissertation or Other Requirements:**

- 1) Certain electives have course pre-requisites (see individual syllabi)
- 2) Students in the Sustainable Design Concentration will be restricted to selected electives from each semester's list of available courses.
- 3) Students in Historic preservation must take 6 credits of electives that are designated as history of the designed environment and should review further elective course selection with their program director.



## Business Plan MDS Concentration in Sustainable Design

		2008 - 09		2009 - 10		2010 - 11		2011 - 12		2012 - 13		2013 - 14	
		Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
<b>Inquiries</b>						80	0						
							130						
								0					
									200				
										0			
												270	
													0
<b>Total inquiries/ year</b>						<b>80</b>	<b>80</b>	<b>130</b>	<b>130</b>	<b>200</b>	<b>200</b>	<b>270</b>	<b>270</b>
<b>Enrollments</b>						8	8	7	7				
								13	13	12	12		
										20	19	18	18
												27	26
<b>Program Size (enrollments at any given time)</b>						<b>8</b>	<b>8</b>	<b>20</b>	<b>20</b>	<b>32</b>	<b>31</b>	<b>45</b>	<b>44</b>
Total Semester 1 enrollments in this year							8		13		20		27
Total Semester 2 enrollments in this year							8		13		19		26
Total Semester 3 enrollments in this year									7		12		18
Total Semester 4 enrollments in this year									7		12		18
total semester enrollments per year (38)							16		40		63		89
<b>Revenue</b>													
Published tuition per graduate credit (not inclgd housing fee)(4)					1,015		1,076		1,140		1,209		1,281
total credits taken per year (38)							144		325		507		711
Housing fee not included in revenue or expenses(26)													
<b>Revenue/ year (38)</b>							<b>154,930</b>		<b>370,648</b>		<b>612,903</b>		<b>911,085</b>
<b>Program Direct Costs</b>													
<b>Startup and Promotion</b>													
Design(40)			2,500				0		0		0		0
Printing					10,000						10,000		
Advertising					4,500		9,000		9,270		9,548		9,835
Mailings					2,060		2,122		2,185		2,251		2,319
Accreditation expenses (39)			4,100		3,790								
Website dev and maintenance (18)									0		0		0
Admissions Travel (11)							0		0		0		0
<b>subtotal promotion</b>			<b>6,600</b>		<b>20,350</b>		<b>11,122</b>		<b>11,455</b>		<b>21,799</b>		<b>12,153</b>
<b>Direct Educ Delivery Expenses</b>													
Faculty Stipends (8)							28,384		59,480		92,082		128,366
Visiting speakers, guest lecturers							5,000		7,500		10,000		10,000
Instructional Dev stipends for intensives & core courses							4,000		2,000		1,000		1,000
Faculty/ staff travel (7)							3,090		3,183		3,278		3,377
Faculty Teaching Materials (31)							2,400		2,472		2,546		2,623
Housing costs (26)													
<b>subtot educ delivery (w/o housing)</b>			<b>0</b>		<b>0</b>		<b>42,874</b>		<b>74,635</b>		<b>108,906</b>		<b>145,365</b>
<b>Subtotal promotion and education delivery</b>			<b>6,600</b>		<b>20,350</b>		<b>53,996</b>		<b>86,090</b>		<b>130,705</b>		<b>157,518</b>
<b>Promotion and educ delivery as % of revenue</b>							<b>35%</b>		<b>23%</b>		<b>21%</b>		<b>17%</b>
Dir. Admin Costs (staffing) (4)			0		0		63,431		114,114		117,537		185,227
<b>Library expenses</b>													
Library staff (14)							1,575		1,622		1,671		1,721
Library materials (25)					0		400		1,000		1,575		2,225
Library acquisitions (28)							3,500		3,605		3,713		3,825
Security guard (24)							0		0		0		0
<b>subtotal other direct costs</b>			<b>0</b>		<b>0</b>		<b>68,906</b>		<b>120,341</b>		<b>124,496</b>		<b>192,997</b>
<b>TOTAL PROGRAM DIRECT COSTS</b>			<b>6,600</b>		<b>20,350</b>		<b>122,902</b>		<b>206,431</b>		<b>255,202</b>		<b>350,516</b>
Program Expense Contingency (34)							18,435		20,643		25,520		35,052
<b>GROSS MARGIN OF REV OVER DIRECT COSTS (35)</b>			<b>-6,600</b>		<b>-20,350</b>		<b>13,593</b>		<b>143,573</b>		<b>332,181</b>		<b>525,518</b>
<b>% Revenue remaining after Total Prog Costs</b>							<b>9%</b>		<b>39%</b>		<b>54%</b>		<b>58%</b>
<b>Indirect Costs</b>													
Office Space (17)							13,596		13,596		13,596		13,596
Postage							2,400		2,400		2,400		2,400
Instructional Software			0				2,060		2,122		2,185		2,251
Boston admin staff (19)							7,000		14,000		14,000		14,000
Program Oversight (10)							23,818		24,533		25,269		26,027
<b>subtotal costs outside of program</b>					<b>0</b>		<b>48,874</b>		<b>56,650</b>		<b>57,450</b>		<b>58,274</b>
<b>SURPLUS OF REVENUE OVER TOT COSTS</b>			<b>-6,600</b>		<b>-20,350</b>		<b>-35,281</b>		<b>86,923</b>		<b>274,731</b>		<b>467,245</b>

