Proposal for Established-Status

Doctor of Architecture (D.Arch.)

School of Architecture
University of Hawai‘i at Mānoa

September 10, 2012
Background
Architectural education at the University of Hawai‘i began in 1946 with a Pre-Architecture Program offered in the College of Applied Science. In 1965, Pre-Architecture was changed to a four-year B.A. in Pre-Architecture. In 1967, the Department of Art became the Department of Art and Architecture, and the B.A. was replaced by a B.F.A. in Environmental Design. In 1969, a new Department of Architecture was formed within the Colleges of Arts and Sciences. A Master of Architecture (M.Arch.) program was approved in 1971 and received initial accreditation by the National Architectural Accrediting Board (NAAB) in 1972.

The Department of Architecture was reorganized in 1976 and a professional Bachelor of Architecture (B.Arch.) degree was developed. The program was accredited by the NAAB in 1978, and in 1980, the School conferred the first B.Arch. degree. The School of Architecture was established in 1980, and the School’s present building was completed in 1994.

In 1999, the University of Hawai‘i at Mānoa proposed the Architecture Doctorate degree, and in 2004, the NAAB fully accredited the degree retroactive to January 1, 2001 to be concurrent with the terms of accreditation for the Bachelor and Master of Architecture programs. In accordance with the revised NAAB Conditions of Accreditation, the program title was changed to “Doctor of Architecture” (D.Arch.) in Fall 2007. The D.Arch. program, a professional degree in architecture similar to the Juris Doctor in law, equips its conferees with the highest level of professional education in architecture.

After extensive review by academic and professional committees, it was evident that the D.Arch. degree program is beneficial not only to the graduates of the program, but to the future of the architectural profession and to the mission of the University as well. The D.Arch. program represents a curricular innovation, which provides graduates with the best preparation possible for global architectural practice with a sharp focus on the Asia Pacific region. The creation of this program was a significant step in establishing the University of Hawai‘i at Mānoa as the center for professional study of architecture and planning in this region. Moreover, the program attracts international students to pursue architectural studies in Hawai‘i. With the addition of the D.Arch., the University terminated the B.Arch. degree in 2007 and the M.Arch. degree in 2005, with the final students graduating in 2008.

Since 2001, University of Hawai‘i at Mānoa has awarded 89 professional B.Arch. degrees, 9 professional M.Arch. degrees, and 143 D.Arch. degrees. There are currently 374 students enrolled in the program.
1. **Is the program organized to meet its objectives?** [Discussion of curriculum, requirements, admissions, advising and counseling, and other aspects of the program, with reference to its objectives.]

The Doctor of Architecture offers the highest quality professional education for future architects. The program integrates course work with professional office practice and provides a capstone project of research and design. Future professionals from this program are well equipped to address regional architectural issues in the Asia Pacific arena. The curriculum has a specific Asia Pacific requirement in the studios, architectural history, and electives.

The curriculum of a NAAB-accredited program includes general studies, professional studies, and electives, which together comprise a liberal education in architecture. The curriculum ensures that graduates will be technically competent, critical thinkers who are capable of defining multiple career paths within a changing societal context.

More specifically, the NAAB requires an accredited program to produce graduates who are competent in a range of intellectual, spatial, technical, and interpersonal skills; understand the historical, socio-cultural, and environmental context of architecture; are able to solve architectural design problems, including the integration of technical systems and health and safety requirements; and comprehend architects' roles and responsibilities in society.

The original curriculum for the D.Arch. was a seven-year program with professional courses distributed throughout the seven years. The program was restructured by concentrating the professional courses at the graduate level and the pre-professional courses at the undergraduate level. Today, students entering the D. Arch. possess an undergraduate degree. All applicants are reviewed for placement. The restructured curriculum complies with the National Architectural Accrediting Board standards for the professional D.Arch. degree. The curriculum charts may be found on the following pages.

With the restructured curriculum, potential students may enter the program at various points in their academic careers.

- **Pre-Professional Degree-holding Applicants:** Admitted students holding a pre-professional [120 credit] degree in architectural studies or the equivalent, may complete the D.Arch. in 3 years [90 credits]. The curriculum chart may be found on page 4.

- **Applicants with Degrees in Other Fields:** Admitted students holding undergraduate degrees in other fields must make up deficiencies, which will usually require an additional semester or two [15-18 credits] to meet all professional criteria. The curriculum chart may be found on page 5.
Freshmen interested in pursuing a career in Architecture can enter the Bachelor of Arts in Interdisciplinary Studies (Environmental Design) for the pre-professional undergraduate courses. At the end of the third year, students may submit a comprehensive portfolio of all studio projects, a writing sample, as well as evidence of community service as application to the graduate-level of the D.Arch. program. In the future, the School plans to replace the BA in Interdisciplinary Studies with a Bachelor of Environmental Design. The curriculum chart for the pre-professional curriculum may be found on page 6.

The Chair of Undergraduate Programs undergraduate chair and the Chair of Professional Programs professional program chair undertake advising and counseling with assistance from the Director of Student Services. There are also group-advising sessions for each year in the program to explain special opportunities. Two “all school” meetings each semester provide additional advising and course information. Faculty provide career counseling to individual students during the D.Arch. project semesters.

The curriculum charts for the D.Arch. follow. These charts divide the professional learning areas into design, technology, practice, architectural history and electives. Course descriptions may be found in the appendix.
### D. ARCH. PROGRAM CHART - with Pre-Professional Undergraduate Degree

**Fall 2012**

<table>
<thead>
<tr>
<th>CR</th>
<th>SEM</th>
<th>DESIGN</th>
<th>ARCHITECTURE</th>
<th>PRACTICE</th>
<th>HISTORY</th>
<th>ELECTIVES</th>
<th>CF</th>
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**Total Credits:** 90
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<tr>
<th>Tr- Term</th>
<th>Course</th>
<th>DESIGN</th>
<th>TECHNOLOGY</th>
<th>PRACTICE</th>
<th>HISTORY/THOUGHT</th>
<th>ELECTIVES</th>
<th>GEs</th>
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TOTAL: 120 credits
2. Is the program meeting its learning objectives for students? [An assessment of the quality of student learning as indicated by systematic analysis of student performance with reference to standard expectations, surveys of student performance with reference to standard expectations, surveys of student satisfaction with instructional aspects of the program, etc.]

The D.Arch. program is accredited by the National Architecture Accrediting Board (NAAB), the sole agency authorized to accredit US professional degree programs in architecture. Since most state registration boards in the United States require any applicant for licensure to have graduated from a NAAB-accredited program, obtaining such a degree is an essential aspect of preparing for the professional practice of architecture. The accrediting process is intended to verify that each accredited program substantially meets those standards that, as a whole, comprise an appropriate education for an architect.

Architectural accreditation is the primary means by which programs assure quality to students and to the public. Accredited status is a signal that an institution or program meets at least minimal standards for its faculty, curriculum, student services and libraries. Accreditation of architectural programs takes place on a cycle that may range
from every few years to as many as six years. The UH Manoa D.Arch. program met the 34 student performance criteria required by NAAB [for additional information, see Appendix I]. The next accreditation visit is scheduled for fall 2012.

Faculty members in the School of Architecture assess student performance through the following activities.

**Design Studio**
At the heart of professional education in Architecture is the Design Studio. The studio integrates theory, design communication, building technologies, life safety requirements and numerous other issues. All design faculty hold periodic reviews during the semester that are open for other faculty, students and guests to attend. Projects are reviewed openly and comments are provided.

Formal reviews of all design studios are held the week before finals. All studio classes are suspended so students and faculty can attend the daily reviews. The review schedules are distributed to all faculty, students and the professional community. Faculty and members of the outside profession are assigned as reviewers for each studio. All students within the School of Architecture must present their work to the reviewers, and critical comments (both oral and written) are provided to both the students and instructional faculty.

The final day of studio review week is reserved for an all day faculty and administrative assessment of studio work. For this review, faculty members assigned to teach studio submit examples, two “high pass” and one “low pass”, of each project undertaken in the design studio during the semester. These projects are then reviewed for consistency between individual sections of the same studio and for assessment of student learning outcomes (pre-professional) and Student Performance Criteria (Professional) per the printed syllabi.

On the last day of finals week, all D.Arch. candidates present a summary of their D.Arch. project to the students, faculty and members of the profession. Each project is reviewed and critiqued.

In addition to reviewing the design studios, the open reviews provide an excellent opportunity to assess the students' abilities to apply supporting coursework in theory, structures, accessibility, site design, graphic communication, building systems, and other areas. It is generally noted by the reviewers if the shortcoming was individual or across the class. If across the class, curricular intervention is suggested.

Adjustments are made to the curriculum or to instruction when the desired outcomes have not been attained within the studio. Discussion is held among the faculty, administration and/or the program chairs to determine if the shortcoming is curricular or instructional. If curricular, approaches are considered by the program chairs, design coordinators and the Curriculum Committee. If instructional, discussions are held between the administration, program chairs and faculty to consider more appropriate
teaching assignments or redefined expectations. As of Spring 2012, all sections of a studio course use the same syllabus and projects to help assure consistency in meeting professional expectations.

Core Coursework
In Fall 2011, faculty discussed the horizontal coordination between core coursework and the design studio at all levels. It was decided that the D. Arch. Professional Program was generally well defined and that the faculty should focus on the pre-professional curriculum and the preparatory coursework to make up deficiencies for graduate students. Beginning in Spring 2012 revisions were in place for the preparatory coursework for D.Arch. students entering the program without a pre-professional degree. Based upon the Spring 2012 assessment, the revisions were successful.

During the Summer of 2012, designated faculty met to define a draft for faculty review of the pre-professional (undergraduate) curriculum. This draft has stronger alignments between studio and core coursework at each level of the curriculum. There will also be a stronger focus for each year of the pre-professional program and a potential capstone studio project for each student for their selected concentration.

3. Are program resources adequate? [Analysis of number and distribution of faculty, faculty areas of expertise, budget and sources of funds, and facilities and equipment.]

The faculty in School of Architecture represent a distinguished and diverse pool of individuals with a wide command of both global and local practice as well as international scholarship, with strong emphasis on sustainable design and knowledge of Asia and the Pacific Rim. The School has thirteen fulltime faculty, four visiting faculty and six lecturers. Of the fulltime faculty, nine are tenured and two are on tenure-track. In addition to the fulltime and visiting faculty and lecturers, the faculty includes adjunct and affiliate faculty (33 practicum faculty) who are distinguished individuals in related disciplines at the University, as well as internationally known professionals and specialists beyond academia.

FULL TIME FACULTY
Dean: Clark E. Llewellyn, M.Arch, FAIA, NCARB
Director of the Graduate Program: Spencer Leineweber, MA, FAIA
Director of the Undergraduate Program: Marja S. Sarvimaeki, D.Sc, SAFA

Amy C. Anderson, M.Arch, Columbia University
Design, history/theory, urban studies
Randy D. Akiona, MS, University of California at Los Angeles
Construction management
Kazi Ashraf, Ph.D, University of Pennsylvania
Design, history and theory
Martin Despang, M.Arch, University of Hannover, Germany
Sustainability in Structures/Materials
Steven Hill, MFA Industrial Design, IDSA, University of Kansas  
    Furniture design  
Spencer Leineweber, MA, FAIA, University of Hawai‘i  
    Design, history of architecture, historic preservation  
Stephen Meder, D.Arch, University of Hawai‘i  
    Design, environmental research  
Pu Miao, PhD, University of California at Berkeley  
    Architectural/urban design, Chinese architecture  
Joyce M. Noe, M.DesS, FAIA, University of Illinois  
    Design, professional practice  
Kristopher M. Palagi, M.Arch, Montana State  
    First-year design  
Hyoung J. Park, M.Arch, SMArch, Ph.D, University of Michigan  
    Morphological transformation and digital design  
Albert L. Refiti, B.Arch, Ph.D candidate, University of New Zealand [Fall 2013]  
    Design, indigenous architecture in the Pacific region  
David Rockwood, M.Arch, Princeton University  
    Design, materials, fabrication  
Marja S. Sarvimäki, D.Sc, SAFA, Helsinki University of Technology  
    Design, history/theory of architecture, East Asian architecture  
Jason Selley, B.Arch, University of North Carolina, Charlotte  
    Sustainable design, design-build delivery Maria Simon, M.Arch, Cranbrook Academy of Art  
    Basic Design  
Judith Stilgenbauer, Dipl.ling., MLA, University of California at Berkeley  
    Landscape Architecture Urban Design  
Lance Walters, M.Arch, Harvard  
    Technology/fabrication and contemporary architectural theory  
Homer Williams, D.Arch, NCARB, University of Hawai‘i  
    Design, professional practice  
W.H. Raymond Yeh, M.Arch, FAIA, University of Minnesota  
    Architecture/urban design, professional practice

VISITING FACULTY
Chris Bergum, M.Arch, Ph.D, University of Pennsylvania  
    History, systems, global practice  
Byoung Soo Cho, M.Arch, M. Urban Design, Harvard University  
    Design, Korean architecture and culture  
Ferd Johns, B.Arch., M.S. Architecture and Urban Design, FAIA, Columbia University  
    Design, urban planning  
Luis Longhi, M.Arch, University of Pennsylvania  
    Design, South American architecture and culture

LECTURERS
Loralee Arnold, M.Arch  
    Interior design, sketching/drawing
Budget and Sources of Funds
The School receives approximately $1.344 million as its general fund allocation, a tuition allocation based on enrollment of approximately $792,000, return of student fees of $95,000, and Outreach program fees of $370,000.

Physical Facilities
The School is housed in a three-story reinforced concrete structure of about 32,000 sq. ft. at 2410 Campus Road. The building is at the western edge of the Mānoa Campus along the University Avenue, directly across and on axis with Hawai‘i Hall, where it completes the composition of the historic structures on the campus.

The School of Architecture building is a wireless environment, and all floors are accessible with a ramp from ground floor to second floor and an elevator from ground floor to second and third floors. The School participates in the Mānoa Green Days and is in the process of minimizing the energy use of the building by more efficient lighting and utilization of natural ventilation, as opposed to excessive air conditioning. Other future plans include opening the building to University Avenue, which would make the School more visually accessible to the community and provide possibilities for natural ventilation of the studio spaces. The building includes the following physical spaces:

Fabrication Workshop: The workshop was recently renovated and updated with such state-of-the-art technology as computerized laser cutters and other new tools.

Environmental Research and Design Laboratory: Through the laboratory, services for campus planning and research opportunities for the students are provided.

Heritage Center of the School of Architecture: For research on historic preservation in the Asia-Pacific region.

Construction Process Innovation Laboratory: Provides the School with the most up-to-date information on building technology, research and patenting.

IT Laboratory: Houses the School’s IT Services, and was recently refurnished and re-equipped with new computers, scanners/printers, large-scale plotters, laser cutters, a 3D-printer, and other highly advanced technology; also refitted to provide more power for the computer servers.
Central Courtyard: Used for informal outdoor seating and assemblies; recently furnished with tables, chairs, and sun umbrellas as well as elegant fabric shades, designed by the students of ARCH 235.

Auditorium: Houses large Architecture courses and University-wide presentations, seats 200; recently re-carpeted and re-painted.

Gallery: For displaying students' work and other exhibitions.

Classrooms: Includes three lecture rooms, four large design studios, and two smaller studio spaces with enough room for each student to have a personal workstation; lecture rooms 214 and 215 were recently renovated, re-equipped and re-furnished; room 214 now has a smart board and clicker functions and is equipped for video conferencing.

Besides the building at the Mānoa Campus, the School uses space in the Davies Pacific Center for studios and the UHM SoA Community Design Center. Depending on the semester, 15-20 upper division and graduate students have studied in this space to work on projects that serve the wider community.

4. Is the program efficient? [An assessment of productivity and cost/benefit considerations within the overall context of campus and University “mission” and planning priorities. Include quantitative measures comparing, for example, SSH/faculty, average class size, cost per SSH, cost per major with other programs in the college, on the campus and, as appropriate, similar programs on other UH campuses.]

The attached Academic Program Cost and Revenue Template indicates the proposed program generates a positive revenue flow and contributes to the School's overall mission and strategic plan while reinvesting in infrastructure. The Template’s revenue projections are positive through 2018 with incremental increases in support staff and program cost expenses.

Students and SSH
Approved in 1999, the 7-year D.Arch. program began accepting students (freshmen) into the program in 2000. These students are reflected in the undergraduate columns and graduate columns between 2000 – 2012. Today, students entering the D. Arch. possess an undergraduate degree and are classified as graduate students. The Annual SSH also reflects the students/courses offered in support of the B.Arch. and M.Arch. programs. While these programs were terminated in 2004 and 2005, the final graduates did not complete until 2008.

Direct Program Costs
The cost template includes only faculty and lecturers that support the D.Arch. program. Until the 2007-08 academic year, faculty divided their time between the D.Arch. and the B.Arch./M.Arch. programs. Other Personnel Costs include the fraction of time used to advise D.Arch. students.
Revenue
The undergraduate and graduate tuition rates are noted in the template for the D.Arch. students until 2012, which reflects the restructuring of the curriculum. Other Revenue reflects the Architecture Fee, which was first approved in 2006 at $200/semester. The fee is currently $500/semester.

Instructional Costs
The cost template indicates instructional costs for FT faculty/lecturers and part time lecturers. Instructional costs increase proportionately over the duration of the program with additional instructors added as enrollment increases.

Unique program costs include specialty items such as architectural desks, upgrades in digital media, 3D imagery and laser projections, Spring Lecture series, American Institute of Architecture Students (AIAS) quarterly events and Fabrication shop upgrades and supplies. As technology changes rapidly in the areas of digital and 3D imagery, the School has projected larger increases in this line item to reflect potential upgrades. Additionally, the fabrication shop will also require upgrades as the shop equipment approaches the end of their life cycle in terms of safety and usage.

Program Comparison
The Executive MBA program is used for comparison.

5. Evidence of program quality. [A qualitative assessment of the program in relation to competing demands for resources by new programs and continuing programs. Accreditation or other external evaluation, student performance [e.g. on external exams], satisfaction, placement and employer satisfaction, awards to faculty and students, faculty publication record, evaluation of faculty, etc.]

In 2009, our first cohort of graduates became eligible to sit for the Architectural Registration Exam (having reached the appropriate point of completion of the Intern Development Program). The exam has seven primary components: Programming and Planning; Site Planning and Design; Building Design and Construction; Schematic Design; Structural Systems; Building Systems; and Construction Documents. The pass rate for graduates from School of Architecture exceeded the national pass rate in Building Design and Construction, Schematic Design, and Building Systems. Our pass rate has improved to within 4 percentage points of the national average in Structural Systems and Site Planning & Design. Nationally the pass rate for Programming and Planning is 62%, compared with 53% for our graduates. The national pass rate for Construction Documents is 64% compared with 52% for our graduates. Some of these shortcomings were directly addressed through new faculty hires made for fall, 2012. Martin Despang joined the School of Architecture as a tenured Associate Professor. He is licensed architect and internationally recognized for structural innovation and materials technology. With the endorsement by the faculty in fall, 2012, Martin Despang will work across the curriculum to assure structural systems will be fully integrated into our design curriculum. Additionally, he will report annually to the faculty and
administration on his efforts to strengthen structural systems. To strengthen Site Planning/Design and Programming/Planning within the School, Associate Professor Judith Stilgenbauer was hired in a tenure track position. Ms. Stilgenbauer is a registered landscape architect and is internationally recognized for her teaching and award winning practice. She is coordinating across the curriculum to assure all students within the School of Architecture are prepared within the professional areas of Site Planning/Design and Programming/Planning. The School is anticipating a national search during the 2012/13 academic year for a faculty member to coordinate and further develop the Practicum experience which should strengthen the area of Construction Documents. We will continue to monitor the data for these sections as well as reexamining the curricula and quality of the intern experiences to see where improvements can be made.

The School has taken many actions to develop close ties with local professionals in architecture and related disciplines over many years. Both globally selected and local practitioners serve as visiting and adjunct professors, and the six-semester (or equivalent) design studio sequence serves as the backbone of the professional curriculum, leading up to the final doctorate project. The twelve-credit Professional Studio is required of every student, the projects/firms are vigilantly screened, many of the firms are located in the Asia-Pacific region, and the program is carefully structured and monitored to provide a scholarly and research-oriented perspective of the profession, as well as an introduction to the realities of practice in a distinguished firm.

In the most recent accreditation report, the National Architecture Accrediting Board review team noted our strengths in Sustainability, Diversity, Unique Setting, Doctor of Architecture, Professional Practice, School and University Leadership, Faculty and Student Engagement, and Student Focus. The team stated, “sustainability permeates every aspect of the program rather than being a stand-alone course and is integrated throughout the curriculum and studio experiences from the beginning of a student’s academic studies until his/her terminal project.” The accreditation team concluded, “Within this context the SoA fosters a wonderful diversity and mix of non-traditional students and seasoned professionals.”

Since the last NAAB accreditation visit in 2007, the full-time faculty has published five books (plus two in print for 2012), 32 peer-reviewed articles, various other articles, and received over 20 awards and other recognitions (faculty CVs are available upon request). Among the many activities of the School, demonstrating the quality and strengths of the program, the following are the latest highlights:

- The School implemented a dual degree with Tongji University in Shanghai, China, in a formal signing ceremony in December 2011. The new Global Track - China Focus will provide students with the opportunity to study in Hawai‘i and China, offering the option to receive a Chinese National Board of Architectural Accreditation accredited Master of Architecture degree from Tongji University and an American National Architectural Accrediting Board accredited Doctor of Architecture degree from UH
Mānoa. With the United States and China representing the two largest construction economies in the world, this track offers students unprecedented advantages.

- A graduate was granted the 2012 Young CAADRIA Award (Computer Aided Architecture Design Research in Asia). Also, his professor, Hyoung-June Park's project "Toward a Performance-Oriented Architecture" was accepted for 2012 CAADRIA "Beyond Codes & Pixels" conference in Chennai, India.

- The Architectural Research Centers Consortium (ARCC) and European Association of Architectural Education (EAAE) awarded the School the privilege of hosting the 2014 International ARCC/EAAE Conference at the University of Hawai‘i at Mānoa. The conference will be a significant opportunity for the School to gain international exposure and promote the scholarship of both the faculty and the students.

- Two students attended the 21st World Federation of Futures Study World Conference and collaborated with the 3rd Global Higher Education Forum in Penang, Malaysia in December 2011. They presented their papers based on work in the ARCH 691 class “Campuses of the Future” instructed by UHM professors Raymond Yeh and Jim Dator.

- “Jala Hub in Dhaka, Bangladesh,” a design project by three students and one Kookmin University student, was recognized with a second place prize in the AECOM annual Urban SOS student competition at the New London Architecture Gallery in 2011.

- The ARCH 490 Design-Build Team with Lecturer Jason Selley received the President’s Volunteer Service Award presented by the President’s Council on Service and Civic Participation (spring 2011). The student team coordinated and served over 2000 volunteer hours to complete Tutu’s Hale Bunkhouse for the local non-profit client Ho’oulu ‘Aina in Kalihi Valley.

- The U.S. Green Building Council announced the four finalists for its 2010 Natural Talent Design Competition, which gives students and emerging professionals the opportunity to apply sustainable design principles to the rebuilding efforts in New Orleans. Among the four was Student Finalist Team “Greenboy Productions” from the University of Hawai‘i. Their design created an affordable, adaptable and accessible home elevated to 8'-0" above grade allowing the space below the home to serve as a carport. An integrated ramp and stair system quickly brings the owner to the side entry where the structure splits through the center of the East and West elevations creating an inviting side patio with integrated local fauna at the elevated level allowing passive ventilation to draw from the cool air below the structure.

- Three students won the Best Prize in the Space Prize for International Students of Architectural Design in 2010. The same team was awarded the Merit Prize for the Shinkenchiku Residential Design Competition 2010 for their project “A New Spirit.”

- In 2010, students and assistants of the UHM SoA Heritage Center won the Council for Native Hawaiian Advancement “Next Generation Leader Award”.

- Professor David Rockwood led a group of students in spring semester 2010 in design efforts to serve Molokai Hawai‘i Habitat for Humanity. The students
formulated new design proposals for Habitat’s “stock plan” houses including a new set of house designs tailored for multi-generational living.

- In September 2009, Professors Janine Clifford and Pat Onishi conducted a 30 person National Endowment for the Arts-sponsored Workshop at the Ihilani. The $22,000 NEA grant entitled “Your Town: Citizen’s Institute on Rural Design” focused on the town of Wahiawa which is experiencing tremendous pressures due to loss of its agricultural base and the pressures of urbanization from the surrounding community.

6. Are program outcomes compatible with the objectives? [Analysis of numbers of majors, graduates, SSHs Offered, service to non-majors, employment of graduates, etc. in relationship to objectives.]

The number of D.Arch. graduate students has grown steadily from 36 students in 2002-03 to the current high of 152 [Chart A]. The UH System’s Institutional Research Office forecasts a growth rate of 28.95% within the professional degree program reaching a total enrollment of 196 students in 2016 [Chart B]. The School has taken steps to achieve the anticipated growth rate noted. Two additional staff is tasked with branding the school both locally and internationally via social media, newsletters, and websites. Increased exposure at a minimum of 4 national recruiting events are attended yearly. The School also anticipates increased enrollment from Asia and Pacific region. Chart C also compares the percentage of growth of the D. Arch. with other professional schools and total graduate students within numerous colleges on the UHM campus. The projected growth rate is certainly manageable. Consistent with the growth in headcount is the increasing number of degrees awarded [Chart D]. It is anticipated that the number of graduates will continue to grow as we maintain our commitment to the quality of our graduates.

Because of the worldwide recession in 2008, employment of architects was affected more than many other professions. Nationally, unemployment among architects was estimated to be around 15%. Additionally, many of those unemployed were at middle and senior management. In fall, 2010, unemployment among architects was estimated to be around 8%, with some states [Nevada and Arizona] being much higher. Hawai'i has had some slow down, and there was a reduction of registered architects in 2008. Since then, however, the state has added over 266 registered architects. The percentage of registered and newly registered architects who do not reside in Hawai'i remains disproportionately high among registered professions. Overall, nonresidents make up over 55% of architects licensed to practice in Hawai'i. The trend of non-resident registration has accelerated over the last decade. In 2010, 30 [20%] newly licensed architects living in Hawai'i were added to the profession. During that same period 123 [73%] were added from the mainland and 9 [7%] international.

The architectural profession in Hawai'i is unlike most in the United States. Most medium to large architectural firms in Hawai'i have an international presence focused on Asia. Additionally, many work with the military. These two sectors have remained strong throughout the global economic downturn and have mitigated most of the impact felt elsewhere in the country.
The School of Architecture has a focused curriculum designed to serve the unique needs of the State of Hawai'i [climatic, cultural, economic] and address global issues with a focus on Asia and the Pacific. Therefore, it is anticipated that our graduates will be employable both within the State of Hawai'i and internationally. Partnering across campus and in the community will assure a broadly educated architect who is able to expand their area of employment beyond the traditional and historical boundaries of the profession.

7. Are program objectives still appropriate functions of the college and University? [Relationship to University mission and development plans, evidence of continuing need for the program, projections of employment opportunities for graduates, etc.]

The strategic plan of the School of Architecture is aligned with the campus' mission and vision. The School supports and builds upon the campus and University mission, vision and planning in numerous ways. Specific overlays and support are:

UHM Vision: Hawaiian Place of Learning. The School supports the vision by recognizing the privilege and responsibility to address cultural, environmental, and social diversity.

UHM Vision: Local to Global. The School supports the vision by inspiring transformative design at the global scale, responding to our unique location in the Asia-Pacific region.

UHM Vision: Sustainability. The School supports the vision by embracing a multidisciplinary approach to the built environment that exemplifies its commitment to sustainability and its understanding of the built environment’s interrelationship to and impact on natural and human environments.

UHM Vision: Technology. The School supports the vision through programs and activities involving affordable construction through advanced technology research.

UHM Vision: Community and Diversity. The School supports the vision by committing to passionate and engaging community participation through teaching, learning, research, professional practice, and service.

[a] The direct relevance of the contribution of the field of study to the professional, economic, social, occupational and general educational needs of Hawai'i.

Graduates of the program develop a specific focus while in the program as evidenced by the D.Arch. project. Graduates provide very current expertise to employers in a topic of their choice. The profession requires the problem solving skills that are inherent in the training of the profession. The School must take the responsibility to train more of our professionals, as owing to the shortfall, Hawai'i citizens are forced to rely upon a
In the American Institute of Architects (AIA) 55% of its licensed architects members are baby boomers and over the age of 50. Nearly 20% of the licensed architects in the AIA are over the age of 60. It is critical that the School train this next generation of architects to replace those who will retire and meet the demands for an expanding green economy.

The School of Architecture is fully committed to taking advantage of our international location. Situated midway between the two largest construction markets (Asia and North America) in the world, the School has dedicated itself to build upon this relationship. Using the resources of the University and Hawai‘i, the School has developed the first dual degree program in the world that offers a China accredited Masters in Architecture degree from Tongji University in Shanghai and a U.S. accredited Doctor of Architecture from UHM. Other examples of international cooperation and leadership are evidenced through our faculty achievements, studio projects and being selected to host the 2014 International Conference for Architectural Research.

As an island community, the design of our fragile environment is a top priority. Our graduates have the highest professional degree available in architecture with a specific expertise that trains them to practice in the Asia Pacific rim.

We surveyed graduates from 2010 - 2012 and out of the 32 responses, 94% are employed with an Architectural firm or related organization throughout the United States, Japan, Singapore, and Malaysia. Six percent are currently looking for employment in the Architecture field.

The urgent need to skillfully and economically achieve a more sustainable, livable physical environment for the people of Hawai‘i, the Asia Pacific region, the nation, and
the world has never been greater. Architecture and environmental design touch every aspect of our lives, and form a basic support system for every endeavor. But the architects of the future must be able to work in a multi-disciplinary, collaborative milieu alongside experts in many other fields. The demand for globally educated, dedicated, talented architects and urban designers, especially in the rapidly developing Asia Pacific region, will only increase along with the complexity of our global society. D.Arch. graduates from the UHM School of Architecture will be prepared and ready to support the essential collaborative efforts required to meet the challenges of the future.

Summary
The School of Architecture has demonstrated that the Doctor of Architecture is a successful degree and is poised to further advance in quality and prestige as the School enters another accreditation cycle. The professional program is associated with some of the world’s most prestigious architectural firms through its Practicum Program and is now being recognized for developing a new model of international architectural education. The School is expanding beyond the walls of traditional professional education to embrace disciplines across the University and the State we serve. This is evidenced by the School’s involvement in a “Cluster Hire” in the area of sustainability and commitment to develop a design center integrated into the communities we serve.

The professional program has proven to be economically sound, institutionally appropriate and regionally significant. The role of the School of Architecture is to educate, train and inspire graduates who will preserve, safeguard and improve our environment as we face pressures of building, development, transportation, energy use and numerous other challenges to our State and region.

The student body and faculty of the School and UHM are extremely diverse. This healthy cultural mix and the location of the School contribute to a well-developed understanding of global culture and a well-balanced lifestyle. Involvement in service to the institution and the local community has added stature and breadth to the program. The establishment of ties with several programs in the Pacific region and Asia, including the unique Dual-Degree Program with Tongji University in China, has opened up many opportunities for study and dialogue in a global setting, as well as prepared students for global practice. The incorporation of carefully monitored professional experience as an integral part of the program and strong ties to the local architectural community are definite strengths of the program. The greatly simplified structure of the D.Arch. bodes well for future progress that reflects the mission and goals of the School and the institution.