Notice of Meeting
UNIVERSITY OF HAWAI‘I
BOARD OF REGENTS

Board business not completed on this day will be taken up on another day and time announced at the conclusion of the meeting.

Date: Thursday, May 21, 2020
Time: 10:30 a.m.
Place: Virtual Meeting

In light of the evolving COVID-19 situation, protecting the health and welfare of the community is of utmost concern. As such, this will be a virtual meeting and written testimony and oral testimony will be accepted in lieu of in-person testimony. Meetings may be monitored remotely via the livestream pilot project. See the Board of Regents website for information on accessing the livestream: www.hawaii.edu/bor. Mahalo for your consideration.

AGENDA

I. Call Meeting to Order

II. Approval of the Minutes of the April 16, 2020 Meeting

III. Public Comment Period for Agenda Items:

All written testimony on agenda items received after posting of this agenda and up to 24 hours in advance of the meeting will be distributed to the board. Late testimony on agenda items will be distributed to the board within 24 hours of receipt. Written testimony may be submitted via the board’s website, US mail, email at bor.testimony@hawaii.edu, or facsimile at 956-5156. All written testimony submitted are public documents. Therefore, any testimony that is submitted for use in the public meeting process is public information and will be posted on the board’s website.

Those wishing to provide oral testimony for the virtual meeting may register here. Given constraints with the online format of our meetings, individuals wishing to orally testify must register no later than 8:00 a.m. on the day of the meeting in order to be accommodated. It is highly recommended that written testimony be submitted in addition to registering to provide oral testimony. Oral testimony will be limited to three (3) minutes per testifier.

IV. Report of the President: COVID-19 Update

V. Report of the University of Hawai‘i Foundation

VI. Committee Reports
   A. Report from the Committee on Academic and Student Affairs
   B. Report from the Committee on Personnel Affairs and Board Governance
   C. Affiliate Reports

For disability accommodations, contact the Board Office at 956-8213 or bor@hawaii.edu.
Advance notice requested five (5) days in advance of the meeting.
VII. Agenda Items
   A. Consent Agenda
      1. Approval to Change from Provisional to Established Status: Bachelor of Arts Degree in Public Health, University of Hawai‘i at Manoa
      2. Approval to Change from Provisional to Established Status: Bachelor of Arts in Pharmacy Studies, University of Hawai‘i at Hilo
      3. Approval to Change from Provisional to Established Status: Marine Biology Graduate Program for Doctoral and Master of Science Degrees in Marine Biology, University of Hawai‘i at Mānoa
      4. Approval for the Establishment of a Provisional Bachelor of Science in Cybersecurity, University of Hawai‘i – West Oahu
      5. Approval of Amendments to Regents Policy 9.212, Executive and Managerial Personnel Policies

   B. Approval of Maunakea Management Restructuring Plan

   C. Legislative Update

   D. Appointment of a Permitted Interaction Group to Investigate Issues and Make Recommendations Related to the University of Hawai‘i’s Strategic Response and Economic Recovery From COVID-19

   E. Approval of the Establishment of the Lakshmi Devi and Devraj Sharma Endowed Chair II in Women’s Health at the John A. Burns School of Medicine at the University of Hawai‘i at Mānoa.

   F. Approval of the Establishment of the Joanna Lau Sullivan Distinguished Endowed Professorship at the University of Hawai‘i Cancer Center

   G. Awarding of Title of Professor Emerita of Economics to Marcia Sakai

   H. Approval of Resolution in Appreciation and Recognition of Michael McEnerney

VIII. Announcements
   A. Next Meeting: July 16, 2020, location TBD

IX. Adjournment
I. CALL TO ORDER

Chair Ben Kudo called the meeting to order at 9:06 a.m. on Thursday, April 16, 2020. The meeting was conducted with regents participating from various locations.

Quorum (10): Chair Ben Kudo; Regent Simeon Acoba; Regent Kelli Acopan; Regent Eugene Bal; Regent Michael McEnerney; Regent Randy Moore; Regent Alapaki Nahale-a; Regent Michelle Tagorda; Regent Robert Westerman; and Regent Ernest Wilson Jr.

Excused (2): Vice-Chair Wayne Higaki; Vice-Chair Jan Sullivan.

Others in attendance: President David Lassner; Vice President (VP) for Administration Jan Gouveia; VP for Legal Affairs/University General Counsel Carrie Okinaga; VP for Research and Innovation Vassilis Syrmos; VP for Information Technology/Chief Information Officer Garret Yoshimi; VP for Advancement/UH Foundation (UHF) Chief Executive Officer Tim Dolan; UH-Mānoa (UHM) Provost Michael Bruno; UH-Hilo (UHH) Chancellor Bonnie Irwin; Executive Administrator and Secretary of the Board of Regents (Board Secretary) Kendra Oishi; and others as noted.

II. APPROVAL OF THE MINUTES OF THE MARCH 19, 2020 MEETING

Regent Wilson moved to approve the minutes of the March 19, 2020, meeting, seconded by Regent Westerman, and noting the excused absences of Vice-Chair Higaki, Vice-Chair Sullivan, and Regent Moore, the motion carried, with all members present voting in the affirmative.

III. PUBLIC COMMENT PERIOD

Board Secretary Oishi announced that the Board Office received written testimony as follows:
Written testimony in support of the approval of the appointment of the Dean of the William S. Richardson School of Law, UHM, was received from David Forman; Barbara Richardson; Dina Shek; Rachel James; Katherine Vessels; Denise Antolini; Nicholas Mirkay; John Barkai; Richard Chen; Calvin Pang; Vicki Szymczak; Eric Yamamoto; Carole Petersen; Troy Andrade; Justin Levinson; Susan Serrano; Valerie Lam; Richard Wallsgrove; Ronette Kawakami; Julie Suenaga; Charles Booth; Melody Kapilialoha MacKenzie; Trisha Nakamura; Linda Hamilton Krieger; N. Mahina Tuteur; D. Kapuaʻala Sproat; Lea Hong; Leslee Matthews; Gary Slovin; Chad Au; Larry Foster; Mark Levin; Mari Matsuda; Letani Peltier; Cheryl Burghardt; and Daphne E. Barbee.

Written comments related to the approval of the appointment of the Dean of the William S. Richardson School of Law, UHM, were submitted by an unidentified individual.

Written comments related to Maunakea were submitted by Sharol Awai.

Written testimony in opposition to items related to Maunakea was submitted by Kekailoa Perry.

Written testimony in opposition of the attempted renewal of the master lease for the Maunakea summit area was submitted by Laulani Teale.

IV. REPORT OF THE PRESIDENT: COVID-19 UPDATE

Regent Moore arrived at 9:15 a.m.

President Lassner updated the board on the university’s current situation with regard to the COVID-19 public health crisis emphasizing that, while the situation appears to be stabilizing, the dynamic nature of this issue requires the university to maintain flexibility. The university continues to take actions it initiated over the past month to address this complex and ever-evolving public health crisis, including extending the provision of online courses through the first summer session of 2020. The core principles and educational mission of the university continue to be adhered to and the university is succeeding in its primary objectives of protecting the health and safety of its students, faculty, and employees and meeting the educational needs of its students that will allow them to complete the current semester as well as graduate. Although a myriad of issues relating to academic procedures, physical practices, and human resources continue to impact the university, the administration is working in consultation with all stakeholders to address these issues.

President Lassner noted that the university has also taken steps to alleviate some of the financial burden facing many students during the COVID-19 crisis. One initiative undertaken by UHF is the establishment of the Urgent Student Relief Fund (Relief Fund) to provide financial relief for students affected by COVID-19. To date the Relief Fund has surpassed $1 million.

While the university has received requests for the refunding of tuition and various student fees and charges, tuition and academic fees dedicated to covering educational costs will not be refunded as those activities continue, albeit in a different mode of
instruction. However, the university did conduct a comprehensive review of academic and student-related fees and charges to identify those that could be refunded to students on a prorated basis. Fees and charges for student housing at UHM and UHH, student fees for the UHH student recreation center, and fees that support consumables not consumed such as chemicals or art supplies, will be refunded on a prorated basis.

It is also anticipated that the Coronavirus Aid, Relief, and Economic Security Act, or CARES, will provide some economic relief for both students and UH. President Lassner provided a brief overview of higher education funding contained in CARES noting that a majority of this relief is being provided through two funds – the Governor’s Emergency Education Relief Fund (GEERF) and the Higher Education Emergency Relief Fund (HEERF). GEERF funds can be used for early childhood, K-12, and higher education (both public and private) purposes and is a more flexible source of funding as governors are provided with discretion in the distribution of these funds. Hawaii is slated to receive approximately $9.9 million from GEERF and the Office of the Governor is currently determining how this funding will be distributed.

Funds contained in HEERF are solely devoted to assisting institutions of higher education (IHE) and students enrolled at these institutions. HEERF funds are available to all IHEs to prevent, prepare for, and respond to the COVID-19 crisis. A portion of HEERF funds has also been dedicated to assisting IHEs that have significant unmet needs, as well as those considered to be minority-serving institutions. UH is expected to receive $24 million of the approximately $32.6 million in HEERF funding provided to Hawaii. President Lassner stated that UH has received approximately $12 million of the allotted $24 million in HEERF funding and that $12 million of total HEERF funds received by UH must be disbursed directly to students in the form of student aid in accordance with HEERF requirements. The administration is currently developing a plan and methodology for the dispersal of HEERF monies through the financial aid office of each campus in the form of emergency aid grants directly to students to allow for the completion of the current semester and to ensure enrollment for the fall 2020 semester. The university continues to plan for the receipt of the balance of the $24 million in HEERF funding which is expected to occur in the near future. However, President Lassner stressed that this funding will not relieve the budget pressures being faced by the university as a result of the COVID-19 crisis but will help to alleviate costs directly related to COVID-19 being expended by the university.

While it does not appear that UH will receive additional HEERF funds slated to be granted to IHEs that have significant unmet needs, it will receive additional HEERF funds based upon its status as a minority-serving institution since it provides educational services to native Hawaiians. However, the exact amount of additional HEERF funds the university will receive is unknown at this time.

President Lassner informed the board of the overall financial situation facing UH due to the COVID-19 crisis as well as some of the actions being taken to address these budgetary concerns. While the full-scale impact of the COVID-19 crisis on the State’s general fund is not yet known, it is expected to be significant, and the Governor has issued budget restrictions for all State departments for the remainder of this fiscal year, including a restriction of $2.2 million for the university. As general fund appropriations
make-up approximately half of the university’s operating dollars, UH continues to work on developing financial plans to address expected budget shortfalls. Variables such as approximations of the overall general fund budget for the next fiscal year; student enrollment numbers, as well as the possible types of students enrolling at the university, -i.e. resident v. non-resident, undergraduate v. graduate; possible labor cost savings; whether the university will be reopened by the fall of 2020; and the possible receipt of additional funds from a fourth federal stimulus package, are currently being reviewed and analyzed. Additionally, a hiring freeze has been initiated to reduce new expenditures. With the assistance of external experts, the administration has also begun scenario planning for different financial outcomes and to determine the impacts each scenario will have on the university.

Regent Nahale-a questioned how the university’s interaction with other State agencies and large private institutions was impacting the university’s efforts to address its financial situation. President Lassner answered that certain issues such as collective bargaining to mitigate labor costs and the appropriation and release of general funds are mutually addressed by the university and other State agencies as these issues have broad implications for the State system and require the development of comprehensive solutions before the university can proceed with its own financial planning on these matters. He stated that the university continues to work with the State Department of Education to address admission requirements for high school students to possibly allow more of these students to attend UH, which would impact the university’s budget, and also stated that he continues to communicate with private IHEs in Hawai’i with regard to federal funding.

Regent Acoba asked President Lassner to further explain his earlier statement that CARES funding will not relieve the budget pressures being faced by the university as a result of the COVID-19 crisis. President Lassner replied that half of the $24 million in HEERF funds received by UH is required to be used strictly to assist students and must be given to students directly and the remaining $12 million may only be used to address direct impacts of COVID-19 and not general revenue shortfalls associated with reductions in general fund appropriations or tuition revenues.

Chair Kudo questioned whether the administration had any information on the projected financial shortfalls UH may face that took into account various possible outcomes from the COVID-19 crisis. President Lassner replied that the administration has identified the major variables that will cause financial impacts to the university and is about to embark on a process of developing budget shortfall scenarios that take into account factors such as reduced general fund appropriations, decreased enrollment and its impact on tuition, the provision of online-only instruction, and possible additional federal resources. Chair Kudo inquired as to when this information might become available. President Lassner responded that the various scenarios could be finalized and ready in a few weeks. The administration is working with an external third party that is doing similar work for many other universities around the country.

Chair Kudo inquired whether UHF has reached out to alumni associations and others to solicit funding as has been done by other universities. President Lassner responded in the affirmative stating that the UH Alumni Association already made a
contribution directly to the Urgent Student Relief Fund and an alumni board member has produced a video urging other alumni to contribute to the university. VP Dolan added that UHF has also been using a multi-faceted approach, including the use of mail, social media, and phone calls, to make an appeal to individual alumni, alumni associations, alumni groups, donors, and others to solicit donations for the university.

Noting that under the CARES Act minority-serving institutions would be eligible for additional HEERF funds, Chair Kudo asked if UH was considered a minority-serving institution that would be eligible for these additional funds. President Lassner replied in the affirmative. He explained that IHEs that provided educational services to native Hawaiians were considered minority-serving IHEs if these students accounted for at least 10% of the demographic of the student population and that approximately $25 million in HEERF monies has been set aside for these IHEs as well as those serving Alaska natives, although how these funds will be allocated to the eligible institutions remains unclear.

Regent McEnerney stated that scenarios have been posited whereby university campuses would not be reopened by the fall of 2020 or even the spring of 2021 and questioned whether UH would be financially able to maintain even solely online education if the university loses all non-resident students. President Lassner replied that the university will be functioning in the fall of 2020 and spring of 2021. He stated, however, that a number of factors that are out of the control of the university will impact how it continues to function in the near future. He reiterated that the university is reviewing a number of possible scenarios and developing plans to address them but that that the university must remain flexible to adapt quickly to a very dynamic situation.

Regent Moore asked how the university planned to address the transfer of credits with other institutions for students affected by travel restrictions. President Lassner replied that a joint statement was issued by the major higher education institution associations across all sectors providing guidance on how to facilitate and ease the transfer of credits for students caught in this type of situation and that UH will be looking to this guidance to determine how to ease its credit transfer requirements, particularly for local students who choose to continue their education at UH. He noted deposits received for enrollment in the fall semester at UH have increased and that resident enrollment may experience an increase which could offset some of the financial losses expected with a decrease in non-resident students.

Regent Wilson asked whether UH has begun reviewing programs to identify areas that can be consolidated or eliminated given the expected decrease in revenue streams. President Lassner replied that this work is extensive and will be taking place over the next several weeks. While some programs will more than likely need to be cut or consolidated, there may be other programs on which the university will have to place more emphasis and make increased investments. The university needs to review this issue very carefully and understand the post-pandemic economic direction the State is planning to take to make these determinations.

Chair Kudo remarked that, as requested, both the Office of the Board of Regents and the Office of Internal Audit have submitted emergency response plans to board
leadership outlining their operational abilities and staffing and equipment needs during the COVID-19 crisis. Board leadership has reviewed these plans and they will be distributed to all regents for comment and feedback.

President Lassner reported that the university has addressed concerns regarding the practice of online courses for regular Mānoa students being administered through the Outreach College which were raised during a routine audit conducted in 2018. It was determined that this practice created financial hardships for students as they did not receive the benefit of having their tuition capped at 12 credits, created additional administrative overhead associated with maintaining federal compliance, and was in violation of Regent Policy. A plan has been developed in consultation with the Outreach College, as well as affected colleges and departments, which creates a compliant pathway forward and will be implemented in the fall of 2020.

Chair Kudo thanked President Lassner for the update and extended the board’s appreciation to Provost Bruno and Interim Vice-Chancellor French in working through the difficulties to resolve a longstanding but serious violation of board policy identified in the audit of the Outreach College. He further recognized that it is particularly timely to have this solution in place by next fall when more students will be struggling and need relief from the extra costs imposed on them by this inappropriate and unauthorized practice.

V. AGENDA ITEMS

A. Consent Agenda

1. Request for Approval to Indemnify the Federal Government, Air Force Research Laboratory, to Receive a Sponsored Research Award to the Vanguard Center to Support the Maui High Performance Computing Center

Regent Bal moved to approve the consent agenda, seconded by Regent Moore, and noting the excused absences of Vice-Chair Higaki and Vice-Chair Sullivan, the motion carried with all members present voting in the affirmative.

B. Request for Approval of the Establishment of the Dana Naone Hall Endowed Chair in Hawaiian Studies, Literature, and the Environment at the Hawai‘inuiākea School of Hawaiian Knowledge at UHM

President Lassner provided information on a financial commitment received from the Laurence H. Dorcy Hawaiian Foundation of Forest Lake, Minnesota in the amount of $3,284,263 to establish an endowed chair in Hawaiian studies, literature, and the environment at the Hawai‘inuiākea School of Hawaiian Knowledge at UHM to recognize the professional life and work of Dana Naone Hall, an esteemed and renowned poet, whose reputation as a champion of native Hawaiian rights and the environment has been well-established throughout Hawai‘i. In recognition of the receipt of this gift, the administration is requesting board approval for the establishment of the Dana Naone Hall Endowed Chair at the Hawai‘inuiākea School of Hawaiian Knowledge at UHM.
Regent Wilson moved to approve the establishment of the Dana Naone Hall Endowed Chair in Hawaiian Studies, Literature, and the Environment at the Hawai‘inuiākea School of Hawaiian Knowledge, seconded by Regent Moore, and noting the excused absences of Vice-Chair Higaki and Vice-Chair Sullivan, the motion carried with all members present voting in the affirmative.

Chair Kudo called a recess at 10:06 a.m. The meeting resumed at 10:12 a.m.

C. **Status Update on Items Relating to Maunakea Management Pursuant to Board of Regents Resolution 19-03 (Resolution 19-03) (Discussion Only)**

Dr. Greg Chun, Executive Director of Maunakea Stewardship, presented an update on the status of items relating to Maunakea Management pursuant to Resolution 19-03. He noted that Resolution 19-03 required the administration to provide a proposed plan for the reorganization and restructuring of the management of Maunakea, as well as an analysis of the management of the Maunakea Science Reserve, to the board at its April 2020 meeting. He stated that updated information to the administration’s initial report on the decommissioning of the Caltech Submillimeter Observatory (CSO) and UHH’s Hōkū Kea teaching telescope (Hōkū Kea), as well as educational and outreach programs being undertaken by UH at the ‘Imiloa Astronomy Center (‘Imiloa), would also be presented as requested by the board during its February 2020 meeting.

Dr. Chun briefly described the systematic approach used to gather the information needed to develop the proposed reorganization of the management structure for Maunakea and to conduct an analysis of the management of the Maunakea Science Reserve. He highlighted several key steps taken by the administration during this process including the evaluation of Maunkea’s current internal organizational management structure; the review of relevant management issues noted in State and internal audits conducted over the past two decades; the examination of alternative land management models used by the State, as well as by large private landowners, such as cooperative agreements, attached State agencies, and community-based curatorships; and consultation with various agencies, observatories, community groups, and other Maunakea stakeholders, including stakeholders that may be critical of the university’s management of Maunakea.

Through this information gathering process, the administration learned that a number of issues needed to be addressed in the development of any management or stewardship plan regarding Maunakea. Dr. Chun spoke on several crucial concerns raised with regard to the current management of Maunakea including transparency, management authority, and participation by various Maunakea stakeholders in the decision-making process. He also mentioned that issues such as the specific composition, role, and authority of any established advisory or governing board; the consideration of astronomy as more of a scientific rather than commercial endeavor; any legislation that may be required for implementation of some of the management models; and the disposition of public lands in accordance with statutory requirements, which is particularly complex given that Maunakea lands are comprised of public trust lands and conservation lands, needed to be contemplated in the development of models for the restructuring of the management of Maunakea.
As a result of this methodical approach to gathering information and input on the management of Maunakea, the administration developed key principles and objectives that were used as a guide in the establishment of potential Maunakea governance models. These principles and objectives included establishing clear lines of management authority and accountability; increasing management transparency; broadening the diversity and participation of stakeholders in authoritative decision-making on actions involving Maunakea; embracing the multi-faceted nature of UH’s responsibilities with regard to Maunakea and achieving a balance between culture, cultural practitioners, stewardship and scientific research; optimizing internal and external partnerships, collaborations, and networks; striving for portability of the governance models so as to mitigate impacts of any large-scale State-sponsored reorganization; and assuming that alternative models will be feasible and implementable.

1. Maunakea Management Reorganization and Restructuring Plan

Dr. Chun stated that Resolution 19-03 tasked the administration with formulating a Maunakea management reorganization and restructuring plan in consultation with the Maunakea Management Board (MKMB), Kahu Kū Mauna, ʻImiloa, existing Maunakea observatories, and other community stakeholders that would improve the efficiency, effectiveness, and transparency of the operations and management of Maunakea.

Dr. Chun provided a brief overview of the current management structure for Maunakea, noting that primary Maunakea management activities are currently under the jurisdiction of two different campuses which report to two different administrative officers of the university. MKMB, the Office of Maunakea Management (OMKM), ʻImiloa, Kahu Kū Mauna, and the Department of Astronomy at UHH are included within the jurisdictional scope of UHH and are under the administrative purview of the Office of the Chancellor of UHH. The UH Institute for Astronomy (IfA), which is under the administrative purview of the UHM Provost, is responsible for overseeing a large portion of the teaching and research activities on Maunakea, as well as maintaining relations with the Maunakea observatories. The Maunakea Support Services (MKSS) Program, which is administratively attached to IfA, technically is a program of the Research Corporation of the University of Hawaiʻi that is overseen by the MKSS Oversight Committee. MKSS is responsible for budgetary decisions related to management and functions at Hale Pōhaku, the Visitor Information Station (VIS), and the roads and infrastructure on Maunakea. Although this fragmented management system has functioned over the years, its multijurisdictional nature has created vagueness and confusion with regard to policy, responsibility, and authority.

The internal management restructuring proposal seeks to take a more unified approach to the management of Maunakea. Under this proposal, OMKM and MKSS would be combined into a single entity to be known as the Center for Maunakea Stewardship (Center). The management structure of the Center would then be organized around mission-critical roles and activities. The Center would be led by an Executive Director who would be directly responsible for oversight of all the operations of the Center. The Office of the Executive Director would retain primary responsibility for functions involving planning, permitting, regulatory, and compliance oversight,
government and community relations, and coordination of research and academic activities related to Maunakea. A stewardship program unit, administered by a Director of Stewardship Programs who would report directly to the Executive Director, would be responsible for a majority of the work presently conducted by MKSS and OMKM, including managing stewardship programs, enforcement, Hale Pōhaku, the VIS, and infrastructure on Maunakea. While the Executive Director’s office and the stewardship program unit would work together collaboratively as planning, permitting, compliance, and stewardship functions can be operationally integrated, the analysis supported the separation of these functions to avoid confusion between these roles.

Additionally, the internal management restructuring proposal would optimize existing university resources to act as lead agencies in certain subject matter areas based on experience and expertise. IfA would serve as the lead agency for scientific cooperation and would be responsible for maintaining and establishing strong scientific partnerships; managing and stewarding relationships and collaboration with the Maunakea observatories; developing scientific cooperative agreements; maintaining federal partnerships; and acting as advocates for astronomy at UHM and UHH. ‘Imiloa would serve as the lead agency for cultural, educational, and community engagement activities with regard to Maunakea. While not reporting directly to the Executive Director, IfA and ‘Imiloa would work in partnership with the Office of the Executive Director. The Executive Director would be responsible for ensuring that these agencies carry out their respective responsibilities and functions as they relate to the mission of the Center. Dr. Chun noted that, under this proposal, existing Maunakea stakeholder bodies, including MKMB, Kahu Kū Mauna, the Environment Committee, and the MKSS Oversight Committee, would have a larger role in strategic and policy discussions, serving as not only strategy and policy advisors to the Executive Director, but also as de facto strategy and policy advisors to the board, the President, and the UHH Chancellor.

Dr. Chun stated that the administration believes that this internal management restructuring proposal would improve management of Maunakea and allow the university to effectively address the concerns that were raised by various Maunakea stakeholders during the information gathering phase of this process. This proposal also avoids complications involved with public land transfers and would maintain governance continuity for Maunakea, which is crucial should the State or university decide to pursue alternative master lease options in the future. He also noted that while the administration was striving to begin the process of implementing this restructuring plan by July 1, 2020, the current situation regarding COVID-19 has caused some uncertainty with this timeline.

2. Maunakea Science Reserve Governance Analysis

Resolution 19-03 also tasked the administration with performing an in-depth analysis of the governance of the Maunakea Science Reserve (Reserve), with input from MKMB, Kahu Kū Mauna, ‘Imiloa, existing Maunakea observatories, and other community stakeholders, to determine whether the Reserve would be better served with a transfer in management or management performed through an alternative mechanism.
Dr. Chun stated that the administration reviewed and analyzed a number of existing management models currently being used by other state agencies and private organizations that manage large tracts of land with diverse and complex land management issues including the Kaho‘olawe Island Reserve Commission, Ha‘ena State Park Community Advisory Committee, Papahānaumokuākea Marine National Monument, and the various Ali‘i trusts. This analysis resulted in the development of five alternative governance models. He noted that these models were intended to serve as base models to begin discussions and that hybrid governance models containing elements of any of the various models could be pursued.

A brief overview of each of the five models developed was provided as follows:

- **Attached State agency model** – The Maunakea Stewardship Authority (Authority), governed by an appointed board of directors, would be legislatively created and attached to a state agency for administrative purposes. The board of directors would hire an executive director who would be directly responsible for oversight of all day-to-day operations. The Authority would be an independent organization that would become the legal entity responsible for all land management and stewardship functions on Maunakea. A community advisory council would also be established to serve in an advisory capacity to the Authority. Several issues identified with this particular model include uncertainties associated with the establishment and composition of an authority through the legislative process; funding mechanisms for the Authority as the majority of these types of authorities are required to be self-funded; risks to UH’s role and reputation as a leading astronomy research institute as the result of a loss of active engagement in managing astronomy on Maunakea; time constraints due to master lease agreements; and complexities involved with converting existing subleases and agreements.

- **Board of Land and Natural Resources (BLNR) management model** – The Department of Land and Natural Resources (DLNR), governed by BLNR, would assume all management and compliance oversight functions for Maunakea, including functions currently carried out by OMKM and MKSS. This model would not require legislation to implement. The Maunakea master lease would be eliminated and BLNR would issue summit leases directly to each observatory. Stewardship functions for Maunakea could either be assumed by DLNR or executed through a collaborative agreement with a third party. Issues involved with this particular model include extensive new workloads for DLNR and BLNR; ownership questions regarding Hale Pōhaku and the VIS; risks to UH’s role and reputation as a leading astronomy research institute, similar to that under the attached State agency model; and complexities involved with converting existing subleases and agreements.

- **Third-party model** – A third-party, such as a private or non-profit entity, would be chosen by BLNR and issued a master lease for Maunakea. The third-party would then assume all management responsibilities and functions on Maunakea, including the issuance of any subleases. While this model is expected to face a
number of the same issues experienced under the attached agency and BLNR model, the additional complication of transferring public lands, particularly public trust lands, to a private entity, as well as questions of stewardship roles, responsibilities, and authority, add to the complexities of this model.

- **Collaborative stewardship model** – This model is similar to one currently being used to manage the Papahānaumokuākea Marine National Monument. It would utilize a cooperative, co-management approach that integrates and balances stewardship, cultural, community, economic, and educational interests. Under this model, agency and other stakeholder members would agree to coordinate their respective plans, operations, and programs to enhance overall stewardship of Maunakea while maintaining their roles, authorities, jurisdictions and obligations. The administration envisions UH retaining the master lease for the astronomy precinct under this model.

- **Collaborative stewardship model within UH** – This model essentially employs a modified version of the internal management restructuring proposal noted earlier. However, under this model, MKMB would be replaced with the Maunakea Policy Council (Council) and certain authority, such as approval of the master plan, comprehensive management plan, and establishment of sublease policies, would be delegated to the Council by the board through the UH President and UHH Chancellor. The Executive Director of the Center would serve as the Chair of the Council appointed by the Board of Regents. Some of the benefits anticipated by this model include the ability for the model to be implemented without enabling legislation, the minimizing of complications involved with the transfer of public lands, and the retention of direct management authority over the astronomy precinct and Hale Pōhaku by the university.

Regent Acoba asked whether the board would cede some of its authority regarding Maunakea to the Council under the collaborative stewardship model within UH and whether the Council would be making decisions normally made by the board. Dr. Chun responded in the affirmative reiterating that under this model, the board would be delegating certain decision-making authority to the Council. He noted that what authority is delegated to the Council is at the sole discretion of the board. He noted that this was one method of addressing some of the concerns raised with regard to management and decision-making concerning Maunakea during the information-gathering process.

Stating that the collaborative stewardship model within UH envisions a more unified approach to the management of Maunakea that establishes clear lines of authority, responsibility, and accountability, Regent Acoba asked what the benefits were of discussing the other models presented. Dr. Chun answered that the administration was tasked with conducting this analysis under Resolution 19-03 and developing possible management models given the available data. He stated that further analysis of the other models would probably need to be conducted by an independent body with expertise in these matters.
Chair Kudo remarked that the board only had the authority to approve the restructuring of internal management but that he believed it was necessary to discuss the various governance models because the board’s preference for any one of the various models presented could weigh heavily on the decision-makers as to which of the governance models should prevail.

Regent Nahale-a stated that understanding, assessing, and discussing the various management governance alternatives, some of which were proposed to address criticisms raised regarding the current management of Maunakea, was important to allow the board to advocate for changes in an informed manner. He noted, however, that more conversations and discussions will need to take place on this matter.

Indicating that he appreciated the approach the administration took to address the restructuring of internal management, particularly with regard to the clarified lines of authority and responsibility and increased transparency, Regent Nahale-a requested clarification of the apparent overlap between the lead agency responsible for scientific cooperation and the lead agency responsible for cultural and community engagement. Dr. Chun replied that one of the challenges that OMKM faces is that it plays both a stewardship role and a regulatory oversight role for the management of Maunakea. At times, OMKM is also viewed as having an advocacy role for astronomy. By creating two lead agencies with distinct oversight roles based on existing skillsets, the administration was attempting to minimize potential conflicts between management, stewardship, and regulatory oversight, as well as community engagement and education. However, he noted that due to the broad nature of some issues regarding Maunakea, overlap over the entire spectrum of the proposed internal management restructuring proposal could occur.

Chair Kudo remarked that the existing management, regulatory, oversight, and stewardship structure of Maunakea evolved over a period of time which has resulted in overlap, redundancy, inefficiency, and confusion. He noted that part of the goal of internally restructuring the management of Maunakea was to clarify the lines of authority and responsibility, as well as the roles, of the various Maunakea stakeholders and that establishing a single entity that is ultimately responsible for each major area would bring clarity and accountability to the management process.

Regent Moore asked whether any objections were raised regarding the administration’s proposed management restructuring plan. Dr. Chun replied that concerns were expressed, particularly by those most affected by these changes, including OMKM and MKSS staff. Some observatory directors also expressed concerns that the scientific community did not have a larger role in decision-making under the various alternatives. However, these are issues that would be addressed through ongoing conversations.

Regent Moore questioned whether moving ahead on the proposed management restructuring plan would preclude moving forward on the collaborative stewardship management model within UH. Dr. Chun replied that it would not and that adopting the proposed management restructuring plan may make implementation of that particular management model easier.
Chair Kudo asked if there were any common remarks made by the various stakeholders with whom the proposed governance models had been shared. Dr. Chun responded that the most common question received was with regards to what problem the administration was trying to fix. Comments were also made in reference to the perceived inability of the university to properly manage Maunakea and whether any astronomy belongs on Maunakea, although none of the models presented address the issue of the presence of astronomy on the mountain.

Chair Kudo inquired as to what the next steps would be in terms of the proposed internal management restructuring plan and the various governance models that were presented to the board. Dr. Chun replied that the approval of the internal restructuring plan is within the board’s purview and that the board can direct the administration to proceed with the plan. He further stated that the governance models should be analyzed by an independent third-party to ensure objectivity and is an issue that probably should be addressed by the Governor’s office. President Lassner added that the administration’s assessment of the internal reorganization plan is that no formal board action is required and that the administration can and will move forward on this issue unless otherwise directed by the board. President Lassner also noted that the administration is simultaneously proceeding with obtaining an extension on the university’s master lease for Maunakea and conducting an analyses of the various governance models would facilitate decision-making and avoid any delays should the Governor or the board choose to proceed in a different direction at a later date.

Chair Kudo asked if the COVID-19 crisis is impacting the administration’s plans to move forward on either the restructuring or governance issues. Dr. Chun replied that COVID-19 will have impacts on the timing of the internal management restructuring plan which still requires some detailed work that may be affected by work-at-home and stay-at-home orders. There will be impacts on efforts to proceed on the governance models although what these impacts will be are uncertain since the administration cannot predict the level of priority this will receive from the Legislature and other policy makers. The uncertainty COVID-19 is causing with regards to these issues necessitates the university’s ongoing pursuit of a master lease extension as well as the ongoing work on the required Environmental Impact Statement (EIS).

Regent Acoba requested clarification on what was contained in the new master lease and whether it needed to be approved by the board. Dr. Chun replied that, ultimately, the board will be required to provide final approval to the new master lease. The administration is proceeding with the required EIS for the new master lease and the details and scope of this new master lease are currently being developed as part of the EIS process. Once the terms and scope of the new master lease have been determined, the administration will return to the board to seek its approval of the new master lease. He also noted that the chair of BLNR advised the administration to update both the master plan and comprehensive management plan for Maunakea and incorporate these updated plans in the new master lease application.

Regent Acoba questioned the absence of board involvement in the approval of the internal reorganization plan. President Lassner replied that the internal reorganization plan did not necessitate board approval under Regent Policy regarding the
organizational structure of the university since the authority for the restructuring of lower-tier offices has been delegated to the President.

Discussions occurred as to whether the board was required, under Regent Policy, to approve or disapprove the proposed internal management restructuring plan and whether the board had the responsibility of being more involved in the approval of the internal restructuring plan rather than simply receiving information on the plan. Regents then discussed whether Resolution 19-03 required the administration to obtain approval from the board for the proposed internal management restructuring plan. It was stated that Regent Policy delegated to the administration the authority to adopt changes to organizational structures with certain exceptions. Regent Acoba replied that the proposed internal management restructuring plan was a major change and plainly fell within either one of the two exceptions to the said Regent Policy. Additionally, he stated that, as part of its ultimate responsibility, the board should be voting on the reorganization considering the significance of the changes to the management of Maunakea lands that were of wide public concern; this was also underscored by objections from existing staff and concerns raised by others. Regent Acoba stated that a board vote was clearly necessary considering the importance the board had attached to Resolution 19-03 on Maunakea.

Chair Kudo stated that, given the language in the Resolution, the proposed internal management restructuring plan will be placed on the agenda for board approval at the board’s next meeting in May.

3. **Update on Status of Decommissioning of Caltech Submillimeter Observatory and Hōkū Kea Teaching Telescope and Education and Outreach**

Dr. Chun provided an update on the decommissioning status of CSO and Hōkū Kea, as well as educational and outreach programs being undertaken by UH at ‘Imiloa. CSO submitted its site decommissioning plan to the university on March 24, 2020. The site decommissioning plan is currently being reviewed for approval by the university. Once the university approves the site decommissioning plan, it will be reviewed by Kahu Kū Mauna, and then reviewed by MKMB for approval. CSO has notified the university that it anticipates submitting its draft Environmental Assessment (EA) for review in May 2020. OMKM and CSO will then need to agree on the major content points of the EA at which time the public comment process for the EA will be initiated.

The administration issued a notice of intent to proceed with the decommissioning of Hōkū Kea on February 21, 2020. Work continues on documenting existing conditions of the Hōkū Kea site, as well as buildings and utilities on the site, and a draft funding plan is currently being formulated by UHH. The next major steps for the decommissioning of Hōkū Kea include community and agency consultation regarding removal and restoration and the development of a site decommissioning plan that takes into account community and agency feedback. Dr. Chun noted that while the COVID-19 situation has hampered consultation efforts, alternatives to address these challenges are being reviewed.
Dr. Chun stated that a consultant has been selected for the construction of the new educational telescope and that it is currently engaged in developing the scope of work for the required EA. The next major steps for this project include the awarding of a construction contract, issuance of a notice to proceed, and community consultations.

Dr. Chun reviewed collaborative efforts occurring between the VIS and affiliated programs to provide education and outreach activities on, and about, Maunakea. Work continues on upgrading, as well as creating, interpretive exhibits to provide visitors with a better understanding of Maunakea as a storied Hawaiian place with a dynamic, living, Hawaiian culture, with installation expected to occur in December of 2020. He emphasized, however, that the lack of a supplemental appropriation from the Legislature and the expected budget shortfall due to the COVID-19 crisis will make the execution of expanded educational programs and operations challenging.

Chair Kudo stated his concern was in the almost one-year delay of the completion of CSO’s decommissioning noting that the board had initially set a target date for the decommissioning of CSO to be completed by December 31, 2021, which was provided to CSO’s consultants. He expressed his hope that this process would not experience years of unnecessary delays attributed to discussion and consultations between OMKM and CSO’s consultants.

D. Discussion Only of Draft Proposed Amendments to Resolution 19-03, To Act on Items Relating to Maunakea Management

Chair Kudo noted that he had requested the placement of this item on the agenda to address amended timeframes related to the decommissioning of CSO and Hōkū Kea and the establishment of a new teaching telescope on Maunakea. He noted that, after further consideration and consultation, it was determined that amendments to Resolution 19-03 to address the modified timeframes were unnecessary as language contained in Resolution 19-03 as originally passed in November 2019 reflected the intent of the board at that particular time and this agenda item was not necessary.

Regent Acoba did not object to withdrawing amendments to Resolution 19-03 on timeframes but noted that Resolution 19-03 expressly required a vote by the board as to the internal management restructuring plan because paragraph 8 of Resolution 19-03 states in part that: “Following consultation with…stakeholders, a reorganization and restructuring plan shall be presented to the Board of Regents….The purpose of the plan is to improve operations and management and make it more efficient, effective, and transparent...The reorganization and restructuring plan shall be embodied into a governance document that is approved by the Board of Regents.” Regent Acoba stated that Regent Policy aside, the Resolution's own language, that the governance document be approved by the Board of Regents required that the board vote on the internal management restructuring plan.

VI. EXECUTIVE SESSION

Upon motion by Regent Moore, seconded by Regent Nahale-a, and noting the excused absences of Vice-Chair Sullivan and Vice-Chair Higaki, the Board approved convening in executive session to consider the hire, evaluation, dismissal, or discipline
of an officer or employee, where consideration of matters affecting privacy will be involved, pursuant to Section 92-5(a)(2), Hawai‘i Revised Statutes.

The meeting recessed at 12:05 p.m.

The meeting reconvened at 12:37 p.m.

Chair Kudo reported that the board met in executive session to discuss personnel matters as indicated on the agenda.

Regent Wilson returned at 12:38 p.m.

VII. AGENDA ITEMS (Continued)

E. Personnel Actions (A-1 for Approval)

President Lassner requested approval of the appointment of Ms. Camille Nelson as Dean of the William S. Richardson School of Law at UHM (Law School). He provided a brief background of Ms. Nelson stating that she has an exemplary and impressive record in higher education, specifically in the field of law, and received a unanimous recommendation of the search advisory committee. In light of this recommendation, the administration was requesting board approval of the appointment of Ms. Camille Nelson as Dean of the Law School.

Regent Acoba moved to approve the appointment of Ms. Camille Nelson as Dean of the Law School, seconded by Regent Wilson, and noting the excused absences of Vice-Chair Higaki and Vice-Chair Sullivan, the motion carried with all members present voting in the affirmative.

F. Discussion on Board and Committee Meetings for May and June 2020 Due to the COVID-19 Health Crisis

Chair Kudo remarked that the board is facing unprecedented times due to the COVID-19 public health crisis and that circumstances have required changes to occur with regard to board and committee meetings. He noted that the stay-at-home order is in effect until April 30, 2020, and that the Governor’s Emergency Proclamation suspending provisions of the sunshine law is in effect until May 15, 2020. As it still remains unknown whether these orders will be terminated or extended, and given the dynamics of the current situation, Chair Kudo stated that the Board Office will keep regents advised of the next board and committee meetings.

VIII. ANNOUNCEMENTS

Chair Kudo announced that the next board meeting was scheduled for May 21, 2020, at a location to be determined and that regents will be kept apprised of the details.

IX. ADJOURNMENT
There being no further business, Regent Wilson moved to adjourn, seconded by Regent Westerman, and noting the excused absences of Vice-Chair Higaki and Vice-Chair Sullivan, the motion carried, with all members present voting in the affirmative, and the meeting was adjourned at 12:41 p.m.

Respectfully Submitted,

Kendra Oishi
Executive Administrator and Secretary
of the Board of Regents
Item IV.

Report of the President: COVID-19 Update

NO MATERIALS

ORAL REPORT
MEMORANDUM

TO: Ben Kudo  
Chairperson, Board of Regents

VIA: David Lassner, President  
For University of Hawai‘i System

FROM: Tim Dolan, Vice President of Advancement  
University of Hawai‘i Foundation

SUBJECT: UH Foundation Report

DATE: Monday, May 11, 2020

Please find information submitted by the Foundation for the May 21, 2020 Board of Regents’ meeting:

- Funds Raised Leadership Report by Campus (FY 2013 through FY 2019, and FY20 as of 03/31/2020)
- Development Operations Report – Fiscal Year 2020 Progress (as of 03/31/20)
- Funds Raised by Source, Gift Type, Account Category and Purpose (as of 03/31/2020)
- University of Hawai‘i Foundation Financial Overview

Thank you for your assistance and please let us know if anything further is needed or required.

Attachments
# Funds Raised Leadership Report

By University of Hawaii System

7/1/2019 - 3/31/2020

(Gifts, Pledges, Matching Gifts, Gifts in Kind, Grants and Planned Gifts)

<table>
<thead>
<tr>
<th>Unit</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>FY20 (as of 3/31/2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hilo</td>
<td>$2,550,110</td>
<td>$2,513,051</td>
<td>$5,085,476</td>
<td>$4,474,538</td>
<td>$3,374,611</td>
<td>$3,164,767</td>
<td>$5,550,315</td>
<td>$2,444,470</td>
</tr>
<tr>
<td>West Oahu</td>
<td>$354,782</td>
<td>$279,445</td>
<td>$250,551</td>
<td>$1,025,088</td>
<td>$260,434</td>
<td>$658,248</td>
<td>$807,717</td>
<td>$880,873</td>
</tr>
<tr>
<td>Hawaii CC</td>
<td>$126,141</td>
<td>$151,124</td>
<td>$393,796</td>
<td>$394,554</td>
<td>$380,659</td>
<td>$738,565</td>
<td>$1,434,631</td>
<td>$634,538</td>
</tr>
<tr>
<td>Honolulu CC</td>
<td>$188,535</td>
<td>$223,620</td>
<td>$149,232</td>
<td>$706,851</td>
<td>$184,989</td>
<td>$157,165</td>
<td>$1,672,818</td>
<td>$470,738</td>
</tr>
<tr>
<td>Kapiolani CC</td>
<td>$3,982,552</td>
<td>$1,471,818</td>
<td>$3,640,822</td>
<td>$1,715,417</td>
<td>$1,857,661</td>
<td>$2,923,638</td>
<td>$4,433,028</td>
<td>$2,981,018</td>
</tr>
<tr>
<td>Kauai CC</td>
<td>$752,838</td>
<td>$1,441,752</td>
<td>$770,486</td>
<td>$993,102</td>
<td>$943,575</td>
<td>$807,288</td>
<td>$948,432</td>
<td>$648,768</td>
</tr>
<tr>
<td>Leeward CC</td>
<td>$254,645</td>
<td>$844,860</td>
<td>$295,590</td>
<td>$445,353</td>
<td>$356,323</td>
<td>$182,730</td>
<td>$281,192</td>
<td>$239,612</td>
</tr>
<tr>
<td>Maui College</td>
<td>$2,397,640</td>
<td>$985,726</td>
<td>$582,566</td>
<td>$1,595,151</td>
<td>$842,439</td>
<td>$911,719</td>
<td>$588,320</td>
<td>$966,027</td>
</tr>
<tr>
<td>Windward CC</td>
<td>$1,407,728</td>
<td>$920,251</td>
<td>$544,101</td>
<td>$659,461</td>
<td>$2,487,164</td>
<td>$370,285</td>
<td>$413,142</td>
<td>$1,789,653</td>
</tr>
<tr>
<td>Multi-Campuses</td>
<td>$4,846,313</td>
<td>$6,703,421</td>
<td>$6,910,141</td>
<td>$14,672,829</td>
<td>$9,953,389</td>
<td>$10,139,360</td>
<td>$6,790,812</td>
<td>$3,911,630</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>$66,312,644</strong></td>
<td><strong>$98,183,866</strong></td>
<td><strong>$129,072,952</strong></td>
<td><strong>$66,086,572</strong></td>
<td><strong>$77,650,977</strong></td>
<td><strong>$180,260,659</strong></td>
<td><strong>$71,617,038</strong></td>
<td><strong>$49,466,736</strong></td>
</tr>
</tbody>
</table>

*Beginning in FY2020, present value (PV) is used in funds raised calculations for deferred gifts. Prior to FY2020, face value (FV) is used.*
Fiscal Year 2020 Goal: $75.0 M
Fundraising Result (07/01/2019 - 03/31/2020): $49.5 M

<table>
<thead>
<tr>
<th>Account Type</th>
<th>Gifts &amp; Pledges</th>
<th>Deferred Gifts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endowment</td>
<td>$12,838</td>
<td>$1,055</td>
<td>$13,894</td>
</tr>
<tr>
<td>Expendable</td>
<td>$21,971</td>
<td>$3,745</td>
<td>$25,717</td>
</tr>
<tr>
<td>Revocable Deferred Gifts</td>
<td>$0</td>
<td>$5,444</td>
<td>$5,441</td>
</tr>
<tr>
<td>Gifts-In-Kind</td>
<td>$611</td>
<td>$0</td>
<td>$611</td>
</tr>
<tr>
<td>Grants Directly to UH</td>
<td>$2,805</td>
<td>$0</td>
<td>$2,805</td>
</tr>
<tr>
<td>Total</td>
<td>$38,225</td>
<td>$11,244</td>
<td>$49,467</td>
</tr>
</tbody>
</table>

Comparison to Previous Fiscal Year

<table>
<thead>
<tr>
<th></th>
<th>Number of Major Gifts</th>
<th>Major Gifts Total</th>
<th>Number of Annual Gift &lt;$25k</th>
<th>Annual Gift Total</th>
<th>Gift Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Fiscal Year</td>
<td>249</td>
<td>$40,420</td>
<td>19,201</td>
<td>$9,047</td>
<td>$49,467</td>
</tr>
<tr>
<td>Previous Fiscal Year</td>
<td>201</td>
<td>$36,248</td>
<td>20,160</td>
<td>$9,028</td>
<td>$45,276</td>
</tr>
<tr>
<td>Comparison</td>
<td>48</td>
<td>$4,172</td>
<td>(959)</td>
<td>$19</td>
<td>$4,191</td>
</tr>
</tbody>
</table>

249 major gifts accounted for 82% of the total funds raised
201 major gifts accounted for 80% of the total funds raised
Funds Raised By Source, Gift Type, Account Category and Purpose

Fiscal Year 2020
As of 3/31/2020
All dollars in thousands

Funds Raised by Source

- Alumni: $6,407 (13%)
- Corporations: $6,597 (13%)
- Faculty & Staff: $7,198 (15%)
- Other Individuals: $7,431 (15%)
- Foundations: $10,526 (21%)
- Other Organizations: $11,354 (23%)
- Gifts and Pledges: $2,308 (5%)
- Deferred Gifts: $611 (1%)
- Gift-In-Kind: $11,242 (23%)
- Grants: $34,816 (70%)

Funds Raised by Gift Type

- Gifts and Pledges: $611 (1%)
- Deferred Gifts: $11,242 (23%)
- Gift-In-Kind: $34,816 (70%)
- Grants: $611 (1%)

Funds Raised by Account Category

- Endowment: $25,717 (52%)
- Expendable: $6,441 (13%)
- Revocable Gifts: $6,407 (13%)
- Gift-In-Kind: $13,894 (28%)
- Grants: $5,489 (11%)

Funds Raised by Purpose

- Capital Improvement: $9,659 (20%)
- Faculty and Academic Support: $540 (1%)
- Research: $19,959 (40%)
- Student Aid and Services: $5,489 (11%)
- Other Programs: $13,819 (28%)
University of Hawaiʻi Foundation
Financial Overview
As of March 31, 2020
### UNIVERSITY OF HAWAII FOUNDATION

**Balance Sheet - Preliminary**

**3/31/2020**

(000)

<table>
<thead>
<tr>
<th></th>
<th>3/31/20</th>
<th>6/30/19</th>
<th>$ Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash &amp; cash equivalents</td>
<td>$18,777</td>
<td>$19,771</td>
<td>($994)</td>
<td>(5.0%)</td>
</tr>
<tr>
<td>Contributions receivable</td>
<td>35,104</td>
<td>35,811</td>
<td>(707)</td>
<td>(2.0%)</td>
</tr>
<tr>
<td>Other receivables &amp; prepaid expenses</td>
<td>2,287</td>
<td>2,073</td>
<td>214</td>
<td>10.3%</td>
</tr>
<tr>
<td>Investments</td>
<td>420,533</td>
<td>421,891</td>
<td>(1,358)</td>
<td>(0.3%)</td>
</tr>
<tr>
<td>Property &amp; equipment, at cost</td>
<td>net of depreciation and amortization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Split-interest agreements</td>
<td>18,702</td>
<td>17,799</td>
<td>903</td>
<td>5.1%</td>
</tr>
<tr>
<td>Interest in trusts held by others</td>
<td>32,296</td>
<td>31,917</td>
<td>379</td>
<td>1.2%</td>
</tr>
<tr>
<td>Other assets, at cost</td>
<td>2,350</td>
<td>3,700</td>
<td>(1,350)</td>
<td>(36.5%)</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>$540,306</td>
<td>$543,348</td>
<td>($3,042)</td>
<td>(0.6%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>3/31/20</th>
<th>6/30/19</th>
<th>$ Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIABILITIES &amp; NET ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liabilities:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amounts held for others</td>
<td>$4,584</td>
<td>$4,362</td>
<td>$222</td>
<td>5.1%</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>1,021</td>
<td>8,553</td>
<td>(7,532)</td>
<td>(88.1%)</td>
</tr>
<tr>
<td>Mortgage Loan</td>
<td>7,400</td>
<td>8,200</td>
<td>(800)</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>596</td>
<td>668</td>
<td>(72)</td>
<td>(10.8%)</td>
</tr>
<tr>
<td>Split-interest agreements liabilities</td>
<td>13,444</td>
<td>12,529</td>
<td>915</td>
<td>7.3%</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td>$27,045</td>
<td>$34,312</td>
<td>($7,267)</td>
<td>(21.2%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>3/31/20</th>
<th>6/30/19</th>
<th>$ Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Assets:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without donor restrictions</td>
<td>$5,094</td>
<td>$4,640</td>
<td>$454</td>
<td>9.8%</td>
</tr>
<tr>
<td>With donor restrictions</td>
<td>508,168</td>
<td>504,396</td>
<td>3,772</td>
<td>0.7%</td>
</tr>
<tr>
<td><strong>TOTAL NET ASSETS</strong></td>
<td>$513,262</td>
<td>$509,036</td>
<td>$4,226</td>
<td>0.8%</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES &amp; NET ASSETS</strong></td>
<td>$540,306</td>
<td>$543,348</td>
<td>($3,042)</td>
<td>(0.6%)</td>
</tr>
</tbody>
</table>
UNIVERSITY OF HAWAII FOUNDATION
Statement of Operations - Unaudited
For the Nine Month Period Ending March 31, 2020, 2019, 2018, and 2017

<table>
<thead>
<tr>
<th></th>
<th>9 month ending</th>
<th>9 month ending</th>
<th>9 month ending</th>
<th>9 month ending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>March 31, 2017</td>
<td>March 31, 2018</td>
<td>March 31, 2019</td>
<td>March 31, 2020</td>
</tr>
<tr>
<td><strong>REVENUES:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrestricted gifts</td>
<td>$230,582</td>
<td>$819,759</td>
<td>$225,613</td>
<td>$360,419</td>
</tr>
<tr>
<td>Income from expendable accounts</td>
<td>$1,851,513</td>
<td>$1,901,390</td>
<td>$2,526,668</td>
<td>$2,946,218</td>
</tr>
<tr>
<td>Income from endowment accounts</td>
<td>$2,586,969</td>
<td>$2,884,927</td>
<td>$3,057,371</td>
<td>$3,190,959</td>
</tr>
<tr>
<td>Service fee on gifts and non-gifts</td>
<td>$1,486,817</td>
<td>$1,713,511</td>
<td>$1,844,438</td>
<td>$2,157,058</td>
</tr>
<tr>
<td>Alumni Relations revenue</td>
<td>$20,032</td>
<td>$21,638</td>
<td>$22,669</td>
<td>-</td>
</tr>
<tr>
<td>UH contract for services</td>
<td>$2,250,000</td>
<td>$2,250,000</td>
<td>$2,250,000</td>
<td>$2,250,000</td>
</tr>
<tr>
<td>Other payments for services from UH, &amp; UHAA</td>
<td>$368,644</td>
<td>$233,966</td>
<td>$255,994</td>
<td>$327,628</td>
</tr>
<tr>
<td><strong>Total Revenues</strong></td>
<td>$8,794,557</td>
<td>$9,825,192</td>
<td>$10,182,754</td>
<td>$11,232,282</td>
</tr>
<tr>
<td><strong>EXPENSES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>$5,130,737</td>
<td>$4,611,128</td>
<td>$4,605,242</td>
<td>$4,372,060</td>
</tr>
<tr>
<td>Program</td>
<td>865,957</td>
<td>1,017,404</td>
<td>925,315</td>
<td>894,810</td>
</tr>
<tr>
<td>Campaign</td>
<td>67,198</td>
<td>85,582</td>
<td>33,245</td>
<td>3,200</td>
</tr>
<tr>
<td>Alumni Relations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>311,278</td>
<td>348,742</td>
<td>386,586</td>
<td>403,536</td>
</tr>
<tr>
<td>Program</td>
<td>47,850</td>
<td>47,547</td>
<td>53,333</td>
<td>39,027</td>
</tr>
<tr>
<td>Service &amp; Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>2,278,011</td>
<td>2,343,846</td>
<td>2,560,082</td>
<td>2,225,836</td>
</tr>
<tr>
<td>Program</td>
<td>1,000,603</td>
<td>667,847</td>
<td>871,311</td>
<td>460,607</td>
</tr>
<tr>
<td>UH Support Fund</td>
<td>112,613</td>
<td>112,500</td>
<td>112,500</td>
<td>112,500</td>
</tr>
<tr>
<td>King Street Office</td>
<td>-</td>
<td>-</td>
<td>185,230</td>
<td>414,061</td>
</tr>
<tr>
<td>Atherton</td>
<td>176,704</td>
<td>215</td>
<td>52,394</td>
<td>20,223</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>$9,990,951</td>
<td>$9,234,811</td>
<td>$9,785,239</td>
<td>$8,945,860</td>
</tr>
<tr>
<td><strong>Total Net Revenues Over(Under) Expenses</strong></td>
<td>$(1,196,394)</td>
<td>$590,381</td>
<td>$397,515</td>
<td>$2,286,422</td>
</tr>
</tbody>
</table>
### Funds Expended by Purpose

<table>
<thead>
<tr>
<th>Purpose</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Aid &amp; Services</td>
<td>$7,010</td>
<td>$7,108</td>
<td>$9,298</td>
<td>$10,508</td>
</tr>
<tr>
<td>Faculty &amp; Academic Support</td>
<td>$6,388</td>
<td>$6,170</td>
<td>$6,846</td>
<td>$8,465</td>
</tr>
<tr>
<td>Research</td>
<td>$7,723</td>
<td>$6,093</td>
<td>$7,355</td>
<td>$8,378</td>
</tr>
<tr>
<td>Capital Projects</td>
<td>$2,746</td>
<td>$1,320</td>
<td>$3,377</td>
<td>$1,300</td>
</tr>
<tr>
<td>Athletics</td>
<td>$1,457</td>
<td>$1,718</td>
<td>$1,868</td>
<td>$1,743</td>
</tr>
<tr>
<td>Other Programs</td>
<td>$5,293</td>
<td>$5,445</td>
<td>$5,396</td>
<td>$6,070</td>
</tr>
<tr>
<td>Total</td>
<td>$31,416</td>
<td>$27,954</td>
<td>$31,089</td>
<td>$36,461</td>
</tr>
</tbody>
</table>

As of March 31

All dollars in thousands
Funds Expended by UH Programs, continued

Fiscal Years 2017-2020

As of March 31

All dollars in thousands

<table>
<thead>
<tr>
<th>Year</th>
<th>Student Aid &amp; Services</th>
<th>Faculty &amp; Academic Support</th>
<th>Research</th>
<th>Athletics</th>
<th>Capital Projects</th>
<th>Other Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$1,504</td>
<td>$1,375</td>
<td>$1</td>
<td>$1,582</td>
<td>$1,920</td>
<td>$97</td>
</tr>
<tr>
<td>2018</td>
<td>$1,341</td>
<td>$1,345</td>
<td>$1</td>
<td>$1,704</td>
<td>$1,104</td>
<td>$97</td>
</tr>
<tr>
<td>2019</td>
<td>$1,007</td>
<td>$1,298</td>
<td>$1</td>
<td>$1,216</td>
<td>$1,170</td>
<td>$97</td>
</tr>
<tr>
<td>2020</td>
<td>$3,021</td>
<td>$1,622</td>
<td>$1</td>
<td>$1,492</td>
<td>$1,170</td>
<td>$97</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Student Aid &amp; Services</th>
<th>Faculty &amp; Academic Support</th>
<th>Research</th>
<th>Capital Projects</th>
<th>Other Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$17,000</td>
<td>$15,567</td>
<td>$1,376</td>
<td>$1,288</td>
<td>$1,364</td>
</tr>
<tr>
<td>2018</td>
<td>$16,443</td>
<td>$15,597</td>
<td>$1,286</td>
<td>$1,319</td>
<td>$1,204</td>
</tr>
<tr>
<td>2019</td>
<td>$16,087</td>
<td>$15,176</td>
<td>$1,354</td>
<td>$1,286</td>
<td>$1,286</td>
</tr>
<tr>
<td>2020</td>
<td>$16,462</td>
<td>$15,275</td>
<td>$1,354</td>
<td>$1,286</td>
<td>$1,286</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Student Aid &amp; Services</th>
<th>Faculty &amp; Academic Support</th>
<th>Research</th>
<th>Capital Projects</th>
<th>Other Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$18,000</td>
<td>$16,530</td>
<td>$1,364</td>
<td>$1,204</td>
<td>$1,364</td>
</tr>
<tr>
<td>2018</td>
<td>$17,000</td>
<td>$16,564</td>
<td>$1,319</td>
<td>$1,204</td>
<td>$1,319</td>
</tr>
<tr>
<td>2019</td>
<td>$16,087</td>
<td>$16,087</td>
<td>$1,286</td>
<td>$1,286</td>
<td>$1,286</td>
</tr>
<tr>
<td>2020</td>
<td>$16,462</td>
<td>$16,462</td>
<td>$1,286</td>
<td>$1,286</td>
<td>$1,286</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Student Aid &amp; Services</th>
<th>Faculty &amp; Academic Support</th>
<th>Research</th>
<th>Capital Projects</th>
<th>Other Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$18,000</td>
<td>$17,000</td>
<td>$1,376</td>
<td>$1,204</td>
<td>$1,364</td>
</tr>
<tr>
<td>2018</td>
<td>$17,000</td>
<td>$17,000</td>
<td>$1,319</td>
<td>$1,204</td>
<td>$1,319</td>
</tr>
<tr>
<td>2019</td>
<td>$16,087</td>
<td>$16,087</td>
<td>$1,286</td>
<td>$1,286</td>
<td>$1,286</td>
</tr>
<tr>
<td>2020</td>
<td>$16,462</td>
<td>$16,462</td>
<td>$1,286</td>
<td>$1,286</td>
<td>$1,286</td>
</tr>
</tbody>
</table>
Item VI.A
Report from the Committee on Academic and Student Affairs

NO MATERIALS
ORAL REPORT
Item VI.B
Report from the Committee on Personnel Affairs and Board Governance

NO MATERIALS
ORAL REPORT
Item VI.C.
Affiliate Reports

NO MATERIALS
ORAL REPORTS
March 12, 2020

MEMORANDUM

TO: Benjamin Asa Kudo
   Chair, Board of Regents

VIA: David Lassner
     President

VIA: Don Straney
     Vice President for Academic Planning and Policy

VIA: Michael Bruno
     Provost

VIA: Laura Lyons
     Interim Associate Vice Chancellor for Academic Affairs

FROM: Noreen Mokuau, Dean
      Office of Public Health Studies
      Myron B. Thompson School of Social Work

SUBJECT: REQUEST FOR ESTABLISHED STATUS FOR THE BACHELOR OF ARTS DEGREE IN PUBLIC HEALTH (BA PH) AT THE UNIVERSITY OF HAWAI'I AT MĀNOA

SPECIFIC ACTION REQUESTED:
It is respectfully requested that the Board of Regents grant established status to the Bachelor of Arts degree in Public Health (BA PH) in the Office of Public Health Studies at the Myron B. Thompson School of Social Work at the University of Hawai'i at Mānoa.

RECOMMENDED EFFECTIVE DATE:
Effective upon Board approval.

ADDITIONAL COST:
There are no additional costs associated with this request.
PURPOSE:
The Bachelor of Arts degree in Public Health (BA PH) is designed to educate undergraduates interested in public health and/or health profession training in the broad basic concepts of population-level health education, practice, and research, and promote an educated citizenry. The primary focus of public health education is to improve health and quality of life through population-based prevention and treatment of disease and other physical and mental health conditions, through surveillance of health outcomes and the promotion of healthy behaviors.

The BA PH program intends to prepare students for future careers in a wide array of career fields within public health. The Association of Schools and Programs of Public Health (ASPPH) has identified over 25 areas of specialization for students seeking a career in public health including injury prevention, HIV/AIDS, health policy and planning, tobacco control, health economics, reproductive health, food safety, program evaluation, minority health, geriatrics, health statistics, and more. These job categories are growing, locally, nationally, and internally.

Potential career paths in public health are wide-ranging, including epidemiology, biostatistics, public health administration, health policy planning and development, social and behavioral aspects of health, and environmental health. In some cases, public health professionals additionally specialize in other health professions, such as medicine, nursing, pharmacy, dentistry, or social work. Public health workers possessing a bachelor’s degree in public health can expect to be prepared directly for entry-level public health positions that are meaningful, professional jobs.

BACKGROUND:
According to the U.S. Department of Labor, the health sciences field represents the largest single industry in the U.S., accounting for 14.3 million jobs across 200 different fields. In addition, seven of the 20 fastest growing occupations are health-related, generating 3.25 million new jobs between 2008 and 2018, a 22 percent increase, or double the growth of all other industries combined. In the future, it is anticipated there will be a growing need for health promotion professionals as a result of rising incidence of chronic disease, rising health care costs driving intervention strategies, increased need for research in the area of disease prevention, the aging work force, technological advances, and increased demand for consultants.

The public health workforce in the U.S. is shrinking, with 23% of the current workforce (almost 110,000 workers) eligible for retirement by 2012. Nationally, existing schools of public health would have to train nearly three times the number of current graduates to meet this projected demand. Our program has grown notably since its inception with 66 students in Spring 2014 and 165 students in Fall 2019. We expect this program to continue to grow over time. With topic experiences, including the novel corona virus (COVID-19), we anticipate meeting community needs and contributing to market growth.

ACTION RECOMMENDED:
It is respectfully recommended that the Board of Regents grant established status to the Bachelor of Arts degree in Public Health in the Office of Public Health Studies at the Myron B. Thompson School of Social Work at the University of Hawai‘i at Mānoa.

Attachment: Provisional Review for the Bachelor of Arts (BA) degree in Public Health

cc: Executive Administrator and Secretary of the Board Kendra Oishi
Review of Provisional Academic Program to Established Status

Bachelor of Arts (BA) degree in Public Health

Office of Public Health Studies
Myron B. Thompson School of Social Work
University of Hawai‘i at Mānoa

March 2020
Program Overview ........................................................................................................................... 4
1. Is the program organized to meet its objectives? ...................................................................... 4
   Program Objectives ..................................................................................................................... 4
   Council on Education for Public Health Bachelor’s Degree Curriculum Requirements ......... 5
   Bachelor of Arts in Public Health Program Curriculum .......................................................... 5
      Program Requirements: Bachelor of Arts in Public Health Degree ....................................... 5
      Admission Requirements ........................................................................................................ 6
      Program Requirements: UHM General Education & College/School Requirements .......... 7
      Undergraduate Culminating Experience ............................................................................... 7
   Program Revisions ....................................................................................................................... 8
   Academic Advising ..................................................................................................................... 9
      Advising Student Learning Outcomes (SLO’s) ...................................................................... 9
   Future Plans of Program Growth and Development ............................................................... 10
2. Are program resources adequate? ............................................................................................ 11
   Budget ....................................................................................................................................... 11
3. Is the program efficient? ........................................................................................................... 11
   Program Enrollment .................................................................................................................. 11
   Program Completion .................................................................................................................. 12
   Courses & Student Semester Hours Offered ............................................................................. 12
   Average Enrollment/Class Size Per Course ............................................................................. 12
   Service to Non-Majors ............................................................................................................... 12
   Employment of Graduates ........................................................................................................ 13
   Enrollment in Graduate Programs ............................................................................................. 14
   Recruitment Activities ............................................................................................................. 14
4. Evidence of student learning, and student and program success ........................................... 14
   Program Assessment Plan ......................................................................................................... 14
   Exit Survey .................................................................................................................................. 15
   Other Indicators of Program Quality ........................................................................................ 15
      Publications Focused on the BA PH Program ..................................................................... 15
      Student Publications Resulting from BA PH Experience ...................................................... 16
      Awards to Faculty and Students ........................................................................................... 17
5. Are program objectives still appropriate functions of the College and University? ................. 18
   Relationship to State, University, Campus Mission and Development Plans ....................... 18
Program Overview

We are happy to share that the Bachelor of Arts degree in Public Health (BA PH) in the Office of Public Health Studies (OPHS) in the Myron B. Thompson School of Social Work, initially approved by the University of Hawai‘i Board of Regents in September 2014, has completed its tenure as a provisional program and is meeting its planned objectives. We are successfully training University of Hawai‘i at Mānoa undergraduate students towards population-level health education, practice, and research that build opportunities for careers in the critically important area of public health, and promote an educated citizenry. The program is fully accredited by the Council on Education for Public Health (CEPH) and shows clear evidence of growth, momentum, relevance, and sustainability, which is highlighted in more detail in this report.

The BA PH program is a vital component of the OPHS degree programs, which include graduate degrees for which the BA PH program has been a fruitful pipeline. The program has adequate resources to support it over time. We have detailed the program related to its target goals below. Evidence of program success include consistent and increasing student enrollment in our courses, publication of undergraduate student work in academic journals, gainful employment of our BA PH graduates, and peer-reviewed publications by faculty highlighting innovative educational practices and demonstrated effectiveness of BA PH courses. We also include several appendices with additional information.

Service to our university, local, and Pacific community is also a major value of OPHS. The BA PH program contributes graduates to address community workforce needs, provides service to community organizations through required student field experiences, and contributes to the professional field of public health through undergraduate research products. BA PH faculty also serve as a resource to other health-related undergraduate programs across the University of Hawai‘i system, including the University of Hawai‘i at Hilo (Health Promotions program), University of Hawai‘i at West O‘ahu (Community Health program), Maui College, and most recently Kaua‘i Community College.

In the report that follows we provide evidence to demonstrate success of the BA PH degree as a provisional program, and as a valuable component of the University of Hawai‘i and, in doing so, respectfully petition for approval as an established program.

1. Is the program organized to meet its objectives?

Program Objectives
The Bachelor of Arts degree in Public Health (BA PH) is designed to educate undergraduates interested in public health and/or health profession training in the broad basic concepts of population-level health education, practice, and research, and promote an educated citizenry. The primary focus of public health education is to improve health and quality of life through the
population-based prevention and treatment of disease and other physical and mental health conditions, through surveillance of health outcomes and the promotion of healthy behaviors.

The BA PH program intends to prepare students for future careers in a wide array of career fields within public health. The Association of Schools and Programs of Public Health (ASPPH) has identified over 25 areas of specialization for students seeking a career in public health including injury prevention, HIV/AIDS, health policy and planning, tobacco control, health economics, reproductive health, food safety, program evaluation, minority health, geriatrics, health statistics, and more. These job categories are growing, locally, nationally, and internally.

Potential career paths in public health are wide-ranging, including epidemiology, biostatistics, public health administration, health policy planning and development, social and behavioral aspects of health, and environmental health. In some cases, public health professionals additionally specialize in other health professions, such as medicine, nursing, pharmacy, dentistry, or social work. Public health workers possessing a bachelor’s degree in public health can expect to be prepared directly for entry-level public health positions that are meaningful, professional jobs.

Thus, the UH BA PH serves local, national, and global workforce and training needs in critical areas of health. It prepares students for graduate degree programs. More specialized and management level positions in public health typically require a master’s degree or higher. A background from the UH BA PH can also provide a valuable background in population health for medical school, nursing school, and other graduate/professional degrees in the clinical health professions and beyond. Public health education at the baccalaureate level is becoming the common academic thread for entry level into public health across the United States. In addition to meeting the national call for education in public health, the UH BA PH also addresses current and anticipated public health workforce shortages within local communities and abroad.

**Council on Education for Public Health Bachelor’s Degree Curriculum Requirements**

As a Bachelor’s degree accredited by the Council on Education for Public Health (CEPH) by 2013 (the first year CEPH offered accreditation of bachelor degrees), the BA PH program has consistently demonstrated the ability to meet, and excel, on all set criteria. This includes the fact that CEPH accreditation criteria has evolved as undergraduate public health education has developed and expanded worldwide since the early 2010’s. Our program has consistently demonstrated compliance with all CEPH criteria.

**Bachelor of Arts in Public Health Program Curriculum**

Our program meets all programmatic and accreditation goals through the following course requirements.

**Program Requirements: Bachelor of Arts in Public Health Degree**
43 major credits (46 credits with related degree requirements) are required to graduate with a Bachelor of Arts degree in Public Health.

Public Health Related Courses (3 credits)
PSY100 – Survey of Psychology (3 cr) (DS)

Public Health Major Core Courses (31 credits)
PH201 – Intro to Public Health (3 cr) (DS)
PH202 – Public Health Issues in Hawai‘i (3 cr)
PH203 – Introduction to Global Health (3 cr)
PH210 – Quantitative Reasoning for Public Health (3 cr) (FQ)
PH310 – Introduction to Epidemiology (3 cr)
PH341 – Public Health Biology and Pathophysiology (3 cr) (DB)
PH420 – Social Behavioral Health I: Health Promotion for Individuals and Groups (3 cr)
PH480 – Application of Public Health Principles in Research and Practice (4 cr) (WI)
PH485 – Public Health Applied Learning Experience (3 cr)
PH489 – Public Health Undergraduate Capstone Seminar (3 cr) (WI)

Public Health Elective Courses (12 credits)
PH301 – Seminar in Public Health Issues (3 cr)
PH305 – Native Hawaiian and Indigenous Health (3 cr)
PH325 – Youth Risk and Protection - Public Health Research, Practice & Policy (3 cr)
PH330 – The United States Health Care System (3 cr)
PH340 – Public Health and the Environment (3 cr)
PH350 – Introduction to Biostatistics (3 cr)
PH410 – Advanced Epidemiology (3 cr) (WI)
PH411 – Nutrition and Disease Prevention (3 cr)
PH420 – Social Behavioral Health I: Health Promotion for Individuals and Groups (3 cr)
PH422 – Social Behavioral Health II: Health Promotion in Communities (3 cr)
PH430 – Health Policy and Management (3 cr)
PH435 – Aging in Today’s Society (3 cr) (WI)
PH445 – Introduction to Environmental Microbiology (3 cr)
PH460 – Social Determinants of Indigenous People’s Health (3 cr)
PH492 (Alpha) – Current Issues & Topics in PH (variable credit)
PH499 – Directed Reading (variable credit)

Since public health is by nature interdisciplinary, students are encouraged to take electives in areas outside of the department. Students can refer to the list of recommended electives offered in other departments for students in Public Health to consider in completing their 12 credits of advisor-approved upper division public health electives.

Admission Requirements
Incoming students. Students applying to the University of Hawai‘i at Mānoa (UHM) as a freshman or transfer student may declare the Bachelor of Arts degree in Public Health as their
major upon entry. To stay in this major, they must complete PH 201 Introduction to Public Health with a B- or better.

*Current students.* All current UHM students requesting to change their major to the BA PH from other departments must first complete PH 201 Introduction to Public Health with a B- or better before declaring Public Health as their major. Students must fill out the major declaration form and meet with an academic advisor.

*Concurrent degree students.* Students may choose to pursue a concurrent degree in any UHM college/school in addition to a BA PH degree. The consideration of an additional field of study can increase knowledge, diversify perspectives, and enhance personal education as well as professional growth. Requirements for admission into the BA PH program as a concurrent degree includes completion of PH 201 Introduction to Public Health with a B- or better, a cumulative GPA of 3.25 or better, approval from the current advisor, and a statement of purpose from the applicant. Students must complete the concurrent degree declaration form.

**Program Requirements: UHM General Education & College/School Requirements**
We follow all UH requirements. To graduate from UH Mānoa, a student must satisfy (a) UHM General Education requirements, (b) requirements of the student’s college or school, and (c) requirements of the student’s specific academic major.

**Credits:**
- Students must earn a minimum of 120 total applicable credits, of which
  - 45 credits must be upper division (300-level and above); and
  - 30 credits must be completed in residence at UH Mānoa

**GPA:**
- Cumulative GPA of 2.5 (C average) or higher for all UH Mānoa registered credits in order to graduate; and
  - GPA of 2.0 (C average) for all courses applied to the major requirements
  - Grades of C (not C-) or higher in any required public health degree course completed at UH Mānoa

**Graduation:**
- Completion of a Graduation Worksheet to the Student Academic Services Office at least two semesters preceding the award of the degree;
- Completion of an application for graduation to the Student Academic Services Office in the semester preceding the award of the degree; and
- Completion of an exit survey

**Undergraduate Culminating Experience**
One of the key components of the BA PH is the Applied Learning Experience (APLE) series. The culminating experience in the BA program provides students the opportunity to actively apply classroom knowledge and associated skills to real-world application in the public health field. This is facilitated by a three-course series required for graduation within the BA PH degree: PH 480 Application of Public Health Principles in Research and Practice, PH 485 Applied Learning
Experience, and PH 489 Public Health Undergraduate Capstone Seminar. OPHS faculty, as well as other mentors appropriate to the individual student project across the state and, depending on student needs and interests, in national and even international settings, guide the capstone experience. OPHS faculty are also the primary instructors of the PH 480, 485, and 489 courses and advise students throughout project development. Additional OPHS faculty members, other University of Hawai‘i at Mānoa faculty, or approved community experts are encouraged to serve as advisors and mentors to specific Applied Learning Experience projects, as appropriate to the student selected topics.

APLE projects have resulted in 6 articles in publication or under review, as well as awards and presentations at conference. Some examples of successful projects include:

- Association of Health Literacy with Cardiovascular Disease in Chinese Americans (published in the *Hawai‘i Journal of Medicine and Public Health*)
- “What I Chose” (Fictional novella on youth suicide prevention, written by a BA PH student using safe messaging guidelines; professionally published- CreateSpace Independent Publishing Platform)
- Elevated Levels of Circulating y-Tocopherol as a Surrogate Marker of Mortality Risk in Populations of Adult Men Stratified by Health Index Score (Published in the *The FASEB Journal*)
- Expanding Services for Children with Congenital Zika Syndrome in American Samoa (Conducted in collaboration with the American Samoa Department of Health)
- The Effects of Climate Change and Poor Solid Waste Management on Water Security in Kivalina, Alaska (Conducted in collaboration with the Alaska Native Tribal Health Consortium-National Tribal Water Center)

Students present their literature review/capstone project proposals and their final, completed work during a student showcase, the Office of Public Health Studies’ Undergraduate Summit, each spring and fall. This is a major event for the department, receiving visitors from faculty in OPHS and other units, mentors, and other community partners. The students each create a poster, practice their presentation, and share their work for an hour in a public forum. This is extremely well received by faculty, alumni, and community members.

**Program Revisions**

Adjustments to the program have been made from what was originally approved by the Board of Regents based on demonstrated student needs and for improved alignment with national degree standards. These have all been submitted and approved by both the OVCAA’s office and CEPH.

Many of our students struggle with mastery of quantitative skills, however, these are critical for successful public health professionals and educated citizens. Applied quantitative skills are
especially important in preparation for our required epidemiology course work. To better prepare students for quantitative skills within a public health context, we developed, and implemented our own quantitative reasoning course. PH 210 (Quantitative Reasoning for Public Health) includes student development of applied skills in logical reasoning, quantitative reasoning, and statistics. This course is offered in an asynchronous online format to address UHM initiatives promoting the development of online coursework. We also applied for, and received, a UHM core general education designation in Symbolic Reasoning (FQ). With the development and implementation of PH 210 as a BA PH degree requirement in Spring 2018, our original statistics course and MATH 140 (Pre-calculus) degree requirements were identified as redundant in our curriculum, and removed.

As the number of undergraduate degrees across the nation expanded, national standards and recommendations continued to evolve. Through our published academic scholarship and supportive relationships with peer institutions, our program helped inform this evolution, but also responded to changes in recommendations. One identified gap in our curriculum included a course specifically dedicated to health education and the application of social and behavioral theories to behavioral changes. While our program did offer an elective course in social and behavioral health (PH 420), this course was not a degree requirement. In response to national recommendations, and with expanded instructional capacity provided by an incoming faculty member, our existing course was added to our curriculum as a BA PH requirement in Spring 2018.

Further development and support of written communication skills is a current, and growing, need among our BA PH students. It is also a nationally identified priority among employers of bachelor degree graduates. Many students enter our program with limited confidence in their own writing skills and poor preparation for college-level writing. To address this challenge, we developed, and are currently pilot testing, a 1-credit writing workshop to be added to our required pre-capstone course (PH 480). A proposal for modification of the PH 480 course to change the credit count from 3-credits to 4-credits, (accounting for the newly required writing workshop), has been approved by the OPHS faculty in Fall 2019 and has recently been approved by the OVCAA’s office. The 4-credit PH 480 course will be required for BA PH students effective this Fall 2020.

**Academic Advising**

The Office of Public Health Studies provides advising and academic resources for undergraduate students including prospective, current, and students who recently graduated from the program. The advisor serves as a valuable resource who helps students navigate through their academic journey by working with students to clarify life and career goals, create academic and educational plans, learn decision-making skills, and solve problems affecting their education.

**Advising Student Learning Outcomes (SLO's)**

We have thoughtfully considered our student learning outcomes relative to our goals for students across each semester to document their expected growth and competencies. The BA PH Academic Advising SLOs statements articulate what students are expected to know, do, and
value. The BA PH academic advising process specifically allows and expects students to experience cognitive, behavioral and affective learning and growth.

SLO 1: Students will be able to navigate STAR to track their academic progress and formulate an educational plan that will assist them in achieving their goals.

SLO 2: Students will be able to identify College and University resources and policies that enhance their educational experience.

SLO 3: Student will be able to identify their interests, strengths, values, and formulate an academic pathway that aligns these with their career goals.

SLO 4: Student will be able to prepare for capstone applied learning experience, graduation, and if applicable graduate school opportunities.

In lieu of a paper student handbook, to follow student preferences, undergraduate student resources are available on our website (http://manoa.hawaii.edu/publichealth). Information regarding our program, including BA degree requirements, a list of approved non-Public Health elective courses, the capstone experience, and academic advising is available at http://manoa.hawaii.edu/publichealth/degrees/undergraduate/sample.

Future Plans of Program Growth and Development
The role of the academic advising is vital to not only advise students but also to increase student support, recruitment efforts, to link more specifically with the MPH program, and provide new scholarship and publish in this domain. In the future, we intend to petition for a permanent, tenure-track faculty line in efforts to sustain the current specialist-level advisor role as our program continues to expand. We are also considering more online course offerings for the basic courses, including our introduction to public health course (PH 201). We also intend to strengthen training in basic written and oral communication skills of our students, based on assessed student need. We have been collaborating with Kaua’i Department of Health and Kaua’i College to provide basic public health courses to meet their needs. We also received a multi-unit award to support undergraduate learning and experiences in OneHealth, which is at the nexus of human, animal, and environmental health. We are offering a summer undergraduate elective course on this subject.
2. Are program resources adequate?

The program resources are adequate to support the program. Early in development of the BA PH program, faculty were shared among the bachelors, masters, and doctoral degree programs. Today, the BA PH program has three dedicated tenure-track faculty members. They are all new hires at the Assistant Professor level. The specialist advisor is also a faculty member who works closely with the undergraduate program. One of these faculty members additionally serves an administrative role as the degree program chair. These dedicated undergraduate faculty members are the primary instructors responsible for eight of ten of our required major core courses. The additional two courses are taught by two tenured faculty in the epidemiology specialization who voluntarily adjusted their teaching responsibilities to offer support to the growing bachelor’s degree. The BA PH program also has faculty who provide support for the field experience. Last year, the graduate-level practicum coordinator retired. Her replacement hire, (a tenure-track Associate Specialist), now serves as the shared field experience coordinator for placement and supervision of both graduate and undergraduate field experience requirements.

To support course instruction and student skill development, OPHS has also invested in graduate teaching assistant (TA) support. We originally TAs to help with the introductory courses, and have since added another. We are considering more growth in supporting student basic writing skills, with an additional position currently in recruitment for a writing TA to be shared with the MPH capstone class.

Budget

Since its development, the undergraduate program has been cost positive to our department. Our tuition revenue from the undergraduate program has helped to support OPHS overall as enrollment in graduate degrees has declined in Hawai‘i, in a trend consistent across the US. While our personnel costs have expanded to meet growing student demand and increasing need for student support, our revenue from both general and tuition sources has been more than adequate.

3. Is the program efficient?

Program Enrollment

Given its high relevance to the workforce and student interests, the BA PH program has been growing rapidly. Our enrollments have consistently exceeded our original targets by three-fold, as is evidenced in Figure 1 below.

Figure 1. Enrollment

<table>
<thead>
<tr>
<th>ENROLLMENT</th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
<th>YEAR 4</th>
<th>YEAR 5</th>
<th>YEAR 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Actual</td>
<td>66</td>
<td>120</td>
<td>148</td>
<td>149</td>
<td>170</td>
<td>165</td>
</tr>
</tbody>
</table>
**Program Completion**
We have consistently exceeded our graduation targets for the program (see Figure 2) while maintaining our original commitment to operate without new resources. Past program needs have been met by reallocation of existing faculty and facilities resources within the department.

**Figure 2. Completion**

<table>
<thead>
<tr>
<th>COMPLETION</th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
<th>YEAR 4</th>
<th>YEAR 5</th>
<th>YEAR 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Actual</td>
<td>0</td>
<td>11</td>
<td>33</td>
<td>56</td>
<td>40</td>
<td>46</td>
</tr>
</tbody>
</table>

**Courses & Student Semester Hours Offered**
Student semester hours have increased since initial program launch (see Figure 3). The number of courses offered initially increased, but have declined over the last two years due to limited instructional capacity to offer elective courses, and increased class size among required courses.

**Figure 3. Courses, Sections, SSH**

<table>
<thead>
<tr>
<th>COURSES, SECTIONS, SSH</th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
<th>YEAR 4</th>
<th>YEAR 5</th>
<th>YEAR 6</th>
</tr>
</thead>
<tbody>
<tr>
<td># Courses Offered</td>
<td>9</td>
<td>22</td>
<td>33</td>
<td>33</td>
<td>36</td>
<td>29</td>
</tr>
<tr>
<td># Sections Offered</td>
<td>10</td>
<td>24</td>
<td>38</td>
<td>34</td>
<td>40</td>
<td>38</td>
</tr>
<tr>
<td>Annual SSH</td>
<td>486</td>
<td>1,701</td>
<td>2,494</td>
<td>2,352</td>
<td>2,270</td>
<td>2,599</td>
</tr>
</tbody>
</table>

**Average Enrollment/Class Size Per Course**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Average Enrollment 2014-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH201</td>
<td>77</td>
</tr>
<tr>
<td>PH202</td>
<td>36</td>
</tr>
<tr>
<td>PH203</td>
<td>35</td>
</tr>
<tr>
<td>PH210</td>
<td>36</td>
</tr>
<tr>
<td>PH310</td>
<td>25</td>
</tr>
<tr>
<td>PH341</td>
<td>29</td>
</tr>
<tr>
<td>PH420</td>
<td>26</td>
</tr>
<tr>
<td>PH480</td>
<td>28</td>
</tr>
<tr>
<td>PH485</td>
<td>21</td>
</tr>
<tr>
<td>PH489 (WI)</td>
<td>17</td>
</tr>
</tbody>
</table>

**Service to Non-Majors**
Non-majors can learn more about public health through our Minor in Public Health. The primary objective of the Public Health minor is to give students pursuing other degree programs a population/community perspective of health that has diverse applications for graduate
programs and in health careers. Students will be able to make connections between their area of study and public health concepts including injury and disease prevention, laws and policies, and understanding health disparities. Non-majors can also choose to take PH 201 – Introduction to Public Health to satisfy the Social Sciences (DS) Diversification Requirement for general education requirements. This class is a major recruiting tool for public health as approximately 30% of students do decide to major in public health, and an additional 10-20% decide to minor. We believe this speaks to the relevance of public health to student needs, interests, and experiences.

Employment of Graduates
The BA PH program collects and analyzes data on graduates’ employment or enrollment in further education post-graduation. Data collection methods are explicitly designed to minimize the number of students with unknown outcomes. Data for employment and post-graduation placement is collected within approximately one year after graduation, since collecting data shortly before or at the exact time of graduation will result in underreporting of employment outcomes for individuals who begin their career search after graduation. The program achieves rates of 80% or greater employment or enrollment in continuing education.

<table>
<thead>
<tr>
<th></th>
<th>AY 2016 – AY 2018 BA PH Graduates Employment and Continuing Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>63</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>39</td>
</tr>
<tr>
<td>Seeking Employment</td>
<td>7</td>
</tr>
<tr>
<td>Not Seeking Employment</td>
<td>5</td>
</tr>
<tr>
<td>Unknown</td>
<td>15</td>
</tr>
</tbody>
</table>

The BA PH program aims to support local workforce needs and contribute to the creation of today's global citizens and tomorrow's public health leaders. 48% of BA PH graduates are currently employed, while 30% of BA PH graduates have progressed to graduate degree programs. BA PH graduates are employed in various settings in the community including:

- American Lung Association- Hawai‘i
- American Samoa Government
- Early Childhood Action Strategy
- Hawai‘i Health & Harm Reduction Center
- HCAP- Honolulu Community Action Program
- Healthy Mothers, Healthy Babies
- HMSA
- PATCH- People Attentive to Children
- Queen's Medical Center
- UH Cancer Center
- UH Center on Aging
Enrollment in Graduate Programs
The diversity of careers for which BA PH training is relevant can be seen in the array of areas students chose to pursue following graduation with a BA PH. The high percentage pursuing graduate study also clearly demonstrates the excellent training received in the program, recognized by their acceptance into graduate programs.

<table>
<thead>
<tr>
<th>AY 2016 – AY 2018 BA in Public Health Graduates Continuing Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master in Public Health</td>
</tr>
<tr>
<td>Master in Social Work</td>
</tr>
<tr>
<td>Master in Health Admin</td>
</tr>
<tr>
<td>Master of Science Nutrition</td>
</tr>
<tr>
<td>PharmD</td>
</tr>
<tr>
<td>Juris Doctor</td>
</tr>
<tr>
<td>Medical School (DO)</td>
</tr>
<tr>
<td>Peace Corps</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>MEd/EDEA</td>
</tr>
<tr>
<td>MEd/Elem</td>
</tr>
<tr>
<td>Nursing</td>
</tr>
<tr>
<td>Pre-Nursing</td>
</tr>
<tr>
<td>BSN</td>
</tr>
<tr>
<td>MSN</td>
</tr>
<tr>
<td>DNP</td>
</tr>
</tbody>
</table>

Recruitment Activities
The BA PH program recruits actively, primarily in recruitment events within our local community. It is a priority for the program to participate in outreach events within the UH Mānoa Campus and UH System including Mānoa Experience, Teen Health Camp, and UH Transfer Days, which we have attended since 2012. In addition to UH specific events, we also attend high school college and career days, and community events such as Micronesian Day to build awareness about our program and the opportunities available to students interested in studying public health and pursuing a health career. The value of attending recruitment events extends beyond promoting our program but it also is a chance for us to continue to promote the University of Hawai‘i and the value of higher education. It is also a chance to promote Public Health to students who are typically more familiar with classic clinical health degrees such as MD or Nursing.

4. Evidence of student learning, and student and program success.

Program Assessment Plan
We carefully evaluate our program to maintain continuous improvement, ensure student satisfaction, and remain responsive to areas requiring improvement. The evaluation system was developed to address program improvement and validation, demonstrate responsiveness of
the program to student needs, and satisfy CEPH accreditation and UHM institution requirements. A BA-specific evaluation plan is necessary because program goals and students can differ from those of graduate degree programs, in terms of measurements of success, length and depth of curriculum, and varying learning and instructional styles.

Assessment data has been used as evidence to justify the hire of two tenure-track faculty members (one beginning in August 2017 and another to begin in January 2019), as well as to support three teaching assistants (one dedicated to writing skill development and support, one dedicated to quantitative skill development and support, and one dedicated to support of a large public health introductory course). Assessment data have also been used to identify gaps in SLO achievement, which has led to various course and program improvements.

**Exit Surveys (AY 2015-16 through 2018-19)**
The Exit Survey is administered to graduating students in the program. Important measures of quality such as quality of instruction, and faculty expertise have been consistently rated as excellent or good by over 85% of students who responded to the exit survey. In several years these numbers surpassed 90%. Academic and career advising was also rated as excellent or good by the vast majority of respondents, frequently by over 90%. The percent of respondents rating the student body diversity as excellent or good was consistently over 85%, and the students who rated space and classroom facilities as excellent or good was consistently over 80%. Overall, the exit survey results demonstrate high levels of student satisfaction with various aspects of the BA PH program.

**Other Indicators of Program Quality**
We have published a number of articles about this program, and students from this program have published work completed through degree requirements, both indicating the utility to peers and the field of public health in general.

**Publications Focused on the BA PH Program**

**Peer-Reviewed Journal Articles**


**Non-Peer Reviewed (Editorial Review) Journal Articles**


**Book Chapters**


**Student Publications Resulting from BA PH Experience (student in bold/underline)**

**Peer-Reviewed Journal Articles**


**Editor-Reviewed Journal Articles**


**Manuscripts Submitted, Pending Review**


Book Press Published
“What I Chose” by Madisyn Uekawa
(Published by CreateSpace Independent Publishing Platform)

Awards to Faculty and Students
2019-2020 Nominee, University of Hawai‘i at Mānoa Excellence in Teaching Award (Denise Nelson-Hurwitz)
2019-2020 Nominee, Frances Davis Award for Excellence in Undergraduate Teaching (Chevelle Davis)
Graduate Division Awards, University of Hawai‘i at Mānoa
2018-2019 Nominee, University of Hawai‘i at Mānoa Excellence in Teaching Award (Denise Nelson-Hurwitz)
2017 Delta Omega Award for Innovative Public Health Curriculum, Honorable Mention
PH 480: Application of Public Health Principles in Research and Practice
2017 Frances Davis Award for Excellence in Undergraduate Teaching
University of Hawai‘i at Mānoa
(Denise Nelson-Hurwitz)
2016 Social Sciences Poster Presentation, Best Presentation (Sasha Madan)
Honors 2016 Spring Undergraduate Showcase of Research and Creative Work, University of Hawai‘i at Mānoa, Honors Program
2016 Social Sciences Poster Presentation Honorable Mention (Chevelle Davis)
Honors 2016 Spring Undergraduate Showcase of Research and Creative Work, University of Hawai‘i at Mānoa, Honors Program
2016 Social Sciences Oral Presentation, Best Presentation (Sasha Madan)
Honors 2016 Spring Undergraduate Showcase of Research and Creative Work, University of Hawai‘i at Mānoa, Honors Program
2016 Social Sciences Oral Presentation Honorable Mention (Chevelle Davis)
Honors 2016 Spring Undergraduate Showcase of Research and Creative Work, University of Hawai‘i at Mānoa, Honors Program
2016 Honorary Faculty Inductee (Denise Nelson-Hurwitz)
National Society of Collegiate Scholars, University of Hawai‘i at Mānoa
2015 Undergraduate Showcase for Research and Creative Work (Michelle Tong)
Honorable Mention Award at the 2015 Undergraduate Showcase for Research and Creative Work (Honors/Undergraduate Research Opportunities Program)
5. Are program objectives still appropriate functions of the College and University?

Relationship to State, University, Campus Mission and Development Plans

The Bachelor of Arts in Public Health offers many benefits for the University, its students, and the State. The program provides a pool of more knowledgeable candidates for graduate-level programs, provides more collaborative opportunities to Office of Public Health Studies and its other UH system partners interested in offering public health opportunities to its students, and more appropriate training for undergraduate students interested in a public health career.

According to the U.S. Department of Labor, the health sciences field represents the largest single industry in the U.S., accounting for 14.3 million jobs across 200 different fields. In addition, seven of the 20 fastest growing occupations are health-related, generating 3.25 million new jobs between 2008 and 2018, a 22 percent increase, or double the growth of all other industries combined. In the future, it is anticipated there will be a growing need for health promotion professionals as a result of rising incidence of chronic disease, rising health care costs driving intervention strategies, increased need for research in the area of disease prevention, the aging work force, technological advances, and increased demand for consultants.

The public health workforce in the U.S. is diminishing, with 23% of the current workforce (almost 110,000 workers) eligible for retirement by 2012. Nationally, existing schools of public health would have to train nearly three times the number of current graduates to meet this projected demand. From the viewpoint of the surrounding region, the burden of non-communicable diseases (NCDs) pose a serious public health threat, as referenced in Pacific Islands Health Officers Association (PIHOA) Board Resolution #48-01. PIHOA is made up of all of the directors and ministers of health of the U.S. Affiliated Pacific Islands (USAPI) jurisdictions, all of whom have stated, for the record, their strong support of public health training in order to improve the capabilities of their departments.

Uniqueness of the Public Health Program within the UH System

An undergraduate degree in public health has never previously been offered within the UH system. UHM launched its Public Health program in 1962 and graduated its first class of graduates in 1964; for the last 50 years, however, only graduate degrees have been offered.

Of the seven UH campuses contacted in Spring 2012, three of these UH campuses indicated interest in the proposed Bachelor of Arts in Public Health program at UHM. The Chancellor and Dean of Health Sciences at Kapi'olani Community College (KCC) indicated an interest in potentially offering an associate's degree in public health. Windward Community College (WCC) has expressed an interest in offering the required Intro to Public Health (PH201) course. WCC also indicated an interest in student transfers to the Bachelor of Arts in Public Health program at UHM when they have completed the necessary prerequisites at WCC. The University of Hawai‘i at West O‘ahu currently offers a Bachelor of Arts in Public Administration with a
specialization in Healthcare Administration, and a Bachelor of Arts in Public Administration with a community health specialization. The University of Hawai‘i at Hilo offers a Bachelor of Arts in Kinesiology and Exercise Science with a Health Promotion track. Outside the UH system, Hawai‘i Pacific University currently offers a Bachelor of Science in Health Sciences which enrolls well over 100 students per year.

Evidence of Continuing Need of the Program
The Hawai‘i DOH has numerous vacant positions to be filled by a trained public health workforce, including undergraduates. Our new relationship with Kaua‘i shows the continued relevance of this program for training to workforce needs. As our population ages along with increases in chronic disease and other health issues, there is only growing need for public health training and positions. We are asked by major entities from DOH, to Hawai‘i Pacific Health to local non-profits and community health centers, to entities in state legislature, to non-health-related organizations such as Department of Education, for student trainees to engage in capstone experiences because of vast opportunities for student contributions in the field. As students complete their required capstone experiences, they subsequently provide valuable direct public health services to the UHM campus community (e.g. through support of on-campus health promotion events), local organizations (e.g. the Hawai‘i Public Health Institute, Office of Hawaiian Affairs, and City & County of Honolulu Office of Climate Change, Sustainability, & Resiliency), and professional public health community through scholarly contributions to the literature and workforce.

Projections of Employment Opportunities for Graduates
The employment opportunities for graduates of the BA PH program are high. At the state level, there is a recognized need by the public health sector for more education and training, not only for our current public health workforce, but also for our future public health workforce, given the projected pending retirement of almost 25% of our current public health workforce in Hawai‘i along (estimated at 565 retirees). With the anticipated implementation of accreditation requirements in the future for State Departments of Health, the need for a qualified workforce with relevant accredited degrees will become paramount. The structure and goals of the Bachelor of Arts in Public Health program fits well to address access and affordability to higher education for Hawai‘i students, to undertake more community outreach and promote public support for UHM as a research resource for the state, and to expand professional programs such as public health in order to promote workforce development and new career and employment opportunities for UH students. Employers for our graduates include the State Department of Health, the Center for Disease Control, non-profit organizations dealing with health-related issues, healthcare providers, insurance companies, academic researchers, and community organizations, both public and private.
MEMORANDUM

TO: Benjamin Asa Kudo
    Chair, Board of Regents

VIA: David Lassner  
    President

VIA: Donald O. Straney  
    Vice President for Academic Planning and Policy

FROM: Bonnie D. Irwin  
    Chancellor

SUBJECT: REQUEST APPROVAL TO CHANGE FROM PROVISIONAL TO ESTABLISHED STATUS, BACHELOR OF ARTS IN PHARMACY STUDIES AT THE UNIVERSITY OF HAWAI‘I AT HILO

SPECIFIC ACTION REQUESTED:

Request approval to change from provisional to established status, for the Bachelor of Arts in Pharmacy Studies (BAPS) in the Daniel K. Inouye College of Pharmacy at the University of Hawai‘i at Hilo.

RECOMMENDED EFFECTIVE DATE:

Effective upon Board approval.

ADDITIONAL COSTS:

There are no additional costs associated with this request.
PURPOSE:

The Bachelor of Arts in Pharmacy Studies (BAPS) prepares students currently pursuing study in the Doctor of Pharmacy (PharmD) program to earn a Bachelor's degree acknowledging their completion of general education requirements and coursework in the basic sciences. The BAPS degree is not designed to lead to professional licensure, but enables students to pursue numerous educational and career opportunities in Pharmacy or other Healthcare Professions, or to continue on to further studies in research, business or academia that would require an undergraduate STEM degree.

BACKGROUND INFORMATION:

Board of Regents Policy 5-1 b (3) states that “the Board shall determine whether the program is to be awarded established status or terminated.”

The Bachelor of Arts in Pharmacy Studies Degree (BAPS) was originally proposed to provide pharmacy students with a true undergraduate degree to accompany their professional Doctorate of Pharmacy Degree. Students earning the BAPS degree are recognized for their accomplishments in completing a rigorous course of study, with a strong foundation in liberal arts and basic sciences, and upper division work concentrated in the essentials in the science and practice of Pharmacy. Graduates with only the professional degree can potentially run into roadblocks later in their careers if they decide to enter another field where a true undergraduate STEM degree is required or if they continue on in research, business, or academia. Having the accompanying Bachelor’s degree signals to employers that our graduates are also prepared with a much broader background than typical Pharmacists with only the professional degree. This makes them better candidates for managerial positions and allows greater mobility in the workforce.

There are no direct workforce demands for this degree. It is an ancillary degree to the Doctor of Pharmacy degree, which is the field that most students will work in. The projected enrollment in the BAPS program was originally estimated at 40 per cohort year, when the proposal was prepared for the BOR in 2010. Total enrollment for the two-year program was therefore expected to be 80. However, student interest in the program exceeded these original projections, with total enrollment ranging from 155 to 175 in a given year. In Fall 2019, the enrollment dropped to 126, reflecting a similar drop in new admissions of PharmD students. While the total number of PharmD students is expected to be lower in the coming years, more than 90% of the enrolled students will choose this option based on past enrollment.
To date, approximately 631 students have been awarded the BAPS degree and enrollment has consistently exceeded projections.

This degree has no effect on the accreditation of either the Daniel K. Inouye College of Pharmacy or the University of Hawai‘i at Hilo.

There are only three similar programs that we have identified in the nation. All are similar to the DKICP BAPS program in allowing students to earn a Bachelor’s degree en route to earning a PharmD degree.

- Eshelman School of Pharmacy - University of North Carolina
- Wegmans School of Pharmacy - St. John Fisher College
- Bill Gatton College of Pharmacy - East Tennessee State University

There are no other programs similar to this across the University of Hawai‘i System.

Throughout their educational experience, students in the DKICP BAPS program are engaged in both classroom-based and experiential settings and are challenged both individually and in team-based exercises in ways that stimulate creativity, resourcefulness and the development of real-world problem-solving skills. Through our community service and outreach efforts, the DKICP seeks to improve the health and wellness of local populations; and provide critical healthcare professionals to Hawai‘i’s workforce. The Vision Statement of the DKICP is “to drive improvement of healthcare in Hawai‘i and throughout the Pacific.” The DKICP seeks to achieve this Vision by: focusing on Hawai‘i’s uniqueness in its culture, physical setting and geography; employing world-class faculty; and graduating exceptional professionals. The DKICP is dedicated to seeing our students graduate with the knowledge, skill sets, and abilities in innovation and leadership that enable them to succeed in the workforce.

The BAPS program is housed entirely within the DKICP, and shares facilities with the PharmD and PhD in Pharmaceutical Sciences degree programs. Because the BAPS is integrated within the PharmD degree program and students must also be enrolled as PharmD students, no additional space is required to offer the BAPS degree.

The BAPS degree is earned concurrently with coursework leading to the PharmD, there are no additional tuition costs for our students nor significant administrative costs. The BAPS degree is unique at UH Hilo and within the UH system, in offering students the opportunity to earn a Bachelor’s-level degree in Pharmacy Studies. Data of students surveyed at the DKICP reveal that the BAPS degree has significant value in addition to holding a PharmD. BAPS students see benefit in their educational portfolios and
eventual attractiveness to employers, should they seek employment in areas other than as a licensed Pharmacist, such as marketing, sales, or regulatory affairs.

In recognition of the demonstrated value, efficiency and accomplishments of the DKICP BAPS degree program at UH Hilo, we kindly request your support to grant its advancement from provisional to established status.

ACTION RECOMMENDED:

Recommend approval to change from provisional to established status, for the Bachelor of Arts in Pharmacy Practice (BAPS) in the Daniel K. Inouye College of Pharmacy at the University of Hawai‘i at Hilo.

Attachment: Proposal for Established Status

c: Executive Administrator and Secretary of the Board Oishi
Provisional to Established Proposal

Bachelor of Arts in Pharmacy Studies (BAPS) Degree Program

The Daniel K. Inouye College of Pharmacy (DKICP)
University of Hawai‘i at Hilo

Date of Proposal: March 18, 2020
Table of Contents

1. Program Overview .................................................................................................................... 4
   1.1 Purpose of the Program ......................................................................................................... 4
   1.2 Links to Supporting Information on the BAPS Program ...................................................... 4
   1.3 Date of BOR Provisional Approval ...................................................................................... 4
   1.4 Reason for Delay in Seeking Established Status ................................................................... 5
   1.5 Enrollment Data .................................................................................................................... 5
      Table I. BAPS Program Enrollment ........................................................................................ 5
   1.6 Class Size .............................................................................................................................. 5
   1.7 Student Progression .............................................................................................................. 5
   1.8 Completion Data ................................................................................................................... 6
      Table II. BAPS Program Completion Data ............................................................................. 6

2. Program Resources ................................................................................................................... 6
   2.1 Instructional Faculty .............................................................................................................. 6
   2.2 Faculty Support ..................................................................................................................... 7
   2.3 Changes to BAPS Program Since BOR Provisional Approval ............................................. 7
   2.4 Cost for DKICP to Offer BAPS Degree ................................................................................ 8
   2.5 Program Budget .................................................................................................................... 8
      Table III. DKICP Operating Budget ...................................................................................... 8

3. Program Success ....................................................................................................................... 9
   3.1 Program Accreditation and External Evaluation .................................................................. 9
   3.2 Professional Certifications .................................................................................................... 9
   3.3 Student Satisfaction ............................................................................................................. 9

4. Conclusions ................................................................................................................................ 9
   4.1 Relationship to Strategic Plan ............................................................................................... 9
   4.2 Relationship to Facilities Plan ............................................................................................. 10
   4.3 Relationship to Other Programs in the University of Hawai‘i System ............................... 10
   4.4 Continued Need for BAPS Program ................................................................................... 11
      Table IV. Student Survey on BAPS Degree Attracting PharmD Applicants ...................... 12
   4.5 Summary Statement ............................................................................................................ 12

APPENDICES ............................................................................................................................. 14

APPENDIX A: Catalog Description .............................................................................................. 14
1. Program Overview

1.1 Purpose of the Program

The Bachelor of Arts in Pharmacy Studies (BAPS) degree program at the Daniel K Inouye College of Pharmacy (DKICP) acknowledges students who complete a minimum of four years of college education including rigorous course work in the basic sciences and practice of pharmacy. Students earning the BAPS degree attain broad knowledge in the liberal arts and basic sciences, as well as advanced training in the field of pharmacy that is both academic and experiential in nature. The degree program is comprised of 133 semester credits of study, including 66 transferred semester credits (approximately 2 academic years) of pre-pharmacy study, and an additional 67 required semester credits, which are earned during the first two years of study in the DKICP PharmD program. To participate in the BAPS degree program, students are required to be concurrently enrolled in the DKICP PharmD program. The BAPS degree is not designed to lead to licensure as a professional pharmacist. However, the BAPS degree enables students to pursue numerous educational and career opportunities in diverse areas, including pharmacy and other healthcare professions, or they may continue on in research, business, or academia.

Offering the BAPS degree adds significant value for students and faculty at the DKICP. Much of the PharmD student body views the BAPS degree as an attraction to enrollment at UH Hilo, and it is commonly cited as one of the reasons for selecting the DKICP over other colleges of pharmacy. Thus, from a recruitment perspective, the BAPS degree serves to attract and retain students that have strong academic records, and who are motivated to succeed in the program. From a student perspective, holding a BA and PharmD together increases their attractiveness to potential employers and provides them with recognition of the additional coursework. Accordingly, since about 30% of PharmD students at the DKICP do not hold an undergraduate degree, the BAPS is valuable if they ever decide to seek employment in a career other than as a licensed Pharmacist (e.g. pharmaceutical sales, regulatory affairs, public relations).

1.2 Links to Supporting Information on the BAPS Program

- Appendix A: Catalog Description
- Appendix B: Admissions
- Appendix C: Curriculum Map and Course Listing
- Appendix D: Changes Since Provisional Approval
- Appendix E: List of Faculty and Area of Expertise
- UH Hilo Catalog Page (https://hilo.hawaii.edu/catalog/pharmacy-studies.php)
- DKICP Program Description
  (http://pharmacy.uhh.hawaii.edu/academics/bachelor-arts-pharmacy-studies)
- DKICP Faculty bios

1.3 Date of BOR Provisional Approval

February 24, 2011
1.4 Reason for Delay in Seeking Established Status

The application for established status was postponed for the following reasons:

- Extension 1: Fall 2016, Reason: Full review and accreditation of PharmD program by ACPE;
- Extension 2: Fall 2017, Reason: Transition in leadership, new Interim Associate Dean for Academic Affairs;
- Extension 3: Fall 2018, Reason: Request to await and follow updated BOR guidelines and template document for provisional to established proposals.
- Extension 4: Fall 2019, Reason: College wide curriculum and program review taking place at DKICP

1.5 Enrollment Data

The projected enrollment in the BAPS program was originally estimated at 40 per cohort year, when the proposal was prepared for the BOR in 2010. Total enrollment for the two-year program was therefore expected to be 80. However, student interest in the program exceeded these original projections, as can be seen in the table, below.

*Note data for Fall 2010 includes enrollment numbers for the class of 2011, 2012, 2013.

Table 1. BAPS Program Enrollment

<table>
<thead>
<tr>
<th>Enrollment (Fall Headcount)</th>
<th>*Fall 2010</th>
<th>Fall 2011</th>
<th>Fall 2012</th>
<th>Fall 2013</th>
<th>Fall 2014</th>
<th>Fall 2015</th>
<th>Fall 2016</th>
<th>Fall 2017</th>
<th>Fall 2018</th>
<th>Fall 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected: BAPS</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Actual: BAPS</td>
<td>340</td>
<td>176</td>
<td>178</td>
<td>176</td>
<td>166</td>
<td>148</td>
<td>151</td>
<td>157</td>
<td>159</td>
<td>126</td>
</tr>
</tbody>
</table>

1.6 Class Size

Students are admitted by cohort into the DKICP PharmD program in the fall semester of each year. Admission into the PharmD program is a prerequisite for entry into the BAPS program. Beginning Fall 2019, the target class size is 50 students with a max of 70. The average ratio of resident/non-resident students is currently 70%/30%.

1.7 Student Progression

Progression through the program is dependent upon students achieving satisfactory grades of “C” or better. Students who fail one or more courses in a given semester are reviewed by the Student Promotion and Graduation Committee (SPGC), which is composed of members of the DKICP faculty and the Associate Dean for Academic Affairs (ADAA- ex-officio). This committee is responsible for enforcing the faculty and ACPE established academic standards and to assure that students meet all required standards for progression.
Students are promoted to the next academic year given satisfactory completion of required coursework and provided that all tuition and fees have been paid. If a student fails to complete the prescribed course of study, the student’s status of progression is submitted to the SPGC. Committee progression decisions include but are not limited to: course remediation (which is completed during summer); placement on an extended track (student being permitted to take two years to complete one year of didactic coursework); or dismissal. The committee follows faculty-approved guidelines for student promotion in making such decisions. Students have opportunity to be heard before the committee and file an appeal of the committee’s decision(s) with the College Dean.

1.8 Completion Data

Projected numbers of BAPS degrees are based on student enrollment in the BAPS program during their first (P1) and second (P2) year in the DKICP PharmD degree program. Degrees are awarded upon completion of four-year PharmD degree, or upon early departure from the PharmD program after successful completion of BAPS credits. Projection of students joining the BAPS program was originally estimated at 40 per cohort year in the request for provisional status. With the exception of 2013, participation in the program has been higher than expected. To date, 695 students received both the BAPS and PharmD degrees.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected: BAPS</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Actual: BAPS</td>
<td>49</td>
<td>86</td>
<td>34</td>
<td>79</td>
<td>88</td>
<td>85</td>
<td>73</td>
<td>68</td>
<td>69</td>
<td>64</td>
<td>695</td>
</tr>
</tbody>
</table>

2. Program Resources

2.1 Instructional Faculty

The courses taken during the first two years of undergraduate study are identical to the application requirements for the PharmD program and thus do not incur any additional instructional cost for any other units at UH Hilo. Because the BAPS program is integrated within the DKICP PharmD program, no additional instructors or program resources are needed to run the BAPS degree program. Personnel costs for the BAPS degree program are covered entirely by the operating budget of the DKICP PharmD program. DKICP faculty are distributed between two departments: Pharmaceutical Sciences, and Pharmacy Practice. A breakdown of faculty rank and departmental affiliation is shown below.
<table>
<thead>
<tr>
<th>Department</th>
<th>Employees at Rank</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy Practice</td>
<td>7</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Pharmacy Practice</td>
<td>4</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Pharmacy Practice</td>
<td>2</td>
<td>Professor</td>
</tr>
<tr>
<td>Pharmacy Practice</td>
<td>2</td>
<td>Assistant Specialist</td>
</tr>
<tr>
<td>Pharmacy Practice</td>
<td>1</td>
<td>Associate Specialist</td>
</tr>
<tr>
<td>Pharmacy Practice</td>
<td>1</td>
<td>Specialist</td>
</tr>
<tr>
<td>Pharmaceutical Sciences</td>
<td>2</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Pharmaceutical Sciences</td>
<td>5</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Pharmaceutical Sciences</td>
<td>2</td>
<td>Professor</td>
</tr>
</tbody>
</table>

### 2.2 Faculty Support

Numerous opportunities at the DKICP and UH Hilo are available to faculty seeking support for professional development, research, and scholarly interests.

The DKICP has provided financial support in the form of travel funds for faculty to attend workshops or conferences related to their professional expertise, or to enhance their teaching skills. The College also provides financial support through laboratory supplies and pays for maintenance contracts of major lab equipment if the operations budget allows. The DKICP also has a faculty-governed Faculty Development Committee, which provides assistance on:

- teaching (e.g. methods and approaches; classroom tools and technologies; information resources)
- professional development (e.g. new faculty orientation; contract and tenure workshops and materials; research support)
- professional training (e.g. FERPA; EEO; academic policies)

The DKICP also provides administrative support, including Department secretaries and support staff, to assist with tasks related to faculty teaching, scholarship, or service endeavors. The DKICP fiscal officer assists in the post-award management of faculty-acquired grants and travel for professional development or scholarly activities.

### 2.3 Changes to BAPS Program Since BOR Provisional Approval

Since the BAPS is integrated within the PharmD degree program, no additional course offerings are required. However, following provision approval of the BAPS program in 2011, revisions to the DKICP PharmD curriculum have resulted in a number of moderate changes to the course and credit requirements for the BAPS degree, as listed in Appendix D. The majority of courses are offered as only a single section, since students in the BAPS and PharmD programs progress together as cohorts, and have a set schedule of classes, with the exception of (4) credits of elective coursework.

The Faculty Senate Curriculum and Assessment Committee is the faculty body that is responsible for the review and evaluation of the PharmD and BAPS curriculum. The Committee makes recommendations to the DKICP faculty for changes in consultation with the ADAA.
During the 2015-16 academic year, the Curriculum Committee requested that the coordinators of foundational courses conduct a comprehensive review of course content and instructional materials (handouts, slides, homework) to ensure that it was of the appropriate depth and breadth to meet the programmatic learning objectives and accreditation standards for the BAPS and PharmD programs. The changes outlined in Appendix D are the result of this review process.

2.4 Cost for DKICP to Offer BAPS Degree

There is no additional cost to the DKICP to offer and operate the BAPS degree. Processing of the transferred credits for Years 1-2 of the BAPS degree must already be performed in order to verify the required prerequisites for admission into the PharmD program. The subsequent components of the BAPS are based on students taking years 1-2 of the PharmD curriculum.

2.5 Program Budget

Enrollment in the BAPS degree program is open only to students that are concurrently enrolled in the DKICP PharmD program. Because it is run concurrently, offering the BAPS degree incurs no additional operational costs for the DKICP, and no additional tuition for students. Current tuition rates for the DKICP PharmD program (with or without concurrent enrollment in the BAPS program) for the 2019-20 academic year is $24,096 for residents and $41,040 for nonresidents. For academic years 2014-2016 tuition increases were 6% and 3% for nonresident and resident students, respectively. For the 2017-18 and 2018-19 academic years, a 1% increase in tuition was approved by the UH Board of Regents for three years. Entering class size is targeted at 50 with a max enrollment of 70. Approximate distribution of 70% resident and 30% nonresident students. This past fall 2019, the entering class size was 50.

General Funds and Tuition/Special Fund Allocation (Lump Sum) allocations for the current year are approximately $9 million. Personnel (instructional and support) costs are approximately $6.37 million and operational (equipment, supplies, utilities, administrative) costs are approximately $2.63 million. The DKICP also continues pay bond debts on a $5 million revenue bond for the permanent building Hale Kihoiho'i and a $3 million revenue bond for the DKICP modular buildings. In addition, $80,000 per year is directed towards R&R. A breakdown of the DKICP budget, starting with the first provisional year of the BAPS program in 2011, is provided below, as based on the Guidelines for Assessment of Provisional Programs.

Table III. DKICP Operating Budget

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Fund</td>
<td>$1.377,701</td>
<td>$1.512,818</td>
<td>$1.512,818</td>
<td>$1.629,270</td>
<td>$1.711,367</td>
<td>$1.817,448</td>
</tr>
<tr>
<td>Summer Allocation</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Program/Course Fee Allocation</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Research Revenue</td>
<td>$7.527,908</td>
<td>$1.983,997</td>
<td>$1.195,930</td>
<td>$743,830</td>
<td>$212,747</td>
<td>In progress</td>
</tr>
<tr>
<td>Budget Shortfall</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

BOR action memo - provisional to established status - BAPS - 2020.4.16 signed.pdf 12 5/1/20 11:02 AM
3. Program Success

3.1. Program Accreditation and External Evaluation

Undergraduate programs at UH Hilo, including the BAPS program, are accredited by the Senior Commission of the Western Association of Schools and Colleges (WASC). This accreditation of UH Hilo was reaffirmed in March 2015 for a period of 7 years. The next WASC review of UH Hilo is scheduled for 2021, with site visits scheduled for Fall 2020. For students transferring credits from other institutions, only coursework taken at a regionally-accredited U.S. institution in which a letter grade of “C” or better are considered. In addition, upper-division coursework in the BAPS degree program, which is taken at the DKICP, is also subject to accreditation by the Accreditation Council for Pharmacy Education (ACPE), which oversees the accreditation of PharmD degree programs in the United States. In 2017, the DKICP was granted an 8-year full accreditation until 2025. The DKICP submits annual reports to the ACPE in the areas of organization and governance; curriculum design and oversight; interprofessional education; physical and financial resources; and educational outcomes related to co-curricular student activities.

3.2 Professional Certifications

As added value on their way to earning the BAPS degree, DKICP students achieve certifications in the following healthcare-related areas: CPR training; immunization training; tobacco cessation counseling; HIPPA training.

3.3 Student Satisfaction

The American Association of Colleges of Pharmacy (AACP) administers an annual satisfaction survey of recent College of Pharmacy graduates. Based on most recent 2019 data, over 95% of UH Hilo DKICP graduates strongly agreed/agreed that they can provide patient-centered care based on evidence-based best practices. Over 95% felt that their pharmacy practice experiences allowed them to have direct interaction with diverse patient populations. Also, over 80% of our students feel prepared to enter practice as a pharmacist immediately after graduation.

4. Conclusions

4.1 Relationship to Strategic Plan

Throughout their educational experience, students in the DKICP BAPS program are engaged in both classroom-based and experiential settings and are challenged both individually and in team-based exercises in ways that stimulate creativity, resourcefulness and the development of real-world problem-solving skills. In this respect, the Mission of the DKICP is in alignment with the UH Hilo Mission statement: "A’ohe pau ka ‘ike i ka hālau ho ‘okahi. One learns from many sources." and its first aim:
• To challenge students to reach their highest level of academic achievement by inspiring learning, discovery and creativity inside and outside the classroom.

Through our community service and outreach efforts, the DKICP seeks to improve the health and wellness of local populations; and through our research endeavors, we stimulate innovation and discovery in both the science and practice of Pharmacy, in ways that impact both local and global healthcare. In this regard, the DKICP Mission is in alignment with the second aim of the UH Hilo Mission statement:

• To improve the quality of life of the people of Hawai‘i, the Pacific region and the world.

In addition, The Vision Statement of the DKICP is “to drive improvement of healthcare in Hawai‘i and throughout the Pacific.” The DKICP seeks to achieve this Vision by: focusing on Hawai‘i’s uniqueness in its culture, physical setting and geography; employing world-class faculty; and graduating exceptional professionals. The DKICP is dedicated to seeing our students graduate with the knowledge, skill sets, and abilities in innovation and leadership that enable them to succeed in the workplace. In this way, the Vision of the DKICP is in alignment with the UH Hilo Vision statement: “E lava i ke a‘o a mālama, a e ‘oi mau ka na‘auao. Those who take their learnings and apply them increase their knowledge.”

4.2 Relationship to Facilities Plan

The SAPS program is housed entirely within the DKICP, and shares facilities with the PharmD and PhD in Pharmaceutical Sciences degree programs. Because the BAPS is integrated within the PharmD degree program and students must also be enrolled as PharmD students, no additional space is required to offer the BAPS degree. As of February 2020, the DKICP occupies three sites in Hilo: the new permanent building Hale Kiho‘iho‘i, the DKICP modular buildings at 722 S. A‘ohoku Pl. and the Waiakea Research Station (WRS) at 924 Stainback Hwy. There are plans to relocate faculty labs from WRS to the DKICP modular campus on A‘ohoku Pl. when the modular space is retrofitted for the research labs.

4.3 Relationship to Other Programs in the University of Hawai‘i System

The SAPS is unique in that it is the only Bachelor-level degree program in the UH system that is focused on educating students in the science and practice of Pharmacy. UH Hilo also offers Bachelor’s degrees in related STEM and healthcare fields, including: Biology (BA); Biology: Cell, Molecular, and Biomedical Sciences (BS); Biology: Ecology, Evolution, and Conservation (BS); and Nursing (BS). The goal of the UH Hilo Pre-Pharmacy program is to advise UH Hilo undergraduate students on pre-requisite coursework for admission into Pharmacy school. However, the Pre-Pharmacy program at UH Hilo is not a degree-granting program, nor does it lead to an educational certificate. Pre-Pharmacy advising is coordinated through the Exploratory Health Science program located on UH Hilo’s main campus.

The DKICP leverages the presence of other professional degree programs in the State of Hawai‘i to prepare our students to work effectively as members of interprofessional healthcare teams. Through the Hawai‘i Interprofessional Education (HIPE) workgroup, the DKICP and UH Hilo
Nursing programs, along with the John A. Burns School of Medicine (JABSOM), UH Manoa School of Nursing and Dental Hygiene (SONDH), and Myron B. Thompson School of Social Work and Programs for Public Health, cooperate in holding joint exercises in interprofessional communication and problem-solving for BAPS/PharmD, Nursing, Medicine and Social Work students. The Council for Health Sciences and Social Work (CHSSW), composed of the deans from Medicine, Nursing, Pharmacy, and Social Work provides oversight to the HIPE workgroup.

The BAPS is distinct from other undergraduate degree programs in the UH system in providing both a foundational and applied (didactic and experiential) education in Pharmacy-specific topics, including medicinal chemistry; pharmacology; pharmacotherapy; pharmacokinetics; drug compounding; medical terminology and Pharmacy communication. In earning the degree, students with a BAPS are well positioned to enter the workforce in either a healthcare or STEM-related profession, or to pursue advanced degrees (MS, PhD) in the biomedical or pharmaceutical sciences.

4.4 Continued Need for BAPS Program

Student recruitment efforts are planned and managed by the DKICP Office of Academic and Student Affairs. As mentioned prior, Pre-Pharmacy advising is coordinated through the Exploratory Health Science program located on UH Hilo’s main campus. The DKICP Office of Student Affairs also assists students applying to the PharmD program. In addition, the UH Hilo Pre-Pharmacy Club, which is a UH Hilo registered independent student organization (RISO), is advised by a faculty member of the DKICP. In regards to recruitment, DKICP coordinates participation in graduate school and career fairs on neighbor islands, and on the mainland.

The DKICP is cognizant that demand for the PharmD degree is governed by market forces and the need for registered pharmacists. The Pharmacy Workforce Center (PWC) is an organization which collects, analyzes and disseminates data on the supply of licensed pharmacists and the demand for pharmacy services in the United States. The PWC (https://pharmacy manpower.com) publishes a quarterly report on the balance between supply and demand, termed the Pharmacist Demand Indicator (PDI). Estimates of job supply and demand are based on the perceptions of individuals that participate in the hiring of pharmacists on a direct and regular basis and represents the major geographic and practice sectors of pharmacy practice. Participants are asked to rate on a scale from 1 (low demand) to 5 (high demand) for hiring pharmacists. A ranking of 3 indicated that supply is in balance with demand.

The most recent data is as follows:

- Hawai‘i Quarter 1 of 2018, with a ranking of 2.33 (updated information not reported due to lack of panelists reporting)
- West Region (which includes Hawai‘i) Quarter 4 of 2018, with a ranking of 2.91 (although this data includes California which does report as North California and South California and may skew the data for other states in the region)

The BAPS degree program adds significant value to the DKICP and is important in student recruitment. A survey, administered in Feb 2018, of current students and alumni show that
approximately half of our student body views the BAPS degree as a valuable attraction, and is listed as one of the reasons that they chose to attend our college, as shown in Table IV. Therefore, from a recruitment perspective, the BAPS degree serves to attract strong applicants to the DKICP PharmD program. As an added value to the PharmD program, another intended benefit to offering the BAPS program is to retain future students after acceptance into the DKICP PharmD program.

Table IV. Student Survey on BAPS Degree Attracting PharmD Applicants

<table>
<thead>
<tr>
<th>Graduating classes surveyed</th>
<th>2011-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of students contacted</td>
<td>553</td>
</tr>
<tr>
<td>Number of respondents</td>
<td>193</td>
</tr>
<tr>
<td>Response rate</td>
<td>34.9%</td>
</tr>
</tbody>
</table>

Q. To what extent do you agree to the following statement: Offering the BAPS degree at DKICP attracts applicants to our PharmD program.

<table>
<thead>
<tr>
<th>Percent of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree or strongly disagree</td>
</tr>
<tr>
<td>Neutral</td>
</tr>
<tr>
<td>Agree or strongly agree</td>
</tr>
</tbody>
</table>

From a student perspective, the BAPS degree enhances their curriculum vitae and increases their attractiveness to potential employers. Approximately 30% of DKICP PharmD students have no prior undergraduate degree, so holding the BAPS can be vital should they seek employment in a career other than as a licensed Pharmacist.

Another perceived benefit to offering the BAPS program is its uniqueness among the other 144 Colleges of Pharmacy. There are only three similar programs that we have identified in the nation. All are similar to the DKICP BAPS program in allowing students to earn a Bachelor's degree en route to earning a PharmD degree.

• Eshelman School of Pharmacy - University of North Carolina
• Wegmans School of Pharmacy - St. John Fisher College
• Bill Gatton College of Pharmacy - East Tennessee State University

4.5 Summary Statement

The BAPS is a Bachelor’s degree that is only available to students enrolled in the PharmD program at the DKICP. The requirements for the degree consist of 66 semester credits transferred from a U.S. accredited institution, and 67 semester credits which are earned at the DKICP. Coursework at DKICP is comprised of the first two years of didactic and experiential coursework en route to completing the PharmD. Students earning the BAPS degree are recognized for their accomplishments in completing a rigorous course of study, with a strong foundation in liberal arts and basic sciences, and upper division work concentrated in the essentials in the science and practice of Pharmacy. The BAPS program prepares students for educational and career opportunities in diverse areas, including Pharmacy or other healthcare-related professions, or students may continue on in research, business, or academia. Most
students earning the BAPS continue their course of study at DKICP, leading to the PharmD degree. However, successful completion of the PharmD program is not necessary, and students may petition to receive the degree as long as the BAPS requirements have been satisfied.

Because the BAPS degree is earned concurrently with coursework leading to the PharmD, there are no additional tuition costs for our students nor heavy administrative costs. The BAPS degree is unique at UH Hilo and within the UH system, in offering students the opportunity to earn a Bachelor’s-level degree in Pharmacy Studies. Data of students surveyed at the DKICP reveal that the BAPS degree has significant value in addition to holding a PharmD. BAPS students see benefit in their educational portfolios and eventual attractiveness to employers, should they seek employment in areas other than as a licensed Pharmacist, such as marketing, sales, or regulatory affairs. It also opens up additional opportunities that would not exist if they held the PharmD alone, such as allowing them to apply for other graduate or professional degree programs which require a Bachelor’s degree as a prerequisite (e.g. Masters, PhD, MD or DNP programs).

In recognition of the demonstrated value, efficiency and accomplishments of the DKICP BAPS degree program at UH Hilo, we kindly request your support to grant its advancement from provisional to established status.
APPENDICES

APPENDIX A: Catalog Description

Students earning the Bachelor of Arts in Pharmacy Studies degree (BAPS) attain broad and thorough knowledge in the liberal arts and basic sciences, as well as specialized education in the field of pharmacy, both didactic and experiential in nature. These students are well positioned to take advantage of numerous educational and career opportunities in diverse areas, including positions in pharmacy, health care, or medicine, or may continue on in research, business, and academia.

The BAPS degree also acknowledges the achievement of students who complete a minimum of four years of college education, including rigorous course work in the basic and pharmacy sciences, on their path to the Doctor of Pharmacy (PharmD) degree.

This degree is available only to students currently enrolled in the PharmD. program at UH Hilo DKICP.
APPENDIX B: Program Admissions

To be eligible for admission to the PharmD program (and therefore, the BAPS program) students must meet the following minimum requirements:

**Prerequisite Courses:** Admission is contingent upon the successful completion of all prerequisite courses with a minimum grade of "C" (C- grades are not accepted). Students may be in the process of completing prerequisite coursework at the time of application.

**International Applicants:** To be eligible for admission, international applicants must complete a minimum of 30 semester hours of coursework in the United States at any regionally-accredited college or university. Of the 30 required semester hours, 15 semester hours must be allocated to non-remedial science courses.

Table V. DKICP Minimum Admissions Requirements

<table>
<thead>
<tr>
<th>Required Prerequisite Courses, BAPS Transferred Credit</th>
<th>Semester Credits</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Biology I &amp; II for Science Majors (w/Labs)</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Microbiology (w/Labs)</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry I &amp; II for Science Majors (w/Labs)</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Organic Chemistry I &amp; II for Science Majors (w/Labs)</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Human Anatomy &amp; Physiology I &amp; II (w/Labs)</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Calculus I or Advanced Calculus</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>English (w/3 credits composition)</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Humanities</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>World/Cultural Diversity</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Economics</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Communications (w/public speaking)</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Total Credits</td>
<td>66</td>
<td>99</td>
</tr>
</tbody>
</table>

**PharmCAS Application:** Students must apply and submit a complete application through the Pharmacy College Application Service (PharmCAS), a centralized application service to apply to multiple Pharm.D. programs offered by schools and colleges of Pharmacy. A complete application includes a personal statement, two professional letters of recommendation (electronic letters of reference are acceptable), applicable fee(s), and official transcripts from all regionally-accredited colleges and/or universities attended. Applications are accepted from mid-July through March 01.

**Supplemental Application:** Upon receipt of an applicant’s PharmCAS application, the CoP Admissions Committee formally requests, via email, that the applicant complete a supplemental application, technical standards form, and residency declaration form, as well as submit a non-refundable $50.00 application fee. A due date is indicated in the email.
**Early Decision:** The CoP participates in the PharmCAS Early Decision Program which is a binding option for applicants who have decided that a particular pharmacy degree program is their first choice and will matriculate upon acceptance. This program will cease after the 2020-21 cycle per ACPE’s decision.

**Guaranteed Admission Program:** The UH Hilo-DKICP Guaranteed Admission Program is an intensive three-year scholarly program. Students who complete the Guaranteed Admission curriculum (with a minimum of 85 credits) over three years while maintaining a minimum annual GPA of 3.25 and earning a “C” or higher in all prerequisite courses, submit an Early Decision PharmCAS application and successfully interview with the DKICP will be guaranteed admission to the PharmD Program.

**Table VI. DKICP Guaranteed Admission Program Requirements**

<table>
<thead>
<tr>
<th>(UHH) Course ID</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 171 / 171L</td>
<td>Biology I (w/Lab)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 172 / 172L</td>
<td>Biology II (w/Lab)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 275 / 275L or BIOL 375 / 375L</td>
<td>Microbiology (w/Lab)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 161 / 161L</td>
<td>General Chemistry I (w/Lab)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 162 / 162L</td>
<td>General Chemistry II (w/Lab)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 241 / 241L</td>
<td>Organic Chemistry I (w/Lab)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 242 / 242L</td>
<td>Organic Chemistry II (w/Lab)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 243 / 243L</td>
<td>Human Anatomy &amp; Physiology I (w/Lab)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 244 / 244L</td>
<td>Human Anatomy &amp; Physiology II (w/Lab)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 241</td>
<td>Calculus</td>
<td>4</td>
</tr>
<tr>
<td>IS 201</td>
<td>Pre-Pharmacy Orientation</td>
<td>2</td>
</tr>
<tr>
<td>ENG 100 and Above</td>
<td>English</td>
<td>6</td>
</tr>
<tr>
<td>ECON 100, ECON 130 or ECON 131</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>COM 251</td>
<td>Communication</td>
<td>3</td>
</tr>
<tr>
<td>Various</td>
<td>Humanities</td>
<td>6</td>
</tr>
<tr>
<td>Various</td>
<td>World Cultures</td>
<td>3</td>
</tr>
<tr>
<td>Various</td>
<td>Social Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Various</td>
<td>Additional 4 Science Courses + Labs</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total Semester Credits</strong></td>
<td></td>
<td><strong>85</strong></td>
</tr>
</tbody>
</table>

**Application Review Process:** The DKICP operates on a competitive, rolling admissions process. Applicants are responsible for verifying that all necessary documents have been received by the UH Hilo Office of Student Services. The application review process begins in August each year and continues until all available seats are filled. Upon receipt of all required application components, the materials are reviewed by the DKICP Admissions Committee. Upon review, the Committee decides whether to invite the candidate for interview, place the candidate on hold for further review, or reject the application. Eligible students who are invited for interview, may either do so in person at DKICP or via teleconference, e.g. using Zoom or Skype. Interviews are conducted by two DKICP faculty or staff. DKICP conducts closed file interviews, in which the interviewers are not provided with any candidate information with the exception of the candidate’s name. This process helps to remove interviewer preconceived biases based on the
applicant’s experiences, grades, test scores or personal statements. In cases of a poorly scored initial interview, a second interview will be scheduled and scored separately. Complete applications and interview scores are then reviewed by the DKICP Admissions Committee for final admission decisions. Accepted students will be notified by email and sent a signed acceptance letter in the mail.

**Transfer of Credits:** Students must submit a letter of request to the DKICP Academic Advisor for an official review of their transferred course work and for a BAPS degree audit to be completed. Only coursework completed at an institution accredited by a U.S. regional accreditation agency with a final letter grade of “C” or better will be considered. Complete course syllabi may be required for review by the DKICP Associate Dean for Academic Affairs to determine transfer coursework eligibility. In questionable cases, the DKICP Dean will make the final determination if coursework is acceptable for transfer and applicable to the BAPS degree. Students transferring into UH Hilo with a transferable AA degree or BA from an institution accredited by a U.S. regional accreditation agency will be exempted from the UH Hilo General Education requirements. Degrees must have been completed prior to matriculation to UH Hilo.
APPENDIX C: BAPS Program Curriculum

To qualify for the BAPS degree, students must be admitted to and enrolled in the DKICP PharmD program with the prerequisite 66 semester credits outlined above in Table V, and complete four semesters (67 credits) of additional didactic and experiential coursework outlined below in Table VII, earning a grade of “C” or higher in each course. Although BAPS students must enroll in the PharmD program, completion of the PharmD is not necessary to earn the BAPS, as long as the student completes all BAPS degree requirements. The total coursework leading to the BAPS degree includes both the transferred prerequisite coursework (66 semester credits) plus the years 1 and 2 in the DKICP PharmD program (67 credits), making the total coursework required for BAPS degree at 133 credits.

To earn the BAPS degree, students also must meet the graduation requirements for UH Hilo, as outlined on the website: https://hilo.hawaii.edu/catalog/graduation-requirements
In addition, students must meet UH Hilo Foundation, Diversification, Structural, and Integrative Requirements of General Education, including: Written Composition; Language Arts; Quantitative Reasoning; Global and Multicultural Perspectives; Humanities; Social Sciences; and Natural Sciences. A list of all requirements is posted on the UH Hilo General Education website: https://hilo.hawaii.edu/academics/gened/

The year-one curriculum at DKICP is largely foundational and introduces students to the science and practice of Pharmacy. Coursework in year-one at the DKICP includes:
- Biomedical sciences (biochemistry, pathophysiology and immunology);
- Pharmaceutical sciences (pharmacology, medicinal chemistry and pharmaceutics);
- Mathematics (pharmaceutical calculations and biostatistics);
- Social/behavioral/administrative sciences (communication, culture, interprofessional education ([PE), and American Pharmacists Association (APhA) Career Pathway Evaluation Program for Pharmacy Professionals;
- Pharmacy practice (over the counter (OTC) and top-200 drugs)

During year-two at the DKICP, students take advanced topics, gain experience with practical skills, and learn to evaluate both clinical data and research papers. Examples of coursework in year-two at the DKICP includes:
- Pharmacotherapy of disease states (e.g. cardiovascular; gastrointestinal; genitourinary; endocrine, and infectious diseases)
- Laboratory values (patient evaluation, e.g. blood, urine analysis, and disease values)
- Pharmacokinetics (calculation, monitoring, and adjustment of medication doses)
- Drug Information and Evidence-based medicine (selection of appropriate information resources; evaluation of literature and implementation of practice guidelines)
- Advanced special topics (electives, see list below)
- Experiential courses: including a four-week (160 hour) rotation in a retail pharmacy setting
Table VII. BAPS Curriculum Map

**DKICP Year 1, Fall Semester:**

<table>
<thead>
<tr>
<th>(UHH) Course ID</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHPS 501</td>
<td>Biochemistry - Biomolecules</td>
<td>2</td>
</tr>
<tr>
<td>PHPS 503</td>
<td>Pharmaceutical Calculations</td>
<td>2</td>
</tr>
<tr>
<td>PHPS 504</td>
<td>Pharmaceutical Immunology</td>
<td>3</td>
</tr>
<tr>
<td>PHPS 505</td>
<td>Pharmaceutics I</td>
<td>3</td>
</tr>
<tr>
<td>PHPS 540</td>
<td>Drug Action I</td>
<td>2</td>
</tr>
<tr>
<td>PHPP 501</td>
<td>Introductory Pharmacy Practice Experiential I</td>
<td>1</td>
</tr>
<tr>
<td>PHPP 510</td>
<td>Pharmacy Self-Care I</td>
<td>2</td>
</tr>
<tr>
<td>PHPP 528</td>
<td>Pharmacy Communications and Culture</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

**DKICP Year 1, Spring Semester:**

<table>
<thead>
<tr>
<th>(UHH) Course ID</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHPS 502</td>
<td>Biochemistry - Metabolism</td>
<td>2</td>
</tr>
<tr>
<td>PHPS 504</td>
<td>Pharmaceutics II</td>
<td>3</td>
</tr>
<tr>
<td>PHPS 509</td>
<td>Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>PHPS 541</td>
<td>Drug Action II</td>
<td>2</td>
</tr>
<tr>
<td>PHPP 502</td>
<td>Introductory Pharmacy Practice Experiential 2</td>
<td>1</td>
</tr>
<tr>
<td>PHPP 508</td>
<td>Introduction to Biostatistics</td>
<td>2</td>
</tr>
<tr>
<td>PHPP 510</td>
<td>Pharmacy Self-Care II</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**DKICP Year 2, Fall Semester:**

<table>
<thead>
<tr>
<th>(UHH) Course ID</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHPP 506</td>
<td>Retail Rotation</td>
<td>1</td>
</tr>
<tr>
<td>PHPS 511</td>
<td>Pharmacokinetics</td>
<td>3</td>
</tr>
<tr>
<td>PHPP 503</td>
<td>Introductory Pharmacy Practice Experiential 3</td>
<td>1</td>
</tr>
<tr>
<td>PHPP 514</td>
<td>Evidence-Based Medicine</td>
<td>3</td>
</tr>
<tr>
<td>PHPP 515</td>
<td>Integrated Therapeutics I (IT-I)</td>
<td>7</td>
</tr>
<tr>
<td>PHPP 527</td>
<td>Drug Information</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

**DKICP Year 2, Spring Semester:**

<table>
<thead>
<tr>
<th>(UHH) Course ID</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHPP 504</td>
<td>Introductory Pharmacy Practice Experiential 4</td>
<td>1</td>
</tr>
<tr>
<td>PHPP 516</td>
<td>Integrated Therapeutics II (IT-II)</td>
<td>7</td>
</tr>
<tr>
<td>PHPP 519</td>
<td>Health Care Systems</td>
<td>2</td>
</tr>
<tr>
<td>PHPP 520</td>
<td>Pharmacy Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHPP 523</td>
<td>Wellness and Disease Prevention</td>
<td>2</td>
</tr>
<tr>
<td>PHP- ---</td>
<td>*Electives (2 credit hours)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>
*Sample of Available Electives*

<table>
<thead>
<tr>
<th>(UHH) Course ID</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHPP 550</td>
<td>History of Pharmacy</td>
<td>2</td>
</tr>
<tr>
<td>PHPP 554</td>
<td>Zoonotic Diseases</td>
<td>1</td>
</tr>
<tr>
<td>PHPP 555</td>
<td>Veterinary Medicine</td>
<td>1</td>
</tr>
<tr>
<td>PHPP 557</td>
<td>Personal Finance</td>
<td>1</td>
</tr>
<tr>
<td>PHPP 558</td>
<td>Business Admin Overview</td>
<td>1</td>
</tr>
<tr>
<td>PHPP 560</td>
<td>Pharmacy Leadership</td>
<td>1</td>
</tr>
<tr>
<td>PHPS 553</td>
<td>Radioactivity in Pharmacy</td>
<td>1</td>
</tr>
<tr>
<td>PHPS 554</td>
<td>Herbal Medicines</td>
<td>1</td>
</tr>
<tr>
<td>PHPS 561</td>
<td>Drug Discovery</td>
<td>1</td>
</tr>
<tr>
<td>PHPS 562</td>
<td>Blockbuster Drugs</td>
<td>1</td>
</tr>
<tr>
<td>PHPS 565</td>
<td>Genetics and Pharmacology of Malaria</td>
<td>1</td>
</tr>
<tr>
<td>PHPS 569</td>
<td>Cancer Prevention</td>
<td>1</td>
</tr>
<tr>
<td>PHPS 570</td>
<td>Drugs from the Ocean</td>
<td>1</td>
</tr>
</tbody>
</table>
### APPENDIX D. Changes Since Provisional Approval

Table VIII. List of Curricular and Programmatic Changes BAPS Since Provisional Approval by BOR in Feb, 2011

<table>
<thead>
<tr>
<th>Course</th>
<th>Program Change (credits)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHPS 501; PHPS 502</td>
<td><strong>Biochemistry-Biomolecules:</strong> Reduced from (3) to (2) credits; <strong>Biochemistry-Metabolism:</strong> Reduced from (3) to (2) credits</td>
<td>&quot;Biochemistry-Biomolecules&quot; and &quot;Biochemistry-Metabolism: series was reduced from a total of (6) to a total of (4) credits. Some of the course content was moved to the Drug Action I-II series. Redundant material was eliminated, and the course topics were better aligned to the needs of the Pharmacy profession.</td>
</tr>
<tr>
<td>PHPS 509</td>
<td>Pathophysiology: Reduced from (4) to (3) credits; active learning/workshop component added</td>
<td>&quot;Pathophysiology&quot; was reduced from (4) to (3) credits. Redundant content was eliminated, and in its place, a workshop and active learning/discussion component was added.</td>
</tr>
<tr>
<td>PHPP 511</td>
<td>Culture &amp; Inter-professional Health Care (2): Replaced by PHPP 528 Pharmacy Communication and Culture (3)</td>
<td>The original course named “Culture &amp; Inter-professional Health Care” was increased from (2) to (3) credits, and a Pharmacy communications component added, the course was renamed “Pharmacy Communication and Culture.” Students participate in simulated encounters with patients and are evaluated by their peers and course instructor.</td>
</tr>
<tr>
<td>PHPS 512</td>
<td>Intro to Pharmaceutical Sciences (3): Replaced by PHPS 540 Drug Action I (2) and PHPS 541 Drug Action II (2)</td>
<td>Topics in “Introduction to Pharmaceutical Sciences” were increased from (3) to (4) credits, divided over two semesters and renamed as “Drug Action I-II”. The redesigned course now provides for a stronger foundation in Pharmaceutical Sciences and better prepares students for application this material in the subsequent curriculum.</td>
</tr>
<tr>
<td>PHPP 507</td>
<td>Foundation of Integrated Therapeutics and OTC Drugs (3): Replaced with PHPP 510 Pharmacy Self-Care I (2) and PHPP 511 Pharmacy Self-Care II (2)</td>
<td>Topics in “Foundation of Integrated Therapeutics and OTC Drugs” were expanded to better prepare students for retail Pharmacy rotations. One credit hour was added and the course divided among two semesters and renamed the “Pharmacy Self-Care I-II” series.</td>
</tr>
<tr>
<td>PHPS 591</td>
<td>Basic and Applied Toxicology (3): Replaced by PHPP 523 Wellness and Disease Prevention (2) and PHPP 527 Drug Information (2)</td>
<td>&quot;Basic and Applied Toxicology” was moved from the second to the third year of the PharmD curriculum and was revised to become a more advanced and applied topics course. In</td>
</tr>
</tbody>
</table>
its place, the BAPS curriculum now includes two courses, which are more fundamental to Pharmacy Studies: “Drug Information” and “Wellness & Disease Prevention”

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHPP 506</td>
<td>Introductory Pharmacy Practice Experience 6 (1)</td>
<td>About 60 hours, from PHPP 501/502 was moved to new 4-week summer community pharmacy experiential rotation, providing 160 contact hours in the pharmacy practice setting</td>
</tr>
<tr>
<td>PHPP 508</td>
<td>Biostatistics: Reduced from (3) to (2) credits</td>
<td>Redundant content eliminated</td>
</tr>
<tr>
<td>PHPP or PHPS elective</td>
<td>Electives: Requirement reduced from (3) to (2) credits</td>
<td>To accommodate the changes to the curriculum, the Elective requirement for the BAPS degree was reduced from (3) to (2) credits.</td>
</tr>
<tr>
<td></td>
<td>Total change in required credits for BAPS degree: none</td>
<td></td>
</tr>
</tbody>
</table>

BOR action memo - provisional to established status - BAPS - 2020.A.16 signed.pdf  26
APPENDIX E: List of Faculty and Area of Expertise

I. Department of Pharmaceutical Sciences

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dianqing Sun Professor and Chair</td>
<td>design and synthesis of novel small molecule and natural product based anti-infective and anti-cancer agents</td>
</tr>
<tr>
<td>Shugeng Cao, PhD Associate Prof</td>
<td>antibiotics (antibacterial, anticancer) from natural products, including from marine and terrestrial organisms collected in Hawai‘i</td>
</tr>
<tr>
<td>Leng Chee Chang, PhD Associate Prof</td>
<td>isolation, identification, and biological evaluation of compounds from higher plant and microbial origin</td>
</tr>
<tr>
<td>Abhijit Date, MPharm, PhD Assistant Prof</td>
<td>drug delivery, bioconjugate chemistry, and biology to develop nanomedicines for the prevention and/or treatment of cancer, infectious diseases, and inflammatory disorders</td>
</tr>
<tr>
<td>Daniela Guendisch, PhD Associate Prof</td>
<td>targeted drug therapy and diagnostic tools for central nervous system diseases (e.g. Alzheimer’s disease, major depression, addiction).</td>
</tr>
<tr>
<td>Susan Jarvi, PhD Professor</td>
<td>host-parasite and parasite-parasite interactions and influences on transmission and virulence of infectious diseases in Hawai‘i; her lab is also home to the Hawai‘i Island Rat Lungworm Working Group</td>
</tr>
<tr>
<td>Dana Koomoa-Lange, PhD Associate Prof</td>
<td>role of proteins in the malignant progression of neuroblastoma and other types of cancers driven by myc expression (c-myc and N-myc)</td>
</tr>
<tr>
<td>Ingo Koomoa-Lange Assistant Prof</td>
<td>divalent cation signaling and how it promotes pathophysiological processes of pediatric cancers and drug resistance</td>
</tr>
<tr>
<td>Ghee Tan, PhD Associate Prof</td>
<td>development of natural product antimalarial agents</td>
</tr>
</tbody>
</table>
## II. Department of Pharmacy Practice

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Practice Site/Expertise</th>
</tr>
</thead>
</table>
| Roy Goo, PharmD  
Associate Professor and Chair | faculty-in-residence at Hawai‘i Pacific Health Wilcox Memorial Hospital (Kauai), rural health and program development with the Hawai‘i Department of Health (DOH) |
| Julie Ann Luiz Adrian, DVM  
Associate Professor | veterinary topics including complicated grief, posttraumatic stress disorder and pharmacological therapy for human response to the death of pets and animals |
| Cherie Merabian-Sani, PharmD, BCPS, BCCC  
Assistant Professor | faculty-in-residence at Oahu’s Adventist Health Castle Medical Center’s Intensive Care Unit. She is double boarded in Clinical Pharmacy Practice and Critical Care Pharmacy |
| Bryce Fukunaga, PharmD  
Assistant Professor | faculty-in residence as an ambulatory care clinical pharmacist at Bay Clinic in Hilo, Hawai‘i |
| Patricia Jusczak, BS, RPh  
Associate Specialist | medication safety, pain management, sterile products, Joint Commission Standards for hospitals, and medication management practice standards |
| Chad Kawakami PharmD, BCPS, CDE  
Assistant Professor | faculty-in-residence at Pali Momi Medical Center on Oahu with the JABSOM Dept. of Family Medicine; boarded as a Pharmacy Specialist and a certified diabetes educator |
| Michelle Kim, PharmD  
Assistant Specialist | faculty-in-residence at the Hawai‘i Island Family Health Center, with the Hawai‘i Island Family Medicine Residency Program, coordination of all Introductory Pharmacy Practice Experiential (IPPE) courses |
| Camlyn Masuda, PharmD, BCACP, CDE  
Assistant Professor | faculty-in-residence as an ambulatory care clinical pharmacist JABSOM Family Medicine’s Physician Center on Oahu; boarded as an ambulatory care pharmacist, certified diabetes educator |
| Donna Ohora, BA, MLIS  
Librarian (25%) | Librarian II at Edwin H. Mookini Library serving the UH Hilo and Hawai‘i Community College; manages the college’s pharmacy resource library and serves as drug information resource liaison for DKICP students and faculty |
| Jarred Prudencio, PharmD, BC-ADM  
Assistant Professor | faculty-in-residence at Hilo’s Hawai‘i Island Family Health Center, Hawai‘i Island Family Medicine Residency Program, chronic disease state treatment, comprehensive medication management, and increasing medication access; double boarded in Ambulatory Care Practice and in Advanced Diabetes Management |
| Allen Shih, PharmD  
Assistant Specialist | faculty-in-residence at the Hilo Medical Center, Intensive Care Unit and also consults with the Hawai‘i Island Family Practice Residency Program |
| Wesley Sumida, PharmD, BCPS  
Associate Specialist | boarded clinical pharmacy specialty faculty-in-residence as an ambulatory care clinical pharmacist at the JABSOM University Medicine Faculty Practice, Queens Punchbowl |
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deborah Taira, ScD</td>
<td>Professor</td>
<td>health economist whose research focuses on understanding and reducing health disparities, particularly involving Asian and Pacific Islander Americans</td>
</tr>
<tr>
<td>Sheri Tokumaru, PharmD, BCPS</td>
<td>Associate Professor</td>
<td>Director of Interprofessional Education and Development; boarded as a Critical Care Pharmacy faculty-in-residence in the Neuroscience Intensive Care Unit at The Queen’s Medical Center Punchbowl</td>
</tr>
<tr>
<td>Supakit Wongwiwatthanukit, PharmD, PhD</td>
<td>Professor</td>
<td>pharmaceutical education, involving curriculum and course development and assessment</td>
</tr>
<tr>
<td>Aryn Meguro, PharmD</td>
<td>Assistant Professor</td>
<td>faculty-in-residence at Hawai’i Pacific Health Wilcox Memorial Hospital (Kauai)</td>
</tr>
<tr>
<td>Nicole Young, PharmD</td>
<td>Assistant Professor</td>
<td>boarded in Critical Care Pharmacy and is faculty-in-residence in the Neuroscience Intensive Care Unit at The Queen’s Medical Center Punchbowl</td>
</tr>
</tbody>
</table>

### III. Dean’s Office

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carolyn Ma, PharmD, BCOP, CHTP</td>
<td>Dean and Associate Professor</td>
<td>Board-Certified Oncology Pharmacist with interest in pharmacy/health legislation, interprofessional education and pharmacy practice management</td>
</tr>
<tr>
<td>Lara Gomez, PharmD</td>
<td>Associate Dean for Academic Affairs, Associate Specialist</td>
<td>Experiential education and healthcare preceptors</td>
</tr>
<tr>
<td>Karen Pellegrin, PhD, MBA</td>
<td>Specialist Director of Strategic Planning and Continuing Education</td>
<td>Rural health and big data information technology, Medicare/Medicaid reimbursements</td>
</tr>
</tbody>
</table>
MEMORANDUM

To: Benjamin Asa Kudo
Chair, Board of Regents

VIA: David Lassner
President

VIA: Don Straney
Vice President for Academic Planning and Policy

VIA: Michael Bruno
Provost

VIA: Laura Lyons
Interim Associate Vice Chancellor for Academic Affairs

From: Dean Aloysius Helminck
College of Natural Sciences

From: Dean Brian Taylor
School of Ocean and Earth Science and Technology

SUBJECT: REQUEST FOR ESTABLISHED STATUS FOR THE MARINE BIOLOGY GRADUATE PROGRAM AT THE UNIVERSITY OF HAWAI'I AT MANOA

SPECIFIC ACTION REQUESTED:
It is respectfully requested that the Board of Regents grant established status to the Marine Biology Graduate Program (MBGP) for Ph.D. and M.S. degrees in Marine Biology; the MBGP is jointly administered by the College of Natural Sciences (CNS) and the School of Ocean and Earth Science and Technology (SOEST) at the University of Hawai'i at Manoa.

RECOMMENDED EFFECTIVE DATE:
July 1, 2020

ADDITIONAL COST:
None.

PURPOSE: The mission of MBGP is to nurture a world-class community of students and faculty dedicated to innovative scientific research and education for the benefit of the participants, the state of Hawaii, the nation, and the world. A goal of the MBGP program is to prepare students to be

2500 Campus Road, Hawai'i Hall 209
Honolulu, Hawai'i 96822
Telephone: (808) 956-8447
Fax: (808) 956-7115

An Equal Opportunity/Affirmative Action Institution
research and development leaders in marine biology, conservation, and resource management with the ability to transcend disciplinary boundaries and apply leading-edge research techniques to challenging fundamental and applied problems. To this end, the program is a catalyst and a resource for shaping the future of the broad discipline of marine biology.

BACKGROUND:
CNS and SOEST have brought their faculties and facilities to this collaborative effort of co-sponsoring a graduate program in Marine Biology. This program provides Doctoral and Master's degree programs that allow graduate students to work with scientists in both units to design an individualized graduate training program that makes use of Hawaiian marine organisms and ecosystems as well as marine science expertise that resides in CNS and SOEST and in partner organizations in the University of Hawai‘i, industry, non-governmental organizations, and state and federal agencies, as detailed in the attached self-study: Marine Biology Graduate Program at the University of Hawai‘i at Manoa.

ACTION RECOMMENDED:
It is respectfully recommended that the Board of Regents grant established status to the Ph. D in Marine Biology and M. S. in Marine Biology as part of the Marine Biology Graduate Program jointly administered by the College of Natural Sciences and the School of Ocean and Earth Science and Technology at the University of Hawai‘i at Manoa.

Attachment: Self-Study for Marine Biology Graduate Program at the University of Hawai‘i at Manoa

cc: Executive Administrator and Secretary of the Board Kendra Oishi
Marine Biology Graduate Program
at
University of Hawai‘i at Mānoa

Self-Study

March 2020

MBGP Co-Directors:
Dr. Megan Donahue (HIMB/SOEST)
Dr. Celia Smith (SLS/CNS)

This self-study is organized following the “Guidelines for Assessment of Provisional and Established Programs” E5.201 in support of the MBGP transition from provisional to established status.
## Contents

1  Introduction ............................................................................................................................. 3  
   1.1 The importance of Marine Biology Graduate Program .................................................. 3  
   1.2 Program Administration and Governance ........................................................................ 3  

2  Assessment of the program organization and objectives ...................................................... 4  
   2.1 Overview of Marine Biology Graduate Program ........................................................... 4  
   2.2 Advising and Mentoring ................................................................................................... 5  
   2.3 The Ph.D. in Marine Biology ............................................................................................ 6  
   2.4 The M.S. in Marine Biology ............................................................................................. 7  
   2.5 Demonstration of core competencies ................................................................................ 7  

3  Assessment of program resources ........................................................................................... 7  
   3.1 Faculty resources ............................................................................................................. 7  
   3.2 Affiliate Faculty as Resources for our Students .............................................................. 8  
   3.3 Program resources ............................................................................................................. 8  
   3.4 Assessment of program efficiency .................................................................................... 9  
   3.5 Efficiency with respect to M.S. and Ph.D. numbers and graduation rates ....................... 9  
   3.6 Time to degree ................................................................................................................ 10  
   3.7 Interdepartmental Synergies across the MBGP .............................................................. 10  

4  Assessment of student learning and student and program success ........................................ 10  
   4.1 Description of student learning objectives ..................................................................... 10  
   4.2 Faculty honors and recognition ....................................................................................... 11  
   4.3 Student honors and recognition ...................................................................................... 12  
   4.4 Student Exit Surveys ....................................................................................................... 13  

5  Assessment of appropriateness of program outcomes ........................................................... 13  
   5.1 Alignment with UH strategic priorities .......................................................................... 13  
   5.2 Alignment with the State of Hawai‘i .............................................................................. 14  

6  The Future of the MBGP ....................................................................................................... 14  

7  Appendices ............................................................................................................................ 16  
   7.1 Appendix A – Marine Biology Curriculum Requirements ............................................. 16  
   7.2 Appendix B. Possible Roadmaps for M.S. and Ph.D. Degrees ........................................ 18
1 INTRODUCTION

1.1 The importance of Marine Biology Graduate Program.

The University of Hawai‘i at Mānoa (UHM) is uniquely positioned to excel as the home for a graduate program in Marine Biology: we have an abundance of natural marine resources, the research excellence to study them, and the state-wide need for expertise in marine resource management. Situated in the Hawaiian Archipelago, home to the largest coral reef habitats in the United States, and one of the largest marine refuges in the world, we have natural laboratories for the study of marine ecosystems, marine biogeochemical processes, reef and oceanic fisheries, and human/marine interactions. This combination of access to exceptional natural resources and critical intellectual capital has led to consistently high demand by incoming graduate students for training in marine biology because of the advantages of location, the abundance of relevant research opportunities, and cutting-edge infrastructure of UHM resources.

The Marine Biology Graduate Program (MBGP) provides an environment for students to receive advanced training specifically tailored to their interests, as well as training to address the growing need, locally and globally, for technically trained scientists, managers, and policy makers who understand the processes that govern tropical marine ecosystems. Linking the considerable expertise in marine biology in the College of Natural Sciences (CNS) and the School of Ocean and Earth Sciences and Technology (SOEST), the MBGP provides advanced professional training in Hawai‘i and helps to meet State and national needs for mid-level biologists and managers in both the private and public sectors; our M.S. graduates compete well for these positions. Our Ph.D. graduates are prepared to enter the expanding field of marine biology and ecosystem research in future college-level faculty positions and in professional science research positions in the government, non-profit, and private sectors. Because of the high demand for graduate training in marine biology, the societal needs for specialists in this field, the advantages of providing such training at UHM, and the unique position of Hawai‘i as a coastal state and island, we request movement from provisional to established status for the Marine Biology Graduate Program at UHM.

1.2 Program Administration and Governance

The MBGP is administered by the deans of the College of Natural Sciences and School of Ocean and Earth Sciences and Technology, with academic oversight and management of the program provided by two co-directors, one representing each unit. All faculty in each unit, whether in academic departments or research institutes, are eligible to apply for regular faculty status in the program. There are currently three program-level faculty standing committees that develop policies to best serve the interests of students and the program: the Admissions Committee, the Curriculum Committee, and the Assessment Committee. These committees are populated by at least one member from SOEST and CNS. Three faculty is the minimum for each committee structure.
2 ASSESSMENT OF THE PROGRAM ORGANIZATION AND OBJECTIVES.

2.1 Overview of Marine Biology Graduate Program.

The Marine Biology Graduate Program (MBGP) is an interdisciplinary program that combines relevant research and instructional units in CNS and SOEST at the University of Hawai‘i at Mānoa. We are responsible for two academic degrees:

- M.S. in Marine Biology
- Ph.D. in Marine Biology

In our 2011 proposal, the MBGP objectives were, “to train future leaders in the marine biological sciences that include fisheries, coral reef biology, marine ecological and evolutionary genetics, marine biosensory and physiological processes, and marine resource management as they relate to tropical marine life and systems.” CNS and SOEST have brought their faculties and facilities to this collaborative effort, which provides Doctoral and Master’s degree programs that allow graduate students to work with scientists in both units to design an individualized graduate training program that makes use of Hawaiian marine organisms and ecosystems as well as marine science expertise that reside in CNS and SOEST and in partner organizations in the University of Hawai‘i, industry, non-governmental organizations, and state and federal agencies. The MBGP admits highly qualified students with a background in biological sciences and a desire to be at the forefront of research and development in marine biological sciences. Prospective students apply from around the world to join our doctoral and master’s degree candidates (Table 2.1). Admission requirements are outlined on the MBGP website (http://mbiograd.manoa.hawaii.edu/admissions.html), including academic preparation:

Students admitted into the MBGP are expected to have strong undergraduate or M.S. training in biological oceanography, environmental science, marine science, marine biology, zoology, microbiology, botany, biology, or other life sciences. Applicants are expected to have strong undergraduate background in math, chemistry and/or physics. Since the beginning of our programmatic activities, we have prepared graduates for leadership and innovation in marine biological sciences by fostering their development as critical thinkers via new courses and expanded curriculum selection, interdisciplinary activities as scholars, communicators, educators, and researchers. Our students have consistently excelled in research, building cross-disciplinary committees, and they communicate their findings to many diverse audiences. Our international student enrollment averages about 11%, enrollment of students from local high schools is currently 12%, and Native Hawaiian/Pacific Islander enrollment is 7.6%. MBGP students are conducting research that is relevant to the state of Hawai‘i: 7 to 9% of our students are already employed by a state or federal agency in Hawai‘i when they enter the graduate program and remain employed throughout their degree program with the full support of their academic supervisors and employers.

Since its first full year of advertising in 2013, the program has generated significant interest, represented in large numbers of applications from a diversity of states and international universities (Table 2.1). For the years 2013–2019, acceptance rates averaged 16.8% of total of 653 applicants. Our degrees pull in new students from across national and international undergraduate and graduate programs.
Students have been successful in obtaining NSF Graduate Research Fellowships, Sea Grant Trainee Fellowships, and other competitive fellowships. Additionally, the majority of our students have been supported by Graduate Research Assistantships through extramural grant funding obtained by their advisors or other faculty (~41%), Teaching Assistantships (~33%), or tuition provided by their employer or home government (~10%).

2.2 Advising and Mentoring

Faculty Advisor
MBG students are admitted into the program under the direct mentorship of a graduate faculty advisor. It is expected that a close mentor-student relationship will develop over the course of the student’s graduate education and beyond, which will include facilitation in research training, overall professional development, and career planning and placement. There are multiple locations at which students can seek advice—the faculty advisor’s office, the MBGP office, and the office of each co-director (Mānoa campus and HIMB).

Advisory Committees
Advising and mentoring begins in the week before a student’s first semester with the formation of an Interim Committee. The Interim Committee is composed of the student’s faculty advisor and two program faculty who meet with an incoming student, evaluate that student’s academic record, and identify courses to be taken in the first year. Each student is also required to meet with their advisory committee at least once per year. The Interim Committee serves as the student’s advisory committee until the Thesis Committee (M.S.) or Dissertation Committee (Ph.D.) is assembled at the end of the second (M.S.) or third (Ph.D.) semester. A report of the annual meeting that outlines the topics covered and any recommendations of the committee is submitted to the program coordinator by the advisor.

Annual Progress Report
Students submit an annual progress report that outlines their accomplishments for the previous academic year, plans for the upcoming year, and their near-term career goals. The advisor reviews the report and completes a rubric to assess the student’s academic progress. If progress is considered unsatisfactory, a meeting with the student and committee will be scheduled to determine a plan of action to bring the student up to an acceptable standard.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants</td>
<td>6</td>
<td>112</td>
<td>133</td>
<td>82</td>
<td>80</td>
<td>71</td>
<td>92</td>
<td>77</td>
</tr>
<tr>
<td>Accepted</td>
<td>6</td>
<td>22</td>
<td>21</td>
<td>12</td>
<td>13</td>
<td>8</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>% Accepted</td>
<td>100</td>
<td>19.6</td>
<td>15.8</td>
<td>14.6</td>
<td>16.3</td>
<td>11.3</td>
<td>10.9</td>
<td>23.4%</td>
</tr>
<tr>
<td>Enrolled PhD:MS</td>
<td>3:3</td>
<td>12:7</td>
<td>13:8</td>
<td>8:4</td>
<td>8:5</td>
<td>1:7</td>
<td>4:6</td>
<td>7:9</td>
</tr>
</tbody>
</table>
2.3 The Ph.D. in Marine Biology

The Ph.D. is the highest degree awarded by universities in the United States and thus represents the pinnacle of academic achievement. The Ph.D. in Marine Biology is designed to scientifically train leaders who identify, investigate, and solve problems related with marine biological resources and responses of marine organisms and coastal ecosystem processes to a globally changing ocean.

Coursework
The Ph.D. in Marine Biology requires all students to attend and pass a two-semester course focused on professional development and critical reading of literature (MBIO 603 & 604, 1 credit each) as a cohort experience. For students without a prior M.S., two courses from an approved list (see Appendix A – Marine Biology Curriculum Requirements) and one graduate level course in statistics are required. This approved list of courses is updated regularly to reflect course availability, developments in the field, and faculty expertise. A total of 18 credits of coursework is required for the Ph.D. with no prior M.S., and remaining credits can be earned from a mix of graduate level courses recommended by their advisor and permanent committee.

| MBIO 603 | Career Skills for Marine Biologists | 1 cr |
| MBIO 604 | Current Research in Marine Biology | 1 cr |
| MBIO 611 | Introduction to Quantitative Methods in Fisheries Science | 4 cr |
| MBIO 691X | Seminars in Marine Biology | 1 cr |
| MBIO 710 | Topics in Marine Fisheries & Natural Resource Management | 1-4 cr |
| MBIO 715 | Marine Conservation Ecology | 1-3 cr |
| MBIO 720 | Topics in Marine Education, Outreach, and Policy | 1-4 cr |
| MBIO 725 | Topics in Marine Physiology, Behavior, & Organismal Biology | 1-4 cr |
| MBIO 740 | Advanced Topics in Quantitative Biology | 2-4 cr |

Table 2.3. Other courses also accepted towards formal coursework for MBIO degrees

| BOT 682 & 682L | Plants in Marine Environments | 3 + 1 cr |
| OCN 626 | Marine Microplankton Ecology | 4 cr |
| OCN 627 | Ecology of Pelagic Marine Animals | 4 cr |
| OCN 628 | Benthic Biological Oceanography | 4 cr |
| OCN 630 | Deep Sea Biology | 3 cr |
| ZOO 780/781 | Foundations of Evolution and Ecology | 4 + 4* cr |

*only 4 credits of ZOO 780/781 can count toward the degree

Table 2.4. Courses, Sections, SSH

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MBIO Courses Offered</td>
<td>8</td>
<td>17</td>
<td>14</td>
<td>23</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Annual SSH</td>
<td>294</td>
<td>550</td>
<td>500</td>
<td>584</td>
<td>496</td>
<td>595</td>
</tr>
</tbody>
</table>

Science Communication & Teaching
The Marine Biology Graduate Faculty also considers experience in science communication and teaching as an integral part of the academic training program, and both are required of all
doctoral students. Teaching experience usually takes the form of a teaching assistantship for at least one semester but may also be fulfilled by experience in teaching high school biology, teaching of professional workshops, or other teaching experience. Science communication in the form of one presentation at a scientific conference or public event is required annually of all students.

2.4 The M.S. in Marine Biology

The Masters of Science (Plan A only) is the intermediate degree awarded by universities in the United States and thus represents a significant step above undergraduate education and skill while not fully attaining the academic achievement of a Ph.D. In the M.S. program, students are challenged to demonstrate that they understand what is involved in research, typically in a single research chapter. Thus, the M.S. is designed to scientifically train resource managers, agency scientists, and rising research leaders who, with more experience, will be able to identify, investigate, and solve complex problems related to the biology of marine organisms and coastal resources. While some holding M.S. degrees may continue on to a Ph.D., many will select career paths in teaching, community advocacy, or resource management policy.

2.5 Demonstration of core competencies

Diverse curricular pathways and activities allow students to learn and demonstrate core competencies in marine biological sciences. Our multi-step process of demonstrating core competencies, including formative assessment and mentoring, coursework, preparation of a research proposal, proposal defense, and final presentation and defense, when combined with our graduate curriculum and research areas, creates an effective and efficient program for students to achieve their individualized goals through of academic scholarship, research productivity, and publications of their findings. Our program is thus organized in such a way as to meet its objective to train future leaders in the marine biological sciences.

3 ASSESSMENT OF PROGRAM RESOURCES

3.1 Faculty resources

The MBGP faculty is a large, diverse and well qualified group. As an interdepartmental program, there are no faculty lines dedicated to the MBGP. As we re-envision the core curriculum of the MBGP (see The Future of the MBGP, Re-envisioning a Core Curriculum), we look forward to the support of the SOEST and CNS Deans as we leverage the instructional capacity of recent hires at SOEST/HIMB and imminent hires in CNS/SLS. Our full faculty includes regular and cooperating faculty as defined by Graduate Division, as well as affiliate faculty from partner institutions. Approximately 75% of our regular or cooperating faculty have served as advisors for MBGP students, and 75% have contributed to teaching MBGP courses. Our 42 regular and cooperating faculty are housed in four units of SOEST: the Oceanography Department (10 faculty), Hawai‘i Institute of Marine Biology (14 faculty), Pacific Biosciences Research Center (2 faculty) and Earth Sciences (1 faculty). In CNS, the newly established School of Life Sciences combines faculty previously housed in Botany (3 faculty), Microbiology (1 faculty) and Zoology (8 faculty) (Error! Reference source not found.). Additionally, three MBGP faculty are in units on Hawai‘i Island, either at UH Hilo (2) or the USGS Cooperative Unit, in Hilo (1).
3.2 Affiliate Faculty as Resources for our Students.

Hawai‘i serves as headquarters for numerous marine agencies, providing MBGP with a rich pool of highly qualified Affiliate Faculty. These Affiliate Faculty join us from the federal and state agencies, non-governmental organizations, and faculty affiliates of HIMB. Federal agencies represent the greatest proportion with 10 faculty from NOAA, USFWS, USGS. Many of these colleagues contribute to student development through service on student advisory committees and participation in core courses and seminars as guest speakers.

3.3 Program resources

We have stayed within the originally defined parameters for new resources detailed in our original proposal. Additional courses required by the both programs have been taught by existing faculty, as planned. The Program Coordinator (hired in 2019) was likewise funded through a reallocation of internal funds. We had anticipated enrollments to require 3 to 5 new positions, and indeed 3 have since been hired, one in 2018, 2019, and 2020. The total expenses for the program were estimated at $65,000 to $75,000 per year, and in actuality those expenses have averaged $69,000. We have exceeded our original revenue projections based on increasing enrollments, and our graduate students have successfully sought and received foundation and extramural support for the training.

Operating Budget

The program receives an operating budget of $4,000 from each dean for office supplies, course support, and program events. In 2012, CNS added a one-time purchase of the program’s office equipment, four iMacs for student and class use, and six microscopes. In 2018, SOEST provided funds for refurbishing the HIG 132 class/meeting space.

Space

The MBGP program offices occupy two rooms (HIG 131a, 132) provided by SOEST on the first floor of the Hawai‘i Institute for Geophysics (HIG) Building. HIG 131a serves as office space for the Program Coordinator and small meeting space. HIG 132 is a conference room used for committee meetings and seminar classes. SOEST also identified space in the Marine Sciences Building (MSB) for graduate student office space. This graduate student office space is particularly critical for first-year students, who may be on campus full-time for coursework but whose faculty advisor and laboratory is off-campus.

Program Coordinator:

Our full-time Program Coordinator (PC) is essential to the success of the MBGP. The PC performs the day-to-day administration of the program, including the processing of applications, tracking of student progress, coordination of fall welcome activities, scheduling of classes and seminars, and regular meetings and assigned tasks from the Co-Directors. The PC’s salary is supported by equal contributions of $30,000 from the SOEST and CNS Deans.

Teaching Assistantships

In 2015, the Vice Chancellor for Academic Affairs allocated four teaching assistantships to the MBGP through the College of Natural Sciences to support MBGP graduate students and teach in classes that serve the B.S. in Marine Biology. Starting in Fall 2015, MBGP has used these four teaching assistantships as recruitment incentives for top-ranking graduate applicants. Beyond these four teaching assistantships specifically allocated to the MBGP, our students are recruited
as teaching assistants to support courses across campus, typically in the CNS School of Life Sciences or, less frequently, in the SOEST Department of Oceanography or other departments.

Co-Directors
Each of the MBGP Co-Directors receive summary salary (for 9-mos 1.0 FTE I-faculty) or its equivalent (for 11-mos 0.85 FTE R-faculty) to support their leadership of the program.

3.4 Assessment of program efficiency
As originally proposed, the MBGP has not had new faculty lines to support the program. Our academic offerings include specific new courses with MBIO designations, including the core 603 and 604 professional development courses. However, most of our students’ class credits come from leveraging existing courses in Biology, Botany, Microbiology, Oceanography, and Zoology. Thus, this new graduate program is exceptionally cost effective in training. Also, all MBGP faculty have a locus of tenure within another unit; therefore, there are no additional faculty costs associated with the MBIO program.

3.5 Efficiency with respect to M.S. and Ph.D. numbers and graduation rates
A second way to evaluate efficiency of our program is through review of the number of Ph.D. students and our graduation rate. The Marine Biology Graduate Program matriculated its first cohort in FY13, and, as of Fall 2019, we have 71 students (27 MS, 44 PhD) in the program (Error! Reference source not found.). Our program enrollment now exceeds that of related but more established programs on campus (Table 3.1). We graduated our first PhD students in AY 16–17, on time for a 5-year degree program, and 10 PhDs in Marine Biology have been granted in the past three years with 6 anticipated in the current academic year. MBGP graduation has kept pace with student enrollment (Error! Reference source not found.) and is comparable to graduation rates of more established programs on campus (Table 3.2).

Table 3.1. Graduate students enrolled in MBGP compared to other units

<table>
<thead>
<tr>
<th>Year</th>
<th>MBGP</th>
<th>Botany</th>
<th>Microbiology</th>
<th>Oceanography</th>
<th>Zoology</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MS</td>
<td>PhD</td>
<td>MS</td>
<td>PhD</td>
<td>MS</td>
</tr>
<tr>
<td>Fall 2012</td>
<td>5</td>
<td>1</td>
<td>14</td>
<td>26</td>
<td>14</td>
</tr>
<tr>
<td>Fall 2013</td>
<td>12</td>
<td>15</td>
<td>11</td>
<td>24</td>
<td>11</td>
</tr>
<tr>
<td>Fall 2014</td>
<td>21</td>
<td>28</td>
<td>10</td>
<td>25</td>
<td>9</td>
</tr>
<tr>
<td>Fall 2015</td>
<td>22</td>
<td>35</td>
<td>11</td>
<td>23</td>
<td>5</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>15</td>
<td>43</td>
<td>14</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>Fall 2017</td>
<td>18</td>
<td>42</td>
<td>17</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>25</td>
<td>44</td>
<td>13</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Fall 2019</td>
<td>27</td>
<td>44</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Avg y−1</td>
<td>18.1</td>
<td>31.5</td>
<td>12.9</td>
<td>22.4</td>
<td>7.6</td>
</tr>
</tbody>
</table>

9
Table 3.2 Degrees awarded in MBGP compared to other relevant units (* includes projected graduates for Spring 2020)

<table>
<thead>
<tr>
<th>Year</th>
<th>MBGP</th>
<th>Botany</th>
<th>Microbiology</th>
<th>Oceanography</th>
<th>Zoology</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MS</td>
<td>PhD</td>
<td>MS</td>
<td>PhD</td>
<td>MS</td>
</tr>
<tr>
<td>2012-2013</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>2013-2014</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>2014-2015</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2015-2016</td>
<td>11</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2016-2017</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2017-2018</td>
<td>4</td>
<td>1</td>
<td>9</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2018-2019</td>
<td>4</td>
<td>7</td>
<td>7</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>2019-2020</td>
<td>6*</td>
<td>6*</td>
<td>4*</td>
<td>4.7</td>
<td>2.9</td>
</tr>
<tr>
<td>Awards y(^{-1})</td>
<td>5.3*</td>
<td>4*</td>
<td>4.7</td>
<td>2.9</td>
<td>2.4</td>
</tr>
<tr>
<td>7.9</td>
<td>7.9</td>
<td>7.9</td>
<td>7.9</td>
<td>7.9</td>
<td>7.9</td>
</tr>
</tbody>
</table>

### 3.6 Time to degree

Nationally, time to degree for PhD from start of grad school for Life Sciences is 6.9 yrs for women and 6.7 yrs for men. We compare quite favorably with this national mean: our median time to degree for Ph.D. in Marine Biology is 5.6. For our M.S. students, median time to degree is 3 years.

### 3.7 Interdepartmental Synergies across the MBGP

Our program has grown quickly over five years in part because of the place-based, excellent education it delivers. This novel hybrid has leaders in their fields who now collaborate in ways that set new standards for training students as marine biologists. Approximately 43% of student advisory committees include both CNS and SOEST faculty members (not including university representatives). This trend seems to be increasing—for example, 33.3% of M.S. student committees included members from both units between 2012–2014, compared to 57.1% of M.S. student committees between 2015–2018. In effect, this program appears to have re-united old partners: Oceanography was moved from CNS to SOEST in 1988 by President Al Simone. The accumulated strengths of the now 30-year old SOEST combined with core strengths of marine biologists in CNS has delivered an even stronger program now with federal, state and NGO partners as affiliate faculty. We have raised the quality of education for marine biologists overall. The success of the MBGP is clear.

### 4 ASSESSMENT OF STUDENT LEARNING AND STUDENT AND PROGRAM SUCCESS.

#### 4.1 Description of student learning objectives

The MBGP graduate program provides courses and individualized training for advanced research in Marine Biology. Our objective is to help students achieve a high level of professional competence and lifelong learning, with the following Student Learning Objectives (SLOs), all of which are shared between our M.S. and Ph.D. degree programs.
SLO 1 – A working, in-depth understanding of marine biological systems and processes in both offshore and near shore environments, with an emphasis on the important linkages between these habitats.

SLO 2 – Demonstrated expertise in quantitative and qualitative methods for field and laboratory research with the ability to develop a comprehensive research plan.

SLO 3 – Advanced competency in publishing, disseminating, and communicating research findings in professional and practical applications and in grant writing.

The basic structure of our program has been designed to ensure that successful graduates have satisfactorily achieved all learning objectives. Appendix B provides an example of possible roadmaps to degree for M.S. and Ph.D. students (Appendix B. Possible Roadmaps for M.S. and Ph.D. Degrees).

4.2 Faculty honors and recognition

The MBGP has an emerging national and international reputation, and our faculty are regularly awarded grants, fellowships, awards, contracts, and commissions. They also maintain active scholarship, with a publication record of ~3.5 papers per person per year. This active scholarship and substantial funding allow our students to engage in well-supported and cutting edge fundamental and applied research in marine biology. The MBGP faculty are highly distinguished professionals in their respective fields. In addition to their impressive funding and publication records, they are also well-recognized by their peers. Below is a selection of academic awards, recognition and honors that have been bestowed upon MBGP faculty.

- A.G. Huntsman Medal for Excellence in Marine Science
- Aldo Leopold Leadership Program Fellow (2)
- American Academy of Arts and Sciences Elected Fellow
- American Academy of Microbiology Elected Fellow
- American Association for the Advancement of Science Elected Fellow
- ARCS Foundation Scientists of the Year
- Dr. Suzanne Lawrenz-Miller (CA) Education Award
- Editor in Chief, Journal of Experimental Marine Biology and Ecology
- European Association for Geochemistry elected fellow
- Executive appointee to the Marine Protected Areas Federal Advisory Committee
- Fellow of the International Society for Reef Studies
- Frolich Fellow CSIRO Marine Laboratories, Hobart, Australia
- Fulbright Senior Scholar
- Geochemical Society Elected Fellow
- International Society for Reef Studies Elected Fellow
- Klaus Wyrtki Graduate Teaching Excellence Award
- Kobe Award (Japan) for Lifetime Achievement in Aquatic Biology
- Member of the IUCN Cetacean Specialist Group
- Member, Invasive Species Advisory Committee, (ISAC), FACA panel, US DOI
- Member, Ocean Research Advisory Panel (ORAP), FACA panel, Sec of the Navy
- Nominated for UHM Excellence in Research Award
- Oahu Surfrider Foundation, John Kelly Lifetime Achievement Award
- Paul G. Allen Ocean Challenge Prize
- Peter V. Garrod Distinguished Graduate Mentorship Award
- Pew Fellowship in Marine Conservation (2)

11
- President, American Academy of Underwater Sciences
- Rank Prize Fund, Young Investigator Award
- Science Advisor to Annual Hana Limu Festival
- Senckenberg Prize in Nature Research, Frankfurt, Germany
- Sidney and Erica Hsiao Endowed Chair in Marine Biology
- U.S. Coral Reef Task Force “Outstanding Scientific Advancement of Knowledge”
- U.S. Geological Survey Outstanding Fisheries Research Excellence award
- UH Board of Regents Excellence in Research Award (2)
- UH Chancellor’s Citation for Meritorious Teaching
- UH Mānoa Center for Teaching Excellence Affiliate Faculty (2)
- UH President’s Emerging Leader (2)

4.3 Student honors and recognition

Our students are similarly impressive. Below is a sample of other academic and research honors bestowed upon MBGP students since 2013.

- AAUS Foundation Kathy Johnston English Scholarship
- Albert L. Tester Symposium Best 5 -Minute Presentation (4)
- Albert L. Tester Symposium Best Graduate Poster
- Albert L. Tester Symposium Best Paper (6)
- Bill Raynor Micronesia Challenge Scholarship
- Carol Ann & Myron K. Hayashida Scholarship
- Charles H. and Margaret B. Edmondson Research Award (2)
- Colonel Willys E. Lord, DVM & Sandina L. Lord Endowed Scholarship (8)
- Conchologists of America Research Grant
- COSEE Graduate Fellowship
- Denise B. Evans Fellowship in Oceanographic Research (2)
- EPA STAR Fellowship
- Fernando Gabriel Leonida Memorial Scholarship
- Frances Davis Award for Excellence in Undergraduate Teaching Nomination (4)
- Hau’oli Mau Loa Graduate Fellowship (4)
- Hawai‘i Conservation Conference Best Student Paper
- IUCN and UH East-West Center Eco Steward Award
- John A. Knauss Marine Policy Fellowship
- Lerner-Gray Memorial Fund from the American Museum of Natural History
- Natural Sciences and Engineering Research Council of Canada Scholarship
- NSF Graduate Research Fellowship (13)
- NSF GRFP Honorable Mention
- Philanthropic Education Organization Scholar Award
- Pohnpei Rotary Club Scholarship
- Sagarin Innovative Ecology Fund
- Smithsonian Fellowship
- UH Mānoa EECB Yoshimoto Scholarship
- UH Mānoa Opportunity Grant (2)
- UH Office of Graduate Education Dean’s Achievement Scholarship (2)
- UH Renee Heyum Scholarship
4.4 Student Exit Surveys

Eighty percent of our graduates who completed the exit survey indicated they are continuing their graduate education or have existing employment plans upon graduation. According to the exit survey findings, MBGP is perceived as a supportive science environment for students.

5 ASSESSMENT OF APPROPRIATENESS OF PROGRAM OUTCOMES

5.1 Alignment with UH Strategic Priorities

UH Mānoa Strategic Investment Initiatives

Five MBGP faculty are represented in three of the recently funded Mānoa Strategic Investment Initiatives, demonstrating both excellence and a high degree of cross-disciplinary collaboration in their research. Each of these programs, “Engaging Sustainability and Resilience of Island Ecosystems, Stewardship and Indigenous Sciences: Enhancing Student, Faculty and Community Capacity”, “Microbiomes of Hawaiian Ahupua‘a Watersheds”, and “SMART Alawai”, address critical current and emerging environmental issues in the state of Hawai‘i. They will no doubt also have a positive impact on the interdisciplinary training and professional development of the MBOI graduate students involved in these projects.

UH System Strategic Directives

The MBGP objectives and outcomes align well with two of the UH Strategic Directives: Hawai‘i Innovation Initiative, and the High Performance Mission Driven System.

Hawai‘i Innovation Initiative (HI2)

- MBGP faculty are highly productive and successful scientists who are applying advanced research technologies to conduct critical research related to marine ecosystem health, ocean and coastal tourism, climate change, endangered species, resource management, and biogeochemistry in Hawai‘i as a microcosm for global challenges.
- The MBGP has many collaborative relationships with affiliates in state, national and non-governmental agencies, as demonstrated by our robust affiliate faculty roster, all of whom contribute to the program in some meaningful way, either through mentoring, guest lecturing, or committee service.
- We have also reached out to other organizations as partners on two NSF proposals for enhancing non-academic training opportunities for our graduate students. These proposals have not been funded, but we continue to converse with these collaborators and will be submitting additional funding proposals in the future.
- The MBGP clearly leverages our island location and exceptional UH expertise in ocean and climate sciences.

High Performance Mission-Driven System (HPMS)

- The MBGP leverages both human and facilities resources by bringing together existing faculty in the SOEST and CNS to deliver targeted graduate training in biological, ecological, and evolutionary processes in ocean ecosystems. With approximately 100 applicants per year, a graduate program in marine biology is clearly desirable and filling a need for competitive students interested in a formal
degree pathway. The program includes graduate faculty at UH Hilo as well, providing opportunities for those faculty to mentor Ph.D. level students.

- The MBGP introduces our new students to the program using a cohort model for the first academic year by requiring all students entering the program to take the career skills course (MBIO 603) and research topics seminar course (MBIO 604), which help prepare them with grant writing, ethics, publication, cultural awareness, teaching, communication, literature review, and critical analysis skills that will be important for both graduate school and professional life.

5.2 Alignment with the State of Hawai‘i

The MBGP has the promise to provide highly trained science professionals that align the state’s needs and political priorities. Indeed, our students and faculty work closely with the state on the following specific management issues and areas.

30 by 30

On September 1, 2016, Governor Ige announced the State's commitment to effectively manage 30% of Hawai‘i's nearshore waters by 2030. The current goals are to improve the capacity and coverage of enforcement, support community-based marine management, develop a plan to address coral bleaching, and strengthen statewide regulations, monitoring, and other adaptive management measures. The purpose is to balance sustainable use with restoration and conservation, such as with fisheries so that our communities can benefit now and in the future.

Combating Coral Bleaching

In February 2017, Governor Ige spoke at the 37th U.S. Coral Reef Task Force meeting at the National Governors Association Conference. Coral reefs are living treasures with cultural, economic, and ecological significance and value. Unfortunately, coral bleaching has become a major problem as a result of rising sea surface temperatures and human activity. Unprecedented levels of coral bleaching across Hawai‘i prompted a response from state and federal agencies and volunteer organizations. To combat the harmful results of pollution on coral reef health, the U.S. Coast Guard, NOAA, the Department of the Interior, and the State of Hawai‘i conducted large-scale marine debris removal efforts in the Northwestern Hawaiian Islands. State marine biologists and the DLNR Division of Aquatic Resources are investigating best practices and methods being used around the world to apply toward coral recovery.

State & Federal Designation of He‘eia NERR

In August 2017, a formal partnership between NOAA and the State of Hawai‘i established the He‘eia National Estuarine Research Reserve as the newest member of NOAA’s Reserve System. Its 1,385 acres include the estuary of the ahupua‘a of He‘eia on Kāne‘ohe Bay and Moku o Lo‘e, the location of Hawai‘i Institute of Marine Biology. HeNERR is also designated a NOAA Sentinel Site, bringing together science, management, and technology to address the impacts of sea level changes on coastal communities (https://oceanservice.noaa.gov/sentinelsites/).

6 The Future of the MBGP

We believe that this self-study demonstrates the success of the vision that began this program in 2012: to train future leaders in the marine biological sciences. Our program has grown to a steady population of ~65 students, graduating ~10 students a year. As promised, our program has
become an example of a successful interdisciplinary program: a dynamic campus hub integrating faculty from across campus into new collaborative relationships with MBGP students at the center. While we anticipate that the MBGP will achieve established status, we are still moving forward to improve the program.

- Re-envisioning a Core Curriculum

We would like to reinstate a core content course in marine biology and ecology of Hawaiian ecosystems for our first-year cohort students, and to initiate more place-based education to study our remarkable natural resources while creating a comfortable fit for students with our native culture. The Hawaiian marine environment draws many students, but it is a particularly important path for Native Hawaiian students to thrive in science. We look forward to training our students in science training that respects and incorporates Hawaiian place-based teaching and research and will engage students and lead to their success.

- Data Science for Marine Biologists

Hawai‘i Data Science Initiative (HI-DSI) is developing a new Data Science certificate program. Data science skills, including data wrangling, scripting, coding, statistics, and machine learning, are absolutely critical to the future career success of our students. We are working with HI-DSI to develop a Data Science for Marine Biologists track in the certificate program.

- New avenues of feedback for program improvement

The MBGP is joining a SOEST-wide initiative to expand the annual graduate student review process. The process will shift from the evaluation of student performance to an opportunity for feedback – in both directions – between each student, their academic mentor and committee, and the program.

- Funding for Recruitment

The high expense of travel to Hawai‘i means that most of our applicants do not have an opportunity to visit the campus and interview with potential faculty mentors in person during the application process. Likewise, as a program we do not have a chance to showcase our excellent research facilities and resources to top student candidates. We are working to resource a small recruitment fund to bring the top 3-4 MBGP student candidates for a tour of MBGP research facilities and in-person interviews with faculty, postdocs, and other students.
7. APPENDICES

7.1 Appendix A. Marine Biology Curriculum Requirements

<table>
<thead>
<tr>
<th>M.S. Plan A</th>
<th>Ph.D. without prior M.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A minimum of 30 credits with a grade of B, or better, maintaining a GPA of at least 3.0</td>
<td>A minimum of 30 credits with a grade of B, or better, maintaining a GPA of at least 3.0</td>
</tr>
<tr>
<td>At least 18 credits of coursework (14 credits of formal courses and up to 4 credits of 1 unit seminar courses) and 6 credits of Research (699) and 6 credits of Thesis (700). Must be enrolled in MBIO 700 the semester of graduation.</td>
<td>At least 18 credits of coursework (14 credits of formal courses and up to 4 credits of 1 unit seminar courses) and 6 to 12 credits of Research (699) or Dissertation (800). Must be enrolled in MBIO 800 the semester of graduation.</td>
</tr>
</tbody>
</table>

Course Requirements

<table>
<thead>
<tr>
<th>A. Required of all students</th>
<th>A. Required of all students</th>
</tr>
</thead>
<tbody>
<tr>
<td>• MBIO 603 Professional Development for Marine Biologists (1)</td>
<td>• MBIO 603 Professional Development for Marine Biologists (1)</td>
</tr>
<tr>
<td>• MBIO 604 Introduction to MBGP Faculty (1)</td>
<td>• MBIO 604 Introduction to MBGP Faculty (1)</td>
</tr>
</tbody>
</table>

B. TWO of the following list are required prior to graduation:

- MBIO 611 Introduction to Quantitative Methods in Fisheries Science (4)
- MBIO 715 Marine Conservation Ecology (1-3)
- MBIO 710 Topics in Marine Fisheries and Natural Resource Management (1-4) - approval by petition
- MBIO 725 Topics in Marine Physiology, Behavior, and Organismal Biology (1-4) - approval on a case-by-case basis by petition
- MBIO 740 Advanced Topics in Quantitative Biology (3-4) - approval by petition
- OCN 626 Marine Microplankton Ecology (4)
- OCN 627 Ecology of Pelagic Marine Animals (4)
- OCN 628 Benthic Biological Oceanography (4)
- OCN 630 Deep Sea Biology (3)

B. TWO of the following list are required prior to graduation:

- MBIO 611 Introduction to Quantitative Methods in Fisheries Science (4)
- MBIO 715 Marine Conservation Ecology (1-3)
- MBIO 710 Topics in Marine Fisheries and Natural Resource Management (1-4) - approval by petition
- MBIO 725 Topics in Marine Physiology, Behavior, and Organismal Biology (1-4) - approval on a case-by-case basis by petition
- MBIO 740 Advanced Topics in Quantitative Biology (3-4) - approval by petition
- OCN 626 Marine Microplankton Ecology (4)
- OCN 627 Ecology of Pelagic Marine Animals (4)
- OCN 628 Benthic Biological Oceanography (4)
- OCN 630 Deep Sea Biology (3)
- BOT 682 (3) & 682L (1) - Plants in Marine Environments (4 total) – to be taken concurrently
- ZOOL 780/781 (8) Foundations of Evolution and Ecology - must be taken together but will count as credit toward one MBIO content course

<table>
<thead>
<tr>
<th>C. One of the following two courses in statistics is required prior to graduation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZOOL 631 Biometry (4)</td>
</tr>
<tr>
<td>OCN 682 Intro to Programming &amp; Stats in R (3)</td>
</tr>
</tbody>
</table>

Other courses in statistics may be substituted at the discretion of the student’s committee

Students entering the Ph.D. program with a M.S. (or equivalent) in the life sciences must:

- Complete courses specified above in part (A) (MBIO 603 & 604)
- Complete courses prescribed by the student’s Interim or Dissertation
- Enroll in MBIO 800 (dissertation)
### M.S. Roadmap for MBIO

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Year</th>
<th>Fall</th>
<th>Year</th>
<th>Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MBIO 603</td>
<td>MBIO 691(alpha) seminar</td>
<td>MBIO 699</td>
<td>MBIO 700</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biometry</td>
<td>Disciplinary Core Course</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MBIO 691B Seminar</td>
<td>MBIO 699</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disciplinary Core Course</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credits</td>
<td>10</td>
<td>Credits</td>
<td>8</td>
<td>Credits</td>
<td>1</td>
</tr>
<tr>
<td>Spring</td>
<td>MBIO 604</td>
<td>MBIO 691(alpha) seminar</td>
<td>MBIO 700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistics in R</td>
<td>3</td>
<td>Disciplinary elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MBIO 691B Seminar</td>
<td>1</td>
<td>MBIO 699</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disciplinary Core Course</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credits</td>
<td>8</td>
<td>Credits</td>
<td>8</td>
<td>Credits</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL CREDITS</td>
<td>18</td>
<td>TOTAL CREDITS</td>
<td>16</td>
<td>TOTAL CREDITS</td>
<td>2</td>
</tr>
<tr>
<td>PROGRAM TOTAL</td>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Ph.D. Roadmap for MBIO

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Year</th>
<th>Fall</th>
<th>Year</th>
<th>Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MBIO 603</td>
<td>MBIO 691(alpha) seminar</td>
<td>MBIO 699</td>
<td>MBIO 700</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biometry</td>
<td>Disciplinary Core Course</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MBIO 691B seminar</td>
<td>MBIO 699</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disciplinary Core Course</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credits</td>
<td>10</td>
<td>Credits</td>
<td>8</td>
<td>Credits</td>
<td>1</td>
</tr>
<tr>
<td>Spring</td>
<td>MBIO 604</td>
<td>MBIO 691(alpha) seminar</td>
<td>MBIO 700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistics in R</td>
<td>3</td>
<td>Disciplinary elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MBIO 691B seminar</td>
<td>1</td>
<td>MBIO 699</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disciplinary Core Course</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credits</td>
<td>8</td>
<td>Credits</td>
<td>8</td>
<td>Credits</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL CREDITS</td>
<td>18</td>
<td>TOTAL CREDITS</td>
<td>16</td>
<td>TOTAL CREDITS</td>
<td>2</td>
</tr>
<tr>
<td>PROGRAM TOTAL</td>
<td>54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
April 21, 2020

MEMORANDUM

TO: Benjamin Kudo
Chair, Board of Regents

VIA: David Lassner
President

VIA: Donald Straney
Vice President for Academic Planning and Policy

FROM: Maenette Benham,
Chancellor

SUBJECT: Request Approval of a New Provisional Degree, Bachelor of Science in Cybersecurity

SPECIFIC ACTION REQUESTED:

It is requested that the Board of Regents approve a new provisional degree, the Bachelor of Science in Cybersecurity (BS-CYBR), at the University of Hawai‘i—West O‘ahu.

RECOMMENDED EFFECTIVE DATE:

Fall 2020

ADDITIONAL COST:

There are additional costs associated with this request. Increased projected enrollment will require additional personnel.
PURPOSE:

With our increased reliance on information technology systems and cyber work environments across all industries, there is an urgent need for highly skilled cybersecurity professionals. The proposed Bachelor of Science in Cybersecurity (BS-CYBR) will address this demand by providing students with a pathway to acquire specialized knowledge and skills required to meet this growing need. It will be UH West O’ahu’s second STEM degree program. The BS-CYBR’s highly technical cybersecurity program designed to provide students with an advanced cybersecurity education will expand students’ knowledge of information security, mathematics, computer science, and computer engineering. It will also prepare them to meet the leading cybersecurity workforce requirements of public sector agencies and private sector enterprises. Employers with advanced cybersecurity requirements who hire BS-CYBR graduates with these skills, can be confident in their ability to identify, protect, detect, respond, and recover from cybersecurity threats.

BACKGROUND:

Board of Regents Policy 5.201: Instructional Programs states that “The board shall approve the establishment of all new instructional programs granting academic credit leading to a degree or credential, upon recommendation by the president.”

The proposed Bachelor of Science in Cybersecurity (BS-CYBR) degree fulfills the charge of the UH System’s Integrated Academic and Facilities Plan (IAFP) calling for the addition of one or more baccalaureate STEM degree programs at the University of Hawai‘i—West O‘ahu. Additionally, it meets a key sector need for Hawai‘i’s post-COVID-19 economic revitalization. The BS-CYBR builds on the success of our current Information Security & Assurance concentration under the Bachelor of Applied Science degree program. The proposed program is also consistent with the institution’s Strategic Action Plan, 2018-2028, which explicitly articulates UH West O’ahu’s commitment to supporting the greater community and fueling state economic growth by developing “innovative and transformative thinkers with the ability to generate and apply knowledge to address the pressing issues of our times” (page 7). The proposed degree also aligns with UH West O’ahu’s designated applied and technical focus as defined by the IAFP and meets the UH System IAFP call for UH West O’ahu to focus on general degrees that are distinctive, and for degrees that will articulate well with our UH Community Colleges. In accordance with the IAFP, this degree is also attentive to community college transfer students.

The BS-CYBR Program was developed in accordance with the standards consistent with earning the designation of being a National Security Agency (NSA)/Department of Homeland Security (DHS) Center of Excellence in Cyber Operations Fundamentals. A Center of Academic
Excellence Cyber Operations program would complement the following existing Centers of Academic Excellence in Cyber Defense programs already present in our UH System: Cyber Defense Research (UHM), Cyber Defense 2-Year Education (HonCC and LeeCC), and Cyber Defense Education (UH West O'ahu and Maui College). It would provide a particular emphasis on technologies and techniques related to specialized cyber operations (e.g., collection, investigation, and response). These technologies and techniques are critical to intelligence, military, and law enforcement organizations authorized to perform these specialized operations.

The proposed BS-CYBR should be created at UH West O'ahu as the next step in the progression to develop a complementary, select STEM program that is integrated with the already existing and highly successful Bachelor of Applied Science, Information Security & Assurance (BAS-ISA). Our campus currently employs the faculty expertise to carry out and support this next step. While the numbers of students in the BAS-ISA are expected to continue on a positive trajectory, the faculty expects that the BS-CYBR will attract students from the BAS-ISA who wish to move beyond cyber protection and defense into the realm of cyber analysis, collection, operation, and investigations. The shared BAS-ISA and the BS-CYBR pathway at the foundational lower-division course level diverges at the upper division level. Overall, both cyber programs are expected to grow together and complement each other. Our faculty and Institutional Research Office project 34 BS-CYBR students in the first year, averaging 65 students a year over five years, with 81 students in 2025.

The proposed BS-CYBR exemplifies the development of a successful area of concentration that fulfills the mission of UH West O'ahu as highlighted in the IAFP. That mission is to offer students a distinct learning experience focused on 21st century skills that prepares them to be innovative community leaders. In particular, the IAFP identifies signature programs that include “creative media, cybersecurity, facilities management, sustainable community food systems and insurance” (p. 8). This new Bachelor of Science in Cybersecurity degree will fulfill the promise of our mission and will be crucial to timely meeting a critical workforce demand.

ACTION RECOMMENDED:

It is recommended that the Board of Regents approve a new provisional degree, the Bachelor of Science in Cybersecurity, at the University of Hawai'i—West O'ahu.

Attachment

C: Kendra Oishi, Executive Administrator and Secretary to the Board of Regents
    Jeffrey Moniz, Vice Chancellor for Academic Affairs
Program Proposal
Bachelor of Science in Cybersecurity

Table of Contents
Program Purpose .................................................................................................................................... 2
Outcomes ............................................................................................................................................... 5
Alignment with the UH System ................................................................................................................ 5
Unique Program .................................................................................................................................. 5
Support Articulation of Courses System-Wide ..................................................................................... 6
Increase and Diversify Enrollment ....................................................................................................... 6
Alignment with the UH West O‘ahu – Strategic Action Plan 2018-2028 .................................................... 6
Creating a Niche .................................................................................................................................. 6
Enrollment and Retention ....................................................................................................................... 6
Distinguish from Other 4-year Institutions ........................................................................................... 6
Program Organization ............................................................................................................................. 7
Student Demand ..................................................................................................................................... 8
Program Resources and Efficiency ........................................................................................................ 8
Resources................................................................................................................................................ 8
Program Differentiators........................................................................................................................ 10
Program Effectiveness ........................................................................................................................... 11
Conclusion ............................................................................................................................................ 11
Appendix A – Program Sheet, AY 2020-21 (draft) ................................................................................... 12
Appendix B – Academic Map (draft) ..................................................................................................... 14
Appendix C – NSA-CAE Cyber Operations Fundamentals .................................................................... 15
Program Purpose
A new degree program, a Bachelor of Science in Cybersecurity (BS-CYBR), is proposed for the University of Hawai‘i – West O‘ahu (UH West O‘ahu). The BS-CYBR is a new technical cybersecurity program designed to provide students with an advanced cybersecurity education and will be UH West O‘ahu’s second STEM degree program. This advanced cybersecurity education deepens a student’s knowledge of information security, mathematics, computer science, and computer engineering. It also prepares them to meet the advanced cybersecurity workforce requirements of public sector agencies and private sector enterprises.

According to the National Institute of Standards and Technology (NIST), the shortage of cybersecurity professionals is nearly three million. Only twenty-five percent of applicants to cybersecurity jobs are qualified, and it takes more than six months to fill a new cybersecurity position. NIST further predicts that computer and mathematical occupations will grow much faster than the average during 2016-2026.¹ According to the U.S. Department of Labor, the projected growth rate for Information security analyst jobs is 32% from 2018-2028.² A table summarizing additional statistics is below.

<table>
<thead>
<tr>
<th>Information Security Analysts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2018 Median Pay</strong></td>
</tr>
<tr>
<td>$98,350 per year / $47.28 per hour</td>
</tr>
<tr>
<td><strong>Typical Entry-Level Education</strong></td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
</tr>
<tr>
<td><strong>Work Experience in a Related Occupation</strong></td>
</tr>
<tr>
<td>Less than 5 years</td>
</tr>
<tr>
<td><strong>On-the-job Training</strong></td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td><strong>Number of Jobs, 2018</strong></td>
</tr>
<tr>
<td>112,300</td>
</tr>
<tr>
<td><strong>Job Outlook 2018-28</strong></td>
</tr>
<tr>
<td>32% (much faster than average)</td>
</tr>
<tr>
<td><strong>Employment Change, 2018-2028</strong></td>
</tr>
<tr>
<td>35,500</td>
</tr>
</tbody>
</table>

Table 1. U.S. Bureau of Labor Statistics, Quick Facts: Information Security Analysts

In one instance involving the public sector, the U.S. Government Accounting Office found that “the Army activated a cyber battalion in December 2018, and as of March 2019, this unit was understaffed by more than 80 percent”.³

The NIST National Initiative for Cybersecurity Education (NICE) defines seven workforce categories.  

<table>
<thead>
<tr>
<th>Categories</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Securely Provision (SP)</td>
<td>Conceptualizes, designs, procures, and/or builds secure information technology (IT) systems, with responsibility for aspects of systems and/or network development.</td>
</tr>
<tr>
<td>Operate and Maintain (OM)</td>
<td>Provides the support, administration, and maintenance necessary to ensure effective and efficient information technology (IT) system performance and security.</td>
</tr>
<tr>
<td>Oversee and Govern (OV)</td>
<td>Provides leadership, management, direction, or development, and advocacy, so the organization may effectively conduct cybersecurity work.</td>
</tr>
<tr>
<td>Protect and Defend (DR)</td>
<td>Identifies, analyzes, and mitigates threats to internal information technology (IT) systems and/or networks.</td>
</tr>
<tr>
<td>Analyze (AN)</td>
<td>Performs highly-specialized review and evaluation of incoming cybersecurity information to determine its usefulness for intelligence.</td>
</tr>
<tr>
<td>Collect and Operate (CO)</td>
<td>Provides specialized denial and deception operations and collection of cybersecurity information that may be used to develop intelligence.</td>
</tr>
<tr>
<td>Investigate (IN)</td>
<td>Investigates cybersecurity events or crimes related to information technology (IT) systems, networks, and digital evidence.</td>
</tr>
</tbody>
</table>

Table 2. NICE Workforce Categories

This new program covers all the workforce categories and specifically focuses on developing the advanced cybersecurity skills in the categories of Protect and Defend, Analyze, Collect and Operate, and Investigate. According to a study done by CyberSeek, a cybersecurity workforce project supported by NIST and the U.S. Department of Commerce, from October 2018 through September 2019, there were a total of 2,466 job openings and a total of 5,775 people in the cybersecurity workforce in Hawai'i. The job openings during that time were distributed among the NICE workforce categories, as depicted below. Also, the table indicates the workforce categories of specific focus by the current Bachelor of Applied Science in Information Security and Assurance, and the proposed BS-CYBR.

---


5 "About this tool", CyberSeek, [https://www.cyberseek.org/index.html#aboutit](https://www.cyberseek.org/index.html#aboutit) (retrieved February 16, 2020).

The present and growing cybersecurity threats further exacerbate the increasing gap between the number of job openings and the available qualified cybersecurity professionals. The number of vulnerabilities in software is growing.

The attacks on Industrial Control Systems (ICS) and similar Operational Technology (OT) assets increased over 2000% since 2018. ICS and OT assets are used for supervisory control and data acquisition (SCADA) systems that control machines in utilities, manufacturing, and other industrial use cases. The top five industries targeted by cybersecurity attackers in 2019 were: (1) Financial Services, (2) Retail, (3) Transportation, (4) Media and (5) Professional Services, and the number of records breached in 2019 was 8.5 billion. According to the Verizon Data Breach Investigations Report, 71% of the breaches they investigated were financially motivated, with 56% of the breaches taking months or longer to discover.

Hawai'i is particularly exposed as a target of these cybersecurity threats due to its unique position as:

---

<table>
<thead>
<tr>
<th>Categories</th>
<th>Job Openings</th>
<th>BAS-ISA</th>
<th>BS-CYBR (proposed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Securely Provision (SP)</td>
<td>979</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Operate and Maintain (OM)</td>
<td>1650</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Oversee and Govern (OV)</td>
<td>341</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Protect and Defend (DR)</td>
<td>783</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Analyze (AN)</td>
<td>369</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Collect and Operate (CO)</td>
<td>188</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Investigate (IN)</td>
<td>15</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Table 3. Job Openings and Degree Correlation to NICE Workforce Categories

---

9 Id.

Program Proposal
Bachelor of Science in Cybersecurity
April 21, 2020
• Host to Headquarters, U.S. Indo-Pacific Command, federal facilities, and other U.S. intelligence agencies that require a sustained, qualified cyber workforce of college graduates in Hawai‘i; and
• A center for the hospitality, financial, commerce, health, and technology industries in the Pacific.

The proposed BS-CYBR will directly address these threats and the cybersecurity needs of Hawai‘i by developing local cybersecurity professionals with advanced skills that can immediately enter the workforce upon graduation.

Outcomes
The proposed BS-CYBR program will provide students with the necessary cybersecurity knowledge, skills, and experience to support the advanced cybersecurity requirements of public and private-sector entities.

The intended outcome of the proposed BS-CYBR program is to provide students with a focused education concentrating on cybersecurity. It builds upon a foundation in math, science, computer science and cybersecurity with advanced technical cybersecurity topics:

• Defensive and proactive activities
• Industrial Control Systems and SCADA cybersecurity
• Cyber investigations
• Cyber detection and response
• Communications and wireless technologies

As a result, graduates of the BS-CYBR will be able to holistically address the latest cybersecurity threats by applying the full spectrum of knowledge and advanced technical capabilities they acquired. Also, this curriculum is intended to align with the requirements of the National Security Agency (NSA) National Center of Academic Excellence in Cyber Operations. The U.S. Department of Homeland Security recognizes degree programs in Cyber Operations, like the BS-CYBR, as a STEM field of study.

Alignment with the UH System
The University of Hawai‘i Integrated Academic and Facilities Plan (April 20, 2017) enumerates several guiding principles in applying resources efficiently, coherently, and collaboratively. This new program aligns with the following key principles: (1) minimizing the duplication of academic programs, (2) increasing and diversifying enrollment, and (3) prioritizing systemwide articulation and transferability in all academic planning.

Unique Program
This new program is unlike any program in Hawai‘i by focusing on the technical and engineering aspects of cybersecurity as well as the full scope of global cyber implications. The diversity of offerings is

---

unmatched in the State and positions the University of Hawai‘i to be among an elite list of universities in the country that meet the rigorous designation requirements of the National Security Agency (NSA) and the Department of Homeland Security (DHS) as Center of Academic Excellence in Cyber Operations.

Support Articulation of Courses System-Wide
All of the courses that meet university general education and lower-division requirements for this new program are offered by the University of Hawai‘i campuses and are included in existing articulation agreements with Leeward, Honolulu, Kapi‘olani and Windward Community Colleges. These existing articulation agreements will be expanded to provide pathways into the BS-CYBR program.

Increase and Diversify Enrollment
This new program requires students to complete highly technical cybersecurity curricula that relate to critical infrastructure and cybersecurity incident response investigations. It covers the three fundamental areas of cyber considerations: Information Networks, Defensive Cyber Security, and Proactive Cyber Security. This new program will be attractive to students who want to focus on the science, technology, and engineering of cybersecurity and cyber mission areas.

Alignment with the UH West O‘ahu – Strategic Action Plan 2018-2028
The UH West O‘ahu Strategic Action Plan identified opportunities and challenges that will impact the university’s ability to fulfill its 10-year goals: (1) Creating a niche (opportunity), (2) Enrollment and retention (challenge), and (3) Distinguish from other 4-year institutions. This new program meets those opportunities and challenges.

Creating a Niche
The new program is an innovative baccalaureate degree program in a sought-after field. Cybersecurity skills are in high demand. The BS-CYBR is unique as it focuses on the science, technology, and engineering of cybersecurity, as well as the complete breadth and scope that address all cybersecurity workforce domains.

Enrollment and Retention
New programs, degrees, and offerings such as the BS-CYBER will support increased enrollment and retention of both traditional and non-traditional students. The new program will draw students such as active-duty military personnel, law enforcement, current IT professionals desiring to specialize in cybersecurity, and new students who are seeking a more technical cybersecurity degree.

Distinguish from Other 4-year Institutions
This BS-CYBR will be UH West O‘ahu’s second Bachelor of Science degree, fulfilling the objective of expanding STEM education in the region. The BS-CYBER degree will also offer an opportunity for UH West Oahu to earn designation at an NSA/Department of Homeland Security (DHS) Center of Academic Excellence in Cyber Operations, the first in the State of Hawaii and one of the few in the U.S.
Program Organization
The BS-CYBR degree program establishes a solid math and science foundation to support a rigorous cybersecurity curriculum. The program is comprised of the following 120 credits:

- General Education: 31 credits
- Writing and Research: 9 credits
- Math and Statistics Requirements: 14 credits
- Cybersecurity Lower Division: 21 credits
- Cybersecurity Upper Division: 30 credits
- Capstone: 3 credits
- Electives: 12 credits (6 Upper and 6 Lower)

This program’s course requirements focus on STEM and address the full breadth of cybersecurity mission areas: Network Operations, Defensive Cybersecurity, and Proactive Cybersecurity.

- Network Operations
  - ICS 111 Introduction to Computer Science I
  - ICS 211 Introduction to Computer Science II
  - ICS 184 Introduction to Networking
  - ICS 129 Introduction to Databases
  - ICS 240 Operating Systems
  - ISA 480C Communications and Wireless

- Defensive Cybersecurity:
  - ISA 275 Security Essentials
  - ISA 320 Fundamentals of Secure Software Programming
  - ISA 340 Introduction to Digital Forensics
  - ISA 400 Management of Information Security
  - ISA 480I Cyber Investigations
  - ISA 480R Cyber Detection and Response

- Proactive Cybersecurity
  - ISA 330 Introduction to Proactive System Security
  - ISA 360 Cyber Competitions
  - ISA 430 Cybersecurity for Supervisory Control and Data Acquisition
  - ISA 450 Modern Cyber Conflicts

The math and statistics requirements include: MATH 115 Statistics, MATH 241 Calculus I, MATH 242 Calculus II, MATH 301 Introduction to Discrete Mathematics, SSCI 210 Statistical Analysis

The writing-intensive and research requirements include: SSCI 301 Methods & Techniques in Social Science Research, ITS 410 (WI) IT Project Management, APSC 4865 (WI) Senior Project or APSC 4905 (WI) Senior Practicum.

See Appendix A – Program Sheet, AY 2020-21 (draft) and Appendix B – Academic Map (draft)
Student Demand
Over the last ten years, the BAS-ISA program has grown and is fulfilling a growing demand from students for a quality cybersecurity education. Demand for cybersecurity programs is strong and evidenced by the number of institutions that have earned the NSA’s designation as a National Center in Academic Excellence (CAE) in Cyber Defense (CAE-CD) — two-hundred and seventy-seven.\textsuperscript{13} UH West O‘ahu, UH Maui, and UH Mānoa (Cyber Defense Research) are among them.

The Institutional Research Office of the University of Hawai‘i – West O‘ahu provided a projection of enrollment in the BAS-ISA program through 2025 in the row labeled “1” in the table below. Row “2” is a projection should the new BS-CYBR program become available in the Fall of 2020.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS-ISA</td>
<td>12</td>
<td>25</td>
<td>36</td>
<td>58</td>
<td>76</td>
<td>82</td>
<td>77</td>
<td>106</td>
<td>141</td>
<td>160</td>
<td>169</td>
<td>162</td>
<td>151</td>
<td>164</td>
<td>170</td>
<td>182</td>
<td>190</td>
</tr>
<tr>
<td>BS-CYBR</td>
<td>34</td>
<td>60</td>
<td>67</td>
<td>71</td>
<td>77</td>
<td>81</td>
<td>196</td>
<td>211</td>
<td>230</td>
<td>241</td>
<td>259</td>
<td>271</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The projected enrollment with the new BS-CYBR considers the following:

- There is an expectation that a certain percentage of current BAS-ISA students will transition to the new BS-CYBR program over the next five years.
- Enrollment of a minimum average of 12 new students will enroll in the new BS-CYBR program over the next five years.

Program Resources and Efficiency

Resources
The new BS-CYBR program will be supported by existing resources supporting the BAS-ISA program. As a highly technical program, there is an additional focus on hands-on lab exercises. Therefore, lab resources, both physical and in the form of “cloud” or virtual resources, will be necessary as enrollment grows. A consistent issue with serving the UH West O‘ahu region is that, in many cases, students cannot purchase computers with sufficient capability to fully benefit from courses. Although a certain computing capacity is available on the UH West O‘ahu campus, this hands-on, lab-intensive program will likely exceed current computing resources at UH West O‘ahu as enrollment expands. However, for the initial program, funding is available through a grant from the Office of Naval Research (ONR) through AY 2019-2020 to complete required labs before the beginning of the Fall semester 2020. As enrollment increases, additional resources will be required, as indicated below. The resource projections below focus on the incremental resources required with the new BS-CYBR program.

The incremental annual expense starting in 2022 would be:

- $90,000 – Assistant Professor, Cybersecurity
- $10,000 – Lecturer

In terms of new facilities, a larger and modernized computer lab space will be required by 2021. At this time, there is a plan to utilize the space being vacated by the Creative Media program when that program moves to its new facilities in 2020. A lifecycle replacement for existing equipment and software will be required in 2022-23. That budget and funding source will be assessed at that time.

There is no cost to apply for and executing the due diligence to obtain the NSA CAE in Cyber Operations (CAE-CO) designation.

(CONTINUED ON THE NEXT PAGE)
Program Differentiators

The University of Hawai‘i (UH) system is fortunate to have more than one cybersecurity program. The most comparable programs to the new BS-CYBR are the Bachelor of Applied Science, Information Security and Assurance (UH West O‘ahu) (BAS-ISA), and Bachelor of Science, Computer Science with Security Science Focus (UH Mānoa) (BS-CS SecSci). Below is a table enumerating the required cybersecurity-related courses for each program and clearly illustrates how each program differs from each other. Although they all share many foundational lower-division courses, they quickly diverge in the upper-division with separate focuses.

<table>
<thead>
<tr>
<th>COURSE TOPIC</th>
<th>UHWO BS-CYBR</th>
<th>UHWO BAS-ISA</th>
<th>UHM BS-CS SecSci</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Computer Science I</td>
<td>ICS 111</td>
<td>ICS 111</td>
<td>ICS 111</td>
</tr>
<tr>
<td>Introduction to Computer Science II</td>
<td>ICS 211</td>
<td>ICS 211</td>
<td>ICS 211</td>
</tr>
<tr>
<td>Introduction to Databases</td>
<td>ICS 129</td>
<td>ICS 129</td>
<td>ICS 321</td>
</tr>
<tr>
<td>Introduction to Networking</td>
<td>ICS 184</td>
<td>ICS 184</td>
<td>ICS 315/351</td>
</tr>
<tr>
<td>Introduction to Discrete Mathematics</td>
<td>MATH 301</td>
<td></td>
<td>ICS 141</td>
</tr>
<tr>
<td>Operating Systems</td>
<td>ICS 240</td>
<td>ICS 240</td>
<td>ICS 332</td>
</tr>
<tr>
<td>Security Essentials</td>
<td>ICS 275</td>
<td>ICS 275</td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Secure Software Programming</td>
<td>ISA 320</td>
<td>ISA 320</td>
<td></td>
</tr>
<tr>
<td>Introduction to Proactive System Security</td>
<td>ISA 330</td>
<td>ISA 330</td>
<td></td>
</tr>
<tr>
<td>Introduction to Digital Forensics</td>
<td>ISA 340</td>
<td>ISA 340</td>
<td></td>
</tr>
<tr>
<td>Management of Information Security</td>
<td>ISA 400</td>
<td>ISA 400</td>
<td></td>
</tr>
<tr>
<td>IT Project Management</td>
<td>ITS 410</td>
<td>ITS 410</td>
<td></td>
</tr>
<tr>
<td>Modern Cyber Conflicts</td>
<td>ISA 450</td>
<td>ISA 450</td>
<td></td>
</tr>
<tr>
<td>Cyber Competitions</td>
<td>ISA 360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cybersecurity for SCADA</td>
<td>ISA 430</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyber Investigations</td>
<td>ISA 480I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyber Detection and Response</td>
<td>ISA 480R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications and Wireless</td>
<td>ISA 480C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capstone Project or Practicum</td>
<td>CYBR 486/490</td>
<td>ISA 486/490</td>
<td></td>
</tr>
<tr>
<td>Program Structure</td>
<td></td>
<td></td>
<td>ICS 212</td>
</tr>
<tr>
<td>Discrete Mathematics for Computer Science II</td>
<td>ICS 241</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software Engineering I</td>
<td></td>
<td></td>
<td>ICS 314</td>
</tr>
<tr>
<td>Security and Trust I: Resource Protections</td>
<td>ICS 355</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security and Trust II: Information Assurance</td>
<td>ICS 455</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Security and Cryptography</td>
<td></td>
<td></td>
<td>ICS 423</td>
</tr>
<tr>
<td>Software Engineering II or Artificial Intelligence for Games</td>
<td>ICS 414/464</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Security and Ethics or Computer System Security</td>
<td>ICS 425/426</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Topics or Special Topics in Security</td>
<td></td>
<td></td>
<td>ICS 491/495</td>
</tr>
</tbody>
</table>

Another differentiating factor is the BS-CYBR’s design is to meet the criteria to earn NSA’s CAE-CO. See Appendix C – NSA-CAE Cyber Operations Fundamentals. As colleges mature their CAE-CD programs, the next level of cybersecurity education that students will seek, and institutions will need to offer, include

Program Proposal
Bachelor of Science in Cybersecurity
April 21, 2020
programs that address the complete set of cyber implications. At this time, only twenty-one institutions have achieved the CAE-CO designation. Upon earning this designation, the BS-CYBR program will be among an elite group of programs in the nation, and the only program in the State recognized as a CAE-CO.

Finally, the BS-CYBR program at UH West O'ahu addresses the flexibility needs of full-time students and working professionals. Lower-division requirements can be completed at the community colleges and transferred pursuant articulation agreements. Also, eleven (11) of the upper-division courses are hybrid courses that combine the face-to-face classroom learning with online learning. This flexibility makes this BS-CYBR program responsive to the needs of degree-seeking professionals, including government employees, active/reserve military personnel, and working private-sector professionals.

**Program Effectiveness**
Assessment: Program effectiveness will be determined by looking at student achievement data. Student achievement data include the number of declared majors, annual degree attainment, and the number of students who graduate within five years. The attainment of the program’s student learning outcomes will be assessed as part of the established and ongoing assessment process.

The proposed BS-CYBR will be subject to the campus Program Review process every five years, Annual Report of Program Data, and appropriate Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) accreditation processes in which all programs participate. The Program Review process requires programs to report progress on student achievement data, perform an analysis of the course and program student learning outcomes assessment, review current curriculum and recommend changes, and determine the future need for additional resources.

**Conclusion**
There is an urgent need for highly skilled cybersecurity professionals across all industries. The proposed Bachelor of Science in Cybersecurity addresses this need by providing students a pathway to acquire this specialized knowledge and to practice these skills under provisional supervision. By hiring BS-CYBR graduates with these skills, employers with advanced cybersecurity requirements can be confident in their ability to identify, protect, detect, respond, and recover from cybersecurity threats.

---


Program Proposal
Bachelor of Science in Cybersecurity
April 21, 2020
Bachelor of Science in Cybersecurity, Cyber Operations

The goal of academic advising is to further enhance the educational mission of the university, and create quality, accessible advising partnerships with all students in a positive environment that supports student success. This advising sheet is for tracking purposes toward degree completion and is subject to change. Students also may track their academic progress via STAR Degree Check through STAR at www.star.hawaii.edu. Academic Advising appointments may be scheduled by calling 808-956-2836 or toll-free from neighbor islands at 800-252-9562.

Graduation Requirements

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
<th>Number / Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General Education Requirements: 31 credits

<table>
<thead>
<tr>
<th>Credits</th>
<th>Courses</th>
<th>Number / Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>FW</td>
<td>ENG 100 Compositions I</td>
</tr>
<tr>
<td>3</td>
<td>FS/FQ</td>
<td>MATH 115 Statistics</td>
</tr>
<tr>
<td>6</td>
<td>FG</td>
<td>MATH 241 Calculus I</td>
</tr>
<tr>
<td>3</td>
<td>DS</td>
<td>SSCI 210 Statistical Analysis I</td>
</tr>
<tr>
<td>3</td>
<td>DS</td>
<td>SSCI 301 Methods &amp; Techniques In Social Science Research (Ethics Focus)</td>
</tr>
<tr>
<td>3</td>
<td>DS</td>
<td>ICS 101 Digital Tools for Info World</td>
</tr>
<tr>
<td>3</td>
<td>DS</td>
<td>ICS 111 Introduction to Computer Science I</td>
</tr>
<tr>
<td>3</td>
<td>DS</td>
<td>ICS 113 Database Fundamentals OR ICS/ITS 129 Introduction to Databases</td>
</tr>
</tbody>
</table>

Cybersecurity Core Requirements: 42-46 credits

<table>
<thead>
<tr>
<th>Credits</th>
<th>Courses</th>
<th>Number / Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>DP</td>
<td>PHYS 151 College Physics (may also count as FY in General Education Above)</td>
</tr>
<tr>
<td>0-1</td>
<td>FN</td>
<td>PHYS 151 L College Physics Lab (may also count as FY in General Education Above)</td>
</tr>
<tr>
<td>3</td>
<td>FN</td>
<td>SSCI 301 Methods &amp; Techniques In Social Science Research (Ethics Focus)</td>
</tr>
<tr>
<td>3</td>
<td>FN</td>
<td>ICS 101 Digital Tools for Info World</td>
</tr>
<tr>
<td>3</td>
<td>FN</td>
<td>ICS 111 Introduction to Computer Science I</td>
</tr>
<tr>
<td>3</td>
<td>FN</td>
<td>ICS 113 Database Fundamentals OR ICS/ITS 129 Introduction to Databases</td>
</tr>
</tbody>
</table>

Bachelor of Science in Cybersecurity, Cyber Operations 2020-2021

Program Proposal
Bachelor of Science in Cybersecurity
April 21, 2020
<table>
<thead>
<tr>
<th>Course Alpha</th>
<th>Number</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICS 184</td>
<td></td>
<td>Introduction to Networking</td>
</tr>
<tr>
<td>ICS 211</td>
<td></td>
<td>Introduction to Computer Science II</td>
</tr>
<tr>
<td>ICS 240</td>
<td></td>
<td>Operating Systems</td>
</tr>
<tr>
<td>ISA 275</td>
<td></td>
<td>Security Essentials OR CSNT 275 Security Essentials</td>
</tr>
<tr>
<td>ISA 320</td>
<td></td>
<td>Fundamentals of Secure Software Programming</td>
</tr>
<tr>
<td>ISA 330</td>
<td></td>
<td>Introduction to Proactive System Security</td>
</tr>
<tr>
<td>ISA 340</td>
<td></td>
<td>Introduction to Digital Forensics</td>
</tr>
<tr>
<td>ISA 400</td>
<td></td>
<td>Management of Information Security</td>
</tr>
<tr>
<td>ISA 450</td>
<td></td>
<td>Modern Cyber Conflicts (Ethics Focus Designation Pending)</td>
</tr>
</tbody>
</table>

**Cyber Operations Concentration Requirements: 16 credits**

- ISA 360 Cyber Competitions
- ISA 430 Cybersecurity for Supervisory Control and Data Acquisition
- ISA 480I Topics in ISA: Cyber Investigations
- ISA 480R Topics in ISA: Cyber Detection and Response
- ISA 480C Topics in ISA: Communications and Wireless

**Capstone Requirement: 3 credits**

- CYBR 486S Senior Project or CYBR 490S Senior Practicum (WI)

**Elective Requirements: 5-12 credits**

*See your Student Success Counselor to determine how many elective credits are needed.*

- Upper Division (300-400 Level) Recommend: MATH, HLTH, PUBA, FORS or BUSA (examples: BUSA 340 Business Intelligence, BUSA 342 Practical Programming: Python, BUSA 348 Data Analytics for Business, BUSA 348 Data Analytics on the Cloud)
- Recommend MATH, HLTH, PUBA, FORS
- Recommend MATH, HLTH, PUBA, FORS
- Recommend MATH, HLTH, PUBA, FORS

**NOTES:**
- The Faculty contact for this concentration is Michael Miranda, he may be contacted at mmirand1@hawaii.edu or 689-2481
### University of Hawai‘i West O’ahu – BS-CYBR 4-year Academic Map 2020-21

**Graduation Requirements**
- 45 Upper Division Credits Minimum
- 120 Total Credits Minimum
- 30 UHWO Credits Minimum

### Year 1

#### SEMESTER 1

<table>
<thead>
<tr>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Comm/FW</td>
<td>ENG 100</td>
<td>3</td>
<td>CYBR LD Core</td>
<td>ICS 101</td>
<td>3</td>
</tr>
<tr>
<td>CYBR LD Core</td>
<td>ICS 101</td>
<td>3</td>
<td>CYBR LD Core</td>
<td>ICS 101</td>
<td>3</td>
</tr>
<tr>
<td>FQ</td>
<td>Recommend: MATH 115</td>
<td></td>
<td>DA/DH/DL</td>
<td>DA/DH/DL</td>
<td></td>
</tr>
<tr>
<td>FQA/FGB/FGC</td>
<td>3</td>
<td></td>
<td>Natural Sciences (OP or DP)</td>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>DA/DH/DL</td>
<td>Recommend: HWST 107 or HAP</td>
<td></td>
<td>Natural Sciences (DP)</td>
<td>Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

**Credits** 15

**MILESTONE:** Completion of ENG 100 and ICS 101; start Math

#### SEMESTER 2

<table>
<thead>
<tr>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYBR LD Core</td>
<td>MATH 241</td>
<td>4</td>
<td>CYBR LD Core</td>
<td>MATH 242</td>
<td>4</td>
</tr>
<tr>
<td>Write Skills</td>
<td>ENG 200 or ENG 209/210/215</td>
<td>3</td>
<td>CYBR LD Core</td>
<td>ICS 240</td>
<td>3</td>
</tr>
<tr>
<td>CYBR LD Core</td>
<td>ICS 184</td>
<td>3</td>
<td>CYBR LD Core</td>
<td>ICS 275/CSCI 275</td>
<td>3</td>
</tr>
<tr>
<td>CYBR LD Core</td>
<td>ICS 211</td>
<td>3</td>
<td>CYBR Math – Statistics</td>
<td>SSCI 210</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences (DS)</td>
<td></td>
<td>3</td>
<td>Elective</td>
<td>Recommend: PUBA 101 (also DS)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Credits** 16

**MILESTONE:** Completion of MATH 241, ICS 184, ICS 211

### Year 2

#### SEMESTER 3

<table>
<thead>
<tr>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYBR LD Core</td>
<td>MATH 241</td>
<td>4</td>
<td>CYBR LD Core</td>
<td>MATH 242</td>
<td>4</td>
</tr>
<tr>
<td>Write Skills</td>
<td>ENG 200 or ENG 209/210/215</td>
<td>3</td>
<td>CYBR LD Core</td>
<td>ICS 240</td>
<td>3</td>
</tr>
<tr>
<td>CYBR LD Core</td>
<td>ICS 184</td>
<td>3</td>
<td>CYBR LD Core</td>
<td>ICS 275/CSCI 275</td>
<td>3</td>
</tr>
<tr>
<td>CYBR LD Core</td>
<td>ICS 211</td>
<td>3</td>
<td>CYBR Math – Statistics</td>
<td>SSCI 210</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences (DS)</td>
<td></td>
<td>3</td>
<td>Elective</td>
<td>Recommend: PUBA 101 (also DS)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Credits** 16

**MILESTONE:** Completion of MATH 241, ICS 184, ICS 211

#### SEMESTER 4

<table>
<thead>
<tr>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYBR Concentration</td>
<td>ICS 320</td>
<td>3</td>
<td>CYBR Concentration</td>
<td>ICS 340</td>
<td>3</td>
</tr>
<tr>
<td>CYBR Concentration</td>
<td>ICS 330</td>
<td>3</td>
<td>CYBR Methods and (DS)</td>
<td>SSCI 301</td>
<td>3</td>
</tr>
<tr>
<td>CYBR Math</td>
<td>MATH 301</td>
<td>3</td>
<td>FQA/FGB/FGC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UD Elective</td>
<td>Recommend: BUSA 342</td>
<td>3</td>
<td>Natural Sciences (OP or DP)</td>
<td>Biological or Physical Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Credits** 15

**MILESTONE:** Completion of ICS 320, ICS 330, and first upper division WI

### Year 3

#### SEMESTER 5

<table>
<thead>
<tr>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYBR Concentration</td>
<td>ICS 320</td>
<td>3</td>
<td>CYBR Concentration</td>
<td>ICS 340</td>
<td>3</td>
</tr>
<tr>
<td>CYBR Concentration</td>
<td>ICS 330</td>
<td>3</td>
<td>CYBR Methods and (DS)</td>
<td>SSCI 301</td>
<td>3</td>
</tr>
<tr>
<td>CYBR Math</td>
<td>MATH 301</td>
<td>3</td>
<td>FQA/FGB/FGC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UD Elective</td>
<td>Recommend: BUSA 342</td>
<td>3</td>
<td>Natural Sciences (OP or DP)</td>
<td>Biological or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Credits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MILESTONE:** Completion of ICS 320, ICS 330, and first upper division WI

#### SEMESTER 6

<table>
<thead>
<tr>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYBR Math</td>
<td>BUSA 385 (WI)</td>
<td>3</td>
<td>CYBR Math</td>
<td>BUSA 385 (WI)</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences (DS)</td>
<td></td>
<td>3</td>
<td>Elective</td>
<td>Recommend: PUBA 101 (also DS)</td>
<td>3</td>
</tr>
<tr>
<td>Credits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MILESTONE:** Completion of ICS 340 and SSCI 301

### Year 4

#### SEMESTER 7

<table>
<thead>
<tr>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYBR Writing</td>
<td>ITS 410 (WI)</td>
<td>3</td>
<td>CYBR UD</td>
<td>ICS 430 – Spring only</td>
<td>3</td>
</tr>
<tr>
<td>CYBR UD</td>
<td>ICS 400</td>
<td>3</td>
<td>CYBR UD</td>
<td>ICS 480 – Spring only</td>
<td>3</td>
</tr>
<tr>
<td>CYBR UD</td>
<td>ICS 450</td>
<td>3</td>
<td>Elective</td>
<td>Recommend: ETH</td>
<td>3</td>
</tr>
<tr>
<td>CYBR UD</td>
<td>ICS 360</td>
<td>3</td>
<td>CYBR Capstone &amp; WI</td>
<td>CYBR 4865 (WI) or CYBR 4905 (WI)</td>
<td>3</td>
</tr>
<tr>
<td>CYBR UD</td>
<td>ICS 480</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Credits** 15

**MILESTONE:** Completion of ITS 410, ICS 400, and ICS 450. Schedule a final degree audit with your Academic Advisor.

#### SEMESTER 8

<table>
<thead>
<tr>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
<th>Req Fulfilled</th>
<th>Course</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYBR Writing</td>
<td>ITS 410 (WI)</td>
<td>3</td>
<td>CYBR UD</td>
<td>ICS 430 – Spring only</td>
<td>3</td>
</tr>
<tr>
<td>CYBR UD</td>
<td>ICS 400</td>
<td>3</td>
<td>CYBR UD</td>
<td>ICS 480 – Spring only</td>
<td>3</td>
</tr>
<tr>
<td>CYBR UD</td>
<td>ICS 450</td>
<td>3</td>
<td>Elective</td>
<td>Recommend: ETH</td>
<td>3</td>
</tr>
<tr>
<td>CYBR UD</td>
<td>ICS 360</td>
<td>3</td>
<td>CYBR Capstone &amp; WI</td>
<td>CYBR 4865 (WI) or CYBR 4905 (WI)</td>
<td>3</td>
</tr>
<tr>
<td>CYBR UD</td>
<td>ICS 480</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Credits** 15

**MILESTONE:** Completion of Capstone course; Graduate!

---

Program Proposal
Bachelor of Science in Cybersecurity
April 21, 2020

Page 14 of 15
Appendix C – NSA-CAE Cyber Operations Fundamentals

Another objective of this program is to qualify UH West O‘ahu for an additional designation as an NSA Center of Academic Excellence in Cyber Operations Fundamentals. To achieve this designation, the BS-CYBR must include the necessary content:\(^\text{15}\):

1. **MANDATORY**
   a. M.1 Low Level Programming Languages (must include programming assignments to demonstrate that students are capable of the desired outcomes)
   b. M.2 Software Reverse Engineering (must include hands-on lab exercises)
   c. M.3 Operating System Theory
   d. M.4 Networking (must include hands-on lab exercises)
   e. M.5 Cellular and Mobile Technologies
   f. M.6 Discrete Math and Algorithms
   g. M.7 Overview of Cyber Defense (must include hands-on lab exercises)
   h. M.8 Security Fundamental Principles (i.e., "First Principles")
   i. M.9 Vulnerabilities
   j. M.10 Legal and Ethics

2. **OPTIONAL CONTENT (10 of the following 17)**
   a. O.1 Programmable Logic (must include hands-on lab exercises)
   b. O.2 Wireless Security (must include hands-on lab exercises)
   c. O.3 Virtualization -> should be Virtualization (must include hands-on lab exercises)
   d. O.4 Cloud Security/Cloud Computing
   e. O.5 Risk Management of Information Systems
   f. O.6 Computer Architecture (includes Logic Design)
   g. O.7 Microcontroller Design (must include hands-on lab exercises)
   h. O.8 Software Security Analysis (must include hands-on lab exercises)
   i. O.9 Secure Software Development (Building Secure Software) (includes hands-on labs)
   j. O.10 Embedded Systems (must include hands-on lab exercises)
   k. O.11 Digital Forensics (must include hands-on lab exercises)
   l. O.12 Systems Programming (must include hands-on lab exercises)
   m. O.13 Applied Cryptography
   n. O.14 Industrial Control System (ICS)
   o. O.15 User Experience (UX)/Human Computer Interface (HCI) Security
   p. O.16 Offensive Cyber Operations
   q. O.17 Hardware Reverse Engineering (must include hands-on lab exercises)

\(^\text{15}\) [https://www.nsa.gov/Resources/Students-Educators/centers-academic-excellence/cae-co-fundamental/requirements/](https://www.nsa.gov/Resources/Students-Educators/centers-academic-excellence/cae-co-fundamental/requirements/)

Program Proposal
Bachelor of Science in Cybersecurity
April 21, 2020
MEMORANDUM

TO: Benjamin Kudo
   Chair, Board of Regents

   Michelle Tagorda
   Chair, Committee on Personnel Affairs and Board Governance

FROM: Kendra Oishi
   Executive Administrator and Secretary of the Board of Regents

SUBJECT: Recommend Board Approval of Revisions to Regents Policy 9.212,
         Executive and Managerial Personnel Policies

SPECIFIC ACTION REQUESTED:

It is requested that the Board of Regents ("Board") approve the proposed changes to
Regents Policy (RP) 9.212, Executive and Managerial ("EM") Personnel Policies, to
provide the Board with greater oversight over salary adjustments for EM positions that
are in excess of the usual percentage range of adjustments.

RECOMMENDED EFFECTIVE DATE:

Upon approval of the Board of Regents.

BACKGROUND:

During its October 17, 2019, meeting, the Board received a list of EM salaries as
required under RP 9.212 and Section 89C-4, Hawai'i Revised Statutes (HRS).
Approximately 11 EMs received increases to their base salary in excess of 10%. This
raised questions as to the rationale for increases that were above the norm, as the
majority of EMs received salary adjustments in the range of 4% or less of their base
salary, and also raised questions as to whether the Board should exercise greater
oversight over salary adjustments outside of the adjustments made using the
methodology outlined via guidelines issued by the President.

The Personnel Affairs and Board Governance ("PA&BG") Committee subsequently held
discussions on November 7, 2019, and February 6, 2020, on this matter. Administration
explained the evolution of RP 9.212, specifically that the Board previously reviewed
salary and compensation packages in excess of $150,000 which proved to be very
transactional, tedious, and time-consuming for the Board, and resulted in a policy change. Some Regents expressed concerns that the policy relinquished too much oversight authority and that a better balance needed to be achieved with regard to delegation of certain compensation and salary adjustment authority to the President and appropriate fiduciary oversight by the Board.

An analysis of EM salary adjustments since 2017 shows that the vast majority of adjustments are less than 5% of the EM’s base salary.

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>As of 7/1/18</th>
<th>As of 7/1/19</th>
<th>As of 11/1/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% or less</td>
<td>23</td>
<td>28</td>
<td>36</td>
</tr>
<tr>
<td>&lt;1%</td>
<td>8</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>1% - 1.9%</td>
<td>74</td>
<td>1</td>
<td>43</td>
</tr>
<tr>
<td>2% - 2.9%</td>
<td>30</td>
<td>43</td>
<td>98</td>
</tr>
<tr>
<td>3% - 3.9%</td>
<td>1</td>
<td>86</td>
<td>10</td>
</tr>
<tr>
<td>4% - 4.9%</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>5% - 5.9%</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>6% - 6.9%</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7% - 9.9%</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>10% - 15%</td>
<td>7</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>&gt;15%</td>
<td>3</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>&gt;5% (aggregate)</td>
<td>13</td>
<td>18</td>
<td>14</td>
</tr>
</tbody>
</table>

A number of the increases in excess of 5% are cases where the EM: moved from one position to another in a higher salary scale; was serving in an interim capacity that was subsequently made permanent; was temporarily reassigned; or experienced an adjustment in job responsibilities.

The proposed amendments to RP 9.212 are a result of the feedback received during the aforementioned discussions. The highlights of the proposed amendments are as follows:

- Specifies that the President may make periodic adjustments to the Salary Schedule based on comparable industry and market benchmarks and requires that proposed adjustments in excess of 5% below the minimum and/or 5% above the maximum of the ranges be reviewed by the Board prior to being effectuated (see section III.B.3);
- Clarifies provisions relating to EMs reporting directly to the Board (see section III.F.2);
- Differentiates annual salary adjustments from other salary adjustments and requires that adjustments for EMs reporting to a position that reports directly to the Board and/or for all EM appointments exceeding the maximum of the range set forth in the Salary Schedule to require Board approval (see section III.F); and
- Other technical clarifying amendments.
ACTION RECOMMENDED:

The Board of Regents is requested to approve the aforementioned revisions to RP 9.212.

Attachments:
RP 9.212 original
RP 9.212 redline
RP 9.212 clean
I. **Purpose and Authority**

This Regents Policy RP 9.212 ("Policy") provides a framework for the terms and conditions of service applicable to individuals appointed by the Board of Regents ("Board") to executive and managerial ("EM") positions at the University of Hawai'i, ("University"), which are excluded from a bargaining unit as specified in Section 89-6(f)(2), Hawai'i Revised Statutes ("HRS"), due to top-level executive, managerial, and administrative responsibilities. All employment actions taken pursuant to this Policy shall be in accordance with RP 1.205, Policy on Nondiscrimination and Affirmative Action.

This Policy is established pursuant to the authority granted to the Board by Article X, Section 6 of the Constitution of the State of Hawai'i, and by HRS Section 304A-1001 (as amended from time to time).

This Policy supersedes all prior policies and practices that may conflict with any provision contained herein.

II. **Definitions**

The term "EM" shall mean executive and managerial positions at the University.

III. **Board Policy**

A. Establishment and Classification

1. There shall be an EM class of positions established based on the needs of the University and in a manner consistent with the University's organizational structure. Generally speaking, executive and managerial positions (1) have system-wide, campus-wide, or major campus program responsibilities and report directly to the Board, President, or Chancellor, (2) report directly to executives and head major organizational segments of the University, or (3) serve as high level executive assistants. The
Board retains authority to establish, classify, and abolish positions reporting to the Board and to the President. The President retains authority, which shall not be further delegated, to establish, classify, and abolish all other positions.

2. Positions shall be classified according to the complexity, breadth, and depth of responsibility and the critical importance of the position to the operation of the University. Each position shall be analyzed and described in writing to ensure equity within the University organization while considering comparable university systems nationwide.

B. Salary Schedule

1. The University aspires to provide compensation for its EM personnel that is competitive with pay levels of individuals who have similar responsibilities, demonstrated competence, and breadth of demonstrated experience. The President shall establish a salary schedule for all EM positions ("Salary Schedule"), which sets forth minimum, mean, and maximum salary ranges based on relevant competitive markets, including higher education and local markets, as well as on the level of responsibility of the position, equity in relation to comparable University positions, and value of the hire in fulfilling the strategic mission of the University.

2. Annually, the President shall provide the Board a copy of the current Salary Schedule and a listing of all EM positions that indicates the placement within the Salary Schedule. For vacant positions, the listing should show the date the vacancy occurred and intentions regarding the filling or reassignment of the position. For filled positions, the listing should show the date of appointment to the position, current salary, and the reason for any change to compensation that occurred since the prior report.

C. Recruitment

1. Recruitment for any vacant position shall require prior written approval of the President.

2. The University of Hawai‘i seeks to attract the best-qualified candidates who support the mission of the University and who respect and promote excellence through diversity. In support of this goal, EM vacancies shall be advertised in locations which are considered appropriate sources for recruitment.
3. Waiver of recruitment for positions reporting directly to the President shall require approval of the Board. The President may waive recruitment for all other EM positions.

D. Appointment and Initial Salary

1. To attract and retain competent and experienced personnel, it is the aspiration of the University to offer compensation that is competitive with the market from which the personnel are recruited, including higher education and local markets. For comparison purposes, total compensation shall include salary and benefits.

2. Appointments should be at the minimum of the range unless a higher salary is justified based on:

- the candidate's knowledge, skills, and experience;
- the candidate's current salary; and
- budget and fiscal conditions of the unit.

3. There shall be an Appointing Authority for every EM position ("Appointing Authority"). The Board shall be the Appointing Authority for all EM positions reporting directly to the Board. The President shall be the Appointing Authority for all other EM positions at the University, however, positions reporting directly to the President shall be subject to Board approval. Except for positions reporting directly to the President, the President shall have the authority to further delegate Appointing Authority for all other EM positions. See Illustration 1 below.

4. There shall be an Approving Authority that is at least one level above the Appointing Authority in the organization ("Approving Authority"). The President shall serve as the Approving Authority for all appointments above the mean and up to and including the maximum of the range within the Salary Schedule. Except for positions reporting directly to the Board and the President, the President shall have the authority to further delegate Approving Authority for all other EM positions up to and including the mean of the range within the Salary Schedule.

All appointments for EM positions that report to a position that reports directly to the Board and/or for all EM appointments exceeding the maximum of the range set forth in the Salary Schedule shall require approval of the Board. See Illustration 1 below.
5. EM appointments are at will, and not contractual appointments to specific positions and EM appointees may be reassigned and/or receive an adjustment in pay based on changing assignments of responsibilities to meet the needs of the University. Unless otherwise approved by the Board, no offer of employment shall include a multi-year employment term.

Illustration 1:

<table>
<thead>
<tr>
<th>Authority</th>
<th>Appointing Authority</th>
<th>Approving Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board</td>
<td>All positions reporting directly to Board</td>
<td>• All positions that report to positions that directly report to the Board</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• All appointments exceeding the maximum of the range in the Salary Schedule</td>
</tr>
<tr>
<td>President</td>
<td>All other EMs (unless delegated)</td>
<td>All appointments above the mean and up to and including the maximum of the range in the Salary Schedule</td>
</tr>
<tr>
<td>Chancellor &amp; Below</td>
<td>As delegated by the President</td>
<td>President may delegate all appointments up to and including the mean of the range in the Salary Schedule</td>
</tr>
</tbody>
</table>

E. Evaluation

1. EM employees are expected to perform their duties and responsibilities in a manner that achieves the highest standards of quality and professionalism. To that end, evaluations are a critical component of the continued employment, professional development, and compensation of all EM employees.

2. The assigned responsibilities, performance, and accomplishments of each appointee to an EM position shall be evaluated annually. The evaluation shall be consistent with criteria and procedures established by the
President and the Appointing Authority, including specific metrics aligned to the University's strategic goals. The review shall also include identification of specific goals to be accomplished in the coming year.

F. Salary Adjustments

1. To ensure that EM salaries are competitive, salary adjustments may be granted based on merit, subject to the availability of Board-authorized funds for salary adjustments.

2. The Board shall establish guidelines and approve salary adjustments for positions reporting directly to the Board. The President shall establish guidelines and approve salary adjustments for all other positions, an authority which shall not be further delegated. The President shall report to the Board on guidelines used for salary adjustments for positions under the President's delegated authority.

G. Term and Termination

1. Subject to the terms of this Policy, EM positions are at-will and serve at the pleasure of the Board. The Appointing Authority for an EM position, as set forth in Section III.D of this Policy, has the authority to terminate the EM's employment with the University. Termination of EM personnel from employment, either with or without cause, is not appealable.

2. EM personnel without return rights to another position may be terminated from employment, without cause, at any time by being provided three (3) months prior written notice during the first two (2) years of employment and six (6) months prior written notice after the first two (2) years of employment.

3. EM personnel with return rights to another position may be terminated from their EM position, without cause, at any time by being provided thirty (30) days written notice. The salary at the time of return shall be that which the individual would have received had he/she not accepted the EM appointment; provided, however, the President may approve adjustments to the return-salary as deemed equitable and appropriate.
4. EM personnel may be terminated from employment for cause, effective immediately, with no obligation of prior notice on the part of the Board or University. In termination for cause, the employment relationship with the Board or University shall cease immediately with no further employment rights or obligations, and such decision shall be considered final.

H. Professional Improvement Leave

1. EM personnel may be granted leave with pay for professional improvement consistent with development in their profession and the needs of the University. Professional improvement leave is a privilege for the purpose of advancing the University by (1) enhancing the performance of the employee and thereby, enriching the University's programs or (2) enabling EM employees to prepare to assume or resume faculty or professional duties after significant administrative service to the University. The leave shall be used to enhance or gain professional expertise and engage in professional activities to serve the University in support of the University's mission and goals.

2. Professional improvement leave may be granted after six (6) years of full-time continuous service, including creditable service in other Board classifications, for periods of up to six (6) months at full pay or twelve (12) months at half pay with total months earned at the rate of one (1) month for each year of service. Leaves of shorter duration and intermittent leaves may also be granted. However, the total duration of the intermittent leave taken with pay should not exceed the total leave provided for under this Policy. The President may grant exceptions to the minimum creditable service requirement when deemed in the best interests of the University.

3. The leave approved under this provision shall be taken at the salary applicable to the position the individual will occupy upon return from the professional improvement leave. For example, if the individual will return to an EM position, the leave may be taken at the current EM salary, however, if the individual will return to a faculty position, the leave shall be taken at the appropriate faculty salary for the faculty position.

4. An individual granted a leave with pay for professional improvement shall agree to return to service at the University. The return service obligation shall be equivalent to the duration of the leave. Upon the
return of the individual from professional leave, the individual shall submit a written report to the appropriate supervisor on the activities during the leave.

I. Other Conditions of Service

1. EM personnel shall be granted all rights and benefits accorded other University employees as provided by statute, rule, or Board policy, except as may be specifically modified by this Policy or other policies of the Board. These rights and benefits shall be subject to adjustments and modifications as provided by HRS Chapter 89C, which provides for comparability with bargaining unit members. Any additional benefits shall require prior approval of the Board.

IV. Delegation of Authority

Specified in Sections III.B and III.D above

V. Contact Information

Office of Human Resources, 956-8988

VI. References

A. http://www.hawaii.edu/offices/bor/


C. http://www.capitol.hawaii.gov/hrscurrent/Vol02_Ch0046-0115/HRS0089C-.htm

D. http://www.capitol.hawaii.gov/hrscurrent/Vol01_Ch0001-0042F/Const/CONST_0010-0006.htm

VII. **Exhibits and Appendices**

No Exhibits or Appendices Found

VIII. **Approved**

/S/ Cynthia Quinn  
06/02/2016  
Executive Administrator and  
Secretary of the Board of Regents
I. Purpose and Authority

This Regents Policy RP 9.212 ("Policy") provides a framework for the terms and conditions of service applicable to individuals appointed by the Board of Regents ("Board") to executive and managerial ("EM") positions at the University of Hawai'i, ("University"), which are excluded from a bargaining unit as specified in Section 89-6(f)(2), Hawai'i Revised Statutes ("HRS"), due to top-level executive, managerial, and administrative responsibilities. All employment actions taken pursuant to this Policy shall be in accordance with RP 1.205, Policy on Nondiscrimination and Affirmative Action.

This Policy is established pursuant to the authority granted to the Board of Regents ("Board") by Article X, Section 6 of the Constitution of the State of Hawai'i, and by HRS Section 304A-1001 (as amended from time to time), HRS.

This Policy supersedes all prior policies and practices that may conflict with any provision contained herein.

II. Definitions

The term "EM" shall mean executive and managerial positions at the University.

III. Board Policy

A. Establishment and Classification

1. There shall be an EM class of positions established based on the needs of the University and in a manner consistent with the University's organizational structure. Generally speaking, executive and managerial positions (1) have system-wide, campus-wide, or major campus program responsibilities and report directly to the Board, President, Vice Presidents, or Chancellors, (2) report directly to executives and head major organizational segments of the University, or (3) serve as high-high.
level executive assistants. The Board retains authority to establish, classify, and abolish positions reporting to the Board and to the President. The President retains authority, which shall not be further delegated, to establish, classify, and abolish all other positions.

2. Positions shall be classified according to the complexity, breadth, and depth of responsibility and the critical importance of the position to the operation of the University. Each position shall be analyzed and described in writing to ensure equity within the University organization while considering comparable university systems nationwide.

B. Salary Schedule

1. The University aspires to provide compensation for its EM personnel that is competitive with pay levels of individuals who have similar responsibilities, demonstrated competence, and breadth of demonstrated experience. The President shall establish a salary schedule for all EM positions ("Salary Schedule"), which sets forth minimum, mean/midpoint, and maximum salary ranges based on relevant competitive markets, including higher education and local markets, as well as on the level of responsibility of the position, equity in relation to comparable University positions, and value of the hire in fulfilling the strategic mission of the University.

2. Annually, the President shall provide the Board a copy of the current Salary Schedule and a listing of all EM positions that indicates the placement within the Salary Schedule. For vacant positions, the listing should show the date the vacancy occurred and intentions regarding the filling or reassignment of the position. For filled positions, the listing should show the date of appointment to the position, current salary, and the reason for any change to compensation that occurred since the prior report.

2.3. The President may make adjustments to the Salary Schedule based on comparable industry and market benchmarks. Proposed adjustments in excess of five percent below the minimum and/or five percent above the maximum of the ranges shall be reviewed by the Board prior to being effectuated.

C. Recruitment

1. Recruitment for any vacant position shall require prior written approval of
the President.

2. The University of Hawai‘i seeks to attract the best-qualified candidates who support the mission of the University and who respect and promote excellence through diversity. In support of this goal, EM vacancies shall be advertised in locations which are considered appropriate sources for recruitment.

3. Waiver of recruitment for positions reporting directly to the President shall require approval of the Board. The President may waive recruitment for all other EM positions.

D. Appointment and Initial Salary

1. To attract and retain competent and experienced personnel, it is the aspiration of the University to offer compensation that is competitive with the market from which the personnel are recruited, including higher education and local markets. For comparison purposes, total compensation shall include salary and benefits.

2. Appointments should be at the minimum of the range unless a higher salary is justified based on:

- the candidate’s knowledge, skills, and experience;
- the candidate’s current salary; and
- budget and fiscal conditions of the unit.

3. There shall be an Appointing Authority for every EM position (“Appointing Authority”). The Board shall be the Appointing Authority for all EM positions reporting directly to the Board. The President shall be the Appointing Authority for all other EM positions at the University, however, positions reporting directly to the President shall be subject to Board approval. Except for positions reporting directly to the President, the President shall have the authority to further delegate Appointing Authority for all other EM positions. See Illustration 1 below.

4. There shall be an Approving Authority that is at least one level above the Appointing Authority in the organization (“Approving Authority”). The President shall serve as the Approving Authority for all appointments above the mean midpoint and up to and including the maximum of the range within the Salary Schedule. Except for positions reporting directly to the Board and the President, the President shall have the authority to
further delegate Approving Authority for all other EM positions up to and including the **mean-midpoint** of the range within the Salary Schedule.

All appointments for EM positions that report to a position that reports directly to the Board and/or for all EM appointments exceeding the maximum of the range set forth in the Salary Schedule shall require approval of the Board. See Illustration 1 below

5. EM appointments are at will, and not contractual appointments to specific positions and EM appointees may be reassigned and/or receive an adjustment in pay based on changing assignments of responsibilities to meet the needs of the University. Unless otherwise approved by the Board, no offer of employment shall include a multi-year employment term.

Illustration 1:

<table>
<thead>
<tr>
<th>Authority</th>
<th>Appointing Authority</th>
<th>Approving Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board</td>
<td>All positions reporting directly to Board</td>
<td>• All positions that report to positions that directly report to the Board</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• All appointments exceeding the maximum of the range in the Salary Schedule</td>
</tr>
<tr>
<td>President</td>
<td>All other EMs (unless delegated)</td>
<td>All appointments above the <strong>mean-midpoint</strong> and up to and including the maximum of the range in the Salary Schedule</td>
</tr>
<tr>
<td>Chancellor &amp; Below</td>
<td>As delegated by the President</td>
<td>President may delegate all appointments up to and including the <strong>mean-midpoint</strong> of the range in the Salary Schedule</td>
</tr>
</tbody>
</table>

E. Evaluation

1. EM employees are expected to perform their duties and responsibilities in a manner that achieves the highest standards of quality and
professionalism. To that end, evaluations are a critical component of the continued employment, professional development, and compensation of all EM employees.

2. The assigned responsibilities, performance, and accomplishments of each appointee to an EM position shall be evaluated annually. The evaluation shall be consistent with criteria and procedures established by the President and the Appointing Authority, including specific metrics aligned to the University's strategic goals. The review shall also include identification of specific goals to be accomplished in the coming year.

F. Salary Adjustments

1. **Annual Salary Adjustments**

   a. To ensure that EM salaries are competitive, salary adjustments as described herein may be granted based on merit, annually for EM employees as a group, subject to the availability of Board-authorized funds for salary adjustments, and subject to performance evaluations.

   b. The Board shall establish guidelines and approve any salary adjustments for positions reporting directly to the Board, i.e. the President, the Executive Administrator and Secretary of the Board of Regents, and the Director of the Office of Internal Audit. (See RP 2.203, Policy on Evaluation of the President and Other Persons Reporting Directly to the Board.)

   c. For all other EM positions, including EM positions reporting to the Executive Administrator and Secretary of the Board of Regents and the Director of the Office of Internal Audit, the President shall establish guidelines and approve salary adjustments. An annual salary adjustment methodology not to exceed an increase of 5% for all other EM positions, including EM positions reporting to the Executive Administrator and Secretary of the Board of Regents and the Director of the Office of Internal Audit, an authority which shall not be further delegated. Any annual salary adjustments that exceed a 5% increase shall require prior approval of the Board.

   d. The President shall report to the Board on the guidelines used for annual salary adjustments for positions under the President's
delegated authority.

e. This "Annual Salary Adjustments" section only authorizes annual salary adjustments for EM employees as a group and shall not authorize adjustments for individual EM employees outside of the general methodology and guidelines set forth by the President for annual adjustments.

2. Other Salary Adjustments

a. Outside of the annual adjustment guidelines set forth above, the President may approve salary adjustments for individual EM employees for merit, equity, or retention below the maximum of the range set forth in the Salary Schedule; provided, however, that all adjustments for EM positions that report to a position that reports directly to the Board and/or for all EM appointments exceeding the maximum of the range set forth in the Salary Schedule shall require approval of the Board.

G. Term and Termination

1. Subject to the terms of this Policy, EM positions are at-will and serve at the pleasure of the Board. The Appointing Authority for an EM position, as set forth in Section III.D of this Policy, has the authority to terminate the EM’s employment with the University. Termination of EM personnel from employment, either with or without cause, is not appealable.

2. EM personnel without return rights to another position may be terminated from employment, without cause, at any time by being provided three (3) months prior written notice during the first two (2) years of employment and six (6) months prior written notice after the first two (2) years of employment.

3. EM personnel with return rights to another position may be terminated from their EM position, without cause, at any time by being provided thirty (30) days written notice. The salary at the time of return shall be that which the individual would have received had he/she not accepted the EM appointment; provided, however, the President may approve adjustments to the return-salary as deemed equitable and appropriate.

4. EM personnel may be terminated from employment for cause, effective
immediately, with no obligation of prior notice on the part of the Board or University. In termination for cause, the employment relationship with the Board or University shall cease immediately with no further employment rights or obligations, and such decision shall be considered final.

H. Professional Improvement Leave

1. EM personnel may be granted leave with pay for professional improvement consistent with development in their profession and the needs of the University. Professional improvement leave is a privilege for the purpose of advancing the University by (1) enhancing the performance of the employee and thereby, enriching the University's programs or (2) enabling EM employees to prepare to assume or resume faculty or professional duties after significant administrative service to the University. The leave shall be used to enhance or gain professional expertise and engage in professional activities to serve the University in support of the University's mission and goals.

2. Professional improvement leave may be granted after six (6) years of full-time continuous service, including creditable service in other Board classifications, for periods of up to six (6) months at full pay or twelve (12) months at half pay with total months earned at the rate of one (1) month for each year of service. Leaves of shorter duration and intermittent leaves may also be granted. However, the total duration of the intermittent leave taken with pay should not exceed the total leave provided for under this Policy. The President may grant exceptions to the minimum creditable service requirement when deemed in the best interests of the University.

3. The leave approved under this provision shall be taken at the salary applicable to the position the individual will occupy upon return from the professional improvement leave. For example, if the individual will return to an EM position, the leave may be taken at the current EM salary, however, if the individual will return to a faculty position, the leave shall be taken at the appropriate faculty salary for the faculty position.

4. An individual granted a leave with pay for professional improvement shall agree to return to service at the University. The return service obligation shall be equivalent to the duration of the leave. Upon the return of the individual from professional leave, the individual shall
submit a written report to the appropriate supervisor on the activities during the leave.

I. Other Conditions of Service

1. EM personnel shall be granted all rights and benefits accorded other University employees as provided by statute, rule, or Board policy, except as may be specifically modified by this Policy or other policies of the Board. These rights and benefits shall be subject to adjustments and modifications as provided by HRS Chapter 89C, which provides for comparability with bargaining unit members. Any additional benefits shall require prior approval of the Board.

IV. Delegation of Authority

Specified in Sections III.B and III.D above. Except as specified above, there is no policy-specific delegation of authority.

V. Contact Information

Office of Human Resources, 956-8988

VI. References

- http://www.hawaii.edu/offices/bor/RP_2.203


- http://www.capitol.hawaii.gov/hrscurrent/Vol02_Ch0046-0115/HRS0089C-.htm


VII. Exhibits and Appendices

No Exhibits or Appendices Found
VIII. Approved

[Signature] 06/02/2016
Cynthia Quinn Kendra Oishi
Executive Administrator and Secretary of the Board of Regents
Regents Policy Chapter 9, Personnel
Regents Policy RP 9.212, Executive and Managerial Personnel Policies
Effective Date: , 2020
Review Date: August 2023

I. **Purpose and Authority**

This Regents Policy RP 9.212 ("Policy") provides a framework for the terms and conditions of service applicable to individuals appointed to executive and managerial ("EM") positions at the University of Hawai'i, ("University"), which are excluded from a bargaining unit as specified in Section 89-6(f)(2), Hawai'i Revised Statutes ("HRS"), due to top-level executive, managerial, and administrative responsibilities. All employment actions taken pursuant to this Policy shall be in accordance with RP 1.205, Policy on Nondiscrimination and Affirmative Action.

This Policy is established pursuant to the authority granted to the Board of Regents ("Board") by Article X, Section 6 of the Constitution of the State of Hawai'i, and by Section 304A-1001, HRS.

This Policy supersedes all prior policies and practices that may conflict with any provision contained herein.

II. **Definitions**

The term "EM" shall mean executive and managerial positions at the University.

III. **Board Policy**

A. Establishment and Classification

1. There shall be an EM class of positions established based on the needs of the University and in a manner consistent with the University's organizational structure. Generally speaking, executive and managerial positions (1) have system-wide, campus-wide, or major campus program responsibilities and report directly to the Board, President, Vice Presidents, or Chancellors, (2) report directly to executives and head major organizational segments of the University, or (3) serve as high-level
executive assistants. The Board retains authority to establish, classify, and abolish positions reporting to the Board and to the President. The President retains authority, which shall not be further delegated, to establish, classify, and abolish all other positions.

2. Positions shall be classified according to the complexity, breadth, and depth of responsibility and the critical importance of the position to the operation of the University. Each position shall be analyzed and described in writing to ensure equity within the University organization while considering comparable university systems nationwide.

B. Salary Schedule

1. The University aspires to provide compensation for its EM personnel that is competitive with pay levels of individuals who have similar responsibilities, demonstrated competence, and breadth of demonstrated experience. The President shall establish a salary schedule for all EM positions ("Salary Schedule"), which sets forth minimum, midpoint, and maximum salary ranges based on relevant competitive markets, including higher education and local markets, as well as on the level of responsibility of the position, equity in relation to comparable University positions, and value of the hire in fulfilling the strategic mission of the University.

2. Annually, the President shall provide the Board a copy of the current Salary Schedule and a listing of all EM positions that indicates the placement within the Salary Schedule. For vacant positions, the listing should show the date the vacancy occurred and intentions regarding the filling or reassignment of the position. For filled positions, the listing should show the date of appointment to the position, current salary, and the reason for any change to compensation that occurred since the prior report.

3. The President may make adjustments to the Salary Schedule based on comparable industry and market benchmarks. Proposed adjustments in excess of five percent below the minimum and/or five percent above the maximum of the ranges shall be reviewed by the Board prior to being effectuated.

C. Recruitment

1. Recruitment for any vacant position shall require prior written approval of the President.
2. The University of Hawaiʻi seeks to attract the best-qualified candidates who support the mission of the University and who respect and promote excellence through diversity. In support of this goal, EM vacancies shall be advertised in locations which are considered appropriate sources for recruitment.

3. Waiver of recruitment for positions reporting directly to the President shall require approval of the Board. The President may waive recruitment for all other EM positions.

D. Appointment and Initial Salary

1. To attract and retain competent and experienced personnel, it is the aspiration of the University to offer compensation that is competitive with the market from which the personnel are recruited, including higher education and local markets. For comparison purposes, total compensation shall include salary and benefits.

2. Appointments should be at the minimum of the range unless a higher salary is justified based on:
   - the candidate's knowledge, skills, and experience;
   - the candidate's current salary; and
   - budget and fiscal conditions of the unit.

3. There shall be an Appointing Authority for every EM position ("Appointing Authority"). The Board shall be the Appointing Authority for all EM positions reporting directly to the Board. The President shall be the Appointing Authority for all other EM positions at the University, however, positions reporting directly to the President shall be subject to Board approval. Except for positions reporting directly to the President, the President shall have the authority to further delegate Appointing Authority for all other EM positions. See Illustration 1 below.

4. There shall be an Approving Authority that is at least one level above the Appointing Authority in the organization ("Approving Authority"). The President shall serve as the Approving Authority for all appointments above the midpoint and up to and including the maximum of the range within the Salary Schedule. Except for positions reporting directly to the Board and the President, the President shall have the authority to further delegate Approving Authority for all other EM positions up to and including
the midpoint of the range within the Salary Schedule.

All appointments for EM positions that report to a position that reports directly to the Board and/or for all EM appointments exceeding the maximum of the range set forth in the Salary Schedule shall require approval of the Board. See Illustration 1 below

5. EM appointments are at will, and not contractual appointments to specific positions and EM appointees may be reassigned and/or receive an adjustment in pay based on changing assignments of responsibilities to meet the needs of the University. Unless otherwise approved by the Board, no offer of employment shall include a multi-year employment term.

Illustration 1:

<table>
<thead>
<tr>
<th>Authority</th>
<th>Appointing Authority</th>
<th>Approving Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board</td>
<td>All positions reporting directly to Board</td>
<td>• All positions that report to positions that directly report to the Board</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• All appointments exceeding the maximum of the range in the Salary Schedule</td>
</tr>
<tr>
<td>President</td>
<td>All other EMs (unless delegated)</td>
<td>All appointments above the midpoint and up to and including the maximum of the range in the Salary Schedule</td>
</tr>
<tr>
<td>Chancellor &amp; Below</td>
<td>As delegated by the President</td>
<td>President may delegate all appointments up to and including the midpoint of the range in the Salary Schedule</td>
</tr>
</tbody>
</table>

E. Evaluation

1. EM employees are expected to perform their duties and responsibilities in a manner that achieves the highest standards of quality and professionalism. To that end, evaluations are a critical component of the
continued employment, professional development, and compensation of all EM employees.

2. The assigned responsibilities, performance, and accomplishments of each appointee to an EM position shall be evaluated annually. The evaluation shall be consistent with criteria and procedures established by the President and the Appointing Authority, including specific metrics aligned to the University's strategic goals. The review shall also include identification of specific goals to be accomplished in the coming year.

F. Salary Adjustments

1. Annual Salary Adjustments

   a. To ensure that EM salaries are competitive, salary adjustments as described herein may be granted annually for EM employees as a group, subject to the availability of Board-authorized funds for salary adjustments, and subject to performance evaluations.

   b. The Board shall approve any salary adjustments for positions reporting directly to the Board, i.e. the President, the Executive Administrator and Secretary of the Board of Regents, and the Director of the Office of Internal Audit. (See RP 2.203, Policy on Evaluation of the President and Other Persons Reporting Directly to the Board.)

   c. For all other EM positions, including EM positions reporting to the Executive Administrator and Secretary of the Board of Regents and the Director of the Office of Internal Audit, the President shall establish guidelines and approve an annual salary adjustment methodology not to exceed an increase of 5%, an authority which shall not be further delegated. Any annual salary adjustments that exceed a 5% increase shall require prior approval of the Board.

   d. The President shall report to the Board on the guidelines used for annual salary adjustments for positions under the President's delegated authority.

   e. This "Annual Salary Adjustments" section only authorizes annual salary adjustments for EM employees as a group and shall not authorize adjustments for individual EM employees outside of
the general methodology and guidelines set forth by the President for annual adjustments.

2. Other Salary Adjustments

a. Outside of the annual adjustment guidelines set forth above, the President may approve salary adjustments for individual EM employees for merit, equity, or retention below the maximum of the range set forth in the Salary Schedule; provided, however, that all adjustments for EM positions that report to a position that reports directly to the Board and/or for all EM appointments exceeding the maximum of the range set forth in the Salary Schedule shall require approval of the Board.

G. Term and Termination

1. Subject to the terms of this Policy, EM positions are at-will and serve at the pleasure of the Board. The Appointing Authority for an EM position, as set forth in Section III.D of this Policy, has the authority to terminate the EM's employment with the University. Termination of EM personnel from employment, either with or without cause, is not appealable.

2. EM personnel without return rights to another position may be terminated from employment, without cause, at any time by being provided three (3) months prior written notice during the first two (2) years of employment and six (6) months prior written notice after the first two (2) years of employment.

3. EM personnel with return rights to another position may be terminated from their EM position, without cause, at any time by being provided thirty (30) days written notice. The salary at the time of return shall be that which the individual would have received had he/she not accepted the EM appointment; provided, however, the President may approve adjustments to the return-salary as deemed equitable and appropriate.

4. EM personnel may be terminated from employment for cause, effective immediately, with no obligation of prior notice on the part of the Board or University. In termination for cause, the employment relationship with the Board or University shall cease immediately with no further employment rights or obligations, and such decision shall be considered final.
H. Professional Improvement Leave

1. EM personnel may be granted leave with pay for professional improvement consistent with development in their profession and the needs of the University. Professional improvement leave is a privilege for the purpose of advancing the University by (1) enhancing the performance of the employee and thereby, enriching the University’s programs or (2) enabling EM employees to prepare to assume or resume faculty or professional duties after significant administrative service to the University. The leave shall be used to enhance or gain professional expertise and engage in professional activities to serve the University in support of the University’s mission and goals.

2. Professional improvement leave may be granted after six (6) years of full-time continuous service, including creditable service in other Board classifications, for periods of up to six (6) months at full pay or twelve (12) months at half pay with total months earned at the rate of one (1) month for each year of service. Leaves of shorter duration and intermittent leaves may also be granted. However, the total duration of the intermittent leave taken with pay should not exceed the total leave provided for under this Policy. The President may grant exceptions to the minimum creditable service requirement when deemed in the best interests of the University.

3. The leave approved under this provision shall be taken at the salary applicable to the position the individual will occupy upon return from the professional improvement leave. For example, if the individual will return to an EM position, the leave may be taken at the current EM salary, however, if the individual will return to a faculty position, the leave shall be taken at the appropriate faculty salary for the faculty position.

4. An individual granted a leave with pay for professional improvement shall agree to return to service at the University. The return service obligation shall be equivalent to the duration of the leave. Upon the return of the individual from professional leave, the individual shall submit a written report to the appropriate supervisor on the activities during the leave.

I. Other Conditions of Service
1. EM personnel shall be granted all rights and benefits accorded other University employees as provided by statute, rule, or Board policy, except as may be specifically modified by this Policy or other policies of the Board. These rights and benefits shall be subject to adjustments and modifications as provided by HRS Chapter 89C, which provides for comparability with bargaining unit members. Any additional benefits shall require prior approval of the Board.

IV. Delegation of Authority

Except as specified above, there is no policy-specific delegation of authority.

V. Contact Information

Office of Human Resources, 956-8988

VI. References

- RP 2.203
- http://www.capitol.hawaii.gov/hrscurrent/Vol02_Ch0046-0115/HRS0089C.htm

VII. Exhibits and Appendices

No Exhibits or Appendices Found

VIII. Approved

Kendra Oishi
Executive Administrator and Secretary of the Board of Regents
MEMORANDUM

TO: Benjamin A. Kudo  
Chairperson, Board of Regents

VIA: David Lassner  
President
Digitally signed by David Lassner  
Date: 2020.05.15  
11:51:40 -10'00'

VIA: Bonnie D. Irwin  
Chancellor
Digitally signed by Bonnie D. Irwin  
Date: 2020.05.15  
11:32:56 -10'00'

FROM: Gregory Chun, Ph.D.  
Executive Director of Maunakea Stewardship
Digitally signed by Gregory C. Chun  
Date: 2020.05.15  
10:19:19 -10'00'

SUBJECT: APPROVAL OF INTERNAL RESTRUCTURING PLAN FOR MANAGEMENT OPERATIONS OF MAUNAKEA LANDS PURSUANT TO UNIVERSITY OF HAWAI‘I BOARD OF REGENTS RESOLUTION 19-03, PARAGRAPH 8

SPECIFIC ACTION REQUESTED:

We request that the Board of Regents approve the internal restructuring plan attached hereto as Attachment “A,” pursuant to the requirements of Board of Regents Resolution 19-03, Paragraph 8.

RECOMMENDED EFFECTIVE DATE:

Effective immediately upon approval.

ADDITIONAL COSTS:

None.

PURPOSE:

To fulfill the requirements of the University of Hawai‘i Board of Regents Resolution 19-03, Paragraph 8, which provides the following:
Following consultation with the Maunakea Management Board, Kahu Kū Mauna, ‘Imiloa Astronomy Center, existing Maunakea Observatories, and other community stakeholders, a reorganization and restructuring plan shall be presented to the Board of Regents as to all advisory, operating, and funding bodies involved in the management of Maunakea by April 2020. The purpose of the plan is to improve operations and management and make it more efficient, effective, and transparent. The analysis will include consultation with the Maunakea Management Board, Kahu Kū Mauna, and appropriate members of the Hawaii Island community. The reorganization and restructuring plan shall be embodied into a governance document that is approved by the Board of Regents.

BACKGROUND INFORMATION:

As required by Resolution 19-03, Paragraph 8, Dr. Chun, Executive Director of Maunakea Stewardship, presented an internal restructuring plan to the Board of Regents on April 16, 2020. The elements of the plan were provided in a PowerPoint presentation made available to the Board of Regents and the public, which is posted online at https://www.hawaii.edu/offices/bor/archive.

The presentation was a discussion only, no-action item listed as agenda item V, as followed in relevant part:

C. Status Update on Items Relating to Maunakea Management Pursuant to Board of Regents Resolution 19-03 (Discussion Only)

1. Maunakea Management Reorganization and Restructuring Plan

[...]

Attachment “A” is substantially similar to what was presented to the Board of Regents at its April 16, 2020 meeting. As required by Resolution 19-03, Paragraph 8, we offer Attachment “A” for the Board of Regents’ approval.¹

¹ At the April 16, 2020 meeting, Dr. Chun also presented alternative governance models to fulfill the requirements of Resolution 19-03, Paragraph 9, which asks “whether the management of the Maunakea Science Reserve would be better served if transferred to a governmental authority or other third party entity, or through alternate management mechanisms.” Alternative governance is not part of this request.
ACTION RECOMMENDED:

We recommend that the Board of Regents approve the internal restructuring plan attached hereto as Attachment “A,” pursuant to the requirements of Board of Regents Resolution 19-03, Paragraph 8.

Attachment

Center for Maunakea Stewardship: Internal Restructuring Plan for Management Operations of Maunakea Lands

This report was prepared in response to the University of Hawai‘i Board of Regent’s Resolution 19-03, Section 8

Submitted to the Board of Regents on May 21, 2020
# Table of Contents

*Definitions* ................................................................................................................................. 3

*Authority* ........................................................................................................................................ 4

*Consultation and Outreach* ............................................................................................................. 4

*Restructuring Objectives* ................................................................................................................. 5

*Center for Maunakea Stewardship Organization and Description* ............................................. 5

  - Organization Chart: Center for Maunakea Stewardship ............................................................... 6
  - Key Elements of Internal Restructuring ....................................................................................... 7

*Overview of Roles and Responsibilities* ............................................................................................ 7

  - Strategy and Policy Advisors ....................................................................................................... 7
  - Office of the Executive Director ................................................................................................. 8
  - Director of Stewardship Programs .............................................................................................. 8
  - Institute for Astronomy ............................................................................................................... 9
  - ‘Imiloa Astronomy Center ......................................................................................................... 10

*Next Steps* ....................................................................................................................................... 10

*Future Amendments* ......................................................................................................................... 11
Definitions
BOR – UH Board of Regents
CMS - Center for Maunakea Stewardship
DSP – Director of Stewardship Programs
DLNR – Department of Land and Natural Resources
EC – Environment Committee
IfA - Institute for Astronomy
ʻImiloa – ʻImiloa Astronomy Center
JCMT – James Clerk Maxwell Telescope
KKM – Kahu Kū Mauna
“Maunakea Lands” or “Mauna Kea Lands” – as defined under section 304A-1901, Hawaiʻi Revised Statutes
MKMB – Maunakea Management Board
MKO – Maunakea Observatories
MKSS – Maunakea Support Services
NELHA – Natural Energy Laboratory of Hawaiʻi Authority
OED – Office of the Executive Director
OMKM – Office of Maunakea Management
NELHA – Natural Energy of Hawaiʻi Authority
NSF – National Science Foundation
TIO – Thirty Meter Telescope International Observatory
UH – University of Hawaiʻi
UHH – University of Hawaiʻi at Hilo
UHM – University of Hawaiʻi at Mānoa
UKIRT - United Kingdom Infra-Red Telescope
RCUH – Research Corporation of UH
VIS – Maunakea Visitor Information Station
Authority
This document was prepared pursuant to Resolution 19-03, section 8, adopted by the Board of Regents University of Hawai‘i, on November 6, 2019. Section 8, provides as follows:

Following consultation with the Maunakea Management Board, Kahu Kū Mauna, ʻImiloa Astronomy Center, existing Maunakea Observatories, and other community stakeholders, a reorganization and restructuring plan shall be presented to the Board of Regents as to all advisory, operating, and funding bodies involved in the management of Maunakea by April 2020. The purpose of the plan is to improve operations and management and make it more efficient, effective, and transparent. The analysis will include consultation with the Maunakea Management Board, Kahu Kū Mauna, and appropriate members of the Hawaii Island community. The reorganization and restructuring plan shall be embodied into a governance document that is approved by the Board of Regents.

Consultation and Outreach
For this plan, consultation and outreach was the process by which formal and informal discussions were conducted with various stakeholders. This process included (i) presenting concepts and drafts to stakeholders, (ii) listening to feedback, and (iii) incorporating feedback from these discussions into the plan as appropriate. This process occurred between November 6, 2019 (when the BOR passed Resolution 19-03), and April 16, 2020 (when the plan was first presented to the BOR). Comments and input received from this process cumulatively informed and shaped this document.

The executive director of Maunakea stewardship, with the support of UH staff and external consultants, discussed provisions of this plan and presented drafts to various stakeholders before presenting this document to the BOR. Consultation included meeting with the following:

- Maunakea Management Board
- Kahu Kū Mauna
- ʻImiloa Astronomy Center
- Existing Maunakea Observatories (individual and group)
- MKSS Staff
- OMKM Staff
- Interested Legislators
In addition, our analysis incorporated lessons learned and feedback from past State and internal audits, testimony received during a multitude of public meetings UH held over the years, contested case proceedings involving Maunakea, and information gathered through desktop research looking at other models of management within State government. We also conducted interviews with the State Office of Planning, DLNR, and NELHA.

Restructuring Objectives

Based on our review and the feedback we received, the primary issues regarding UH’s current management are: (1) lack of trust in decision-making; (2) UH’s regulatory, stewardship, and advocacy roles create confusion and perceived conflicts-of-interest; (3) given the current reporting lines of our management units, authority and responsibility are not always clear leading to concerns about transparency; and (4) these independent reporting lines create differences in priorities between management units.

The following objectives for the internal restructuring plan were identified to address the above concerns:

- Improve transparency and lines of accountability
- Organize UH functions around mission-critical activities
- Clarify UH’s regulatory, stewardship, and advocacy roles by separating those functions in our organization
- Leverage and optimize existing networks and partnerships
- Broaden, diversify, and elevate stakeholder input into decision-making
- Maintain governance continuity and minimize disruption as much as possible

Center for Maunakea Stewardship Organization and Description

This section describes the creation of the CMS, which aligns existing units with the restructuring objectives identified in the previous section.
Key Elements of Internal Restructuring
Restructuring activity will include the following elements to be completed by July 1, 2020:

- Rename to CMS
- Centralize leadership under the Office of the Executive Director
- Organize around mission-central activities.
- Optimize existing UH and MKO resources, competencies, and relationships through collaborations and networks.
- Reformulate how MKMB, KKM, and the EC are comprised to improve stakeholder representation, including:
  - Elevating the MKSS Oversight Committee
  - Integrating advisory groups into strategic planning and policy discussions

Overview of Roles and Responsibilities
This section discusses in greater detail the roles and responsibilities of the various entities and units depicted in the proposed restructuring.

Strategy and Policy Advisors

General Responsibility
With the adoption of the 2000 MP and the formation of UH’s current management structure, community input into decision-making was formalized with the creation of the MKMB, KKM, and the EC.

The goal of this restructuring is to refresh those groups by broadening their representation and elevating their engagement to policy and strategy discussions, particularly on matters that are of high interest and importance to the community and key stakeholders.

Functions
Our current advisory bodies include MKMB, KKM, and EC.

To this group, we will add the MKSS Oversight Committee. The Committee is a group of MKO representatives who approve the MKSS budget and advise MKSS on what have been typically operational matters. The MKOs determine membership on the Committee.

As vacancies on the MKMB, KKM, and EC arise, we will seek to diversify committee membership and representation to ensure we are reflecting the changing interests of the community. Further, committee charters and by-laws will be reviewed and amended as needed to clarify roles and responsibilities reflecting the strategic nature of the input we seek from these bodies.
Office of the Executive Director

**General Responsibility**

OED provides leadership in building the internal and external partnerships required to engage and weave a cohesive, collaborative management network with stakeholders and the community.

**Functions**
- Policy and strategy implementation
- Planning
- Permitting
- Regulatory and compliance oversight
- Government and community relations
- Research and academic program coordination
- As resources allow, OED would be staffed in the future with an associate executive director and appropriate administrative support. In the interim, the professional and technical leadership sought in an associate executive director, and the required administrative support needed to staff this office, will be explored through collaborative partnerships with other UH units.

Director of Stewardship Programs

**General Responsibility**
Implementation of the programmatic and operational functions required to fulfill UH’s Maunakea stewardship responsibilities.

This unit would be headed by a newly created DSP who would be responsible for developing and implementing the restructuring and integration of current OMKM and MKSS functions.

The DSP is a direct report to the executive director and is a key member of the CMS management team. This unit serves as the operational and implementation arm of the policy, strategy, programmatic, and stakeholder/community engagement responsibilities of the CMS.

**Functions**
- CMP Implementation
- Administrative and fiscal management services to support the CMS.
Center for Maunakea Stewardship:
Internal Restructuring Plan for Management Operations of Maunakea Lands

- Enforcement of plans, permits, leases, administrative rules, and other relevant UH policies.
- Development and implementation of all cultural/natural resource management programs including current community outreach and potential future resource management collaborations with community stakeholders.
- Hale Pōhaku operations, facility maintenance, and infrastructure maintenance.
- Ranger program
- VIS operations – Given current resource constraints, ‘Imiloa will provide content/program development expertise to support the expansion of educational activities at the VIS and Hale Pōhaku. They will also support staff training of VIS personnel. As resources permit, responsibility for VIS operations would gradually be assumed by ‘Imiloa.

Institute for Astronomy

General Responsibility
The IfA is a world leader in astronomy research and training.

This leadership is the result of the State’s commitment to astronomy on Maunakea in conjunction with strong scientific partnerships with Federal agencies and each of the existing MKOs.

Cultivating these relationships is critical to maintaining a sustainable research enterprise for the State, and the IfA is the natural UH unit to lead these efforts in coordination with the OED.

Functions
As an organized research unit at UHM, IfA maintains its administrative and programmatic independence in this management structure and does not formally report to the CMS.

As the Scientific Cooperation Lead, the IfA would provide strategic leadership of the following functions and activities on behalf of the CMS and UH:

- Advocacy for astronomy interests statewide, and for UH and the MKOs in particular
- UH/MKO operational and programmatic collaborations
- Partner agreements (e.g., cooperative agreements, subleases, fiscal agreements, etc.)
- Partnerships with federal agencies
‘Imiloa Astronomy Center

General Responsibility
‘Imiloa’s mission is to honor Maunakea by sharing Hawaiian culture and science to inspire exploration.

Their vision is to be a place of life-long learning where the power of Hawai‘i’s cultural traditions, its legacy of exploration, and the wonders of astronomy come together to provide inspiration and hope for generations.

‘Imiloa has developed the expertise to create unique culture-based educational experiences for residents and visitors alike that is cross-disciplinary, multi-sensory, and which respond to community interests and needs. As such, they are ideally positioned to develop and provide cultural and educational programming in support of CMS’s mission.

Functions
As an educational unit at UH Hilo, ‘Imiloa maintains its administrative and programmatic independence in this management structure and does not formally report to the CMS.

As the Cultural and Community Engagement Lead, ‘Imiloa would provide strategic leadership of the following functions and activities on behalf of the CMS and UH:

- VIS operations - Given current resource constraints, ‘Imiloa will provide content/program development expertise to support the expansion of educational activities at the VIS and Hale Pōhaku. They will also support staff training of VIS personnel. As resources allow, responsibility for VIS operations would gradually be assumed by ‘Imiloa.
- Develop and implement new, “high-touch” programs targeting resident and visitor groups using our Hale Pōhaku and VIS facilities.
- Continue and expand support for CMS outreach through curriculum/program development that can be deployed across CMS functions.
- In partnership with the MKOs, coordinate and conduct educational outreach on behalf of astronomy and UH.

Next Steps
While current resource constraints will dictate the pace of implementation, moving this plan forward will include the following near- and mid-term steps.

- Assess impacts of COVID 19 budgetary and human resource restrictions.
Center for Maunakea Stewardship:
Internal Restructuring Plan for Management Operations of Maunakea Lands

- Delegation of RCUH/MKSS principal investigator authority to ED.
- Develop DSP position description.
- Include this new management structure in the update to the MP.
- Continue to communicate and clarify the purpose of this internal restructuring.
- Continue to work with the Governor and State on the broader analysis of alternative governance models.

Future Amendments
Any substantive or significant changes or modifications to this Plan will be presented to the Board of Regents before its implementation, consistent with Resolution 19-03, section 8.
2020 University of Hawaiʻi Legislative Update

For Presentation

UH Board of Regents
May 21, 2020
The 2020 Legislative Session recessed on March 16, 2020 due to the effects of COVID-19. The Legislature reconvened on May 11, 2020 to take up specific budget-related items and Governor’s Messages.

- 2020 Budget and Budget Bills
- Boards and Commissions
HB 2200 HD1 SD1
General appropriation bill, supplemental budget – Fiscal Year 2021

• No Board of Regents operating budget request items.

• The Operating budget removes 757.98 FTEs from UH’s General Fund budget, which represents 11.2% of the 6,769.18 FTEs that made up UH’s prior total.

• No changes in the dollar amounts appropriated to UH for FY21 from Act 5 (SLH 2019).

• Although no reductions to General Fund appropriations were made at this time, we are cognizant that such reductions will probably be forthcoming.
## 2020 CIP Budget

<table>
<thead>
<tr>
<th>Campus</th>
<th>Project Title</th>
<th>UH</th>
<th>GOV</th>
<th>HD1</th>
<th>SD1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mānoa</td>
<td>Mānoa Mini Master Plan Phase 2</td>
<td>66,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mānoa</td>
<td>Renew, Improve, and Modernize</td>
<td>60,500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mānoa</td>
<td>Kuykendall Hall</td>
<td>4,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mānoa</td>
<td>Holmes Hall</td>
<td>1,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mānoa</td>
<td>Central Admin Facility with Parking</td>
<td>4,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquaria</td>
<td>Repairs and Improvements at Waikīkī Aquarium</td>
<td>600,000</td>
<td>600,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hilo</td>
<td>Renew, Improve, and Modernize</td>
<td>6,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UHWO</td>
<td>Planning Projects</td>
<td>500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UHWO</td>
<td>Campus Center Phase 2</td>
<td>35,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCs</td>
<td>Capital Renewal and Deferred Maintenance</td>
<td>10,500,000</td>
<td>10,500,000</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>CCs</td>
<td>Minor CIP</td>
<td></td>
<td>15,000,000</td>
<td>15,000,000</td>
<td>13,248,000</td>
</tr>
<tr>
<td>CCs</td>
<td>HonCC Science Building</td>
<td>46,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCs</td>
<td>WinCC Agrifarmatech Bioprocessing Facility</td>
<td>3,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCs</td>
<td>Ko Education Center</td>
<td>3,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>Renew, Improve, and Modernize</td>
<td></td>
<td>61,000,000</td>
<td></td>
<td>(1,752,000)</td>
</tr>
<tr>
<td>System</td>
<td>Renovations to enhance culture and education at Hale Pohaku or other suitable location that does not include a telescope</td>
<td></td>
<td>300,000</td>
<td>300,000</td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>UH Mānoa Athletics</td>
<td></td>
<td>4,500,000</td>
<td></td>
<td>4,500,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>236,800,000</strong></td>
<td><strong>86,800,000</strong></td>
<td><strong>23,100,000</strong></td>
<td><strong>16,596,000</strong></td>
</tr>
</tbody>
</table>
HB 1631 SD1 (Luke)  
RELATING TO STATE BONDS  
Authorizes issuance of general obligation bonds. Authorizes issuance of instruments of indebtedness in an amount that may be necessary to finance any permitted purpose under the House Bill No. 2200, H.D. 1, S.D. 1 and section 13(3) of the Federal Reserve Act. Makes findings required by article VII, section 13, of the state constitution regarding the issuance of authorized bonds and the debt limit.  
**Update:** 48-hour notice given for Final Reading (5/21/2020)  

HB 2200 HD1 SD1 (Saiki)  
RELATING TO THE STATE BUDGET  
Adjusts and makes additional appropriations for fiscal biennium 2019-2021 to fund the operations of executive branch agencies and programs.  
**Update:** 48-hour notice given for Final Reading (5/21/2020)  

HB 2725 HD1 SD1 (Yamashita)  
RELATING TO CAPITAL IMPROVEMENT PROJECTS  
Appropriates funds for supplemental capital improvement projects for fiscal biennium 2019–2021.  
**Update:** 48-hour notice given for Final Reading (5/21/2020)
SB 75 SD2 HD1 (English)  
RELATING TO APPROPRIATIONS

Appropriates funds designated for the State by the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) to the counties of Hawaii, Maui, and Kauai; the departments of Defense, Labor and Industrial Relations, and Human Services; and the Office of the Governor for the public health response to the coronavirus disease 2019, or COVID-19, outbreak. Transfers remaining CARES Act funding to the emergency and budget reserve fund. Authorizes the issuance of instruments of indebtedness for the purpose of municipal liquidity facility under section 13(3) of the Federal Reserve Act. Appropriates funds designated for the State by the Paycheck Protection Program and Health Care Enhancement Act to the departments of Transportation and Health for testing, contact tracing, thermal screening, and other efforts. Effective 5/1/2020; provided that the authorization for the issuance of instruments of indebtedness is effective 7/1/2020.

Update: 48-hour notice given for Final Reading (5/21/2020)
2020 Budget Bills

SB 3139 SD1 HD1 (Keith-Agaran)
RELATING TO THE STATE BUDGET
Makes deposits into the emergency and budget reserve fund by replacing general fund appropriations with general obligation bond proceeds and transferring savings from the Supplemental Appropriations Act of 2020. Transfers excess funds from other sources into the emergency and budget reserve fund.

Update: 48-hour notice given for Final Reading (5/21/2020)

HB 117 SD1 (Luke)
RELATING TO STATE FUNDS
Defers further implementation of the executive and judicial branch salary increases that are scheduled for July 1, 2020, as well as planned raises for members of the legislature on January 1, 2021.

Update: 48-hour notice given for Final Reading (5/21/2020)
A confirmation hearing was held on May 14, 2020 in the Senate HRE Committee for Governor’s Nominees for the following boards and commissions:

- Center for Nursing Advisory Board
- Hawai‘i Medical Education Council
- Hawai‘i Commission for National and Community Service
- Research Corporation of the University of Hawai‘i

**Update:** Senate HRE recommended advise and consent on 5/19/2020.

At this time, we do not know how this extraordinary legislative session calendar and interrupted schedule will affect other pending legislation.

The 2020 Legislature anticipates reconvening some time in June to take up other items.
Conclusion
May 13, 2020

MEMORANDUM

TO: Board of Regents
    University of Hawai‘i

FROM: Benjamin Kudo
      Chair, Board of Regents

SUBJECT: Appointment of the COVID-19 Strategic Response and Economic Recovery Task Group

It is respectfully requested that you approve the appointment of a permitted interaction group to be known as the COVID-19 Strategic Response and Economic Recovery Task Group ("Task Group"), whose purpose is to support and monitor the University’s strategic response to the impacts engendered by COVID-19 upon the health and safety of our University community, continuation of academic education and programs, research and technology infrastructure, revenues, operating costs and expenses, and the overall present and future viability of the University system. The University’s survival and continued services will play a critical role in the State’s overall recovery.

The magnitude and nature of the impacts of COVID-19 upon public and private institutions of higher education throughout the United States is both significant and unprecedented. The uncertainties presented by the COVID-19 pandemic has reshaped the higher education landscape across the nation. Everything about the student experience, health and safety of employees, careers following graduation, and financial modeling and budgeting, have been affected. The Board’s management oversight role and fiduciary duty requires that we engage more actively in strategic planning by our administration to better inform key Board and administration decisions in the near- and long-term; the Task Group is intended to assist the Board in this regard.

The Task Group will investigate the University’s response planning and execution, including changes to the learning and working environment, and analysis of the significant financial challenges arising from the COVID-19 pandemic. In addition, the Task Group will investigate and identify ways that the University is contributing and can further contribute to the State’s overall recovery. As a result of this investigation, the Task Group will make findings and recommendations to the Board of Regents related to the University’s: (1) response with regard to the student experience, budget, and planning priorities following COVID-19; (2) strategic near-term and long-term decisions
related to the COVID-19 response; and (3) its role in assisting the state in economic recovery efforts.

Proposed Task Group members are: Regent Ben Kudo, Board Chair; Regent Jan Sullivan, Board Vice-Chair, Research and Innovation Committee (R&I) Chair, and Academic and Student Affairs Committee (ASA) and Planning and Facilities (P&F) Committee member; Regent Randy Moore, P&F Committee Chair, Budget and Finance (B&F) Committee Immediate Past Chair and member, and Independent Audit (IA) and R&I Committee member; Regent Alapaki Nahale-a, P&F Committee Vice-Chair, and ASA and B&F Committee member; and Regent Robert Westerman, ASA Vice-Chair, and IA and Intercollegiate Athletics Committee member. The Task Group may engage with University Administration, government officials, and public and private organizations and individuals as needed.
MEMORANDUM

TO: Benjamin Asa Kudo
    Chairperson, Board of Regents
    University of Hawai'i

VIA: David Lassner
     President
     University of Hawai'i

FROM: Tim Dolan
      Chief Executive Officer
      University of Hawai'i Foundation

Jerris Hedges
Dean, John A. Burns School of Medicine
University of Hawai'i at Mānoa

SUBJECT: REQUEST FOR ACTION TO APPROVE THE ESTABLISHMENT OF THE LAKSHMI DEVI AND DEVRAJ SHARMA ENDOwed CHAIR II IN WOMEN'S HEALTH AT THE JOHN A. BURNS SCHOOL OF MEDICINE AT THE UNIVERSITY OF HAWAI'I AT MĀNOA

SPECIFIC ACTION REQUESTED:

It is requested that the University of Hawai'i Board of Regents approve the naming of the Lakshmi Devi and Devraj Sharma Endowed Chair II in Women's Health at the University of Hawai'i at Mānoa John A. Burns School of Medicine in recognition of a private donation.

RECOMMENDED EFFECTIVE DATE:

Request that this be effective upon Board of Regents approval.

ADDITIONAL COST:

No additional costs are associated with this request.
PURPOSE:

The purpose of this Fund is to provide support for an endowed chair in the Department of Obstetrics, Gynecology, and Women's Health ("OBGYN") at the University of Hawai‘i at Mānoa John A. Burns School of Medicine ("JABSOM") in an effort to support, reward, and retain talented departmental faculty leaders, as well as to provide resources for programs to address women's health disparities and to enhance community outreach missions of the department.

Funds may be used by the recipient at his/her discretion to enhance and support the program.

Examples of how funds may be used include, but are not limited to:

(1) Program support as follows:
   a. Support women's health care for vulnerable and socially disadvantaged population.
   b. Establish and sustain health programs for homeless, immigrants, and women with addictions.
   c. Support clinical learning environment (medical students, residents, and fellows) as renewable source for women's health care specialists for the State of Hawai‘i.
   d. Advance women's health care on neighboring islands.

(2) Salary support for the recipient based on the determination of the Chair of the Department of OBGYN and the Dean of JABSOM.

(3) The recipient will consider input from the Chair of the Department of OBGYN and the Dean of JABSOM in determining priorities and activities for faculty development, education, and community outreach initiatives.
   a. Travel by the recipient and/or other members of the Department of OBGYN to other universities and medical schools, government agencies, and industry visits.
   b. Attendance at workshops, short or extended courses, and other educational opportunities on or off campus, by the recipient and/or by other members of the Department of OBGYN.
   c. Support for faculty, junior faculty, fellows, residents, medical students, or other health professionals in the Department of OBGYN at JABSOM.
   d. Support for program and/or curriculum development in the Department of OBGYN at JABSOM.

Funds may also be used to support the recruitment and relocation expenses of the faculty.
The Dean of JABSOM will work with the Department Chair to appoint a committee to recommend candidates for the Chair. The Dean will make the final decision in awarding the Endowed Chair after conferring with the Department Chair.

The recipient shall submit an annual report on the previous year's related activities consistent with the use of funds above to the Dean and the Chair of the Department of OBGYN.

The criteria for the selection of the Chair are as follows:

The candidate must:

1. Be a current faculty member or new recruit, at associate professor level or higher.
2. Hold a doctorate in medicine and be certified by the American Board of Obstetrics and Gynecology (ABOG).
3. Have a documented record of clinical and community service and leadership.
4. Be able to provide program leadership and to make substantial contributions to the mission of the Department of OBGYN and Women's Health at JABSOM.
5. Have a distinguished record of working with learners in an academic clinical learning environment.

The appointment will be reviewed for reassignment either to the current holder or for assignment to another individual every three years, or sooner upon agreement of the Dean and Department Chair, in accordance with the standard review and renewal process as established by the Dean of JABSOM and in accordance with University policy.

BACKGROUND:

This endowed chair shall be funded by a $2,000,000 gift from Santosh D. Sharma, MD, of Honolulu, Hawai'i. She previously established the Lakshmi Devi and Devraj Sharma Endowed Chair in 2015 with a $2,000,000 gift to the Department of OB-GYN and Women's Health at JABSOM.

Dr. Sharma, Professor Emeritus in the Department of Obstetrics, Gynecology and Women's Health at JABSOM, is establishing this endowed chair in gratitude and in honor of her late parents, Lakshmi Devi and Devraj C. Sharma, for their commitment to her education and personal growth as a young female growing up in Kenya, Africa, at a time when young women had little access to higher education.
Chairperson Benjamin Asa Kudo
April 29, 2020
Page 4 of 5

Dr. Sharma’s father was born in 1900 and moved from India to Kenya when he was 18 years old, at the end of World War I when the British Empire was building infrastructure in Kenya and Uganda. He worked for the Kenya Uganda Railways and Harbors (KURH). Her mother was born in India in 1906 and moved to join her husband in Kenya around 1924. Her parents eventually left Kenya and retired in England.

Thanks to their support and guidance, Dr. Sharma was able to complete her medical degree and pursue a rewarding and varied career as an accomplished physician and physician-scientist in the field of obstetrics/gynecology.

Dr. Sharma was born in Kisumu, Kenya, Africa, and grew up on the banks of Lake Victoria. She did very well in her secondary school studies and was offered multiple scholarships in any field of her choice to attend different universities in the UK and India. She chose to pursue a seven-year course of study in medicine and completed her medical degree at BJ Medical College in Pune, India, and her residency and internship in England. In 1967, she left England for Uganda to serve as Lecturer/Senior Lecturer in the Department of Obstetrics and Gynecology at Makerere University Medical School in Kampala, Uganda.

Dr. Sharma then served two years on the faculty at Howard University Freedman’s Hospital in Washington, D.C., as an Assistant Professor of Obstetrics and Gynecology. While working in D.C., Dr. Sharma was recruited to become a faculty member at JABSOM and joined the faculty in 1974 as an Associate Professor, working at Kapi’olani Medical Center for Women and Children. In 1976, Dr. Sharma became Director of the Colposcopy and Laser Clinic, and in 1978, she was promoted to the rank of Professor and appointed Vice Chairperson of the Department of Obstetrics and Gynecology.

Dr. Sharma took responsibility for developing the entire oncology teaching program for the department out of her commitment to ensuring that JABSOM medical students received exposure to all aspects of the OB/GYN specialty. In addition, she cultivated an international reputation as a researcher in the field of prostaglandins. Working closely with her colleague in basic science, Dr. Sultan Karim, Dr. Sharma was among the first researchers to utilize prostaglandins in women. Because of this innovative work, Dr. Sharma helped the University of Hawai’i gain recognition as one of the outstanding centers of clinical research in the United States.

Dr. Sharma remained Vice Chairperson of the Department of OB/GYN for 23 years until 2001. While at JABSOM, Dr. Sharma served on the Committee on Human Studies, the Tenure Promotion Review Committee, and served five three-year terms on the Admissions Committee.
Dr. Sharma retired from private practice in 2000 and from the faculty at JABSOM in 2005 after 31 years of service. She continued to help the department part-time for three years and was then awarded Professor Emeritus status.

ACTION RECOMMENDED:

It is recommended that the University of Hawai‘i Board of Regents approve the naming of the Lakshmi Devi and Devraj Sharma Endowed Chair II in Women’s Health at the University of Hawai‘i at Mānoa John A. Burns School of Medicine in recognition of a private gift.

c: Kendra Oishi, Executive Administrator and Secretary to the BOR
MEMORANDUM

TO: Benjamin Asa Kudo
Chair, University of Hawai'i Board of Regents

VIA: David Lassner
President, University of Hawai'i

FROM: Tim Dolan
Chief Executive Officer, University of Hawai'i Foundation
Randall Holcombe
Director, University of Hawai'i Cancer Center

SUBJECT: REQUEST FOR ACTION TO APPROVE THE ESTABLISHMENT OF THE JOANNA LAU SULLIVAN DISTINGUISHED ENDOWED PROFESSORSHIP AT THE UNIVERSITY OF HAWAII CANCER CENTER

SPECIFIC ACTION REQUESTED

It is requested that the University of Hawai'i Board of Regents approve the naming of the Joanna Lau Sullivan Distinguished Endowed Professorship at the University of Hawai'i Cancer Center.

RECOMMENDED EFFECTIVE DATE

Upon Board of Regent's approval.

ADDITIONAL COST

No additional costs are associated with this request.
PURPOSE

The purpose of the endowment is to provide support for a distinguished endowed professorship at the University of Hawai‘i Cancer Center ("UH Cancer Center") in an effort to support and retain talented faculty and provide a resource to the recipients to enhance research, education, and community outreach missions of the UH Cancer Center.

Funds may be used for, but are not limited to:

1. A salary or supplement for the recipient; and/or
2. Any combination of costs as follows to support the recipient’s research and education goals. The recipient will consider input from the Director of the UH Cancer Center ("Director") in determining priorities and activities for research and educational programs.
   a. Research or educational program support as the recipient sees fit, including but not limited to, supplies or equipment for the conduct of research, support of research personnel, and papers at conferences, manuscript preparation, library and equipment acquisition and other requirements of an active scholar and teacher.
   b. Travel by the recipient to other universities and research institutes, government agencies, and industry visits.
   c. Recipient’s attendance at workshops, short courses, and other educational opportunities.
   d. Extended education programs by the recipient such as workshops, short courses, on or off campus programs for industry.
   e. Graduate student or post-doctoral research assistants.
   f. Graduate and undergraduate student internships and travel.

The Director will appoint a committee to recommend candidates for the Professorship and will make the final decision in awarding the Professorship after conferring with the Committee.

The criteria for the selection of the Chair are as follows:

The candidate must:

1. Be a full time faculty member or new recruit, at associate professor level or higher, with appointment or locus of tenure in the UH Cancer Center.
2. Hold a PhD, MD or equivalent terminal degree, and be qualified for appointment to a tenure-track faculty position.
3. Have a documented record of research excellence.
4. Be able to contribute in a leadership role and to make substantial contributions to the education and research goals of the UH Cancer Center.
5. Have a distinguished record of working with learners in an academic clinical learning environment.
The assignment shall be for a period of three (3) years. The Professorship shall be reviewed every three (3) years for either a subsequent three (3)-year reassignment to the current holder or for assignment to another individual with the consent of the Director.

The recipient is required to submit an annual report on the previous year’s related activities to the Director.

BACKGROUND

The endowed fund will be established with $556,971.78 from the interest earned as of March 31, 2020, from a previous gift from the Maurice and Joanna Sullivan Family Foundation. In 2011, Joanna made a major gift to the UH Cancer Center that was combined with a gift from her late husband, Maurice J. “Sully” Sullivan, to create the J and M Sullivan Endowed Cancer Fund supporting an endowed chair in cancer research.

The late Joanna Lau Sullivan was born in Honolulu in 1921. A graduate of McKinley High School, she pursued studies at the University of Hawai‘i at Mānoa from 1939-40, but left early to help her mother run a small grocery store in Kailua. It was there that she met her husband, Maurice. The pair founded Foodland in Hawai‘i and are also attributed with bringing the McDonalds and Dunkin’ Donuts franchises to the islands.

Maurice and Joanna were well-known for their generous philanthropic support of causes and organizations meaningful to them, particularly those related to education, medical care, cancer research, and the arts. Joanna received the UH Cancer Center’s Mauka Makai Award in 2007. The Association of Fundraising Professionals Aloha Chapter named her philanthropist of the year in 2008 and again in 2013.

ACTION RECOMMENDED:

It is recommended that the University of Hawai‘i Board of Regents approve the naming of the Joanna Lau Sullivan Distinguished Endowed Professorship at the University of Hawai‘i Cancer Center in recognition of this private gift.
MEMORANDUM

TO: Benjamin Asa Kudo  
Chair, Board of Regents

VIA: David Lassner  
President

VIA: Donald Straney  
Vice President for Academic Planning and Policy

FROM: Bonnie D. Irwin  
Chancellor

SUBJECT: TITLE OF PROFESSOR EMERITA FOR MARCIA SAKAI

SPECIFIC ACTION REQUESTED:

It is requested that the Board of Regents approve an exception to the stated BOR Policy, RP 5.219 criteria to grant the title of Professor Emerita of Economics to Professor Marcia Sakai.

RECOMMENDED EFFECTIVE DATE:

Upon Board of Regents approval.

ADDITIONAL COST:

None.

PURPOSE:

To grant the title of Professor Emerita of Economics to Professor Marcia Sakai.
Benjamin Asa Kudo  
April 16, 2020  
Page 2

BACKGROUND:

Pursuant to Board of Regents' Policy RP 5.219, Emeritus/Emerita Title, the honor of the emeritus/emerita title is bestowed upon retiring or retired faculty members in recognition of dedicated and honorable academic service rendered to the university. The emeritus/emerita title is conferred to those persons retiring from the university with the rank of full professor or its equivalent, or service to the university in the position of vice president or chancellor for five or more years in that rank or position. The President recommends to the Board for consideration individuals deserving of honor who do not meet the stated criteria.

Dr. Sakai served the University of Hawai‘i at Hilo (UH Hilo) for 28 years and has had a unique and distinguished career at UH Hilo. She served as Assistant, Associate, and Full Professor, the inaugural Dean of the College of Business and Economics (CoBE), Vice Chancellor for Administrative Affairs, and Interim Chancellor.

Dr. Sakai was hired in 1991 as an Assistant Professor, researching and teaching in tourism and economics. She was promoted to Associate Professor in 1994, then promoted to Full Professor in 2000. As a faculty member, she was effective in the classroom and well-liked by both students and colleagues. Her research has been impactful and of high quality. Her leadership style is collaborative, effective, and conducted with an eye to the long-term success of the institution. Dr. Sakai's legacy is one of collegiality, stability, and thoughtful, well-planned improvement.

It was Dr. Sakai’s initiative that led to the 2004 transformation from the School of Business within the College of Arts and Sciences to the College of Business and Economics (CoBE). Dr. Sakai led our accreditation efforts with the Association to Advance Collegiate Schools of Business (AACSBI International) and in 2005, CoBE achieved AACSB accreditation, a distinction shared by fewer than five percent of business schools worldwide. Dr. Sakai took the helm of the new college as its first Dean. In that position she was responsible for 21 faculty and staff and management of a $2 million budget in a program that served 400 students. She remained productive in research, and by 2011 had published thirteen refereed articles and chapters, fifteen editorially-reviewed book chapters and monographs, eighteen conference presentations and proceedings, and six technical reports.

In June 2011, Dr. Sakai was appointed Interim Vice Chancellor for Administrative Affairs and became permanent Vice Chancellor in 2012. During her tenure, she prioritized efficiency by reorganizing the Business Office to better execute policy, improved infrastructure by supporting and funding a pilot project to transform classrooms into 21st-century facilities, and moved the campus forward in energy conservation by establishing a funding model to reinvest energy savings into additional energy efficient projects. One of the early energy conservation projects included a campus-wide LED retrofit. Existing light fixtures in classrooms, offices and hallways were replaced and retrofitted with energy efficient LED lights and unnecessary fixtures were de-lamped.
In August, 2017, Dr. Sakai was appointed Interim Chancellor of the University of Hawai‘i at Hilo. Under Dr. Sakai’s leadership, the university opened the new College of Natural and Health Sciences, established a new data science program, launched a degree in aeronautical sciences, earned accreditation from the World Indigenous Nations Higher Education Consortium for the Kahuawaiola Indigenous Teacher Education Program, and obtained permanent status for the Doctor of Nursing Practice program, one of the select doctoral programs offered at the university.

In July 2019, Dr. Sakai stepped down as Interim Chancellor, and returned to faculty. She took an active role in the college and provided welcome mentoring to the new interim dean of CoBE and to her faculty colleagues, many of whom were in their first semester at UH Hilo. She initiated a faculty-led seminar series to encourage collaboration and intellectual development. Her guidance and institutional memory were invaluable to her new and veteran colleagues alike.

Dr. Sakai’s experience as an economics professor and as Dean of CoBE will be invaluable in the coming years. Specifically, Dr. Sakai will:

- Contribute to continuing AACSB accreditation by providing critical support and invaluable institutional memory.
- Contribute to the intellectual life of the college by collaborating on research with the faculty and participating in college research talks
- Contribute to the richness of the student experience by providing research and career advice to students

During its February 10, 2020 meeting, the College of Business and Economics faculty unanimously voted to recommend that Dr. Marcia Sakai be granted Professor Emerita of Economics at the University of Hawai‘i at Hilo.

Dr. Sakai’s accomplishments and contributions as a faculty member and as an administrator have been invaluable to UH Hilo and merits an exception to the five-year full professor criteria and the granting of the emerita title designation.

ACTION RECOMMENDED:

It is recommended that the Board of Regents approve an exception to the stated BOR Policy, RP 5.219 criteria to grant the title of Professor Emerita of Economics to Professor Marcia Sakai.

Attachments

- Letter of support from Interim Vice Chancellor for Academic Affairs, Kenneth Hon
- Current Curriculum Vitae

cc: Executive Administrator and Secretary of the Board Oishi
April 15, 2020

MEMORANDUM

TO: Bonnie D. Irwin
    Chancellor

FROM: Ken Hon
    Interim Vice Chancellor for Academic Affairs

RE: Request to Waive Five-Year Requirement at Full Professor and Granting Emerita Status for Marcia Sakai, Ph.D., University of Hawai‘i at Hilo, College of Business & Economics

This correspondence relates to a request to grant the title of Professor Emerita of Economics to Professor Marcia Sakai. Dr. Sakai does not meet the University of Hawai‘i’s criteria of having served five years as a faculty member at the rank of Full Professor. However, in consultation with the Interim Dean of the College of Business and Economics (CoBE), Dr. Emmeline dePillis, and other senior faculty members in CoBE, I fully support waiving the five-year requirement of service at the rank of full professor and further support the granting of emerita status to Dr. Marcia Sakai.

Dr. Marcia Sakai retired on December 31, 2019, after 28 years of service at the University of Hawai‘i at Hilo (UH Hilo). Dr. Sakai was hired as an Assistant Professor in 1991 and earned the rank of Full Professor in 2000. Dr. Sakai exhibited her academic leadership in a wide range of positions from Assistant Professor all the way to Interim Chancellor during her tenure at UH Hilo.

Dr. Sakai assembled an excellent record of teaching, scholarly contributions, and service during her career. She taught a wide variety of classes over the years and was well-liked and respected by students and faculty alike. She was responsible for creating the tourism program in CoBE and her research addressed multiple topics including manuscripts focused on taxation in Hawai‘i. These papers contributed substantially to the understanding of optimal approaches to taxation in our state.
Dr. Sakai was instrumental in the foundation of CoBE and guiding it to the success it enjoys today. She led CoBE's predecessor, the School of Business and Economics, to AACSB accreditation followed by the establishment of the College of Business and Economics, where she was named the inaugural Dean in 2004. Dr. Sakai took on these monumental tasks, worked diligently at achieving the goals, and saw them through to fruition. AACSB accreditation is the highest accreditation a business school can possess. CoBE is ranked ahead of business programs at many household name universities including the University of Oregon, Louisiana State University, Clemson University, University of Kentucky, University of Tennessee, Auburn University, Baylor University, Oklahoma State University, and many other high-quality institutions. The foundation for this success is directly attributable to the leadership of Dr. Sakai.

Dr. Sakai went on to be appointed Interim Vice Chancellor for Administrative Affairs in 2011 and became the permanent Vice Chancellor in 2012. During this time, she led university operations through difficult circumstances related to the 2009 recession. In 2017, she was appointed Interim Chancellor and provided steady guidance during the search for new leadership. Dr. Sakai's remarkable career is marked by significant contributions, commitment, and accomplishments at every level of the University of Hawai'i at Hilo.

Based on her outstanding achievements, I am requesting a waiver to the five-year requirement of service at the rank of full professor. Dr. Marcia Sakai is truly deserving of this honor and I wholeheartedly support the application for emerita status.
Curriculum Vitae
MARCIA Y. SAKAI

ADDRESS
University of Hawaii at Hilo
200 W. Kawili Street
Hilo, Hawaii 96720
marcias@hawaii.edu

EDUCATION
1985 Ph.D. Economics
University of Hawaii at Manoa
1984 M.A. Economics
University of Hawaii at Manoa
1971 M.A. Mathematics
University of Hawaii at Manoa
1969 B.A. Mathematics
University of Hawaii at Manoa

PROFESSIONAL EXPERIENCE
University of Hawaii at Hilo

Professor of Business and Economics 2019
Interim Chancellor 2017-2019
Serves as chief executive officer of UH Hilo, providing campus leadership across the range of functions, and serves as an officer of the University of Hawaii System
Serves as chief operating officer working with governance bodies and administering Board of Regents policies and procedures
Serves as voice and advocate for UH Hilo for fundraising and resource development, land and commercial development, at the Hawaii Legislature and other governmental bodies, and in the community
Major outcomes:
• Stabilized campus working environment, relating to reorganization and faculty expectation of their role in resource management; established strong working relationship with faculty governance body; re-focused attention on student success to stabilize and grow enrollment; completed College of Arts and Sciences reorganization activities and established College of Natural and Health Sciences
• Updated 3-year enrollment management plan with specific targets for identified student populations with specific action steps and identified roles and responsibilities; implemented programs/tools to improve transfer, such as common GE core and 2+2 program pathways; implemented student support programs/tools to increase recruitment, such as micro scholarships, texting platform for student communication, EAB Royall enrollment management engagement; implemented programs/tools to support retention, such as STAR-GPS advising, and MySuccess Starfish intervention advising, peer mentoring/tutoring
• Continued work to modernize learning spaces and enhance and expand student gathering
spaces on campus; continued work to retrofit to efficient LED lighting; hosted UH system Sustainability conference; organized Hokule'a mahalo visit into Hilo bay

- Continued work to realize UH Hilo goal attainment as model indigenous serving university through Title III grant for Native Hawaiian leadership development, community engagement and Hawaiian language and culture pathways, establishing Uluakea Emerging Leaders program for Native Hawaiian faculty and staff, supporting collaborative activities with Hawaii Community College, cultural exchanges with indigenous Native American communities, and leadership through hula instructional programming; system wide symposium and field study supported by Kamehameha schools; achieved 30% Native Hawaiian student headcount; achieved 28% Native Hawaiian holders of executive/managerial positions

Vice Chancellor for Administrative Affairs and Interim Vice Chancellor for Administrative Affairs

<table>
<thead>
<tr>
<th>2012-2017</th>
<th>2011-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible for leadership of 11 direct reports, 115 staff and management of $8m operating budget, $5m average annual minor CIP budget within Administrative Affairs; oversee business management of payroll and procurement processing for campus budget of $86m, management of 1.2m gsf of facilities</td>
<td></td>
</tr>
</tbody>
</table>

Oversee portfolio including business management, budget, human resources, environmental health, safety and security, facilities and grounds, facilities planning and construction, technology support, web, theater; works with senior campus leadership and with system functional leadership; advises chancellor in functional areas of responsibility

Major outcomes:

- Oversee maturing all-funds management review of budget to actual comparisons, including development of monthly custom reports to unit managers; balance needs of major campus divisions in budget allocation process; meet BoR policy reserve requirement with a healthy reserve balance
- Implement VOIP telephony at main Kawii campus to avoid $200k+ telephone utility costs and enable establishment of service to three new major facilities, with minimal utility cost; consolidate off site administrative and outreach functions to main campus to avoid $300k in annual lease expense
- Reduce energy purchased per square foot through aggregate 600 kWh+ PV systems, establishment of campus energy reinvestment account, active pursuit of eligible energy rebates, building-by-building conversion to LED lighting and monitoring of facility-level electricity
- Keep deferred maintenance ratio at 4% of facilities value through phasing and coordination of capital renewal and deferred maintenance projects, while minor-CIP-scale modernization projects improves teaching, learning, gathering spaces
- Successfully conclude UH lease from DLNR at Puako; lead process to return lands at Lanikaula Army Reserve from federal to State ownership; attain University zoning for University Village parcel creating new commercial mixed-use flexibility
• Strengthen response system for emergency operations, Title IX and other campus safety and security incidents through infrastructure for training and transition from contract security to employee-based security coverage

• Improve business management by clarifying and improving organization and processes for procurement workflow, APT recruitment, worker’s compensation claim management, A/C and elevator maintenance management; by creation of special management reports for budget-to-actual review, special management reports for Student Housing audit requirements, facilities use practice and procedure policy

• Create 21st Century facilities for teaching and learning through modernization projects at Campus Center dining hall, classroom upgrade pilot projects in 1970s facility, enhanced WiFi capacity in classrooms, residence halls, and major student gathering spots at Library lanai, Campus Center Plaza, Campus Center dining room; expand food options through new food truck concessions; finalize master signage design plan

• Increase campus focus on budget, position and space allocation through development of early models of output-based budget allocations, regular executive-level review of position vacancies, executive-level adoption and application of rationalized principles of space allocation

• Strengthen administrative services leadership team through successful recruitment of well qualified applicants, regular evaluation and assessment, open communication on campus and division budget; oversee notable contribution to system-led CIP process for e-builder, HEPS systems

Dean, College of Business and Economics and Interim Dean, College of Business and Economics

2005-2011

2004-2005

Responsible for leadership of 21 faculty and staff; management of $2m budget and 3 major programs serving 400 students; work at executive level across campus in enrollment management and budget planning groups

Major outcomes:

• Attain AACSB initial 5-year Accreditation 2005 and 5-year Reaffirmation of Accreditation 2010 meeting 21 standards

• Refine college processes and financial plan to support and grow faculty intellectual contribution portfolio, grow financial support for college students, improve classroom facilities assigned to college, build infrastructure for distance delivery

  ○ Lead increase in CoBE faculty research productivity from 2.4 to 6.6 intellectual contributions per faculty member on five year rolling average basis, through conference support, $70k faculty enrichment endowment, revised promotion and tenure guidelines

  ○ Lead growth of applied learning portfolio growth through internships, class projects and student research; student professional development growth through speaker series, college fair, career development roundtable, and profession-based clubs; number of scholarships doubled from 2005
Upgrade teaching and learning environment in classrooms, transform computer lab into learning center; establish consolidation plan for college departments through repurposing and renovation of old student services building

- Establish College of Business and Economics 2004 and mission 2005; establish accounting major 2008 to respond to workforce need; pilot hybrid distance learning program in West Hawaii
- Establish 2+2 BBA articulation with Hawaii Community College and Kapiolani Community College; increase focus on Hawaii Island recruitment through High School Counselors Breakfast, Economics Symposium, establishment of CoBE Freshman Merit tuition scholarship

Director, School of Business and Professor of Business Administration and Economics 2000-2004
Chair, Department of Business Administration and Associate Professor of Business Administration and Economics 1999-2000
Fulbright Scholar, University of Innsbruck 1999
Chair, Department of Economics and Associate Professor of Business Administration and Economics 1997
Assistant Professor of Business Administration and Economics 1991-1994
Instructor, School of Travel Industry Management, UH Manoa 1990
Visiting Assistant Professor & Interim Director, Center for Economic Education 1987-1989
Lecturer, UH Hilo and Hawaii CC 1979-1982, 1987-1989

OTHER UNIVERSITY EXPERIENCE

University of Hawaii at Hilo

2016-2017 Strategic Plan Review Committee, Chair
2011-2017 Long Range Budget Planning Committee, Chair
2011-2017 Campus Crises Management Committee
2010-2011 Strategic Planning Committee
2010-2011 WASC Accreditation Steering Committee
2008-2011 Enrollment Management Committee
2008-2011 Long Range Budget Planning Committee
2008, 2009 Visiting Scholar, University of Tsukuba, MBA International Program
2006-2011 Advisory Board, Kipuka Native Hawaiian Student Center
2004-2009 Hospitality and Tourism Institute and Research Group
2004-2005 University Committee on Faculty Teaching and Development
2002-2004 President’s Educational Improvement Fund, Chair
1998-2000 Academic Affairs Committee, College of Arts and Sciences Senate, Chair
1996-1997 Curriculum Review Committee, College of Arts & Sciences Senate
1994-2016 Search Committees for VP for Administration, Controller, Chancellor, VC Student Affairs (Chair), VC Academic Affairs (Chair), Dean College of Arts & Sciences
(Chair), Dean Continuing Education and Community Service, Director Business Services, Director EEO/AA, Director Budget, Program Manager UH Agriculture Incubator, Kitaro Watanabe Distinguished Visiting Professor

OTHER PROFESSIONAL EXPERIENCE
1998  Policy Analyst, Hawaii State Department of Taxation
Report to Director of the Department; evaluate proposed tax legislation relating to recommendations of the 1997 Economic Revitalization Task Force; produce review of literature on tax issues

1997  Governor’s Economic Revitalization Task Force Taxation Working Group
Report to Governor’s Economic Recovery Task force; evaluate Hawaii State Government tax revenue structure with focus on economic revitalization

1995-1997 Commissioner, Hawaii State Tax Review Commission
Report to Hawaii State Legislature; evaluate Hawaii State tax structure with focus on principles or ‘best-practices’ of taxation

1990-1991 Economist, Hawaii State Public Utilities Commission
Report to Chief Commissioner of the PUC; evaluate utility financial instrument issues; estimate rate of return and cost of common equity; coordinate integrated resource planning; evaluate utility recovery of investment plans and ratepayer equity

1989 Consulting Economist, Hawaii State Tax Review Commission
Report to Commission; evaluate tax issues relating to nonresident investment, liquor tax escalator clause, special fund budget structures, budget stabilization funds; estimate general excise tax exemption for residential rentals, deduction of intermediate service purchases from measure of gross receipts

PROFESSIONAL ACTIVITIES
Editorship

Symposia
Local Arrangements, International Women Presidents, September, UH Hilo 2008
Local Arrangements, Academy of Management, Annual Conference, Honolulu, 2005
Organizer, 1st Transpacific Conference on Business and Economics, University of Hawaii at Hilo, 2001
Invited Speaker, Managing Events for Urban Tourism: American and European Perspectives, Institute for Tourism and Service Economics, University of Innsbruck, 1999
Organizer, Symposium on the Consumer Psychology of Travel, Hospitality and Leisure Research, University of Hawaii at Hilo, 1998

Professional Development
2016  AASCU MLJ Symposium on Enrollment Management
2011  AASCU Millennium Leadership Institute, Washington
2011 AAHHE Inaugural Executive Leadership Academy, San Antonio
2013-2014 NACUBO Annual Conference
2012-2016 NACTA Annual Conference
2012 AAE Comprehensive Energy Manager Workshop, Honolulu
2011 WASC Academic Resource Conference, San Francisco
2009 CCLDI Leadership Academy, Honolulu, 2009
2006-2011 AACSB Deans Conference
2004-2010 AACSB Annual Conference
2010 WACSB Deans Conference
2009 ANZEA Indigenous Evaluation conference, Auckland
2003-2010 USDA CSREES Project Directors Conference
2006 UN World Tourism Organization Ulysses Conference
NSF EPSCoR Evaluation Workshop, Albuquerque, 2006
1988-2009 Travel and Tourism Research Association Annual Conference
1999 World Tourism Organization, Economic Impact of Tourism

COMMUNITY ENGAGEMENT

<table>
<thead>
<tr>
<th>Organization</th>
<th>Date/ Location</th>
<th>Leadership role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hokupa’a education collaboration KS, DoE</td>
<td>2017-present</td>
<td>Board of Directors, 2011-12</td>
</tr>
<tr>
<td>Japanese Chamber Commerce &amp; Industry</td>
<td>2010-present, Hilo</td>
<td>Board of Directors, 2011-12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2017-18, 2018-19</td>
</tr>
<tr>
<td>Hawaii Island Chamber of Commerce</td>
<td>1995-present, Hilo</td>
<td>Board of Directors, 2008-10</td>
</tr>
<tr>
<td>Rotary Club of Hilo</td>
<td>2004-2013, Hilo</td>
<td>Board of Directors, 2005-06</td>
</tr>
<tr>
<td>Rotary Club of Hilo Bay</td>
<td>2014-present, Hilo</td>
<td>Board of Directors, 2005-06</td>
</tr>
<tr>
<td>Business Education Partnership</td>
<td>2003-2011, Hilo</td>
<td>Board of Directors, 2010-11</td>
</tr>
<tr>
<td>Hawaii County Economic Opportunity Council</td>
<td>2002-07, Hilo</td>
<td>Board of Directors, 2002-07</td>
</tr>
<tr>
<td>City &amp; County of Honolulu</td>
<td>2006, Honolulu</td>
<td>Tax Advisory Group, 2006</td>
</tr>
<tr>
<td>Hawaii innovation Center at Hilo</td>
<td>2003-06, Hilo</td>
<td>Advisory Board, 2003-06</td>
</tr>
<tr>
<td>Hawaii SBDC Network</td>
<td>2001-06, Hilo</td>
<td>Advisory Board, 2001-06</td>
</tr>
<tr>
<td>Hawaii Dept Education</td>
<td>2003-06, Honolulu</td>
<td>Advisory Board 2003-06</td>
</tr>
<tr>
<td>Business Career Pathways</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hawaii Dept Education</td>
<td>2003-06, Honolulu</td>
<td>Advisory Board 2003-06</td>
</tr>
<tr>
<td>Hospitality, Public &amp; Human Services Career Pathways</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hawaii Island Chamber of Commerce, Tourism Subcommittee</td>
<td>2004-2005, Hilo</td>
<td></td>
</tr>
<tr>
<td>Hawaii State Tax Review Commission</td>
<td>1995-97, Honolulu</td>
<td></td>
</tr>
<tr>
<td>Dept Commerce and Consumer Affairs/HELCO</td>
<td>1996-98</td>
<td></td>
</tr>
<tr>
<td>Demand Forecasting Committee</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ACADEMIC AND PROFESSIONAL DISTINCTIONS

2011 American Association of State Colleges and Universities, Millennium Leadership Institute


1999 J. William Fulbright Foreign Scholarship for lecturing/research, University of Innsbruck, Institute for Tourism and Service Economics, Austria


1970 NSF Fellowship, Mathematics Colloquium in Group Theory, Bowdoin College

GRANTS AND CONTRACTS

<table>
<thead>
<tr>
<th>Year</th>
<th>Institution/Program</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-2017</td>
<td>USDA NIFA Agriculture, Education, Training and Incubator Annual</td>
<td>$8,000</td>
</tr>
<tr>
<td>2011-2012</td>
<td>USDA NIFA Agriculture, Education, Training and Incubator</td>
<td>$12,000</td>
</tr>
<tr>
<td>2010-2011</td>
<td>USDA NIFA Agriculture, Education, Training and Incubator</td>
<td>$21,000</td>
</tr>
<tr>
<td>2009-2010</td>
<td>USDA CSREES Agriculture, Education, Training and Incubator</td>
<td>$21,000</td>
</tr>
<tr>
<td>2008-2009</td>
<td>USDA CSREES Agriculture, Education, Training and Incubator</td>
<td>$28,000</td>
</tr>
<tr>
<td>2007-2008</td>
<td>USDA CSREES Agriculture, Education, Training and Incubator</td>
<td>$28,000</td>
</tr>
<tr>
<td></td>
<td>Campus Co-Director</td>
<td></td>
</tr>
<tr>
<td>2006-2007</td>
<td>USDA CSREES Agriculture Education, Training and Incubator</td>
<td>$28,000</td>
</tr>
<tr>
<td></td>
<td>Campus Co-Director</td>
<td></td>
</tr>
<tr>
<td>2005-2006</td>
<td>Department of Education, Native Hawaiian Education proposal</td>
<td>$89,268</td>
</tr>
<tr>
<td></td>
<td>Principal Investigator (unfunded)</td>
<td></td>
</tr>
<tr>
<td>2005-2006</td>
<td>National Science Foundation consortium proposal on The Coupled Natural-Human Impacts of Mass Cruise Tourism proposal (unfunded)</td>
<td>$82,400</td>
</tr>
<tr>
<td>2005-2006</td>
<td>USDA CSREES Agriculture Education, Training and Incubator</td>
<td>$26,000</td>
</tr>
<tr>
<td></td>
<td>Co-investigator</td>
<td></td>
</tr>
<tr>
<td>2004-2005</td>
<td>Hawaii Hospital Systems Corporation, Leadership Training Series</td>
<td>$23,000</td>
</tr>
<tr>
<td></td>
<td>Principal Investigator</td>
<td></td>
</tr>
<tr>
<td>2004-2005</td>
<td>County of Hawaii, Professional Golf Management Program</td>
<td>$19,000</td>
</tr>
<tr>
<td></td>
<td>Development and Golf Education</td>
<td></td>
</tr>
<tr>
<td>2004-2005</td>
<td>USDA CSREES Agriculture Education, Training, and Incubator</td>
<td>$45,000</td>
</tr>
<tr>
<td></td>
<td>Co-investigator</td>
<td></td>
</tr>
<tr>
<td>2003-2004</td>
<td>Hawaii Hospital Systems Corporation, Leadership Training Series</td>
<td>$11,000</td>
</tr>
<tr>
<td></td>
<td>Principal Investigator</td>
<td></td>
</tr>
<tr>
<td>2003-2004</td>
<td>USDA CSREES Agriculture Education, Training and Incubator</td>
<td>$38,500</td>
</tr>
<tr>
<td></td>
<td>Co-investigator</td>
<td></td>
</tr>
<tr>
<td>2002-2003</td>
<td>USDA CSREES Agriculture Education, Training and Incubator</td>
<td>$5,000</td>
</tr>
<tr>
<td></td>
<td>Co-investigator</td>
<td></td>
</tr>
<tr>
<td>2002-2003</td>
<td>Pacific Asia Center for Entrepreneurship and E-Business subcontract</td>
<td>$10,000</td>
</tr>
<tr>
<td></td>
<td>for the Hawaii Entrepreneurs Boot Camp</td>
<td></td>
</tr>
</tbody>
</table>
2000 DBEDT Community Workshops Principal Investigator $10,000
1998 DLNR Hawaii Forestry and Communities Initiative (5 year award) Principal Investigator $20,500
1998 University of Hawaii Manoa, College of Social Sciences Computable general equilibrium model for the State of Hawaii Co-Investigator $7,500
1997 University of Hawaii, Joint Institute Marine and Atmospheric Research Economic impact of sport-fishing tournaments in Hawaii, update of 1989 surveys Co-Investigator $5,000
1989 Sea Grant College Program, DBEDT, Hawaiian International Billfish Association Economic impact of sport-fishing tournaments in Hawaii Principal Investigator $8,800

PUBLICATIONS

Articles
2008 Bruce M. Bird, Mark A. Segal and Marcia Sakai, “Partnership Tax Allocation May do more Harm than Good,” CPA Journal, December, 10-11, refereed journal article.


Book Chapters And Monographs


1991 Marcia Sakai and James Mak, "A State Perspective on Taxing Foreign Investment in the U.S.,” Intergovernmental Perspective, Summer, Vol. 17, No. 3, pp 31-34, editorially reviewed journal article.


Proceedings or Paper Presentations


### Technical Reports


2002  Youngki Hahn, David Hammes, Emmeline dePillis, Alton Okinaka, & Marcia Sakai, *Economic Impact and Program Evaluation*: RETA-H, for Hawaii Small Business Development Center

2000  James Mak, Ping Sung Leung, Jeffrey Brown and Marcia Sakai, *The Economic Impact of the University of Hawaii System*, for the University of Hawaii System Vice President’s Office of Planning and Policy

2000  Ron Terry and Marcia Sakai, *Mauna Kea Astronomy Education Center Demand Analysis and Modified Business Plan*, for the University of Hawaii at Hilo


Consulting Reports

2007  Survey Analysis of Ocean Recreation Operators Perspectives on a Proposed Marina in West Hawaii, for Rick Gaffney & Associates

2006  Economic Analysis of Spillover Benefits of Cruise Tourism for a Proposed Marina in West Hawaii, for Rick Gaffney & Associates

2006  Cost and Benefit Analysis of the Hawaii State High Technology Tax Credit, for the Hawaii State Tax Review Commission

2006  “Final Report National Science Foundation Tribal Colleges and Universities Program”, for University of Alaska Fairbanks, College of Rural Alaska, Interior-Aleutians Campus

2002  Analysis of State and Local Finances related to the imposition of a beach access fee for non residents who visit Hanauma Bay, Bickerton, Saunders and Dang, Attorneys at Law, 2002


Published Dissertation

University of Hawai‘i Board of Regents

RESOLUTION

Honoring University of Hawai‘i Regent
Michael T. McEnerney

WHEREAS, Michael T. McEnerney attended the University of Wisconsin, earning a bachelor of science degree, cum laude, as a double major in accounting and business administration, and later attended the University of Hawai‘i at Mānoa, where he earned a master of business administration; and

WHEREAS, after becoming a Certified Public Accountant (CPA) in 1974 and working in the tax department of an international accounting firm in Chicago, Michael T. McEnerney attended Northwestern University in Chicago, where he earned a juris doctorate, cum laude, in 1976; and

WHEREAS, returning to Hawai‘i in 1977, Michael T. McEnerney, began his career in Hawai‘i working at an international accounting firm; shared his wealth of knowledge in business, accounting, tax, and legal matters, teaching undergraduate and graduate courses at the University of Hawai‘i at Mānoa and Chaminade University in Honolulu; instructed accountants and attorneys throughout Hawai‘i in a variety of tax and business valuation issues; and opened an accounting firm in Honolulu in the early 1980s; and

WHEREAS, Michael T. McEnerney has held key leadership positions in a variety of organizations; earned numerous professional certifications and designations, including as an Accredited Senior Appraiser and Certified Valuation Analyst; and was among the first in the country to earn the Accredited in Business Valuation designation and Certified in Financial Forensics designation; and

WHEREAS, in 2015, Governor Neil Abercrombie appointed Michael T. McEnerney to the University of Hawai‘i Board of Regents, representing the island of O‘ahu; and

WHEREAS, during his tenure on the Board, Regent McEnerney served on many committees, including the committees on Academic and Student Affairs; Budget and Finance; Independent Audit, for which he served as Chair; Intercollegiate Athletics, for which he served as Vice-Chair; and Personnel Affairs and Board Governance; and

NOW, THEREFORE, BE IT RESOLVED, that the Board of Regents of the University of Hawai‘i extends its heartfelt gratitude and appreciation to Regent
Michael T. McEnerney for his dedicated service, guidance, and valuable contributions to the University of Hawai‘i and the State of Hawai‘i; and

BE IT FURTHER RESOLVED that the Board of Regents wishes Michael a warm mahalo, and extends to him its aloha and best wishes for continued success and happiness with his wife, Irene, and their four children and eight grandchildren.

Adopted by the Board of Regents
University of Hawai‘i
May 21, 2020