NOTICE OF BOARD OF REGENTS MEETING

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, November 15, 2018

Time: 10:00 a.m.

Place: Honolulu Community College
Norman W.H. Loui Conference Center
Building 2, Room 201
874 Dillingham Blvd.
Honolulu, Hawai'i 96817

AGENDA

I. **Call Meeting to Order**

II. **Public Comment Period:** 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 US mail, email at bor@hawaii.edu, or facsimile at 956-5156. Individuals submitting written testimony are not automatically signed up for oral testimony. Registration for oral testimony on agenda items will be provided at the meeting location 15 minutes prior to the meeting and closed once the meeting begins. Oral testimony is limited to three (3) minutes. All written testimony submitted are public documents. Therefore, any testimony that is submitted verbally or in writing, electronically or in person, for use in the public meeting process is public information and will be posted on the board's website.

III. **Report of the President**

IV. **Committee & Affiliate Reports**

A. Report from the Committee on Academic and Student Affairs
B. Report from the Committee on Budget and Finance
C. Affiliate Reports

V. **Items for Discussion and/or Approval**

A. For Action Consent Agenda

1. Minutes of the October 18, 2018 Meeting
2. Approval of the Fiscal Biennium 2019-2021 Operating Budget Request for the University of Hawai'i
Link to FB2019-2021 Biennium Budget Request
3. Program Approvals:
a. Establishment of a New Provisional Bachelor of Science Degree in Aeronautical Sciences at the University of Hawai'i at Hilo
b. Establishment of a New Provisional Bachelor of Science Degree in Engineering Science at the University of Hawai'i at Mānoa

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.

4. Approval to Indemnify the Federal Government, U.S. Navy, Naval Sea Systems Command (NAVSEA) for Proposed Contract, N0002418D6400 with the Applied Research Laboratory (ARL), University of Hawaiʻi

B. For Action

1. Approval in Concept of the University of Hawaiʻi at Mānoa Reorganization Plan Including Reconsolidation of the Positions of Chancellor, University of Hawaiʻi at Mānoa and President, University of Hawaiʻi

2. Authorization for Agreement Between the University of Hawaiʻi and the University of Hawaiʻi Foundation

C. For Information and/or Discussion

1. Background, Considerations and Approaches for the Next UH Tuition Schedule Including Affordability and Access

VI.   Announcements

A. Next Meeting: January 31, 2019, at John A. Burns School of Medicine

VII.   Adjournment

ATTACHMENTS

Attachment A – Personnel actions posted for information only

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.

-2-

Attachment A: Pursuant to §89C-4, Hawai'i Revised Statutes, the following proposed compensation actions for excluded Executive/Managerial are disclosed for purposes of public comment.

Executive/Managerial

Campus	Last Name	First Name & Middle Initial	Proposed Title	Unit	Nature of Action	Monthly Salary	Effective Date
System	Halbert	Debora	Associate Vice President (Academic Programs and Policy)	Office of the Vice President for Academic Planning and Policy	Reassignment	$15,000	January 2, 2019
System	Okimoto	Hae	Associate Vice President (Student Affairs) - .50 FTE and Director of Information Technology (Academic Technologies) - .50 FTE	Office of the Vice President for Academic Planning and Policy and Office of the Vice President for Information Technology/Chief Information Officer	Reassignment (and dual appointment)	$16,348	November 16, 2018
UH Mānoa	Lemus	Judith	Interim Director of Research Institute	Hawai'i Institute of Marine Biology	Appointment	$15,974	November 16, 2018 - November 15, 2019

Item III.
Report of the President

NO MATERIALS

ORAL REPORT

Item III.

Report of the President – HonCC Chancellor & Faculty Senate Chair Reports

MATERIALS

Presentation to the UH Board of Regents

Erika Lacro, Ph.D., Chancellor
Thursday, November 15, 2018
Honolulu Community College

Presented by Karen Lee, Ed.D.

Vice Chancellor of Academic Affairs

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UHCC Performance Measures for Hon CC

	2016	2017	2018
Degrees & Certificates	886 *(627)* ✅	900 *(720)* ✅	778 *(756)* ✅
Native Hawaiian	238 *(172)* ✅	225 *(181)* ✅	197 *(190)* ✅
STEM Total	240 *(115)* ✅	225 *(121)* ✅	232 *(127)* ✅
Pell	417 *(282)* ✅	377 *(296)* ✅	322 *(311)* ✅
Transfers to 4 Year (UH & Non UH)	515 *(526)* ❌	582 *(543)* ✅	530 *(561)* ◔

❌ Did Not Meet
✅ Met
◔ Partially Met

Actual *(Goal)*

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2

UHCC Performance Funding
for Hon CC, FY 2019

Measure	Base	Target	Actual	%	Weight	Amount
Degrees & Certificates	653	756	**778**	100	35	$195,565
Native Hawaiian Degrees & Certificates	164	190	**197**	100	10	$55,875
STEM Degrees & Certificates (Include 4 Year Degrees)	110	127	**232**	100	10	$55,875
Pell Grant Recipient Degrees & Certificates	269	311	**322**	100	10	$55,875
Transfers to 4 Year (UH & Non UH)	518	561	**530**	27.9	35	$54,591
Total Allocation						$417,781
Unearned						($140,973)

Did Not Meet
Met
Partially Met

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3

UH System Performance Measures for Hon CC

	2016		2017		2018	
Degrees & Certificates	886 *(686)*	✅	900 *(720)*	✅	778 *(756)*	✅
Native Hawaiian	238 *(172)*	✅	225 *(181)*	✅	197 *(190)*	✅
STEM Total	162 *(68)*	✅	132 *(72)*	✅	140 *(75)*	✅
Pell	417 *(282)*	✅	377 *(296)*	✅	322 *(311)*	✅
150% Graduation (3 years)	36.2 *(39.4)*	❌	37.2 *(41.4)*	❌	31.3 *(43.4)*	❌
Transfers to 4 Year (UH Only)	278 *(294)*	❌	301 *(309)*	❌	280 *(324)*	❌

Actual *(Goal)*

❌ *Did Not Meet*
✅ *Met*

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4

UH System Performance Funding
for Hon CC, FY 2019

Measure	Base	Target	Actual	%	Weight	Amount
Degrees & Certificates	653	756	**778**	100	30	$101,140
Native Hawaiian Degrees & Certificates	164	190	**197**	100	10	$33,713
STEM Degrees & Certificates (UHCC Only)	65	75	**140**	100	10	$33,713
Pell Grant Recipient Degrees & Certificates	269	311	**322**	100	10	$33,713
Transfers to 4 Year (UH Only)	288	324	**280**	0	10	0
IPEDS Success Rate	34.2%	43.4%	**31.3%**	0	30	0
Total Allocation						$202,279
Unearned						($134,853)

Did Not Meet
Met

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5

Challenges

I.   RAIL

Kapālama Station

HONOLULU RAIL TRANSIT PROJECT
www.HONOLULUTRANSIT.ORG
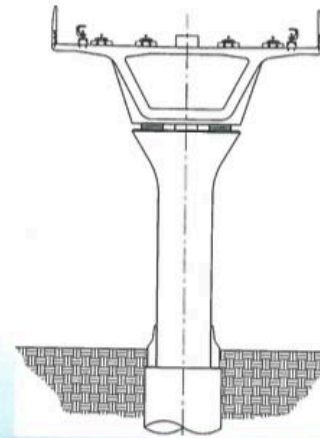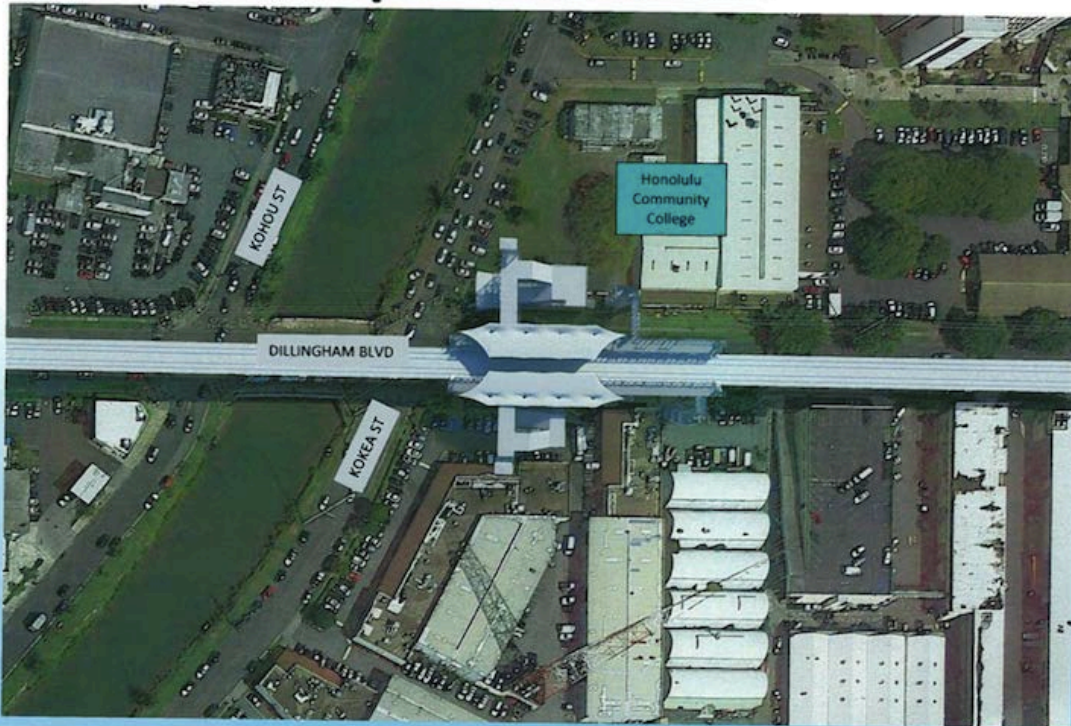
Dillingham Construction
Guideway and Stations

i.   Heavy structural - drilled shafts, columns, guideway

ii.   Station areas touch down and occupy properties both mauka and makai side of the roadway

HONOLULU RAIL TRANSIT PROJECT
www.HONOLULUTRANSIT.ORG

Challenges

II. Recruiting Qualified CTE Faculty

- **Electrical Installation and Maintenance Technology (EIMT)**
  Licensed Electrician: EIMT Faculty:
  $70,720   VS $52,008

- **Computing, Electronics, and Networking Technology (CENT)**
  Experienced Computer Network Support: CENT Faculty:
  $89,565   VS $52,008

Challenges

III. Recruiting and Retaining Students
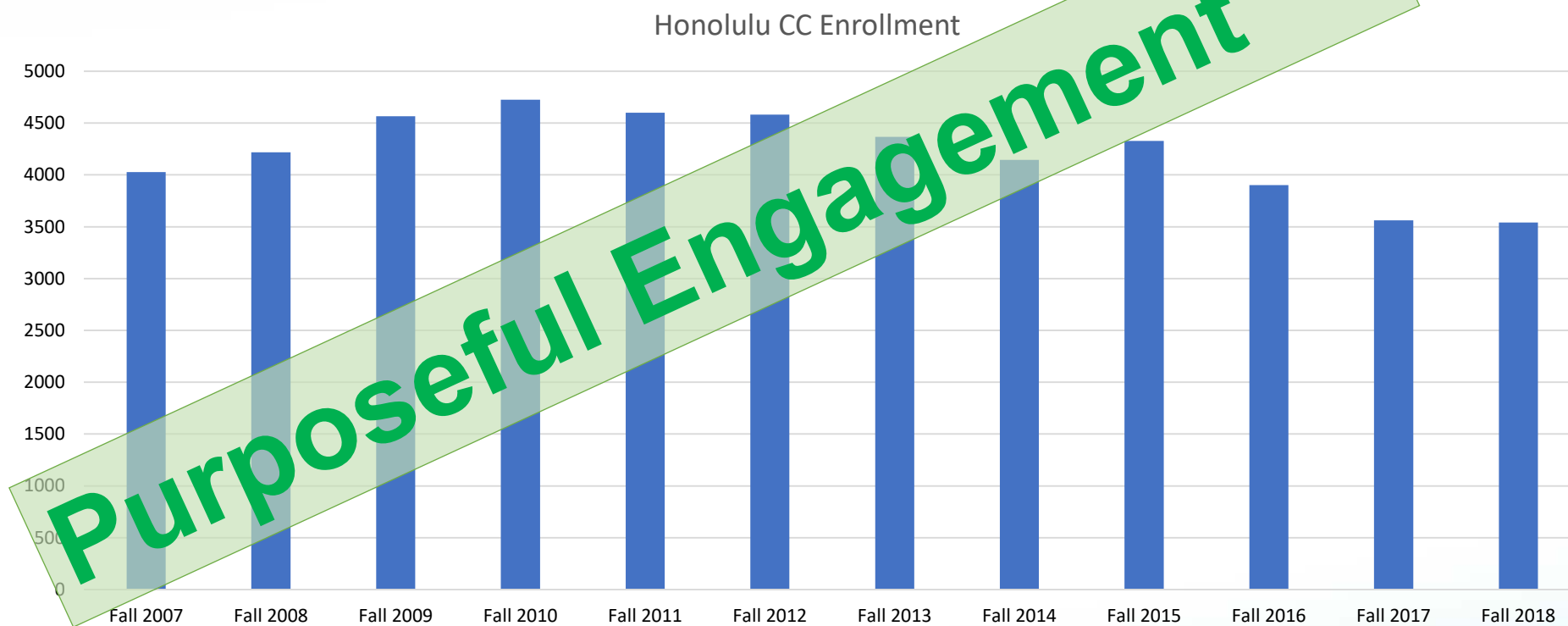
Honolulu CC Enrollment

Purposeful Engagement

The Year of Purposeful Engagement

2018-19

The Year of Purposeful Engagement 2018-19

WHY DO IT?

Honolulu CC Enrollment
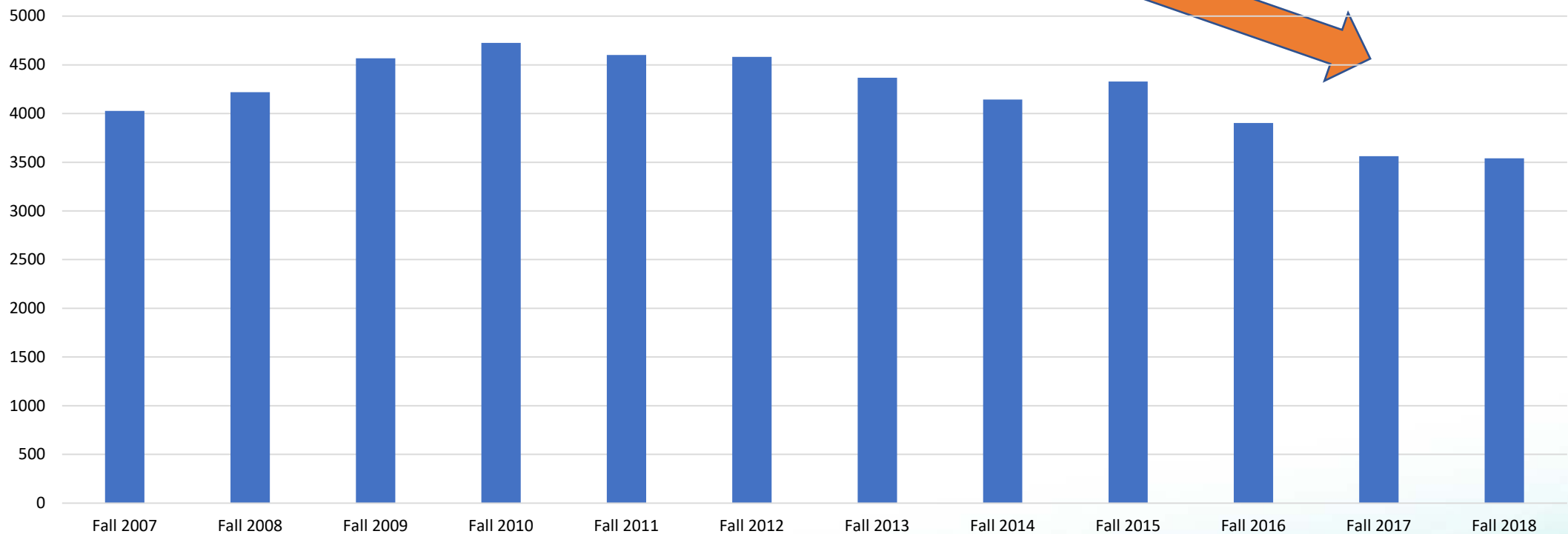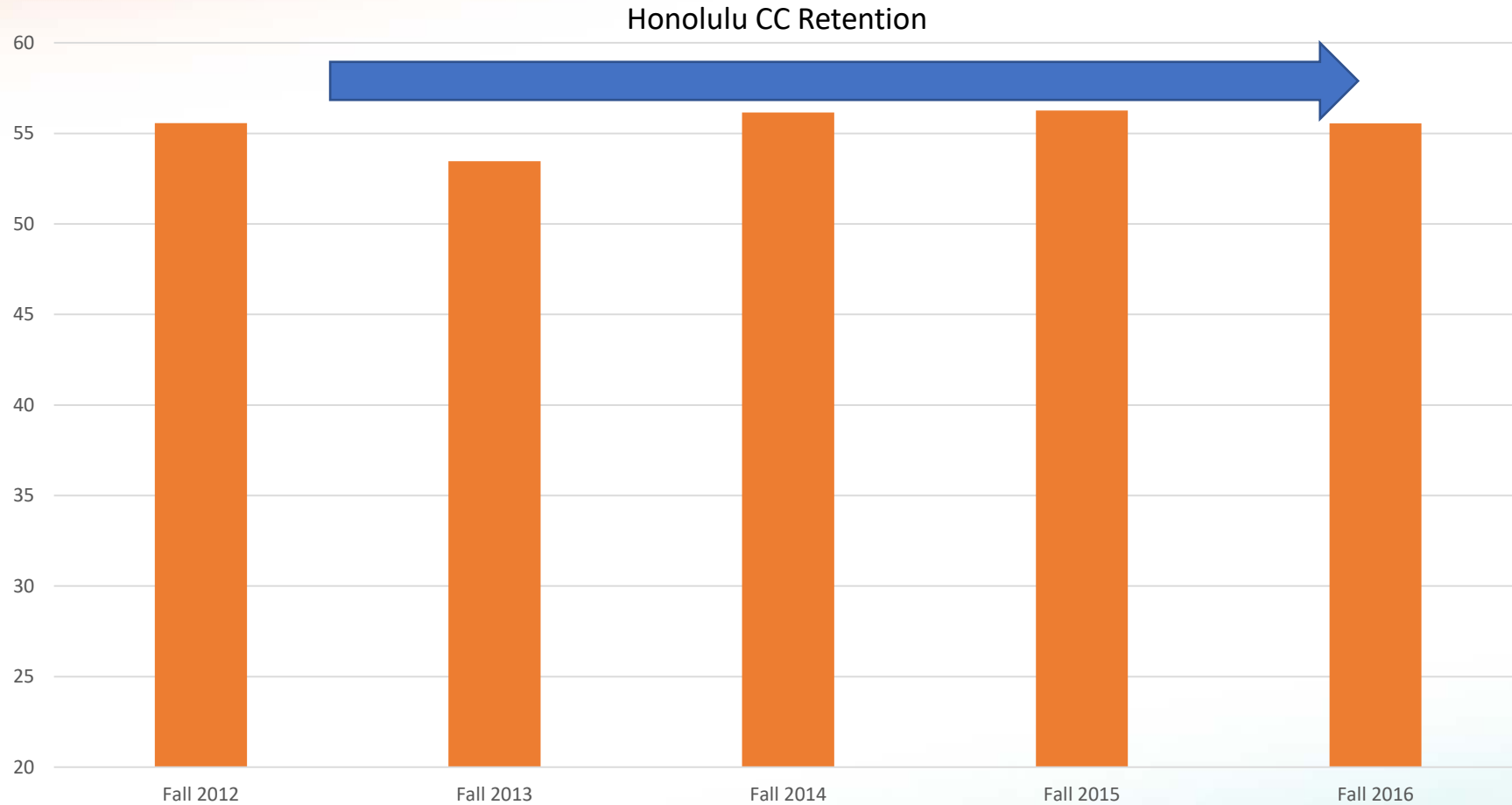
The Year of Purposeful Engagement 2018-19

WHAT CAN WE DO?

- 2017 Gallup Poll: College graduates are more likely to feel more engaged in the workplace if they had at least one faculty member who cared about them as a person

- Achieving the Dream: "..the most effective way to support students in getting on their path and staying on their path to academic and career success is through a holistic student supports approach."

The Year of Purposeful Engagement 2018-19

General College Meeting ACTIVITY: (BLUE INDEX CARD)

What are you already doing to engage students and promote student success?
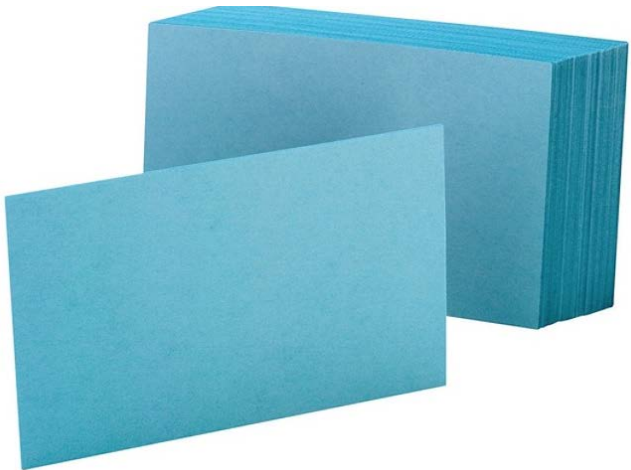
The Year of Purposeful Engagement 2018-19

General College Meeting ACTIVITY: (PINK INDEX CARD)

What will you commit to doing this year that can engage students and promote persistence?
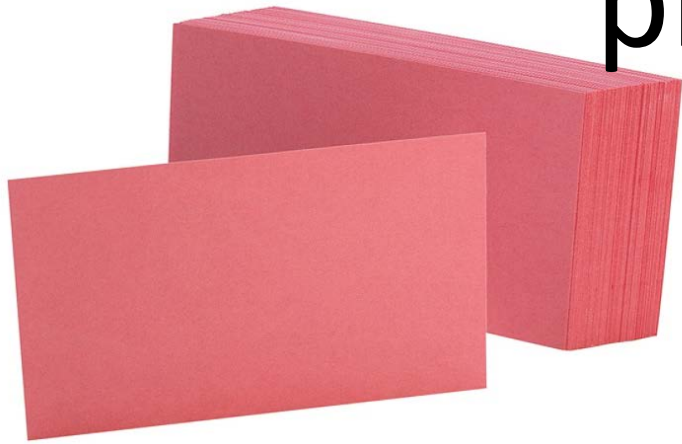
The Year of Purposeful Engagement 2018-19

The Year of Purposeful Engagement 2018-19

Emergent Themes

Faculty and Staff *Currently*:

o Optimize individual choice and autonomy

o Frame lessons in relevant topics

o Personalize interactions

o Promote life goals and dreams

o Encourage feedback
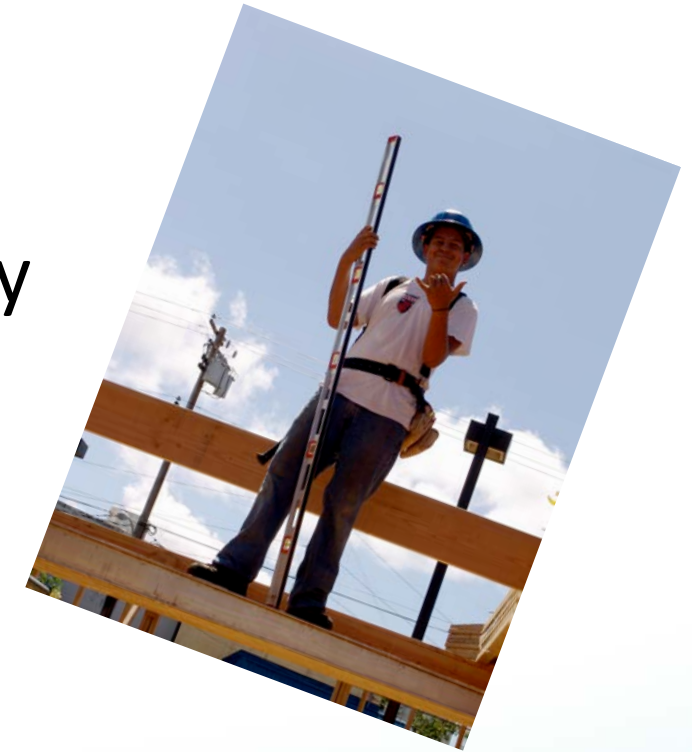
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The Year of Purposeful Engagement 2018-19

Emergent Themes

Faculty and Staff *Will*:

o   Connect with all students (online and face to face) more often

o   Arrange classroom furniture to promote student engagement with each other

o   Create opportunities to learn more about each other and provide mentoring

o   Support students with meaningful activities

o   Get to know students before class

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The Year of Purposeful Engagement 2018-19

Other Future Considerations

o Start with the "Why"

o Communicate often

o Create relational, transformational, mandatory advising (with advisor as *primary care physician*)

o Put career coaching early

o Consider grouping all disciplines into meta-majors

o Incorporate financial planning

o Analyze student data to create appropriate interventions

o Engage lecturers early

o Re-think the entire onboarding content and process

Faculty Senate Executive Committee BOR Presentation

Nov. 15, 2018

Pat Patterson, Chair

Hon CC Faculty Senate Executive Committee

I wish my teachers knew…

We know how to teach!

Studying on Mt. Kaʻala
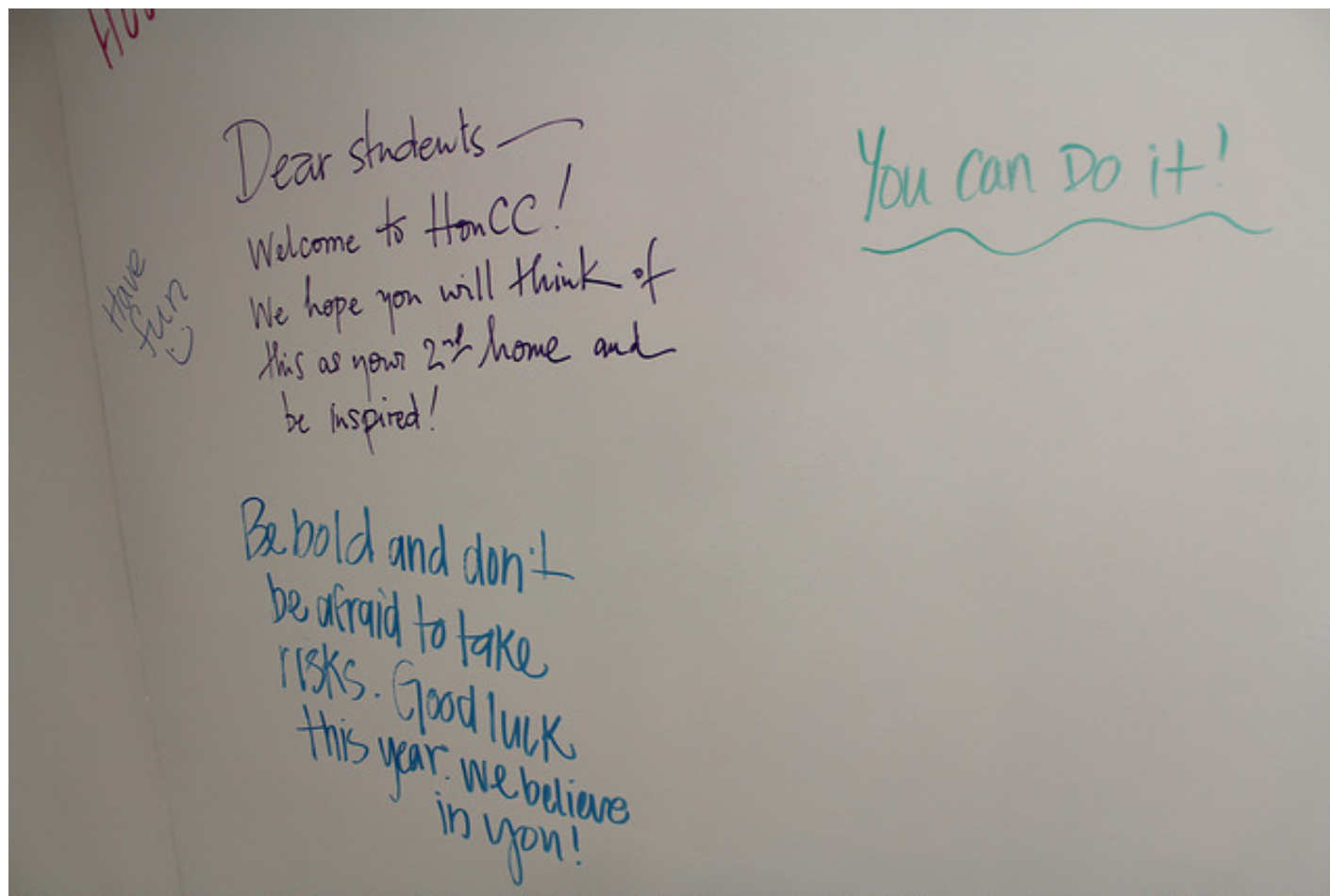
HCC Faculty Support Students

For students

Teach creativity and entrepreneurship

_____

Teach Service by Example

- Emily Kukulies, HCC's BOR Excellence in Teaching Award recipient, 2018.

Input-Output

We help students join the workforce

28
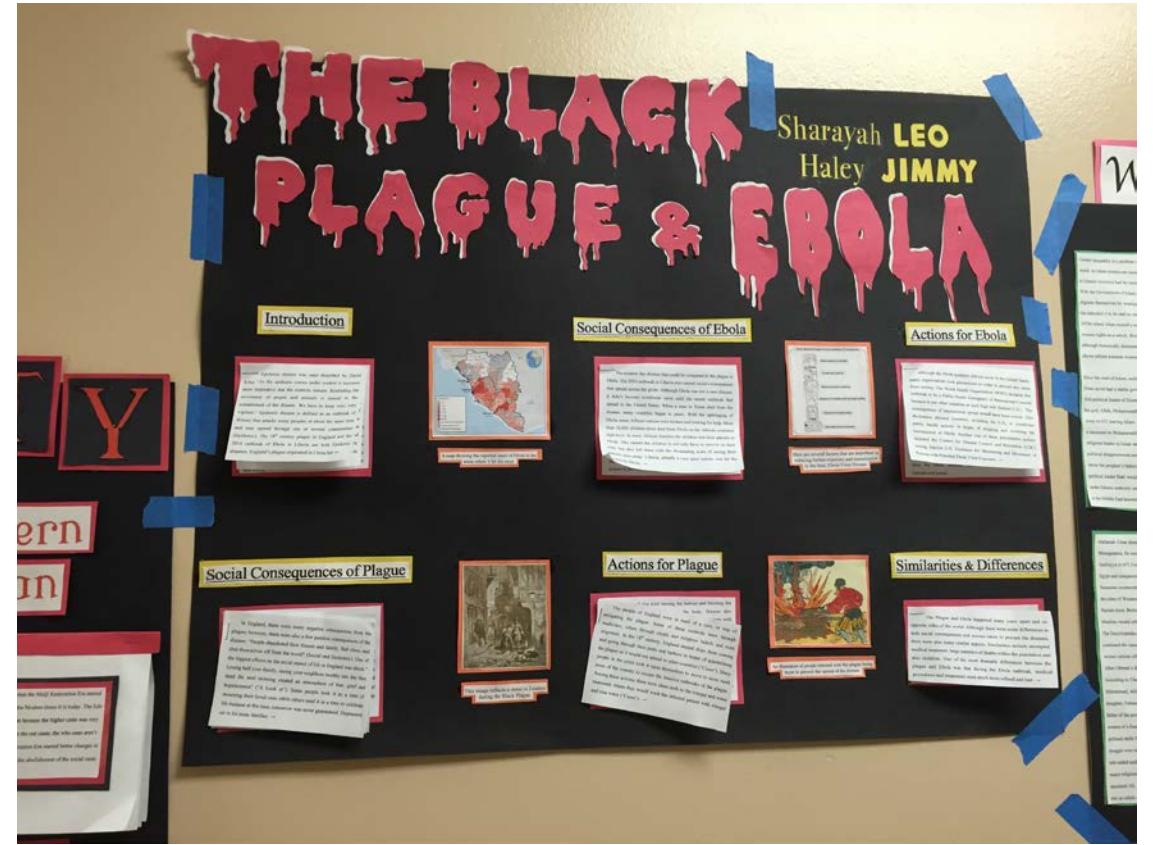
We care...about everyone

Hands-on

We work to improve

Hoʻāla Hou

Dedicated and Creative

Speech Tournament
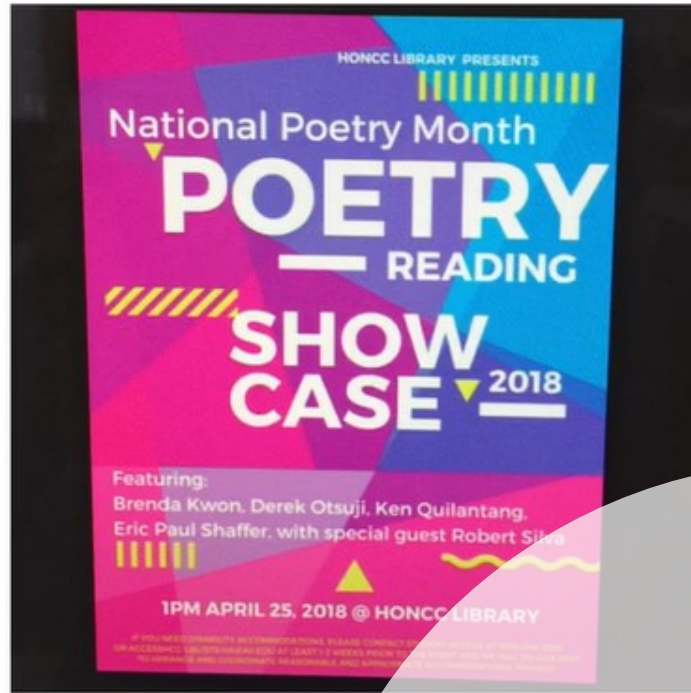
We share our passions – in the classroom and out

Sustainability

- ACCJC (Accrediting Commission for Community and Junior Colleges) cited Honolulu CC's commitment to sustainability as a major asset to the College and the community.

Award-Winning Faculty, Successful Students

Minutes: Approved.

Testimony: Stuart Martin, a licensed pilot and current UHM student, regarding the benefits of the proposed pilot program.

Agenda Items:

A. For Information and Discussion

1. Update on Systemwide Enrollment Management and Enrollment Management Reports

VP Straney provided an update on systemwide enrollment management and enrollment management. The update included historical enrollment figures, challenges and factors affecting enrollment, WICHE forecasts of high school graduates, college participation rates of Hawai'i public high school graduates, UH community college transfers to UH and non-UH four-year campuses, and enrollment goals and action strategies for enrollment growth. Interim UHM Chancellor Lassner, Interim UHH Chancellor Sakai, UHWO Chancellor Benham, and VP Morton provided enrollment management reports by campus and for the community colleges. The report included updates, assessment of enrollment efforts, and future goals and strategies.

2. Academic Planning Update

VP Straney noted that the board had received an update on the new integrated planning framework at the August board meeting, which covered many of the elements included in today's presentation. Due to time constraints, he focused on the types of program proposals and indicated that the provisional Aeronautical Sciences, B.S. program at UHH would be considered a capital-intensive and the Engineering Science, B.S. program at UHM would be considered a modification of an existing program proposal.

B. For Review and Recommend Board Approval

1. Establishment of a New Provisional Bachelor of Science Degree in Aeronautical Sciences at the University of Hawai'i at Hilo

Chancellor Sakai provided an overview of the provisional Aeronautical Sciences, B.S. program at UHH that was updated to address concerns previously raised by the board. The proposed program was broadened to include concentrations in commercial professional pilot training and commercial aerial information technology and how its applications will integrate into UHH's existing STEM program strengths.

Action: The committee recommended board approval of the new provisional Aeronautical Sciences, B.S. program at UHH, with Regent Sullivan excused.

2. Establishment of a New Provisional Bachelor of Science Degree in Engineering Science at the University of Hawai'i at Mānoa

VC Bruno provided an overview of the provisional Engineering Science Degree, B.S. program at UHM. The proposed program would allow the College of Engineering and the university to be more agile and strategic in the development and deployment of Accreditation Board of Engineering and Technology (ABET)-accredited engineering programs in high demand areas. Some concerns were raised by board members regarding the marketability of a general engineering science degree as opposed to a specialized engineering degree.

Action: The committee recommended board approval of the provisional Engineering Science, B.S. program at UHM with Regent Kudo voting no, and Regent Sullivan excused.

Minutes: Approved.

Testimony: None.

Agenda Items:

A. Recommend Board Approval

1. Fiscal Biennium 2019-2021 Operating Budget Request for the University of Hawai'i

VP Young provided an overview of the fiscal biennium 2019-2021 operating budget request for the University of Hawai'i. The total request for FY20 is about $26.7 million and 72 positions and the request for FY21 is about $27.2 million and 74 positions. The bulk of the request is $19.7 million for the Hawai'i Promise Program, including expansion to the 4-year campuses. About $5 million is for various student employment initiatives, including increases for stipends for graduate assistants at UHM. About $2.4 million is for various campus-specific items including custodial and security staff at Hilo, the HINET program at the community colleges, and distance education at UHWO. The request for positions is for purposes of defraying fringe benefit costs and is not for new positions. Upon approval by the Board, the budget request will be submitted to the Department of Budget and Finance and the Legislature.

Action: The committee recommended board approval of the Fiscal Biennium 2019-2021 operating budget request.

B. For Information

1. Fiscal Year 2019 First Quarter Financial Report

VP Young provided an overview of the first quarter financial report and results for the 2019 fiscal year. Revenues were significantly lower than projections for the first quarter due to a delayed release of the state general fund appropriation, but this has since been addressed. Expenditures for all fund categories except other special funds were slightly lower than forecasted projections. The variance in other special funds is primarily due to a timing issue with transfers for scholarships.

Item IV.C.
Affiliate Reports

NO MATERIALS

ORAL REPORTS

UNIVERSITY
of **HAWAI'I**
SYSTEM

UNIVERSITY OF HAWAII
BOARD OF REGENTS

18 OCT 25 P5:40

RECEIVED

October 25, 2018

'18 OCT 25 P5:38

TO: Lee Putnam   UNIVERSITY OF HAWAII
          Chairperson, Board of Regents   PRESIDENT'S OFFICE

          Randolph Moore
          Chair, Committee on Budget and Finance, Board of Regents

VIA: David Lassner
          President

FROM: Kalbert K. Young
          Vice President for Budget and Finance/Chief Financial Officer

SUBJECT: FISCAL BIENNIUM 2019-2021 OPERATING BUDGET REQUEST FOR
          THE UNIVERSITY OF HAWAII

SPECIFIC ACTION REQUESTED

It is recommended that the Board of Regents approve the submission of the Fiscal
Biennium (FB) 2019-21 Operating Budget Request of the University of Hawai'i
("University" or "UH") to the Governor and 2019 Legislature. With approval, this
proposed FB2019-21 Operating Budget Request for the UH will represent the official
request for all operating programs of the UH System. This request represents only that
portion of the UH operating budget which would be additive to the already established
"base budget" of the University or revisions to the "base budget." The University will
submit the proposal to the State Department of Budget and Finance ("State B&F") for
consideration to be included as part of the Governor's budget proposal to the
Legislature. The University will also send this budget request directly to the Legislature,
in accord with Chapter 37-68, HRS.

The proposed FB 2019-21 budget request seeks additional General Fund resources for
the University to advance priority initiatives throughout the entire system of campuses.
These priorities were outlined in the Budget Policy Paper approved by the Board of
Regents at its September 20, 2018 meeting.

The proposed budget for funding of capital improvement projects (CIP) for FB 2019-21 was approved by the Board of Regents at its August 16, 2018 meeting.

RECOMMENDED EFFECTIVE DATE

In consideration of the procedural requirements of the Board of Regents, UH Administration will consider the "Fiscal Biennium 2019-21 Operating Budget Request for the University of Hawai'i" effective immediately upon approval by the Board of Regents.

PURPOSE

In accordance with Regent Policy 8.204, the Administration requests that the Board of Regents approve a proposed budget request for additional operating funds (via general funds).[1]

BACKGROUND INFORMATION

Annually, State departments submit budget requests to the Executive Branch via State B&F for consideration of inclusion into the Proposed Executive Budget of the Governor to the upcoming Legislature. The University also submits its Board approved budget request directly to the Legislature in accord with Chapter 37-68, HRS. Every two years, the executive proposes a biennium budget and in the subsequent year proposes a supplemental budget. In 2018, State departments are constructing requests to be included in the proposed biennium budget which will be deliberated at the convening of the 2019 Legislature.

At its September 20, 2018 meeting, the Board of Regents approved a Biennium Budget Policy Paper in conformance with Regent Policy 8.204. The Policy Paper helped provide guidance and established a framework from which campuses would align their budget requests. Budget instructions were distributed to campuses after approval of the Policy Paper.

The Policy Paper outlined several initiatives, or categories, for campuses to conform their budget requests, although campuses were allowed to submit other requests of their own volition. In crafting this budget request, Administration was mindful of the University's Integrated Academic and Facilities Plan and its four strategic directions:

- Hawai'i Graduation Initiative (HGI)
- Hawai'i Innovation Initiative (HI2)
- 21st Century Facilities
- High Performance Mission-Driven System (HPMDS)

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[1] Regent Policy 8.204, III.D.3. The UH Board of Regents shall approve a proposed biennial budget as the designated "Board of Regents' Budget."

Requests from units that were aligned with Budget Policy Paper directions and were supported by the unit head were evaluated by UH Administration along with all other requests. The items that are presented in this proposal represent those items that Administration believes would most significantly advance the University's strategic directions while also remaining cognizant of the overall fiscal condition of the State.

State departments were provided budget instructions from State B&F in Finance Memorandum No. 18-16. These instructions also provided insight as to the landscape from which requests would be considered by the Executive and notes they will "continue a cautious approach in developing the FB 2019-21 Executive Budget. All budget requests must be sustainable and reasonable."

BUDGET PROPOSAL

The highlighted summary of the budget request includes a total of 72 FTE position counts and $26,716,176 in additional General Funds for Fiscal Year 2019-20 (FY20) and 74 FTE position counts and $27,246,419 in additional General Funds for Fiscal Year 2020-21 (FY21). The following table shows the requested General Fund increases by campus:

Campus	FTE FY20	$$$ FY20	FTE FY21	$$$ FY21
Mānoa	37.00	$ 3,154,960	39.00	$ 3,651,203
Hilo	15.00	$ 1,036,816	15.00	$ 1,070,816
West Oʻahu	8.00	$ 1,300,000	8.00	$ 1,300,000
Community Colleges	8.00	$ 1,524,400	8.00	$ 1,524,400
Systemwide Admin	4.00	$ 19,700,000	4.00	$ 19,700,000
Total	**72.00**	**$ 26,716,176**	**74.00**	**$ 27,246,419**

The budget request proposal follows the major categories or themes specified in the Policy Paper. The following chart lists those themes and the FTE position count and funding requests associated with each item:

Theme	FTE FY20	$$$ FY20	FTE FY21	$$$ FY21
Hawaiʻi's Promise Program	-	$ 19,700,000	-	$ 19,700,000
Student Employment	1.00	$ 4,581,360	3.00	$ 5,186,603
Other Miscellaneous	71.00	$ 2,434,816	71.00	$ 2,359,816
Total	**72.00**	**$ 26,716,176**	**74.00**	**$ 27,246,419**

Hawai'i's Promise Program

The largest category by far is a request to expand the Hawai'i's Promise Program that is currently in place at the Community Colleges to the entire UH System, including the Mānoa, Hilo, and West O'ahu universities. The concept of this Hawaii's Promise expansion is to utilize the same qualifying criteria for the program currently in place at the Community Colleges, but apply them to 4-year campus degrees. For example, the program would include criteria: minimum of 6 credits, GPA of 2.0 or higher, and Hawai'i resident or qualified for exempt status.

An analysis using those criterion and applying them to historic averages over the past four years, concluded that an amount of $19.0 million was estimated as the cost to expand the program to the four year institutions (Mānoa, Hilo, and West O'ahu). An additional $700,000 is being requested to be placed in the budget to continue funding provided in Act 14, Session Laws of Hawai'i 2018, which appropriated funding only for Fiscal Year 2018-19.

For strategic reasons, the funding is proposed to be administratively placed in UOH900 (Systemwide Administration) so that the funds can be deployed in a responsive manner, as the Administration will be able to allocate the resources to the campuses depending on enrollment and utilization of the program.

Student Employment

Description	FTE FY20	$$$ FY20	FTE FY21	$$$ FY21
Learning Assistants (LA) & Peer Mentoring @ Mānoa	1.00	$ 956,600	3.00	$ 1,408,876
Raise Graduate Assistants (GA) Stipend @ Mānoa	-	$ 2,198,360	-	$ 2,242,327
Meaningful Work Experiences (LA & GA) @ Hilo	-	$ 122,000	-	$ 231,000
Learning Assistants @ UHWO	-	$ 300,000	-	$ 300,000
Student Mentors & Teachers @ CCs	-	$ 1,004,400	-	$ 1,004,400
Total	**1.00**	**$ 4,581,360**	**3.00**	**$ 5,186,603**

Evidence shows that working on campus contributes to student success and retention. As a result, a focus was placed on student employment at both the undergraduate and graduate levels across all campuses. This emphasis should have a two-fold impact on student achievement: not only will more students be employed on campus, but their work as tutors and mentors will also help other students succeed.

A Learning Assistant (LA) is an undergraduate student who facilitates discussion and engagement in class by working in small groups to guide students toward

understanding through active participation. Peer Mentors and Peer Advisors help incoming students transition academically and socially to college life by advising and guiding them through the array of available campus resources. These Peer Mentors and Peer Advisors also develop their own leadership skills, which helps them to succeed well beyond college. Additional funding is requested at all campuses to either expand or continue LA and/or peer mentoring programs that assist undergraduate student achievement.

Graduate Assistants (GA) are graduate students who provides academic and program support to various units of the university and whose duties may include teaching, research, or administrative functions. Graduate assistantships allow research universities to recruit top graduate students to their programs, and GA contributions are far reaching, particularly in the areas of teaching and research. Both Mānoa and Hilo are seeking additional funding to raise the base salaries of GAs on their campuses.

All of these requests to fund various student positions in support of student employment is expected to directly help on a number of levels for student enrollment, retention, and improve efficiencies.

Other Miscellaneous Requests

Description	FTE FY20	$$$ FY20	FTE FY21	$$$ FY21
Athletics Positions @ Mānoa	30.00		30.00	
Facilities Positions @ Mānoa	6.00		6.00	
Facilities Positions @ System	4.00		4.00	
Custodial and Maintenance @ Hilo	5.00	$ 228,576	5.00	$ 228,576
Security @ Hilo	8.00	$ 311,240	8.00	$ 311,240
Wayfinding Education @ Hilo	2.00	$ 375,000	2.00	$ 300,000
HINET Program @ CCs	8.00	$ 520,000	8.00	$ 520,000
Distance Ed, Faculty Support, Student Success @ UHWO	8.00	$ 1,000,000	8.00	$ 1,000,000
Total	71.00	$ 2,434,816	71.00	$ 2,359,816

Thirty (30) General Funded position counts are requested for Mānoa Athletics. This would convert positions that are currently funded by the Athletics Special Fund to the State General Fund, which would provide savings to the University an estimated $1.5 million in fringe costs. Similarly, six (6) General Fund position counts are requested at Mānoa and four (4) General Fund position counts are requested at Systemwide Support for facilities and infrastructure support.

Hilo is requesting additional custodial, maintenance, and security staff to properly maintain a safe and healthy environment for their campus and community. There is

also a request to develop a Wayfinding Education Program at Hilo to be based out of the ʻImiloa Astronomy Center. This program will integrate Hawaiian perspectives and modern science and will include a Traditional Master Navigator-in-Residence.

The Hawaiʻi Nutrition and Employment Training (HINET) program is a partnership between the State Department of Human Services' (DHS) Supplementary Nutrition Assistance Program (SNAP), the Community Colleges, and various community-based organizations (CBO) to develop a comprehensive and holistic workforce education program for the State. HINET leverages the Colleges' strengths in employment training with DHS and CBO addressing nutrition, childcare, housing, and more. By mutual agreement, DHS has waived SNAP requirements to allow HINET students to focus on college career pathways as a fast track to self-sufficiency.

The program began with funding from DHS in 2015, but DHS can no longer continue to fund the positions that assist students in receiving their DHS benefits. This request for 8 positions and $520,000 would institutionalize this program at the Community Colleges that has already served hundreds of students.

Additional funding is requested at West Oʻahu for investments in distance education, faculty support, and student success. This requests includes 2 positions and infrastructure equipment to support growing distance education program needs. Funding is also requested for 5 additional Instructors for critical gateway courses such as English or high-demand areas such as Finance/Accounting, Sustainable Community Food Systems, and STEM education. Finally, because many of West Oʻahu's degree programs are taught by active industry professionals who serve as part-time lecturers, additional funding is requested to expand this lecturer pool.

Transfers and Non-General Fund Requests

In addition to these requests for additional General Fund resources, there is a housekeeping transfer to move legislatively initiated funding for the Ant Lab from Hilo's budget to Mānoa's, which is more appropriate. Another housekeeping transfer would move positions associated with Nā Pua Noʻeau that are currently appropriated in UOH900 (Systemwide Administration) to the various campuses where they perform their duties. Additional internal transfers of a housekeeping nature will also be requested. All of these transfers have zero net effect on the University's bottom line.

Additional revolving fund ceiling is also being requested for the John A. Burns School of Medicine (JABSOM) and the Community Colleges. JABSOM is requesting $1,021,453 of additional ceiling because of increased use of their Real Property and Facilities Use Revolving Fund as a result of parking fee increases and additional special events. The Community Colleges are requesting an additional $1,000,000 of ceiling in anticipation of increased utilization of the Research and Training Revolving Fund (RTRF) and the Commercial Enterprises Revolving Fund (CERF).

ACTION RECOMMENDED

University Administration recommends the Board of Regents approve the Administration's proposal for a FB2019-21 Operating Budget Proposal for the University. Upon approval, the proposal will be transmitted to the State B&F as the approved Board of Regents' Budget request. The proposal is to be considered for inclusion as part of Governor's Executive Budget Proposal to the 2019 State Legislature. In accord with Chapter 37-68, HRS, the University will also submit the approved budget request directly to the Legislature.

Attachment
1.   Presentation: Fiscal Biennium 2019-2021 Operating Budget Request. For presentation to the Board of Regents Committee on Budget & Finance. November 1, 2018.

Fiscal Biennium 2019-2021 Operating Budget Request

November 1, 2018

Committee on Budget and Finance

General Fund Situation

- At its September 7 meeting, the Council on Revenues maintained its forecast for FY19 at 5.0% growth.

- Through September, General Fund revenues are up 0.4% compared to the same period from the prior year.

- Administration was cognizant of this modest growth in crafting a fiscally responsible budget request.

Budget Request by Campus

Campus	FTE FY20	$$$ FY20	FTE FY21	$$$ FY21
Mānoa	37.00	$ 3,154,960	39.00	$ 3,651,203
Hilo	15.00	$ 1,036,816	15.00	$ 1,070,816
West Oʻahu	8.00	$ 1,300,000	8.00	$ 1,300,000
Community Colleges	8.00	$ 1,524,400	8.00	$ 1,524,400
Systemwide Admin	4.00	$ 19,700,000	4.00	$ 19,700,000
Total	**72.00**	**$ 26,716,176**	**74.00**	**$ 27,246,419**

Budget Request by Theme

Theme	FTE FY20	$$$ FY20	FTE FY21	$$$ FY21
Hawaiʻi's Promise Program	-	$ 19,700,000	-	$ 19,700,000
Student Employment	1.00	$ 4,581,360	3.00	$ 5,186,603
Other Miscellaneous	71.00	$ 2,434,816	71.00	$ 2,359,816
Total	**72.00**	**$ 26,716,176**	**74.00**	**$ 27,246,419**

Hawaiʻi's Promise Program

- $19,000,000 to expand Hawaiʻi's Promise Program to all institutions in UH system

- Additional $700,000 to integrate funding from Act 14/SLH 2018 into the budget for Community Colleges (plus $1,400,000 already in their budget)

- Budgeted in UOH900 (Systemwide Administration) to allow flexibility in responding to student enrollment and eligibility

- Same criteria: 6 credit minimum, GPA of 2.0 or higher, Hawaiʻi resident or qualified for exempt status, etc.

Student Employment

Description	FTE FY20	$$$ FY20	FTE FY21	$$$ FY21
Learning Assistants (LA) & Peer Mentoring @ Mānoa	1.00	$ 956,600	3.00	$ 1,408,876
Raise Graduate Assistants (GA) Stipend @ Mānoa	-	$ 2,198,360	-	$ 2,242,327
Meaningful Work Experiences (LA & GA) @ Hilo	-	$ 122,000	-	$ 231,000
Learning Assistants @ West Oʻahu	-	$ 300,000	-	$ 300,000
Student Mentors & Teachers @ Community Colleges	-	$ 1,004,400	-	$ 1,004,400
Total	**1.00**	**$ 4,581,360**	**3.00**	**$ 5,186,603**

- Student On-campus Employment contributes to student success and retention.
- Peer Mentors and Advisors help incoming students transition to college life.
- Learning Assistants facilitate discussion and engagement with students in small groups.
- Graduate Assistants provide significant contributions to teaching, research, and administration.

Other Miscellaneous

Description	FTE FY20	$$$ FY20	FTE FY21	$$$ FY21
Athletics Positions @ Mānoa	30.00		30.00	
Facilities Positions @ Mānoa	6.00		6.00	
Facilities Positions @ System	4.00		4.00	
Custodial and Maintenance @ Hilo	5.00	$ 228,576	5.00	$ 228,576
Security @ Hilo	8.00	$ 311,240	8.00	$ 311,240
Wayfinding Education @ Hilo	2.00	$ 375,000	2.00	$ 300,000
HINET Program @ CCs	8.00	$ 520,000	8.00	$ 520,000
Distance Ed, Faculty Support, Student Success @ UHWO	8.00	$ 1,000,000	8.00	$ 1,000,000
Total	**71.00**	**$ 2,434,816**	**71.00**	**$ 2,359,816**

- General Funded positions will defray fringe costs to the State General Fund from the current Special Fund.
- Custodial and Security staff at Hilo will help to maintain a safe and healthy campus.
- Wayfinding Education program will integrate Hawaiian perspectives and modern science and will include a Traditional Master Navigator-in-Residence.
- Hawaiʻi Nutrition and Employment Training (HINET) program assists students to achieve self-sufficiency.
- Distance Education expansion, additional instructors, and lecturer pool expansion will address some of the high-demand needs at West Oʻahu.

Housekeeping and Non-General Fund

- Transfer Nā Pua Noʻeau positions from UOH900 to various campuses

- Transfer Ant Lab appropriation from Hilo to Mānoa

- Revolving Fund ceiling increases for:
  - JABSOM – Real Property and Facilities Use Revolving Fund and RTRF
  - Community Colleges – Commercial Enterprises Revolving Fund and RTRF

Next Steps

- Recommendation for B&F Committee to approve this operating budget request for subsequent approval by the full Board at its November 15, 2018 meeting.

- Following approval by the full Board of Regents, the budget request and associated forms will be transmitted to the Governor and Legislature, in accordance with Chapter 37-68, HRS

UNIVERSITY
of HAWAI'I
HILO

RECEIVED

October 25, 2018

MEMORANDUM

TO: Lee Putnam
Chair, Board of Regents, University of Hawai'i

VIA: David Lassner
President, University of Hawai'i

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

FROM: Marcia Sakai *Marcia Sakai*
Interim Chancellor, University of Hawai'i at Hilo

SUBJECT: Request to establish a new provisional Bachelor of Science degree in Aeronautical Sciences, University of Hawai'i Hilo

SPECIFIC ACTION REQUESTED:

It is respectfully requested that the University of Hawai'i Board of Regents approve the establishment of a new provisional degree, the Bachelor of Science in Aeronautical Sciences, within the College of Agriculture, Forestry, and Natural Resource Management, University of Hawai'i Hilo (UH Hilo).

RECOMMENDED EFFECTIVE DATE:

Fall 2019

ADDITIONAL COST:

The proposed program will require an initial campus investment of $107,000 to demonstrate feasibility, but at the same time will leverage existing investments in the College of Agriculture, Forestry, and Natural Resource Management; the College of Arts

and Sciences; and the College of Natural and Health Sciences. With positive proof of concept, we will seek an appropriation to grow the program.

PURPOSE:

The proposed Bachelor of Science in Aeronautical Sciences is designed to serve as a pivot toward aeronautical science and its applications that will integrate with UH Hilo's existing STEM program strengths in general education as well as in agriculture, conservation biology, natural hazards, marine and terrestrial resources, astronomy, and GIS education and research. The program will have concentrations in Commercial Professional Pilot Training (CPPT) and Commercial Aerial Information Technology (CAIT), where there is a high projected workforce need in the State.

BACKGROUND:

Board of Regents policy 5.201 "Instructional Programs" sets that policy for the establishment of all new instructional programs.

At its January 12, 2017 meeting, the Board of Regents Committee on Academic and Student Affairs considered a request from UH Hilo to establish, as provisional, the Aeronautical Sciences B.S. The proposed program was designed to provide a 4-year degree pathway for students interested in a fixed wing pilot career track. It also included flight-training courses across the four years of the program, delivered by a third-party provider operating out of the Hilo International Airport. The Committee expressed concern regarding enterprise and operational risks associated with the flight training provider and the Hilo airport location. The Committee deferred the proposal until further information could be provided.

The current proposed program is broadened to offer students two different, but connected pathways into commercial aviation. Both concentrations share a common core of commercial aviation courses for the first three years, coupled with a final year of specialization in either 1) CPPT or 2) CAIT. The first option has been re-designed to address concerns of risk and capacity of flight training raised earlier by the Committee. The second option provides a productive path for students interested in aeronautical science applications but not in obtaining a commercial pilot's license.

The proposed program satisfies the criteria for decision-making regarding the establishment of provisional degree programs RP 5.201, III.A. (1a) and (3) as follows:

> (1) a. 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.

and

(3) All new program proposals shall be consistent with the institution's mission.

UH Hilo's mission is to challenge students to reach their highest level of academic achievement by inspiring learning, discovery and creativity inside and outside the classroom. We are reminded of this by the proverb 'A'ohe pau ka 'ike i ka halau ho'okahi/One learns from many sources, which serves as strong guidance for our decision-making. Our kuleana/responsibility is to improve the quality of life of the people of Hawai'i, the Pacific and the world.

Given this mission and direction, UH Hilo's program array demonstrates the campus' priority for programs that take advantage of the unique physical and social characteristics of the island and that serve students who seek opportunities for highly engaging and experiential learning (UH Integrated Academic and Facilities Plan). The proposed Bachelor of Science in Aeronautical Sciences aligns with UH Hilo's focus on professional programs that prepare students for the workforce, including accounting, business, education, nursing, pharmacy, and counseling psychology, by now including a pathway to commercial aviation. The proposed program also aligns with UH Hilo's focus on the application of science in such fields as agriculture, conservation biology, geography, geology, environmental sciences, marine science, and astronomy, using tools for information development, such as GIS, data visualization and data science. The proposed program would add to our students' toolkit for data collection, information creation, and information communication, and strengthen both undergraduate and graduate research across those fields.

The proposed Bachelor of Science in Aeronautical Sciences program will leverage UH Hilo's strength in undergraduate STEM disciplines, strongly coupled with experiential learning, in an area where there is high projected workforce need in the State.

The first concentration in CPPT provides a simple, direct pathway to earn all the FAA licenses and certificates required to pursue a commercial Airline Transport Pilot license and begin a career as a commercial airline pilot. This pathway is similar to the military pilot training model, where intensive flight school follows completion of a college degree. The CPPT concentration is structured as three years of university classroom and flight simulator learning coupled with a final year at a 6-8 month flight school program of the student's choice. Credit for flight school is transferred back to UH Hilo to complete the degree, saving students the cost of an additional year of college.

The concentration is designed to prepare students with both technical and management expertise in the field of commercial aviation along with the opportunity to pass many of the written exams required for FAA licenses and certificates in advance of attending flight school. Students who complete this program will have all the FAA certificates and licenses to be qualified to fly commercial multi-engine aircraft in nearly all conditions and

will be eligible for the Airline Transport Pilot certificate upon completion of the requisite flight time.

The second concentration in CAIT will provide the training and background to attain current FAA licensing for the highly restricted commercial UAS operations of small drones, as well as preparation for future full integration of large UAS operations into commercial airspace. The first three years of the program develop a solid background in commercial aviation that will be needed by commercial UAS pilots as this nascent industry transitions to full commercial operations in the near future. The CAIT concentration is designed to be coupled with a focus in Geography, a STEM field, or Computer Science using available electives. Data Science is an emerging focus.

This concentration will create opportunities for the University to establish new partnerships with private industry, educational institutions, and government agencies. Fields such as agriculture, conservation biology, geography, environmental sciences, marine science, and astronomy have ever-increasing need for environmental data with high spatial and temporal resolutions, which are not generally available by other means. Students with a strong background in commercial aviation, UAS operations, payloads, instrument calibration, data handling, and interpretation will be in high demand. UH Hilo has an existing relationship with the FAA that allows us to obtain Certificates of Waiver or Authorization (COAs) for Research and Training on a per project basis, which would allow additional privileges for CAIT.

An October 2018 EMSI analysis from the Office of the Vice President for Community Colleges Institutional Research Office reports:

- Between 2016 and 2026, Hawai'i will see 207 new airline pilot, co-pilot and flight engineer position openings.
- During the same time period, Hawai'i will see 186 replacement pilot position openings.
- The demand for commercial level UAS pilots with information technology backgrounds is difficult to assess as this is an emerging field. However, it appears that it will be significant. A recent report by the FAA suggests that there will be an exponential increase in these positions in the near future.

Based on our review of enrollment by Hawaii residents at select out-of-state flight training universities, contact with Civil Air Patrol squadrons, communication from interested veterans, students and families, and student interest in the UAS certificate program, we estimate that program enrollment will exceed 80 students at maturity, including participation from UH community colleges.

The proposed B.S. in Aeronautical Science is a campus priority. It will provide important career training and opportunities for students in both commercial aviation and the rapidly growing field of unmanned aviation technology. The proposed program will support economic development opportunities on Hawai'i island by creating activity in the

aeronautics/aerospace/astronomy cluster and align with DBEDT's plan to build and strengthen Astronomy and Aerospace on Hawai'i island.

ACTION RECOMMENDED:

It is recommended that the Board of Regents establish a new provisional degree, the Bachelor of Science in Aeronautical Science in the College of Agriculture, Forestry and Natural Resource Management at the University of Hawai'i Hilo.

Attachment

cc::   Kendra Oishi, Executive Administrator and Secretary of the Board, University of Hawai'i

Kenneth Hon, Interim Vice Chancellor, Academic Affairs

BACHELOR OF SCIENCE IN AERONAUTICAL SCIENCES: A PROPOSAL FOR PROVISIONAL STATUS FROM UH HILO

I. Program Purpose and Outcomes

Purpose

Hawaiʻi is the only state completely surrounded by ocean and consists of a 2,000 mile long chain of islands with the fourth largest coastline in the United States. Hawaiʻi is heavily dependent on the aviation industry to support the economic driver of tourism and to transport large amounts of freight to and between the islands. Advances in aeronautics will continue to be increasingly important to monitor and manage remote lands, agriculture, natural hazards, fisheries, and the immense marine resource of the Northwest Hawaiian Islands. The proposed degree in Aeronautical Sciences will provide an opportunity for residents of Hawaiʻi to meet future needs in the commercial aviation industry and the rapidly expanding field of Unmanned Aviation Systems (UAS).

The proposed Bachelor of Science in Aeronautical Sciences will provide important career training and opportunities in both commercial aviation and the rapidly growing field of unmanned aviation technology. Establishing a degree will also provide opportunities to create new partnerships with private industry, educational institutions, and government agencies that are not currently possible. Developing aeronautical sciences teaching and research fits with the Hawaiʻi DBEDT's plans to build and strengthen Astronomy and Aerospace on Hawaiʻi Island. Unmanned aviation technology fits well within UH Hilo's current mission of applied science and agriculture research, data science, and astronomy. These fields are tied together by the ever increasing need for environmental data with high spatial and temporal resolutions, which are not generally available by other means. Students with a strong background in commercial aviation, UAS operations, payloads, instrument calibration, data handling, and interpretation will be in high demand as this nascent industry continues its rapid expansion. This degree concentration will add an important dimension of applied science that will integrate with UH Hilo's current research being conducted with state and federal agencies, as well as private stakeholders.

Outcomes

The CIP code for this program will be: 49.0102 Airline/Commercial/Professional Pilot and Flight Crew[1].

The Bachelor of Science in Aeronautical Sciences will offer students two different pathways into commercial aviation, a Commercial Professional Pilot Training concentration and a Commercial Aerial Information Technology concentration. Both concentrations share a common core of commercial aviation courses for the first 3 years, coupled with a final year of specialization in either 1) Commercial Professional Pilot Training or 2) Commercial Aerial Information Technology.

The first concentration in Commercial Professional Pilot Training (CPPT) provides a simple, direct pathway to earn all the FAA licenses and certificates required to pursue a commercial Airline Transport Pilot license and begin a career as a commercial airline pilot. The Aeronautical Sciences Bachelor's degree is structured in a fashion similar to military pilot training, where intensive flight school follows completion of a college degree. The CPPT concentration is structured as 3 years of university classroom and flight simulator learning, coupled with a final year at a 6-8 month flight school program. Credit for flight school is then transferred back to UH

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[1] https://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=88673

Hilo to complete the degree, saving students the cost of an additional year of college. The concentration is designed to prepare students with both technical and management expertise in the field of commercial aviation along with the opportunity to pass many of the written exams required for FAA licenses and certificates in advance of attending flight school. Students who complete this program will have all the FAA certificates and licenses to be qualified to fly commercial multi-engine aircraft in nearly all conditions and will be eligible for the Airline Transport Pilot certificate upon completion of the requisite flight time.

The second concentration in Commercial Aerial Information Technology (CAIT) will provide the training and background to attain current FAA licensing for the currently highly restricted commercial UAS operations of small drones, as well as preparation for future full integration of large UAS operations into commercial airspace. The first 3 years of the program develop a solid background in commercial aviation that will be needed by commercial UAS pilots as this nascent industry transitions to full blown commercial operations in the near future. The CAIT concentration is designed to be coupled with a focus in Data Science, Geography, a STEM field or Computer Science using available electives.

Program Learning Outcomes are designed to meet the stringent requirements of the FAA and high expectations set by the commercial aviation industry :

1. Ability to pilot and command single and multi- engine private and commercial aircraft in a variety of visual and instrument conditions **or** ability to fly and control large commercial unmanned aircraft in commercial airspace in a wide variety of conditions.
2. Demonstrate an understanding of the performance and operating characteristics of both manned and unmanned aircraft. Understand the principles of aerodynamics, aircraft design/construction, and automated control systems.
3. Thorough knowledge and understanding of ground and in-flight support aviation operations and applicable FAA regulations for both commercial aviation and commercial UAS operations.
4. Ability to create approved written flight plans and other professional and technical written reports including an accurate and detailed flight logbook.
5. Understand principles of meteorology and navigation, ability to use GPS systems, fluency with aviation maps and FAA radio location (VOR) systems, ability to navigate an airplane or UAS between points well beyond visual range.
6. Thorough understanding of the principles and regulations applied to aviation safety. Ability to perform risk assessment related to aviation safety for both commercial aviation and commercial UAS operations.
7. Proficiency in communications with regional FAA, airport tower authorities, ground controllers, and other aircraft.
8. Thorough knowledge of regulations related to the maintenance of aircraft-UAS and associated systems.
9. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System. Thorough working knowledge of the airspace and support systems.
10. Demonstrate a thorough understanding of national and international aviation law and regulations.
11. Proficiency in professional communications and oral presentations.
12. Demonstrate competence in using computers at a level consistent with current professional practice for commercial pilots **or** comprehensive understanding of flight control, sensor applications, calibrations, data collection and reduction, and interpretation of a wide range of applications for UAS.

The above outcomes establish what students will know and be able to do upon completion of the program.

Alignment with the UH System and UH Hilo Integrated Academic and Facilities Plans.

Aviation plays a fundamental role in the lives of nearly everyone in the State of Hawai'i. The proposed Bachelor of Science Degree in Aeronautical Sciences is an applied degree that will make education more accessible for students interested in applied aviation careers. Aviation produces high quality jobs that will improve the lives of Hawai'i's citizens, an underlying principle of the UH IAFP. The proposed program offers a relatively low cost entry into fields of applied aeronautical science with potential for future expansion. We are in a period of significant technological change where advances in robotics and machine learning are going to change the way commercial and non-commercial enterprises operate. While the combination of commercial airline pilots and UAS pilots may initially appear to be two completely different fields, in 10 to 20 years the use of large robotic aircraft systems will most likely be fully integrated into national and international airspace. A large number of new jobs will be created at this nexus of old and new technologies. This is an opportunity for the University of Hawai'i to identify an emerging field and to develop educational programs that train the future workforce for this field.

UH Hilo has a strong focus on applied research in agriculture, conservation biology, natural hazards, astronomy, and marine and terrestrial resources along with offering numerous workforce ready majors in Education, Nursing, Agriculture, Business Administration, and applied STEM fields, including graduate programs in Pharmacy and Tropical Conservation Biology and Environmental Sciences (TCBES). The Aeronautical Sciences degree and especially the Commercial Aerial Information Technology concentration are complementary to these fields, strengthening both undergraduate and graduate research in Geography, Environmental Sciences, Biology, Marine Science, Data Science, Agriculture, Geology, and TCBES.

Evidence of Continuing Need for the Program

The FAA and BLS predict that there will be a steadily increasing demand for both commercial airline pilots. The field of commercial UAS pilots is so new that there are very few predictions on job numbers, however, the FAA anticipates an explosive growth in the sales of commercial UAS aircraft in the coming decade.

Nationally, there will be a moderate number of high paying (>$100,000) airline pilot positions with the major airlines, largely due to retirement over the next two decades within the United States. Major U.S. airlines still have a large pool of experienced regional pilots to choose from for each of these openings. Globally there will be a large demand for pilots within international airlines, especially those in Asia and the Middle East. These airlines pay 10-20% premiums for fluent English-speaking pilots that can navigate international airspace. A 2014 report by Boeing that is still widely quoted predicted the need for over 500,000 pilots by 2036 resulting in a global need for 26,000 pilots per year. In North America, there is a projected need for about 4,400 pilots per year for the next two decades.

The real growth in pilot jobs in the United States has been within regional carriers affiliated with major airlines over the past several years. Projections show that in the next few years there will be more passenger miles flown within the U.S. on regional carriers than on major airlines and the need for regional pilots will continue to expand. The rapid increase in demand for regional pilots began several years ago and left many of these carriers with insufficient crew to fly scheduled routes. It takes approximately 10 pilots to keep a regional aircraft in full service compared to the 14-18 pilots needed for aircraft flown by major airlines. This rapid

growth has caused many of the majors to begin raising entry salaries from $20,000-$40,000 dollars to $40,000 to $60,000 in order to attract and retain pilots. The regional airlines are aggressively recruiting pilots straight from flight school.

An October 2018 EMSI analysis from the Office of the Vice President for Community Colleges Institutional Research Office reports the following demands within the State of Hawai'i. Between 2016 and 2026, Hawai'i will see 207 new airline pilot, co-pilot and flight engineer position openings per year along with 186 replacement pilot openings. Even if the UH Hilo program graduated all of our projected enrollment, it would represent less than 10% of this projected need. Mokulele Air is willing to consider UH Hilo graduates for positions as second in command to earn hours and Hawaiian Airlines expressed support for the program and a desire to consider graduates once they had accumulated sufficient flight time. Empire Air, which runs Ohana Air, is one of the 11 regional airlines recruiting at an event on November 10th in Waikiki for pilots directly with 250 hours of flight time, roughly what UH Hilo graduates with a commercial multi-engine rated pilot rating will have coming directly at graduation.

The demand for commercial level UAS pilots with information technology backgrounds is more difficult to assess as this is an emerging field, but it appears it will be significant. A recent report by the FAA suggests that the use of UAS is set to exponentially expand in the next 5-10 years. The FAA predicts that commercial UAS operations will expand from around 73,000 to a minimum of 300,000 by 2022. In addition, current regulations allow only limited flying of large UAS (>55 kg) in commercial airspace. The current fleet of high end commercial drones is predicted to increase from 16,000 today to over 50,000 by 2020, which will require a significant increase in highly skilled operators. At some point in the near future, commercial UAS, similar to or larger than current military models, will begin to be integrated into commercial airspace in the United States. While the FAA is largely quiet about ongoing rulemaking, the Airline Pilots Association has made it clear that UAS using commercial airspace should meet both commercial pilot and commercial aircraft standards if they are to be integrated in the commercial airways of the National Airspace System.

II. Program Organization

Both concentrations of the program will share identical curriculum during the first 3 years of the program. This will ensure that all graduates have the necessary background to pilot commercial aircraft within the National Airspace System governed by the FAA. The common curriculum includes fourteen new classes including six 1 credit hour flight simulation labs along with eight 3 credit hour courses in safety, weather, navigation, aviation operations and resources, and career development. The rest of the courses are a mixture of General Education, basic mathematics, chemistry, and physics, along with five electives that can be used to focus each students degree.

The intention is to make the first two years of the program available to community college students across the state. All of the non-aviation courses within the first two years are found at all of the community colleges in Hawai'i. The two subject matter courses covering safety and navigation will be offered to all students via Distance Education, thus allowing community college students to complete the bulk of the required courses on their home island. The simulator courses require special equipment and face to face instruction with a pilot and need to be taught at the UH Hilo campus. A special condensed version of these courses will be offered during the summer to students that wish to matriculate from community colleges.

Years 1-3 Curriculum to be Completed at UH Hilo for Both Concentrations:

Fall Year 1		Fall Year 2		Fall Year 3	
AERS 101 Elem Private Pilot Operations I	1	AERS 220 Elem Multi-Engine Ops I	1	AERS 260 Aviation Systems & Instruments	1
GE Multicultural Perspectives I	3	AERS 250 Aviation Safety	3	AERS 340 Advanced Simulated Maneuvers	3
GE Arts, Humanities, Literature	3	GE GEOG 201 Interpreting GEOG Data	3	AERS 355 Domestic & Intl Navigation	3
GE ENG 100 Composition I	3	GE CHEM 151 Elem Survey of Chem	3	AERS 387 Crew Resource Management	3
GE Social Science I	3	GE CHEM 151L Elem Survey of Chem Lab	1	GE Social Science II	3
Elective	3	Elective	3	Writing Intensive Elective	3
Total Credits:	**16**	**Total Credits:**	**14**	**Total Credits:**	**16**
Spring Year 1		Spring Year 2		Spring Year 3	
AERS 102 Elem Private Pilot Operations II	1	AERS 221 Elem Multi-Engine Ops II	1	AERS 370 Preparation for Practical Single/Multi Engine Flying	1
GE MATH 140 or 140X Precalculus	3	AERS 251 Aviation Weather	3	AERS 471 Aviation Operations	3
GE Language Arts	3	GE Hawai'i Pan Pacific	3	AERS 472 Aviation Career Development (GCC)	3
GE Biological Science	3	PHYS 151 College Physics I	3	AERS 473 Leadership as a Pilot	3
GE Arts, Humanities, Literature	3	PHYS 151L College Physics I Lab	1	Writing Intensive 300-400 Elective	3
GE Multicultural Perspectives II	3	Elective	1	Elective	1
Total Credits:	**16**	**Total Credits:**	**14**	**Total Credits:**	**14**

During the 4th year of the degree program, the requirements of the two concentrations diverge. Students seeking a the Commercial Professional Pilot Training will attend an FAA certified flight school to obtain the necessary FAA licenses and certifications, while those pursuing the Aerial Information Technology concentration will remain at the UH Hilo campus for concentrated courses in UAS flight and data collection and interpretation.

Commercial Professional Pilot Training Concentration (CPPT) To be completed at a flight provider of the students choice		Commercial Aerial Information Technology Concentration (CAIT) To be completed at UH Hilo	
Fall Year 4		**Fall Year 4**	
AERS 201 Private Pilot: Pre-Solo	5	AERS 152 Introduction to UAS	3
AERS 202 Private Pilot: Solo & Checkride	5	GEOG 470 Remote Sensing/Air Photo	3
AERS 203 Cross Country Single Engine Pilot in Charge	5	AERS 354 UAS Robotics	3
		Elective	3
		Elective	3
Total Credits:	**15**	**Total Credits:**	**15**
Spring Year 4		**Spring Year 4**	
AERS 310 Instrument Basic	3	AERS 352 UAS Mission Plans and Simulation	3
AERS 311 Instrument Advanced	3	AERS 452 UAS Flight	3
AERS 388 Crew Resource Mgmt. and Crew Operations	2	GEOG 480 Geog Info Sys & Visualization	3
AERS 420 Commercial Certificate (Multi-Engine)	5	Elective	3
AERS 421 Commercial Single-Engine Add On	2	Elective	3
Total Credits:	**15**	**Total Credits:**	**15**

The 4th year of commercial pilot training for all students will initially be at the ATP Flight School in Mesa Arizona. Training is comprised of eight flight training courses and corresponding ground school components. Students are required to take and pass all the required FAA flight and written examinations to achieve their commercial multi-engine instrument rating and will also be given the opportunity to qualify as certified flight instructors. Students completing this course of study will eligible to earn their Airline Transport Pilot certificate upon completion of 1500 hours of flight time (250 hours are earned during training) earned while flying as a certified flight instructor, a second in command at a regional airline, working for private transportation companies, or other venues (freight, medical transport, tourism, etc.).

The UH Office of General Counsel has recommended that the UH Hilo enter into a formalized MOU with ATP flight school similar to those MOU's held by participating clinical sites for university health education programs. The MOU will outline respective areas of liability and will be finalized upon final approval of the program.

Structuring the commercial pilot training in a manner similar to military pilot training provides several significant advantages over traditional programs where flight training is spread out over four years. Operating as a cohort will instill the sense of professionalism required to succeed in the aviation field. Students are provided a

thorough background in the theoretical, applied, and managerial aspects of professional flight prior to flight training. This will let the students focus on the important aspects of learning to fly and gives them a significant advantage over students applying for flight school with no background.

UH Hilo chose to initially partner with ATP as it is a large national flight training provider that can guarantee a concentrated course of flight training for all UH Hilo students, reasonable costs and available financing, a well run professional environment that instills the right attitude for a successful career, extensive aircraft resources and aircraft maintenance facilities, high retention and completion rates (90% for students with some aviation background), guaranteed jobs as flight instructors for qualified students, and extensive employment connections with regional airlines.

The 4th year of aerial information technology will consist of required courses in remote sensing, geographical information systems (GIS), UAS flight and technology, and four electives directed toward advanced remote sensing and GIS, data collection and interpretation. In reality, because there are five electives in the first three years students can choose to take courses stretched over a longer time period. The nine electives allow students in this concentration to obtain a subject certificate in Data Science, minor in other STEM fields, or obtain a double major in Geography.

Admission Policies

The proposed program will operate under a cohort model to attract, engage, and retain students interested in commercial aviation careers. Airlines are focused on ensuring that pilots are trained to high professional standards from the first day. UH Hilo students will be housed together in the residence halls as a living learning community centered on aviation careers. The cohort model works to reinforce desired behaviors and to create a sense of belonging to a professional unit. Development of an aviation-based student community will encourage students to attend UH Hilo from the beginning.

Students in both concentrations in the program will be required to meet the UH Hilo application requirements.

In addition, for admission to the Commercial Pilot Professional Flight concentration include proof of the ability to pass a FAA first-class medical physical examination, administered by a FAA Certified Aeromedical Examiner Physician and documentation of at least one hour of flight time recorded in a pilot's logbook. The medical exam is required to obtain FAA licenses and the flight time is to assure students understand what flying a small aircraft actually entails.

There are no additional admission policies for students entering into the Commercial Aerial Information Technology concentration.

Transfer Policies

The Commercial Aerial Information Technology concentration will interface naturally with UH Community College (UHCC) programs due to common requirements and technology related course offerings in robotics and electronics. In collaboration with Hawai'i Community College, we are planning to offer courses in these fields accessible by both HawCC and UH Hilo students. UH Hilo will also offer a path for interested UHCC students to complete years 1 and 2 of the program concurrently with completion of their Associate Degree by offering the second year content courses of Aviation Safety and Weather online and creating special summer

7

flight simulator institutes for UHCC students. This will allow UHCC students to seamlessly enter the program in the third year of either concentration.

III. Student Demand

Applied aeronautical sciences programs are not presently offered within the State of Hawai'i. Hawai'i residents who wish to pursue this must leave the state to enroll in an aeronautical science program.

The Aeronautical Sciences degree directly serves a state need for producing commercial pilots for the local commercial aviation industry. It has the potential to attract and retain Hawai'i resident students who currently enroll in more costly aeronautical science programs at other institutions. Students pursuing this concentration to become airline pilots will be able to complete their on-campus coursework in 3 years, making it less expensive than a traditional 4 year degree. This results in an effective discount of $20,000 to $25,000 to the cost of flight school for Hawai'i students from about $75,000 to $50-55,000. The program produces significant cumulative costs savings for residents of Hawai'i of around $250,000 per 10 students annually completing the program, which is roughly 70 percent of the cost of delivering the program. We believe that the cost savings associated with the UH Hilo Commercial Airline Pilot concentration will encourage more local students to pursue higher education here.

There will be similar but smaller cost savings for students following the Commercial Aerial Information Technology concentration. These students will benefit by not having to pay significantly more in out of state tuition to become certified UAS operators with data analysis capabilities. We also feel that because UAS is so strongly interconnected with research applications at UH Hilo, students will receive a more comprehensive education than they might at an university focused solely on aviation.

It is anticipated that twenty students will enroll in the Commercial Professional Pilot Training (CPPT) concentration each academic year, and ten students in the Commercial Aerial Information Technology (CAIT) concentration starting in the fall of 2020. We have projected 50% fewer students in Fall 2019 due to the short time from approval to implementation. Twenty students in the Commercial Professional Pilot Training concentration is a moderate estimate based upon various potential sources of students, and an average of 40 Hawai'i students in comparable Aeronautical Sciences programs in the continental U.S. and the price advantage for enrollment in the proposed program at UH Hilo.

Enrollment (Fall Headcount)	Year 1 19-20	Year 2 20-21	Year 3 21-22	Year 4 22-23
Cohort 1 Pilot	10	7	9*	0
Cohort 1 UAS	5	4	6*	3
Cohort 2 Pilot		20	11	12*
Cohort 2 UAS		10	7	9*
Cohort 3 Pilot			20	11
Cohort 3 UAS			10	7
Cohort 4 Pilot				20
Cohort 4 UAS				10
Totals:	**15**	**41**	**69**	**81**

* Includes addition of 3 articulated UHCC students per concentration in the 3rd year.

We expect to recruit approximately 30 resident students per year into the proposed program, 20 into the Commercial Professional Pilot Training Concentration (CPPT) and 10 into the Commercial Aerial Information Technology concentration (CAIT). The overall numbers are based upon reasonable retention rates similar to UH Hilo's overall rates for this program. In addition, we accounted for 3 community college transfers entering each concentration in the 3rd year.

UH Hilo is currently developing a recruitment strategy for the program which will begin upon BOR approval of the program. The strategy includes developing print material, using of social media, developing articulation agreements with community colleges, visiting local Civil Air Patrol Squadrons (composed of high school students interested in aviation), and visiting Big Island and Oahu High Schools.

Program Cost Savings Compared to Continental U.S. Four Year Degree Programs

One of the primary goals of the Aeronautical Sciences degree is to offer Hawai'i residents a more affordable pathway into aviation related careers. The proposed program will offer significant cost savings over similar programs offered in the continental U.S., as illustrated in the table below.

Estimated 4-Year Cost of Attendance- Student Entering in Fall 2019
Commercial Professional Pilot Training Concentration

	UH Hilo	Embry Riddle Aeronautical U Prescott[2]	Arizona State University[3]	Central Washington University[4]
Flight Instruction	$75,995	$80,000	$82,369	$61,950
Tuition	$22,033	$142,616	$113,344	$86,332
Fees	$1,426	$7,272	$2,872	$7,608
Books and Supplies	$4,482	$5,600	$5,200	$4,008
Meals and Housing	$34,259	$45,576	$52,984	$44,460
Personal Expenses	$13,238	$13,635	$7,928	$7,008
Transportation	$1,939	$11,424	$5,504	$5,040
Loans Fees	$242		$288	
Airfare Transport to/from HI	$1,000	$4,000	$4,000	$4,000
Cost of Attendance for 4 years:	$154,613	$310,123	$274,489	$220,406

The cost of the UH Hilo pilot training program varies between 50% and 70% of similar four year degrees offered on the mainland. A detailed list of costs to students for the proposed UH Hilo pilot training program are provided in the table below. Total four-year costs actually can vary from $121,664 to $159,856, depending upon living arrangements.

Currently ATP flight schools' cost for flight instruction is fixed at: $75,995[5] for an intensive 9 month program which allows students to earn all required FAA licenses. If flight costs at ATP flight schools increase, students will have alternative options as we create articulation agreements with other major flight instruction providers.

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[2] https://prescott.erau.edu/admissions/estimated-costs/
[3] https://students.asu.edu/standard-cost-attendance#nonresident
[4] http://www.cwu.edu/financial-aid/2018-2019-cost-attendance
[5] https://atpflightschool.com/airline-career-pilot-program/

Estimated 4-Year Cost of Attendance[6] for Student Living in Residence Halls at UH-Hilo in Years 1-3

	2019-2020	2020-2021	2021-2022	2022-2023 (CPPT)	Total for 4 Years (CPPT):
Flight Instruction				$75,995	$75,995
Tuition	$7,272	$7,344	$7,417		$22,033
Fees	$461	$475	$490		$1,426
Books and Supplies	$1,071	$1,103	$1,136	$1,171	$4,482
Meals and Housing	$8,495	$8,750	$9,013	$8,000	$34,259
Personal Expenses	$3,164	$3,259	$3,357	$3,458	$13,238
Transportation	$464	$477	$492	$506	$1,939
Loans Fees	$78	$81	$83		$242
Total CPPT Concentration:	$21,006	$21,490	$21,988	$89,130	$153,613
Total for CAIT Concentration:	$21,006	$21,490	$21,988	$22,499	$86,983

The costs for the Aerial Information Technology concentration are the same as any other 4 year degree offered at UH Hilo. The program will also provide significant cost savings for students who otherwise would be forced to turn to universities at other locations in the U.S. for a similar degree.

IV. Program Resources and Efficiency

The Bachelor of Science degree in Aeronautical Sciences will require approximately $200,000 in new equipment expenses and 3.67 Faculty FTE phased in over 4 years. The faculty positions will either be reallocated or be allocated as new positions to UH Hilo. The current physical facilities at UH Hilo are sufficient to provide office, classroom, and simulator laboratory space for this program.

The request for reallocated or new faculty positions is based upon teaching 18 new courses with a cumulative SSH of 2710 calculated based upon the number of students shown in the enrollment table.

Courses, Sections, SSH (Annual)	Year 1	Year 2	Year 3	Year 4
Projected New Courses	2	4	8	4
Projected New Sections per Course	1	1	1	1
Projected New SSH (added by year)	30	328	1380	972

In year 1, an Instructor with commercial pilot qualifications will be hired to begin teaching developing simulator courses and developing the online weather and safety courses to be offered in year 2. An assistant or

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[6] https://hilo.hawaii.edu/financialaid/CostofAttendance1819.php

associate professor in aeronautical sciences will be hired in year 2 to develop the courses for year 3. An educational specialist will also be hired in year 2 to manage the program and to provide more of the time intensive teaching required by the simulator laboratory courses. In year 4, the program plans to add a 0.67 FTE Instructor, who will lead the Commercial Aerial Information Technology concentration. The program's two concentrations will be fully staffed with 3.67 FTE.

Personnel (Instructional)	Year 1 19-20	Year 2 20-21	Year 3 21-22	Year 4 22-23
Projected New Faculty FTE	1.0	2.0	0	.67
Projected FTE Reallocations	0	0	0	0
Projected New Faculty Salaries	80,000	165,000	0	47,000
Cumulative Faculty Salaries	80,000	245,000	245,000	302,000

The 3.67 FTE program personnel will require office space that is easily accommodated on the UH Hilo campus. All members of the Aeronautical Science faculty will serve as mentors and academic advisors to program students.

We have worked with all programs that may be impacted by the implementation of the proposed program and have been assured by the respective program chairs that the proposed program students are welcome in their classes.

The proposed program will require classroom instructional space at UH Hilo for the simulator lab and content courses. At maximum this will be 10 semester hours of classroom space per week for instruction. There is sufficient space to accommodate the classroom needs of the proposed program—even at full capacity. The simulators will require a full time laboratory space, which can be provided.

The program plans to purchase 2 CRX open cockpit professional simulators for a total cost of $50,000 each. During the first academic year of implementation, there will be another $20,000 cost to purchase 6 desktop flight simulators to be used by students both during and outside of class hours. The estimated maintenance cost for all simulator equipment is $20,000 annually.

Program Operating Costs (equipment, accreditation, fees, etc)	Year 1 19-20	Year 2 20-21	Year 3 21-22	Year 4 22-23
- 6 Desktop Flight Simulators	$20,000			
- 2 CRX Open Cockpit Simulators	$100,000			
- Simulator Maintenance/Year	$20,000	$20,000	$20,000	$20,000
- UAS Aircraft and Sensors			$80,000	
- UAS Maintenance/Year				$10,000

UH Hilo currently runs a subject certificate in UAS and has fleet of 3 UAS. No additional startup software or peripherals will be required for the Aerial Information Technology concentration in the first two years. In the third year the program plans to purchase 1-2 commercial grade UAS with several different types of sensors (~$80,000). While similar technology does exist on the UH Hilo campus, the existing equipment is paid by and dedicated to research projects and will not be available for teaching. The cost of maintenance is estimated to be approximately $10,000 per year and will begin in year 4.

Funding from the program will initially rely on tuition revenues with support, if necessary, from the UH Hilo reserves. Projected net revenues (tuition less a 12% contribution to financial aid) from tuition demonstrate that the program will be vibrant if we can recruit 30 students along with 6 students from the community colleges in year three. The total student numbers in the enrollment table also include attrition rates appropriate to UH Hilo. This particular model shows sustained net revenues of about $250,000 per year, once the program reaches year 4.

Resources/Funding	Year 1 19-20	Year 2 20-21	Year 3 21-22	Year 4 22-23
Tuition/Special Fund Allocation	$111,000	$306,434	$520,881	$617,554
Budget Shortfall (reserves)	$110,000	$0	$0	$0

Cost Revenue Projection for B.S. in Aeronautical Sciences
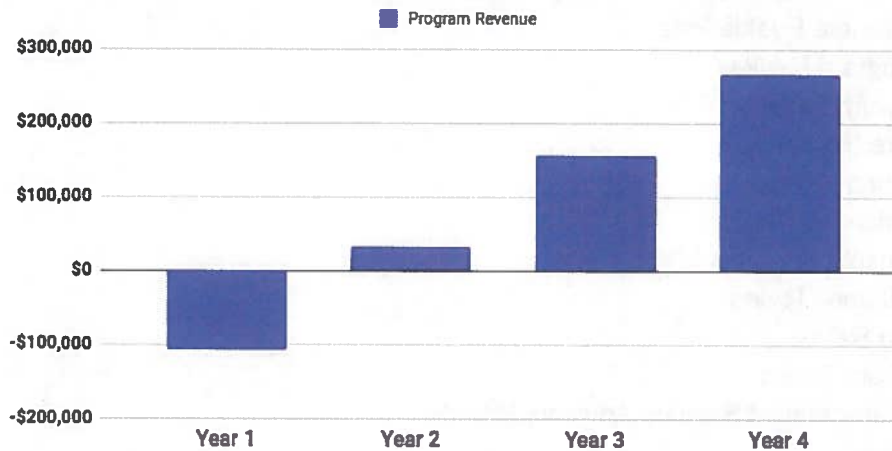
Net Revenue	Year 1 19-20	Year 2 20-21	Year 3 21-22	Year 4 22-23
Net Tuition Revenue	$111,000	$306,434	$520,881	$617,544
Total Program Cost	$218,000	$273,500	$363,537	$350,872
Net Revenue	($107,000)	$32,934	$157,344	$266,672

We also ran enrollment multiple models to determine the long term viability of the proposed program. Enrollment of a 20 student cohort with 4 community college transfers produces positive revenues of about $75,000 in year 4. Another model analyzed the results of having 50% of the cohort entering in year three from community colleges, which would significantly reduce UH Hilo revenues. Using a cohort of 24, the program had a net revenue of $30,000 in year 4, without the 4-6 additional community college students included in the other models. The calculated break even point for this program was a cohort of 17 with 3 community college transfers in year 3. Enrollment numbers less than this will result in an unsustainable program that cannot brought forward for permanent status.

V. Program Effectiveness

The Program can partially be evaluated by results of students passing the battery of written and skills tests administered by the FAA prior to awarding of licenses and certificates.

Upon BOR approval, the Bachelor of Science Degree in Aeronautical Sciences is also scheduled to go through the most thorough WSCUC (WASC) substantive change review in order to become an accredited program. We have begun this process, but full review is not slated until February or March of 2018. This review is required because of the very different nature of pilot training compared to programs currently offered at the UH Hilo campus. Additionally, we have been working closely with WSCUC to be able to create a clearly documented procedure for transferring and accepting academic credits from non-academically accredited flight providers.

Many other evaluation methods will be used to measure and demonstrate the quality and effectiveness of the proposed program. Evaluation methods include the following:
- Faculty and Course Evaluations
- Academic Program Review
- External Program Review
- Program Accreditation
- Student Retention Rates
- Student Certification Rates
- Student Internship Supervisor Interviews
- Student Graduation Rates
- Student Hiring Rates
- Student Advisory Board
- Community Aeronautical Science Advisory Board
- Alumni Surveys
- Other Student Learning Assessments

VI. Conclusions

The aviation sector, both locally and nationally, is a source of excellent jobs for residents of Hawai'i. The proposed Bachelor of Science of Aeronautical Sciences program is relatively low cost. By combining a student pool of traditional commercial pilots with students pursuing jobs in the emerging field of UAS, delivery is much more efficient. The Aeronautical Sciences degree fits well within other applied science degrees being offered at UH Hilo and can leverage existing UAS research and supporting programs in remote sensing, GIS, robotics, data science, and STEM fields. There is already a high demand for our faculty and students doing emergency

management, rescue, volcano monitoring, tracking forest health, and agricultural monitoring from both government and private businesses just on Hawaiʻi Island. In the coming years there will be a moderate need for commercial airline pilots, but an ever increasing demand for UAS pilots that are capable in designing, carrying out, and interpreting aerial surveys within and beyond the State of Hawaiʻi.

UH Hilo

B.S. Aeronautical Sciences

Program Proposal

Appendices

Appendix A

Pathway to Major Airline Employment

Graduate from UH Hilo BSAS Program
Earn: FAA Commercial Multi-Engine Pilot License
200-250 hours of logged flight time

↓

Immediate Job Opportunities:
- Certified Flight Instructor
- First Officer Small Local Airline (Mokulele etc.)
- First Officer, Corporate Pilot, private jet
- Small Cargo Pilot
- Contract Pilot for leased charters
- Agriculture Pilot, Bush Pilot, Other Aviation Opportunities

Estimated 1-2 years to
build 1500 hours

↓

Hit 1500 logged flight hours
Obtain FAA Airline Transport Certificate

↓

Apply for a first officer position at a regional,
cargo, or major airline.

Appendix B

Unmanned Aerial Systems Research in Progress UH System

Project Title	PI	Sponsor
Integrating Herbicide Ballistic Technology with Unmanned Aerial Systems (HBT-UAS) for enhancing Invasive Plant Species Management	James Leary (UHM), Ryan Perroy (UHH), Roberto Rodriguez (UHM)	United States Department of Agriculture
Detecting and Monitoring Rapid Ohia Death and post-infection Forest Processes in Selected Areas on Hawaii Island	Ryan Perroy (UHH)	Hawaii Department of Land and Natural Resources
Develop and Implement Unmanned Aircraft Systems (UAS) Research and Monitoring at Ala Kahakai National Historic Trail and at Pu'uhonua o Honaunau National Historical Park	Ryan Perroy (UHH)	National Park Service
RAPID: Increasing capacity for data collection during the 2018 East Rift Eruption, Hawaii Island	Ryan Perroy (UHH)	National Science Foundation
Enhance detection and control of invasive plants in Hawai'i Volcanoes National Park	Ryan Perroy (UHH)	National Park Service
A pilot study for agroforestry inventory monitoring in the Marshall Islands using sUAS	Ryan Perroy (UHH)	United States Department of Agriculture
Finding the invasive needle in the imagery haystack via sUAS and computer vision	Ryan Perroy (UHH)	Hawaii Invasive Species Council
Transforming Small Farm Operations with Unmanned Aerial Systems (UAS)	James Leary (UHM), Roberto Rodriguez (UHM)	Maui County
Developing Unmanned Aerial System (UAS) for Small Farm Pest Management Operations	James Leary (UHM), Roberto Rodriguez (UHM)	Hawaii Department of Agriculture
Building Research and Technology Capacity to Support Invasive Plant Species Management	James Leary (UHM), Roberto Rodriguez (UHM)	Hawaii Invasive Species Council
Aerial Surveillance and Control of an Invasive Plant Species in Hawaii's Priority Watershed Forests	James Leary (UHM), Roberto Rodriguez (UHM)	United States Forest Service
Autonomous Control Technology for Unmanned Aerial Systems with Agricultural and Environmental Applications in Central Pacific Islands	Luke Flynn (UHM)	NASA

Appendix C

Letters of Support

Mokulele Airlines

UHM CTAHR

October 16, 2018

Dr. Marcia Sakai
Interim Chancellor
University of Hawai'i at Hilo
200 W. Kawili Street
Hilo, HI 96720-4091

RE: Aeronautical Science Program, University of Hawai'i at Hilo

I am writing in strong support of the proposed Bachelor of Science in Aeronautical Science (BSAS). This support comes from many perspectives, including being a 1991 BS graduate of Purdue's Aviation and Transportation Technology program and presently serving as President of Mokulele Airlines.

Aviation is absolutely crucial to the economies of our state and the Asian-Pacific region. It is not only the needs of tourism but also the increasing need for timely transport of commerce and perishable agricultural products. Furthermore, there is an increasing need for pilots due to combined impact of retirements and expanding global operations.

The proposed program will allow Hawai'i students and others from Pacific Islands and Island SE Asia to obtain aviation training and a BSAS that is not present in their countries and unlikely to be offered soon. While, students will likely have to leave the state to complete their senior year FAA certifications with an approved flight training provider it will be a better option for most Hawai'i students than spending 4-yrs in a mainland aviation program and provide them with closer ties to local aviation and aeronautical technology industries. Currently, local students who wish to pursue their dreams of being a commercial airline pilot must study on the mainland where out-of-state and private school tuition is high and usually leaves graduates with massive tuition debt beyond the fees for flight training.

Mokulele Airlines would welcome qualified graduates of the BSAS program into its Second in Command (SIC, First Officer Equivalent) program in an effort to assist in professionally developing the next generation of pilots with interest Hawai'i-based careers. The SIC pilots receive a modest stipend for their services while benefiting from industry training and earning the flight time experience necessary to qualify for a non-restricted Airline Transport Pilot (ATP) license and fly for Mokulele or move on to regional jets. The opportunity to provide a pathway from university to industry for future UH Hilo graduates would be an enormous sense of pride for our airline. It is also important for us to share advice and industry perspectives with the next generation.

I enthusiastically support this program and encourage the State Legislature to provide the requisite staffing and budgetary support. Indeed, it is great opportunity for our island, our state and our region.

Sincerely,

Rob McKinney,
President, Mokulele Airlines

UNIVERSITY
of HAWAIʻI·
MĀNOA

October 19, 2018

Marcia Sakai, PhD
Interim Chancellor
University of Hawaiʻi at Hilo
200 W. Kāwili Street
Hilo, HI 96720-4091

Dear Interim Chancellor Sakai:

Dr. Bruce Mathews asked me to evaluate your university's desire to develop a pilot and unmanned aerial vehicle program. As a past private pilot, when my medical certificate was current, I appreciate the work and skill it takes to become a private pilot and go beyond that license.

As the Dean of the College of Tropical Agriculture and Human Resources (CTAHR) at the University of Hawaiʻi at Mānoa, I can look at CTAHR's programs and determine if there is any overlap or conflict. I can tell you that this program would in no way interfere, conflict or cause any level of consternation to CTAHR's plans and future expectations.

Several faculty members in CTAHR use drones in their research, so if students with drone skills wished to go onto graduate school, there may be limited opportunities to continue their studies at the graduate level in those programs.

Thank you for the opportunity to comment.

Sincerely,

Nicholas Comerford, PhD
Dean and Director for Research and Cooperative Extension

c: Bruce Mathews, College of Agriculture, Forestry and Natural Resources
    Management, University of Hawaiʻi at Hilo
    Michael Bruno, Office of the Vice Chancellor for Academic Affairs, University of
    Hawaiʻi at Mānoa

UH Hilo Strength in applied STEM fields

Toward a 21st Century Technology Hub

Planning
Public
Safety

Marine & Terrestrial
Environments
Natural Hazards

Agriculture

Conservation Biology

Planetary
Exploration
Astronomy

Remote Sensing
Spatial Data-GIS
Data Visualization
Data Science

Robotics
Electronics

University of Hawai`i Hilo
Science and Technology
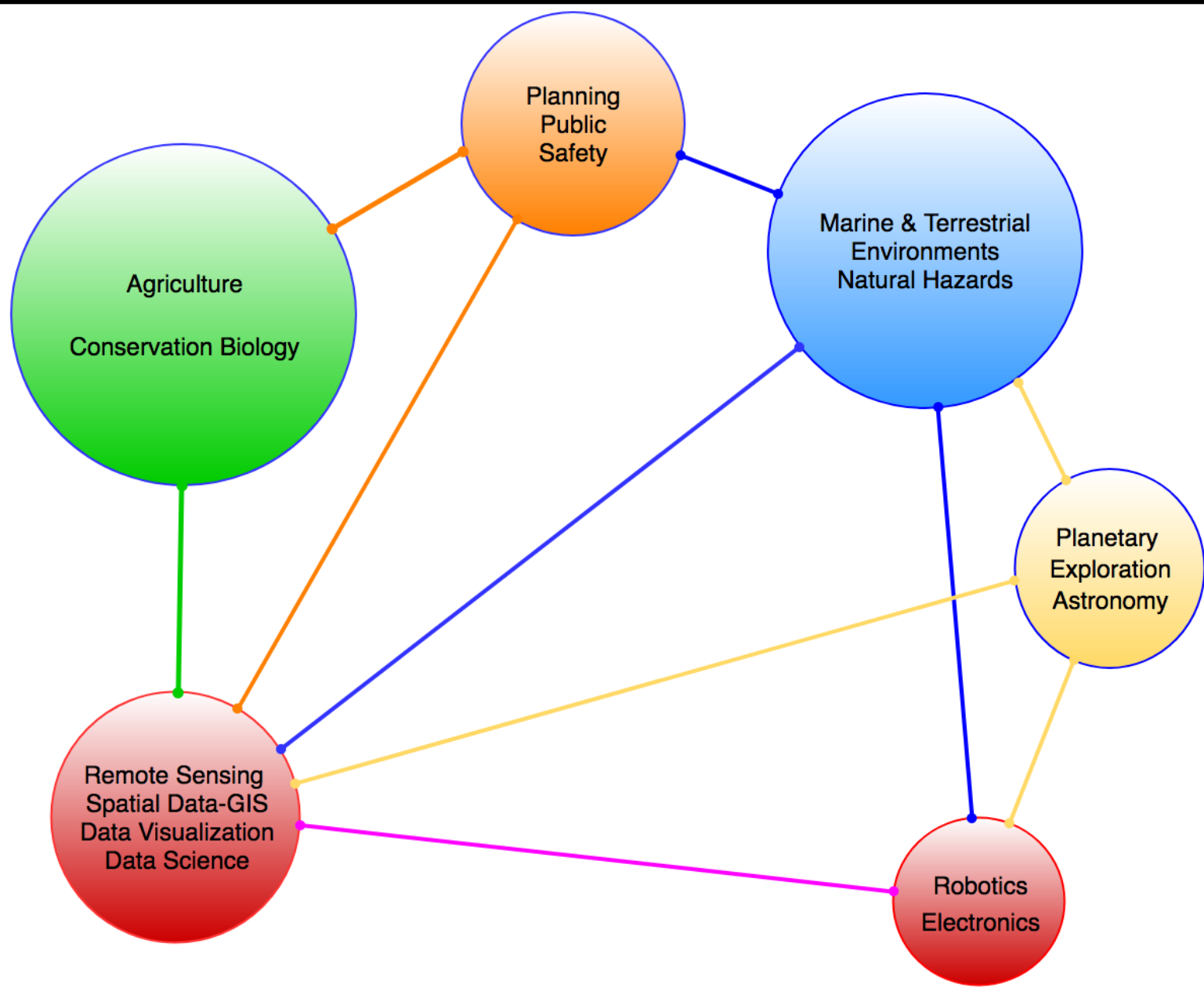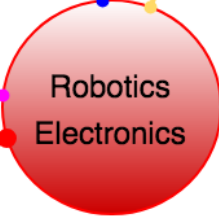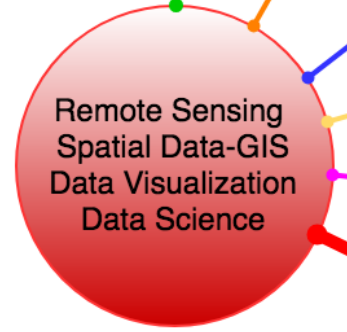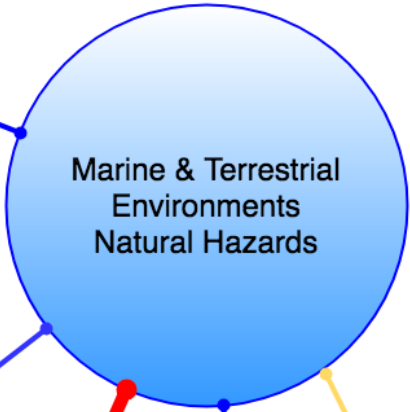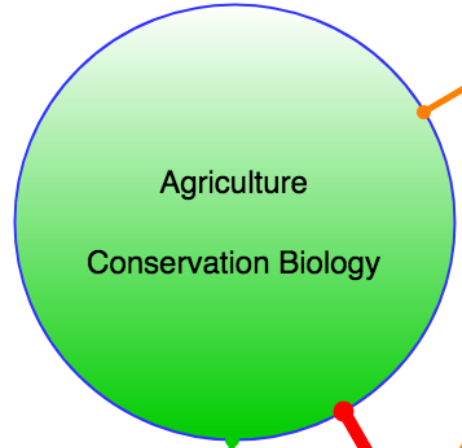
University of Hawai`i Hilo
Science and Technology
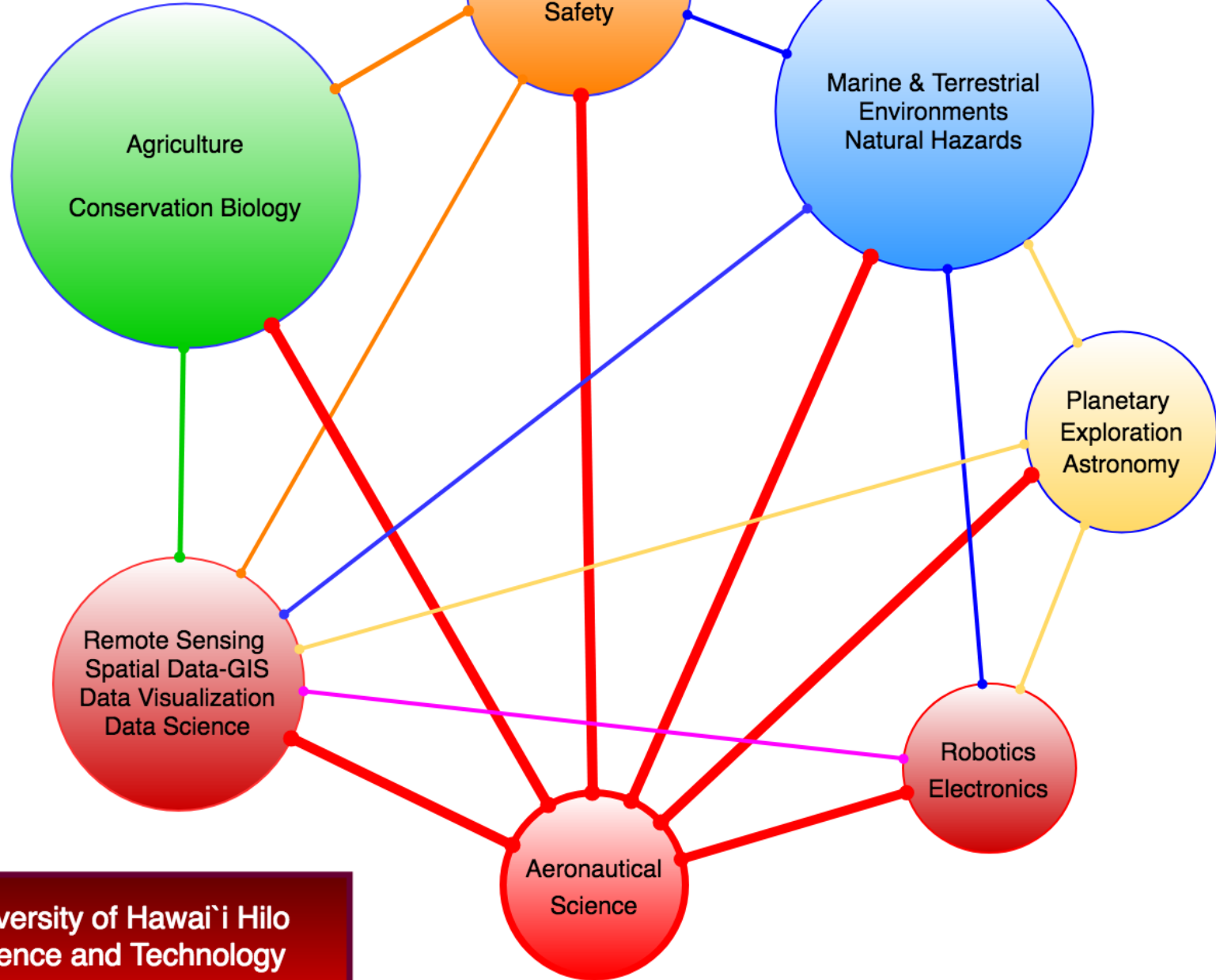
UH HILO DRONE TEAM
Students & staff in the field at recent lava flow

UNIVERSITY
of **HAWAI'I**
MĀNOA

18   OCT 25 P3:15
RECEIVED

October 24, 2018

MEMORANDUM

'18 OCT 25 A8:23

TO: Lee Putnam, Chair
           Board of Regents

VIA: David Lassner
           President

           UNIVERSITY OF HAWAII
           PRESIDENT'S OFFICE

VIA: Donald Straney
           Vice President for Academic Policy and Planning

VIA: David Lassner
           Interim Chancellor

FROM: Michael Bruno
           Interim Vice Chancellor for Academic Affairs
           and Vice Chancellor for Research

SUBJECT: APPROVAL OF NEW PROVISIONAL BACHELOR OF SCIENCE
           IN ENGINEERING SCIENCE AT THE UNIVERSITY OF HAWAI'I
           AT MĀNOA

SPECIFIC ACTION REQUESTED:
It is respectfully requested that the Board of Regents approve as provisional the
Bachelor of Science in Engineering Science in the College of Engineering at the
University of Hawai'i at Mānoa.

RECOMMENDED EFFECTIVE DATE:
Effective Fall 2019.

ADDITIONAL COST:
The proposed program will leverage recent strategic investments in the hiring of
Engineering faculty and will require additional nominal resources (lecturers)
necessitated by an increase in overall enrollment. These investments, which amount to
$185,000, are funded through recent allocations from the central administration and
reallocations within the College for greater efficiency.

PURPOSE:
The proposed Bachelor of Science in Engineering Science is designed to meet the
demand, from students as well as industry professionals, for a more interdisciplinary
approach to engineering education. Biomedical Engineering is currently the fifth most
popular engineering major nationally, yet no ABET-accredited degree exists within the

State. Aerospace Engineering is in extraordinarily high demand across the nation, with many aerospace companies across the country, some with offices here in the State. It is anticipated that the local industry here will grow as well, and graduates from this program will be able to help drive that growth.

The proposed program will allow the College and the university to be much more agile and strategic in the development and deployment of ABET-accredited engineering programs in high demand areas. Under this proposed program, students will be immediately enrolled in an ABET-accredited undergraduate degree program. As indicated earlier, the initial program concentrations will be Biomedical Engineering and Aerospace Engineering, two areas where there is high need and demand in the state and across the country.

BACKGROUND:
Pursuant to Board of Regents Policy 5.201: Instructional Programs, "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 UHM College of Engineering offers ABET-accredited undergraduate degrees in Computer Engineering, Civil Engineering, Electrical Engineering, and Mechanical Engineering. The College also offers the MS and PhD in Civil Engineering, Electrical Engineering, and Mechanical Engineering.

To meet the demands of engineering program curricula for specific degrees, curricula in traditional engineering disciplines typically have little room for breadth outside of engineering. However, innovation often comes from a mixing of engineering with other disciplines, such as life, medical and other sciences. A more interdisciplinary approach to engineering, with greater collaboration with non-engineering disciplines, is highly desirable in engineering education today. The Engineering Science curriculum will be able to accommodate more mixing of engineering and other disciplines, all while allowing the students to graduate from an accredited engineering program.

The proposed BS in Engineering Science complements current engineering degrees by leveraging faculty and curricular resources. In addition, it provides the infrastructure to incubate new degrees in areas that are responsive to state needs and in areas where UHM is positioned to excel. As an example of this approach, the provisionally approved Bachelor of Science in Computer Engineering was initially established as a "computer track" within the BS in Electrical Engineering. Once demand for the degree grew, the Board of Regents approved the stand-alone BS in Computer Engineering in 2010. The degree is now fully accredited by ABET, with enrollment and outcomes that have exceeded projections.

The College plans to have the same success in emerging areas by establishing the Bachelor of Science in Engineering Science as an incubator for new programs. Employers are looking for more and more technologically skilled talent, and there are many opportunities for engineers with a more interdisciplinary background, be that in medical sciences, data analytics, or materials science and engineering and other areas.

The two initial tracks within the degree will be Biomedical Engineering and Aerospace Engineering.

As mentioned earlier, Biomedical Engineering is currently the fifth most popular engineering major nationally, yet no ABET-accredited degree exists within the state. Biomedical engineers are equipped to work in medical fields and are prepared to pursue graduate degrees in the biomedical sciences and medicine. Per Hawai'i Industry Sectors, the average salary is $85,000 (and $135K nationally). It is important to note that this effort is a collaboration with JABSOM, consistent with our strategic approach to encourage more multi-disciplinary, responsive degree programs, unbounded by traditional college and department silos.

Aerospace Engineering, offered in collaboration with the Hawai'i Space Flight Laboratory and the Hawai'i Institute of Geophysics & Planetology (SOEST), will prepare graduates for careers with the many aerospace companies across the country, some with offices here in the State. It is anticipated that the local industry here will grow as well, and graduates from this program will be able to help drive that growth. The average salary for aerospace engineers is $94,000 (and $160K nationally). Again, this program is an example of the multi-disciplinary, multi-college academic programs that we are seeking to encourage.

In the future, the College anticipates developing tracks in other emerging fields, such as cybersecurity and data science. If approved, the College will seek ABET accreditation for the BS in Engineering Science in 2021 (the earliest date possible). Graduation from an ABET-accredited program is required for professional engineering licensure (after gaining work experience).

Per the *Integrated Academic and Facilities Plan* (IAFP), "UH Mānoa must also continue to meet the professional workforce needs of Hawai'i in areas such as education, medicine, nursing, law, business, social work and engineering. Work must continue to integrate education, innovation and scholarship, across disciplines, and to develop the next generation of Hawai'i's leaders." As an interdisciplinary program, the proposed BS in Engineering Science fits within the mission of the IAFP so that we meet the needs of the state and support the development of new industries for Hawai'i's next generation.

The proposed BS in Engineering Science is a priority for UHM as the degree creates the infrastructure for the campus to be strategic and agile in the development and deployment of engineering programs in high demand areas. While UHM offers the only ABET-accredited degrees in the state, Hawai'i students interested in biomedical engineering and aerospace engineering have to attend college on the U.S. continent, which ultimately is a loss for the state as many of these students do not return to Hawai'i. The UHM needs to be positioned to respond better to changes in industry, workforce needs, and student demand. The proposed program is a step towards that goal within the field of engineering. The BS in Engineering Science degree is included our 6-year academic master plan. Other programs included in the plan may be found in the attached document.

Our studies indicate that enrollment will exceed 100 students with an average of 30 graduates/year by the fourth provisional year. The program will utilize recently approved allocations, and reallocated resources from within the College. UHM has invested in the hiring of engineering faculty in high demand areas over the last few years, with two new faculty slated to begin in January and in Fall of 2019. As the program leverages existing courses, we anticipate that new lecturers will be needed to add sections of introductory-level courses to meet demand. The faculty hires were funded through strategic investments from central administration and recent retirements. We will cover the additional lecturers through a reallocation of resources within the College and through the projected increase in tuition dollars as a result of an increase in student semester hours. All engineering students pay a $500 program fee per semester. The fee will also apply to students in the proposed program. Current facilities are sufficient to support the increase in enrollment, which will represent an 8% increase in overall College enrollment.

The proposed Bachelor of Science in Engineering Science represents a new approach in being responsive to changes in industry and needs within the state. Through the establishment of tracks, UH Mānoa is positioned to be both agile and responsible in creating new programs in high demand areas where we are positioned to excel. Further, the proposed tracks in Biomedical Engineering and Aerospace Engineering will meet the immediate needs in the state by preparing future leaders to serve in emerging industries.

ACTION RECOMMENDED:
It is recommended that the Board of Regents approve as provisional the Bachelor of Science in Engineering Science in the College of Engineering at the University of Hawaiʻi at Mānoa.

Attachments

cc: Executive Administrator and Secretary of the Board Kendra Oishi
       Interim Dean H. Ronald Riggs

Bachelor of Science in Engineering Science

I. Program Purpose and Outcomes

Emerging and innovative technologies are developing and changing quickly, often outside of traditional engineering disciplines. Employers are looking for more and more technologically skilled talent, and there are many opportunities for engineers with a more interdisciplinary background, be that in medical sciences, data analytics, materials science, cybersecurity, and other areas. The BS in Engineering Science will allow students to follow a more interdisciplinary and nimble program than the traditional degree programs in the College of Engineering (CoE) can accommodate.

In addition to allowing for more interdisciplinary engineering education, the program is also designed to serve as an incubator for more targeted engineering degree programs through the development of specialized tracks. The initial program tracks are Biomedical Engineering (BME) and Aerospace Engineering (Aero). If a track is successful in enrollment and in meeting desired outcomes, the College will propose that these tracks become stand-alone degree programs in the future. While ABET, the engineering accreditation organization, recognizes 28 different programs (including Engineering Science); the College currently offers only four.[1] Through the proposed BS in Engineering Science, the College will be equipped to expand strategically our offerings based on student interest, state and workforce need, and our own capacity, allowing UH Mānoa to better compete with engineering programs across the country. In addition to flexibility in program offerings, there is another practical advantage to using this "incubator" approach. It is fairly easy for us to get the engineering science program ABET accredited because there are no specialized program criteria that we need to meet; we need meet only the general criteria that all accredited programs must meet. Hence, regardless of "track", students will graduate from an ABET-accredited program. Once we are ready to establish a specialized program, everything will be in place for it to become ABET-accredited as well, and the transition for the students will be seamless.

Engineering accreditation by ABET requires all programs to have the following student outcomes and to assess rigorously the achievement of these outcomes:

(1) An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
(2) An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors;
(3) An ability to communicate effectively with a range of audiences;
(4) An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;

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[1] Civil Engineering, Computer Engineering, Electrical Engineering, and Mechanical Engineering.

(5) An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;

(6) An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions;

(7) An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

The above outcomes establish what the student will know and be able to do upon completion of the program.

The proposed program is consistent with the *Integrated Academic and Facilities Plan for the University of Hawai'i System*, approved by the Board of Regents on April 20, 2017. This program will help UH attract more high school students locally and nationally. For example, BME and Aero are areas where we already have faculty expertise but no program. BME is the 5th most popular engineering major nationally, with about 40% female students (our current ratio is about 22%, which is consistent with the national average over all engineering majors). Currently, Hawai'i students interested in BME and Aero must go out of state for the degree. These and other tracks will allow students to study more in their areas of interest and still graduate from an ABET-accredited program. As an additional opportunity for students to pursue an engineering degree, this program will also help retention and persistence of enrolled students. Engineering has already established pathways with the UH Community Colleges for transferring students. This new program will strengthen these pathways and create more opportunities for students across the System.

Evidence of Continuing Need for the Program

UH Mānoa offers the only ABET-accredited engineering degrees in the state, and engineering is critical to the continued development of Hawai'i's economy. Society is becoming ever more technological, and the need for engineers is increasing. In addition, engineering is becoming more interdisciplinary, as "engineering" is applied to more and more areas. Biomedical engineering is an example of a fairly recent discipline, especially when compared to the traditional fields of civil, electrical, and mechanical engineering. Over the last 10 years, the number of degrees awarded nationally in those three programs has increased 22%, 4%, and 60%, respectively. During the same time, however, the number of degrees awarded in biomedical engineering has increased 108%. Similarly, aerospace engineering has increased 36%. It is imperative that UH Mānoa adapt to new programs in engineering.

UH Mānoa engineering graduates are hired by large multinational firms, including Boeing, Raytheon, Northrup-Grumman, and Microsoft. Career opportunities are good. An engineering education teaches students to find realistic solutions to practical problems. This is a skill set that is transportable to a number of different fields. Many employers, especially in industries that do not align solely with a traditional discipline, are looking for employees with technical training and they will hire cross-discipline, i.e., they will hire

from multiple disciplines for the "same" job.

Engineering Science, designed as an interdisciplinary program, is broad enough to correspond with a variety of employment categories, and graduates can work in multiple areas. As sustainability considerations in design and operations become more and more required, engineers with special training will be needed, and this program would be able to accommodate a program of study that will fulfill this niche. In addition, graduation from an ABET-accredited program will allow graduates to pursue professional engineering licensure after gaining work experience. As baby-boom engineers retire, there will continue to be a need for new engineers to replace them.

As noted in the beginning, employers are looking for technically skilled workers outside of the traditional disciplines that we currently offer. For example, both Bank of Hawaii and American Savings Bank are interested in engineers with data analytics capabilities. Cybersecurity is another area in great demand in virtually all industries. Tremendous opportunities for engineers with more material science skills exist, as new materials are developed. The demand for engineers with a medical focus is set to explode as medicine becomes ever more technologically based. This program will allow students to focus on new and emerging areas of interest in ways that the traditional programs cannot allow.

Graduates following the BME track in Engineering Science will find opportunities in hospitals, which are in need of trained engineers to deal with the ever-increasingly sophisticated machines used for diagnostics and surgery. These graduates also will be well suited for graduate studies in biomedical sciences and medicine as well. This track is being developed in concert with JABSOM.

The track in Aerospace Engineering has been developed in collaboration with the Hawaiʻi Space Flight Laboratory and Hawaiʻi Institute of Geophysics & Planetology (SOEST). In addition to many aerospace companies, some with offices here, UH Mānoa itself may become a center for designing and launching small satellites. This program will be able to supply the technical workforce to support these activities, as well as provide the scientists with the technology they need to do their science.

Engineers with training in emerging areas such as cybersecurity and data science are becoming more and more sought after, including non-engineering industries. For example, we have met with the heads of Bank of Hawaii and American Savings Bank about their interest in engineering graduates, and the former comes regularly to our career fair. The program tracks will be carefully controlled to respond to emerging areas, market needs, and student interest. We anticipate that once the program is established there will be 30-50 graduates per year.

According to Hawaiʻi Industry Sectors, "Engineering, All Other" (which includes the interdisciplinary Engineering Science degree) has a "bright outlook," with 711 jobs projected in 2018. The average entry-level salary in the state is $96K ($97K nationally), with an overall average salary of $128K (or $153K nationally). For Biomedical Engineering, Hawaiʻi Industry Sectors projects 34 jobs/year, and over 22,000 nationally.

The average entry-level salary in the state is $65K ($85K nationally), with an overall average salary of $85K ($135K nationally). For Aerospace Engineering, Hawai'i Industry Sectors projects 195 jobs/year, and over 70,000 nationally. The average entry-level salary in the state is $77K ($110K nationally), with an overall average salary of $94K ($160K nationally).

The proposed Engineering Science program is designed to help UH Mānoa keep pace with and better respond to emerging industries and programs of study.

II. Program Organization

The BS degree program requires a minimum of 124 credit hours for the Biomedical Engineering Track and 124 credit hours for the Aerospace Engineering Track. Students must complete the College of Engineering requirements, which satisfy the University General Education Core Requirements. These courses total 51 credit hours. (A list is available upon request).

Program Requirements: **Biomedical Engineering Track**
Students in the Biomedical Engineering track must complete an additional 73 credit hours:

Biology, Chemistry, Biomedical Engineering (24)
- BIOL 171 + 171L Introduction to Biology (with Lab) (4)
- PHYL 141/141L Human Anatomy and Physiology/Lab (4)
- EE 480 Introduction to Biomedical and Clinical Engineering (3)
- BIOC 241 Fundamentals of Biochemistry (3)
- MICR 361 Introductory Bioinformatics (4)
- ENGR 396 Junior Vertically Integrated Project (3) or ME 481 (4)
- EE 496 Capstone Design Project (3) or ME 482 (3)

Mechanics (13)
- CEE 270 Applied Mechanics I (3)
- CEE 271 Applied Mechanics II (3)
- ME 371 Mechanics of Solids (3)
- ME 311 Thermodynamics (4)

Signal and Systems (18)
- EE 160 Programming for Engineers (4)
- EE 211 Basic Circuit Analysis I (4)
- EE 351/351L Linear Feedback Control Systems/Lab (4)
- ME 375 Dynamics of Machines and Systems and Lab (4)
- ME 402 Dynamics Systems Laboratory (2)

Math (6)
- MATH 302 Introduction to Differential Equations I (3)
- MATH 372 Elementary Probability and Statistics (3)

Core Electives (12, 6 from each of any two of the following core areas):
- *Sensing*
  BE 373 Transport Phenomena (3), BE 420 Sensors and Instrumentation for Biological Systems (3), EE 323 Microelectronic Circuits I (3)
- *Thermodynamics and heat, mass transfer*
  ME 322 Mechanics of Fluids and Lab (4), ME 422 Heat Transfer and Lab (4), ME 423 Mass Transfer (3) ME 360 Computational Methods in Engineering (3)
- *Materials/Manufacturing*
  ME 331 Materials Science and Engineering (3), ME 341 Manufacturing Processes and Lab (4)
- *Medical/Chemistry*
  CHEM 272/272L Organic Chemistry I/Lab (5), CHEM 273/273L Organic Chemistry II/Lab (4), PHYL 142/142L Human Anatomy and Physiology/Lab (4), MICR 461 Immunology (3)

Program Requirements: **Aerospace Engineering Track**
Students in the Aerospace Engineering Track must complete an additional 73 credit hours:

Aerospace, Aeronautics and Astronautics (20)
- ASTR 281 Astrobiology (3)
- ME 418 Power & Propulsion (3)
- ME 419 Astronautics (3)
- GG 460 Geological Remote Sensing (4)
- ME 481 Design Project I (4)
- ME 482 Design Project II (3)

Signal and Systems (18)
- EE 160 Programming for Engineers (4)
- ME 213 Introduction to Engineering Design (3)
- EE 211 Basic Circuit Analysis I (4)
- ME 375 Dynamics of Machines and Systems and Lab (4)
- ME 451 Feedback Control Systems (3)

Mechanics (17)
- CEE 270 Applied Mechanics I (3)
- CEE 271 Applied Mechanics II (3)
- ME 311 Thermodynamics (4)
- ME 322 Mechanics of Fluids and Lab (4)
- ME 371 Mechanics of Solids (3)

Math (9)
- MATH 302 Introduction to Differential Equations I (3),
- MATH 307 Linear Algebra and Differential Equations (3) or
  MATH 311 Introduction to Linear Algebra (3)
- ME 360 Computational Methods in Engineering (3)

Core Electives (9):
- ME 374 Kinematics/Dynamics of Machinery (3),
- ME 422 Heat Transfer and Lab (4)
- ME 404 Computational Fluid Mechanics (3)
- ME 424 Introduction to Gas Dynamics (3)
- ME 471 Experimental Stress Analysis (3)
- ME 473 Vibrations (3),
- ME 492 Special Topics in Mechanical Engineering: Orbital Mechanics (3)
- ME 492 Special Topics in Mechanical Engineering: Aerodynamics (3)
- EE 323 Microelectronic Circuits I (3)
- ME651 Automatic Control (3)
- ME 696 Advanced Topics in Mechanical Engineering: Guidance, Navigation & Control (3).

Notes:
1. All courses currently exist and will be offered regularly.
2. MATH 302 is taught over the summer, which will allow UHCC transfers to still graduate in 4 years.
3. CEE 270 is taught as CE 270 at the UH Community Colleges

Sample curriculum sheets for the Biomedical Engineering and Aerospace Engineering tracks are available upon request.

Because of the requirements of the engineering profession as specified in ABET-accreditation standards, specific training in certain areas of specialty is necessary for a BS degree in engineering, which increases the total required credit hours. Currently, the minimum credit hours required are 124 for the BS in Civil Engineering, 125 for the BS in Computer Engineering, 122 for the BS in Electrical Engineering, and 125 for the BS in Mechanical Engineering.

Admission and Transfer Policies

There is no additional admission policy to the engineering science program other than that of admission to the College of Engineering and UH Mānoa. Requirements for admission to UH Mānoa are described in the UH Mānoa Catalog. High school students applying to the College of Engineering should have completed high school course work including mathematics up to at least trigonometry, with preference for pre-calculus or high school calculus, and one year of high school chemistry and physics with a special emphasis on grades in these courses (B or better preferred). Students are encouraged to take Advanced Placement courses in these subject areas while in high school and to submit AP scores, but this is not required. The College also uses aptitude tests and high school records in its screening procedures.

Students who have not met the admissions requirements directly into an engineering major can enroll as pre-engineering (PREN) students. The College offers advising for PREN students, includes them on the email lists for announcements of College activities and events, and PREN students may register for lower division (100 and 200 level) engineering courses without special overrides, provided they meet the prerequisites.

As the demand for engineers in the State of Hawaiʻi's workforce continues to increase, the College has been looking at innovative academic pathways for students of all ages and educational backgrounds to obtain the necessary knowledge and course work to graduate with an accredited Bachelor of Science degree in engineering. One such pathway, through a Memorandum of Understanding (MOU), assists students who choose to begin their journey towards an engineering degree at a UH Community College for reasons ranging from tuition considerations to the need for preparatory course work. Freshmen who do not meet the admission requirements are also encouraged to enroll at one of the UH System Community Colleges in order to complete courses or meet grade requirements.

Through the MOU, students who successfully complete the Associate of Science in Natural Science (AS-NS) degree with a Pre-Engineering Concentration at a UHCC may transfer to the UHM College of Engineering with junior status. Transfer students must have completed ENG 100, MATH 241 and 242, PHYS 170/170L, and CHEM 161/161L and 162 or their equivalents and have an overall cumulative GPA of 3.0 or higher. In essence, the MOU provides a 4-year degree plan for engineering students who begin at a UH Community College. Annually, the College accepts 200+ transfer/AS-NS students, and a high percentage of these earn the BS degree, becoming productive members of the State's engineering community.

III. Student Demand

It is envisioned that students who will enroll in the program will include existing engineering students and new students. According to undocumented conversations with local practicing engineers who mentor high school students, there exist a number of students who are interested in pursuing biomedical or aerospace engineering related careers. Because of the lack of such engineering programs at UH, many of these students chose to attend colleges on the mainland and some of them had to select a different major when they eventually chose to attend UH. With the proposed degree program in place, we will be able to attract the students who would otherwise go to the mainland for college.

The College surveyed engineering students to gauge interest in the proposed program. The survey was conducted in four engineering courses, including one sophomore-level required course, two junior-level required courses, and one senior-level elective course. Of the 209 students surveyed, 141 (68%) agreed that they would like to see an Engineering Science major at UH Mānoa. Of the 141 students, 68 indicated that they would be interested in a biomedical engineering track and 64 would be interested in an aerospace engineering track. (The full survey results are available upon request.)

The survey revealed that 68% of the students who responded support the establishment of the new program. Out of the 141 students who are supportive of the program, there were 68 (48%) students expressing interest in the biomedical engineering track and 64 (45%) students expressing interest in the aerospace engineering track. Based on the student response, it can be estimated that around 20% of the 141 students will enroll in the program per year, plus 15 new students per year in the first few years. The estimated

enrollment is about 45. The number is expected to grow as the program becomes more widely known and new tracks are added. With current, recently approved, and reallocated resources, the program will accommodate 150 students.

In addition to new/transfer students, we do expect this program to attract students that might otherwise go to other programs. For example, we anticipate the BME program to be attractive to some students that are interested in medical school. It will be excellent preparation for that (a surprising number of physicians have a connection to engineering, either having started in engineering or even having graduated in it). Should they not get into medical school, they will have a degree that will prepare them well for the workforce. In addition, some may choose to stay in engineering rather than medical school.

Enrollment (fall headcount)	Previous Years			Current Year	Projected Years			
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Projected: BS in Engineering Science					45	80	95	115
Engineering Undergraduates	1,336	1,357	1,359	1,351	1,371	1,401	1,436	1,470
Engineering Graduate Students	138	135	125	130	140	145	150	160
Degrees Awarded (per year)								
Projected: BS in Engineering Science Degrees						10	30	30
Engineering Undergraduate Degrees	243	275	260	265	270	280	310	315
Engineering Graduate Degrees	54	40	45	48	54	60	65	70

IV.   Program Resources and Efficiency

UH Mānoa invested in several strategic hires over the last few years that have increased faculty expertise in the College to support the proposed program. As a result, faculty in the College are already active researchers in the areas to be included in the program, with additional faculty hires in biomedical engineering and aerospace engineering approved[2]. The proposed program leverages and takes full advantage of courses currently offered in the College as well as in the College of Natural Sciences, the School of Ocean & Earth Science and Technology, and the John A. Burns School of Medicine. For BME, JABSOM was part of the planning process. They have agreed to allow students in the program to take the following courses: PHYL 141/141L, PHYL 142/142L, BIOC 241. Their faculty will also be

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[2] A new faculty member in biomedical engineering begins in January 2019. We have approval to initiate a search for a new hire in aerospace engineering; that person is anticipated to begin in Fall 2019. Both hires are in the ME department.

involved in the capstone design projects. Similarly, for Aerospace we worked with the Hawai'i Space Flight Laboratory and the Hawai'i Institute of Geophysics & Planetology (SOEST). Researchers in these units have been very interested for some time in partnering with Engineering because of their need for more engineers focused on this area. They will be offering GG 460 and will be involved in the capstone design projects.

With the current course inventory and recent strategic hires, we are able to accommodate the projected increase in enrollment. Should enrollment increase beyond the projections, lecturers may need to be hired. These will be funded in part using the increase in tuition and fee revenue, and internal reallocations. It should be noted that the campus planning has Engineering growing to 1600 undergraduates in 5 years, which is a growth of about double of what this program is expected to bring (i.e., this program is projected to contribute somewhat less than 50% of that growth). Hence, we are well within the campus plans for engineering.

Initially, the program will be run out of the dean's office. We have a tenured assistant specialist who will help run the program. Ultimately, the program may join an existing department, or if it's wildly successful it could become a standalone department but that is far into the future. All courses and faculty are existing, and so teaching assignments and sections do not change. The ME and EE departments will share in the tuition funds derived from the students in the program proportionally to the enrollment in the respective courses of the departments.

All undergraduate students in Engineering pay a program fee of $500 per fall/spring semester after the freshman year. The program fee will apply to students in the proposed BS in Engineering Science as well. Program fees support regular lab and equipment upgrades as well as lecturers and teaching assistants in the College in support of the labs.

The Department of Academic Services advises all undergraduate students in the College (including pre-majors), and current staff levels are sufficient to support the proposed program.

CURRENT ACADEMIC PERSONNEL	Current Year
Current Faculty FTE	52.25
Current Faculty Salaries ($)	$6,203,869
Current Lecturers ($)	$65,798
Current Graduate TAs	21

PROJECTED ACADEMIC PERSONNEL	Current Year	Projected Years				
	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Projected New Faculty FTE	1	1	0	0	0	0
Projected New Faculty Salaries ($)	$90,000	$95,000	0	0	0	0
Projected New Lecturers ($)	0	0	0	0	0	0
Projected New Graduate TAs	0	0	0	0	0	0

The College is funded through an allocation of tuition/special funds, general funds, summer

session allocations, and program and course fees, as indicated below. Extramural awards totaled $3.9M (2017-18). The proposed program will both increase the efficiency of current resources and generate additional tuition revenue and program/course fees, especially insofar as it attracts students that would otherwise choose a university on the U.S. continent.

CURRENT RESOURCES/FUNDING	Current Year
Tuition/Special Fund Allocation	$2,475,575
General Fund Allocation	$7,436,291
Summer Session Allocation	$86,973
Program/Course Fee Allocation	$1,067,500

While the courses required for the program currently exist, we anticipate the need for additional sections of core courses as enrollment grows. The new faculty hires, existing lecturer pool, and tuition allocations will be sufficient to meet these needs, especially as student semester hours increase.

COURSES, SECTIONS, STUDENT SEMESTER HOURS (SSH) *(Annual)*								
	Previous Years			Current Year	Projected Years			
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Projected New Courses	n/a	n/a	n/a	0	0	0	0	0
Projected New Sections	n/a	n/a	n/a	0	1	1	0	0
Projected New SSH	n/a	n/a	n/a	0	60	214	514	701
Current Courses Offered	221	228	106	225	225	225	225	225
Current Sections Offered	414	428	198	422	422	423	424	424
Current Annual SSH	21,651	22,644	11,008	22,260	22,464	22,814	23,201	23,401

The projected enrollment for this program is less than 8% of the current enrollment in the College. In addition, some portion of these students are anticipated to come from existing programs. As such, the new program will not put an additional or unmanageable burden on our facilities. Indeed, there is even possibility of it alleviating some of the demand. It is anticipated that some students will want to work with JABSOM and SOEST faculty for their capstone design projects; insofar as those students then work in the labs of those faculty it will reduce the demand on engineering facilities.

There is no other ABET-accredited engineering program that is similar at any UH campus. For the biomedical engineering track, the closest program is the biological engineering program in CTAHR. ABET classifies biological engineering and biomedical engineering as two distinct engineering majors with their own program criteria. The biological engineering program in CTAHR is focused on the design, production, and operation of engineered systems of which a major component is living organisms. The proposed biomedical engineering track emphasizes training in engineering and medical sciences for healthcare. There is no significant overlap between the two programs.

V. Program Effectiveness

The Engineering Science program will be evaluated using the assessments used by the Department of Electrical Engineering and the Department of Mechanical Engineering with appropriate modifications for the Engineering Science program. The Departments have the following assessments:

Course assessments: Every semester, the Department administers a student survey of all EE courses to determine the effectiveness of the course and its instructor. It also administers a student survey to determine the effectiveness of the course in achieving educational program outcomes. The curriculum linkages to program outcomes are available upon request.

Industrial Advisory Board: Both Departments have an Industrial Advisory Board made up of representatives from industry. They provide feedback from employers of our graduates about the undergraduate program. The board meetings are held regularly and cover an overview of the program including laboratory tours, and meetings with students. The Board provides a written report about the program to the Department.

Senior Project Report Assessments: The Engineering Science program will require a 3-credit senior project course, which is the capstone design course. The quality of a sample of projects is assessed every semester.

Performance Rubrics on EE/ME Courses: The Departments have implemented an assessment process of measuring the performance of students over a collection of EE/ME courses. The courses cover the student learning outcomes. The instructor for the course does the evaluation.

We will also survey our graduates to determine where they get their initial employment after graduation.

College of Engineering will apply for the Engineering Science program to be accredited by ABET, which is the national accreditation organization for engineering programs. Demonstrating effective assessment of student performance and a process for continuous improvement is a major part of achieving accreditation. The estimated earliest date for ABET accreditation is 2021. Curriculum maps used to indicate relationship of courses to program outcomes are available upon request.

VI. Conclusion
In summary, there is strong evidence of the need of an ABET-accredited, interdisciplinary engineering degree program at University of Hawai'i at Mānoa. As emerging technologies develop and change quickly, often outside of traditional engineering disciplines, this program will allow us and students to adapt more quickly than traditional programs. There are many employment opportunities for engineers with a more interdisciplinary background.

The planned tracks in Biomedical Engineering and Aerospace Engineering will not only provide additional educational opportunities to the students in Hawai'i, they will also attract more students nationally and internationally. The new program will provide engineers with necessary technical skillsets for the booming industry in healthcare and aerospace in Hawai'i, and thus will contribute to the state economy. Current resources and recent allocations are sufficient to ensure the successful launch of this program as well as secure accreditation in the near future.

The proposed BS in Engineering Science provides the infrastructure necessary for UH Mānoa to be more agile and strategic in launching new engineering programs that meet state and national need, particularly in areas where we are positioned to compete and to excel.

Current Academic Programs (as of October 2018)		
UH Mānoa		
College/Department/Division and Degree Program	**Approved Degrees**	**Future plans for the next 6 years (indicate progam action and planned year, for new degrees, indicate ATP year)**
College of Arts and Humanities		
American Studies	PhD, MA, BA	
Art	MFA, BFA, MA	
Art History	MA	
Communicology	MA, BA	
Creative Media	BA	BFA under consideration
Dance	MFA, MA, BFA, BA	
History	PhD, MA, BA	
Interdisciplinary Studies	BA	
Music	PhD, MMus, MA, BMus, BA	
Philosophy	PhD, MA, BA	
Religion	BA	
Religion (Asian)	MA	
Theatre	PhD, MFA, MA, BA	
College of Social Sciences		BA in Global Studies (ATP 2018/19)
		AA/BA/MA in Criminology/Criminal Justice (ATP 2018/2019 in collaboration w/ HonCC)
		BA/MA in Social Sciences (ATP 2019)
Anthropology	PhD, MA, BA	
Communication/Journalism	MA, BA	
Communication & Information Sciences (joint w/CNS, Shidler & Social Sciences)	PhD	
Economics	PhD, MA, BA	
Ethnic Studies	BA	
Geography	PhD, MA, BA	

Political Science	PhD, MA, BA	
Psychology	PhD, MA, BS, BA	
Public Administration	MPA	BA in Public Policy (Proposal 2019)
Sociology	PhD, MA, BA	
Urban and Regional Planning	PhD, MURP	
Women's Studies	BA	
College of Natural Sciences		BS in Data Science (ATP 2018/19); Professional MS in Data Science (ATP 2018/19)
Astronomy	PhD, MS, BA	
Astrophysics	BS	
Biochemistry	BS, BA	MS, PhD in Biochemistry (ATP 2020)
Biology	BS, BA	
Botany	PhD, MS, BS, BA	If life sciences departments (Biology, Botany and Microbiology) merge, graduate programs may be reorganized as well.
Chemistry	PhD, MS, BS, BA	
Communication & Information Sciences (joint program w/Natural Sciences, Shidler & Social Sciences)	PhD	
Computer Science	PhD, MS, BS	
Ethnobotany	BS	Stopped Out for termination.
Information and Computer Sciences	BA	
Library and Information Science	MLISc	
Marine Biology (graduate programs joint with SOEST)	PhD, MS, BS	BA in Marine Biology (ATP 2018/19)
Mathematics	PhD, MA, BS, BA	
Microbiology	PhD, MA, BS, BA	See Botany note regarding graduate programs in life sciences.
Molecular Cell Biology	BS	
Physics	PhD, MS, BS, BA	

Zoology	PhD, MS, BS, BA	BA/BS in Zoology: Stopped out for termination; See Botany note regarding graduate programs in life sciences.
College of Languages, Linguistics and Literature		
Chinese	BA	
Classics	BA	
East Asian Languages & Lit (Chinese)	PhD, MA	The three MA programs and three PhD programs (CHN, JPN, KOR) to merge into a single MA and single PhD in 2019/20
East Asian Languages & Lit (Japanese)	PhD, MA	The three MA programs and three PhD programs (CHN, JPN, KOR) to merge into a single MA and single PhD in 2019/20
East Asian Languages & Lit (Korean)	PhD, MA	The three MA programs and three PhD programs (CHN, JPN, KOR) to merge into a single MA and single PhD in 2019/20
English	PhD, MA, BA	
French	MA, BA	
German	BA	
Japanese	BA	
Korean	BA	
Linguistics	PhD, MA	
Philippine Language and Literature	BA	
Russian	BA	
Second Language Studies	PhD, MA, BA	
Spanish	MA, BA	
Hawaiʻinuiākea School of Hawaiian Knowledge		PhD in Hawaiian Knowledge (ATP 2019)
Hawaiian	MA, BA	MA in Hawaiian Education (ATP 2019)
Hawaiian Studies	MA, BA	
School of Pacific and Asian Studies		
Asian Studies	MA, BA	Professional Master's in Asian International Affairs (Proposal 2019)
Pacific Islands Studies	MA, BA	

School of Ocean and Earth Science and Technology		
Atmospheric Sciences	PhD, MS, BS	
Geology	BA	
Geology and Geophysics	PhD, MS, BS	
Geoscience for Professionals	MGEO	MGEO: Stopped out for possible termination.
Global Environmental Science	BS	
Marine Biology (joint w/Natural Sciences)	(PhD), (MS)	
Ocean & Resources Engineering	PhD, MS	Considering a bachelor's degree.
Oceanography	PhD, MS	
Shidler College of Business		
Accounting	MAcc, BBA	
Business Administration	PhD, MBA	
Communication & Information Sciences (joint w/Natural Sciences & Social Sciences)	(PhD)	
Entrepreneurship	BBA	
Finance	BBA	MS in Finance (Proposal 2018)
General Business	BBA	
Human Resource Management	MHRM, BBA	
International Business	BBA	
Management	BBA	
Management Information Systems	BBA	MS in Information Systems (Proposal 2018)
Marketing	BBA	MS in Marketing (Proposal 2018)
School of Travel Industry Management		
Travel Industry Management	MS, BS	
College of Education		
Athletic Training	MS	
Curriculum Studies	MEd	
Early Childhood Education	MEd	
Education	PhD	
Education (Teaching)	MEdT	
Educational Administration	MEd	
Educational Foundations	MEd	

Educational Psychology	PhD, MEd	
Elementary Education	BEd	
Kinesiology and Rehabilitation Science	MS, BS	
Learning Design and Technology	PhD, MEd	
Professional Educational Practice	EdD	
Secondary Education	BEd	
Special Education	MEd	
College of Engineering		BS Construction Engineering (Proposal 2019); BS in Engineering Science (Proposal 2018)
Civil Engineering	PhD, MS, BS	
Computer Engineering	BS	
Electrical Engineering	PhD, MS, BS	
Mechanical Engineering	PhD, MS, BS	
College of Tropical Agriculture and Human Resources		
Animal Sciences	MS, BS	
Fashion Design and Merchandising	BS	
Biological Engineering	MS, BS	MS Biological Engineering: Stopped out for termination.
Dietetics	BS	
Entomology	PhD, MS	
Environmental Management	MEM	
Food Science	MS	
Food Science & Human Nutrition	BS	
Human Development and Family Studies (formerly Family Resources)	BS	Considering MS with focus on Asian and Pacific Islander or multicultural families.
Molecular Biosciences and Bioengineering	PhD, MS	
Molecular Biosciences and Biotechnology	BS	
Natural Resources & Environmental Management	PhD, MS, BS	
Nutrition	PhD	
Nutritional Sciences	MS	

Plant and Environmental Protection Sciences	BS	Stopped out for termination.
Tropical Agriculture and the Environment	BS	Formerly BS in Tropical Plant & Soil Sciences. Program merged Plant & Environmental Sciences and Tropical Soil Sciences undergraduate programs.
Tropical Plant & Soil Sciences	PhD, MS	
Tropical Plant Pathology	PhD, MS	
School of Architecture		Bachelor of Architecture (ATP 2020) -- 5 Year professional degree
Architecture	DArch	
Landscape Architecture	MLA	
Environmental Design	BEnvD	
William S. Richardson School of Law		
Law	JD, LLM	
Juridical Science	SJD	
John A. Burns School of Medicine		JABSOM, in collaboration with UH West Oahu, discussing new undergraduate degree in the health sciences.
Biomedical Sciences	PhD, MS	
Biomedical Sciences (Tropical Medicine)	PhD, MS	
Cell and Molecular Biology	PhD, MS	
Clinical & Translational Research	MS	
Communication Sciences and Disorders	MS	
Developmental and Reproductive Biology	PhD, MS	
Epidemiology	PhD	
Medical Technology	BS	
Medicine	MD	
School of Nursing and Dental Hygiene		
Dental Hygiene	BS	
Nursing	PhD, MS, BS	
Nursing Practice	DNP	
Myron B. Thompson School of Social Work		

Public Health	PhD, DrPH, MPH, MS, BA	DrPH: Stopped out for termination.
Social Work	MSW, BSW	
Social Welfare	PhD	

UNIVERSITY of HAWAI'I
SYSTEM

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RECEIVED

November 2, 2018

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MEMORANDUM

TO:	Lee Putnam Chairperson, Board of Regents	UNIVERSITY OF HAWAII PRESIDENT'S OFFICE
VIA:	David Lassner President	
VIA:	Kalbert K. Young Vice President for Budget and Finance/Chief Financial Officer	
VIA:	Carrie K.S. Okinaga Vice President for Legal Affairs and University General Counsel	
FROM:	Vassilis L. Syrmos Vice President for Research and Innovation	

SUBJECT: Approval to Indemnify Federal Government, U.S. Navy, Naval Sea Systems Command (NAVSEA) for Proposed Contract, N0002418D6400 with the Applied Research Laboratory (ARL), University of Hawai'i

SPECIFIC ACTION REQUESTED:

It is respectfully requested that the University of Hawai'i (UH) Board of Regents (BOR) approve several indemnification obligations in favor the federal government as set forth in a proposed Award/Contract designated No. N0002418D6400. The contract will be issued by the Naval Sea Systems Command (HQ) to the University of Hawai'i, for the benefit of the UH Applied Research Laboratory (ARL). This request is made pursuant to Hawai'i Revised Statutes §304A-110 (Indemnification of entity that sponsors research at the university).

RECOMMENDED EFFECTIVE DATE:

The recommended effective date is upon Board of Regents approval.

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ADDITIONAL COST:

There are no additional costs associated with this request.

PURPOSE:

The purpose of this request is to obtain Board authorization to allow the University to indemnify the federal government, pursuant to various provisions in a proposed five (5) year contract with an expected expenditure budget of Eighty Million Dollar ($80,000,000) contract to be issued by the Naval Sea Systems Command (HQ) to the UH ARL.

Hawaiʻi law (HRS § 304A-110) requires approval from the Board, in writing, before the University may indemnify a research sponsor that requires an indemnification as a condition for providing a grant benefit, service, or interest in or right to use property.

BACKGROUND:

Applied Research Laboratory at the University of Hawaiʻi

The federal government recognizes that the University has developed "core competencies" in areas of ocean environmental effects, astronomical research, renewable energy, advanced electo-optical systems, laser, lidar, and remote sensing detection system, and research in various engineering programs to support sensors, communications, and information technology. These competencies are organized at the University under its Applied Research Laboratory (ARL) currently housed at the Mānoa Innovation Center. Other universities, such as University of Texas, Johns Hopkins, and University of Pennsylvania, have established similar university affiliated research centers (UARCs) with the federal Department of Defense agencies.

Occasionally, as the need arises, the U.S, Navy intends to "task order" the University to provide specific engineering, research, development, and test and evaluation services in an area of the University's core competency. For example, under a task order with the ARL, University faculty are installing, operating, and evaluating the performance and durability of various devices that can generate electricity from ocean wave motion. The devices are connected to the power grid at the Marine Corps Base Hawaiʻi at Kaneohe Bay.

The umbrella ARL contract under which specific task orders are issued is contemplated to have a term of five (5) years, with an option to extend. For planning purposes, the Navy contemplates awarding $80 million to the University, over the five year term of the contract.

The University current ARL contract was originally entered into on July 15, 2008. The contract was renewed at the five (5) year mark for an additional five (5) years, and has recently been extended until January 2019. Pursuant to this contract, UH has received approximately $58 million in task orders to date.

Indemnity Protection Sought by Federal Government

The replacement contract is still being negotiated. The final terms and conditions are expected in the next few months. The University and the Navy wish to resolve in advance the indemnification approvals, so that there can be a seamless transition to a new contract upon expiration of the existing contract.

Based on a review of earlier drafts and current discussions with NAVSEA, there will be several instances where the University must agree to indemnify the federal government. Most often, these indemnification obligations are set forth in the Federal Acquisition Regulations (FARS) or the Defense Federal Acquisition Regulations (DFARS).

Pages 34 through 38 of the 58 page proposed ARL Award/Contract lists nearly 200 specific FARS or DFARS that are incorporated by reference into the contract. For your information and reference, the text of pages 34 through 38 are attached as attachment 1.

Examples of indemnification obligations incorporated by reference include the following (highlight added for convenience).

Example 1. At page 37 of the proposed contract, the list includes DFAR 252.223-7006 Prohibition on Storage, Treatment, and Disposal of Toxic or Hazardous Materials. That particular DFAR has the following indemnification obligation.

> c) With respect to treatment or disposal authorized pursuant to DFARS 223.7104(10) (10 U.S.C. 2692(b)(10), and notwithstanding any other provision of the contract, the Contractor assumes all financial and environmental responsibility and liability resulting from any treatment or disposal of toxic or hazardous materials not owned by DoD on a military installation. **The Contractor shall indemnify, defend, and hold the Government harmless for all costs, liability, or penalties resulting from the Contractor's treatment or disposal of toxic or hazardous materials not owned by DoD on a military installation.**

Example 2. At page 38 of the proposed contract, the list includes DFAR 252.227-7025 Limitation on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends. In pertinent part, that DFAR contains the following indemnification obligation.

(c) *Indemnification and creation of third party beneficiary rights.* The Contractor agrees–

(1) To indemnify and hold harmless the Government, its agents, and employees from every claim or liability, including attorneys fees, court costs, and expenses, arising out of, or in any way related to, the misuse or unauthorized modification, reproduction, release, performance, display, or disclosure of technical data or computer software received from the Government with restrictive legends by the Contractor or any person to whom the Contractor has released or disclosed such data or software; and

(2) That the party whose name appears on the restrictive legend, in addition to any other rights it may have, is a third party beneficiary who has the right of direct action against the Contractor, or any person to whom the Contractor has released or disclosed such data or software, for the unauthorized duplication, release, or disclosure of technical data or computer software subject to restrictive legends.

Example 3. NAVSEA proposes to add a "Non-Disclosure Agreement" as an attachment. The substance of the Non-Disclosure Agreement is similar to DFAR 252.227-7025 and also contains an indemnification obligation to be undertaken by the University:

(5) The Recipient agrees to **indemnify and hold harmless** the Government, its agents, and employees from every claim or liability, including attorney's fees, court costs, and expenses arising out of, or in any way related to, the misuse or unauthorized modification, reproduction, release, performance, display, or disclosure of Data received from the Government with restrictive legends by the Recipient or any person to whom the Recipient has released or disclosed the Data.

Risk Analysis

The FARs and DFARs are generic and intended to apply to all federal contractual situations. It is not possible to reasonably quantify the likelihood or the magnitude of the risks of the University providing an indemnification at this inception point in the 5 year contract. A risk calculation heavily depends on the nature of the particular task order issued to the University. For example, a particular task order might not involve the exchange of "restrictive" data. For that task order, the indemnification liability is negligible. Similarly, the risks are negligible if the task order does not involve the handling of toxic or hazardous materials.

It is worthwhile noting that for the past 10 years that the University has operated under an ARL task order structure; there has been no instance where the Federal Government has had to formally invoke the indemnification protections. To the extent there have been issues, the parties have been able to reasonably devise solutions to their mutual satisfaction.

If it appears that a certain proposed task order will create unmanageable risks, the University will negotiate to scale back the work requested, or see if the risks can be accommodated by the University's then applicable risk management program. The University's risk management program consists of levels of risk retention and different types of insurance, including an integration with the State of Hawai'i's risk management program. The ARL team may bring an indemnification to the Board for guidance and decision in the event a task order requires the University to accept inordinate risk, which is not anticipated at this time.

ACTION RECOMMENDED:

It is recommended that the University of Hawai'i (UH) Board of Regents (BOR) approve the indemnification provisions and authorize the Vice President for Research and Innovation, in the exercise of prudent business judgment, to agree to other indemnification obligations that arise during the course of this ARL contract, subject at the discretion of the President to bring a particular request to Board for guidance or resolution.

Attachments
Attachment 1: Hawai'i Revised Statutes §304A-110
Attachment 2: Proposed NAVSEA – UH ARL Contract No. N00002419D6400, Pages 34-38

c: Executive Administrator and Secretary to the Board of Regents

[§304A-110] Indemnification. (a) Notwithstanding any other law to the contrary, the board of regents may agree in writing to an indemnity provision by which the university agrees to indemnify, defend, and hold harmless any person, corporation, or entity that sponsors research at the university when all of the following conditions are satisfied:

(1) The person, corporation, or entity requires an indemnity in writing as a condition for providing a grant, benefit, service, or interest in or right to use property;

(2) The president, or the president's designee, following a favorable review by the university general counsel or the counsel's designee, approves the proposed indemnification; and

(3) The chief financial officer, pursuant to section 304A-108, has obtained an insurance policy or policies in an amount sufficient to cover the liability of the university that may be reasonably anticipated to arise under the indemnity provision or has determined that it is not in the best interest of the university to obtain insurance.

(b) Nothing in this section shall be construed to expand the scope of liability of the university beyond that set forth in chapters 661 and 662.

(c) Nothing in this section shall be construed to waive the immunity of the university from suit in federal courts guaranteed by the Eleventh Amendment to the United States Constitution. An indemnity provision not in strict compliance with this section shall not give rise to a claim against the university under this chapter or chapter 661 or otherwise waive the university's sovereign immunity. [L 2006, c 75, pt of §2]

Section I - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	NOV 2013
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	MAY 2014
52.203-6	Restrictions On Subcontractor Sales To The Government	SEP 2006
52.203-7	Anti-Kickback Procedures	MAY 2014
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	MAY 2014
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	MAY 2014
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	OCT 2010
52.203-13	Contractor Code of Business Ethics and Conduct	OCT 2015
52.203-16	Preventing Personal Conflicts of Interest	DEC 2011
52.203-18	Prohibition on Contracting With Entities That Require Certain Internal Confidentiality Agreements or Statements-- Representation	JAN 2017
52.203-19	Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements	JAN 2017
52.204-2	Security Requirements	AUG 1996
52.204-2 Alt I	Security Requirements (Aug 1996) - Alternate I	APR 1984
52.204-4	Printed or Copied Double-Sided on Postconsumer Fiber Content Paper	MAY 2011
52.204-7	System for Award Management	OCT 2016
52.204-9	Personal Identity Verification of Contractor Personnel	JAN 2011
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	OCT 2016
52.204-19	Incorporation by Reference of Representations and Certifications.	DEC 2014
52.204-21	Basic Safeguarding of Covered Contractor Information Systems	JUN 2016
52.204-23	Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities.	JUL 2018
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	OCT 2015
52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters	JUL 2013
52.209-10	Prohibition on Contracting With Inverted Domestic Corporations	NOV 2015
52.209-11	Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law	FEB 2016
52.211-15	Defense Priority And Allocation Requirements	APR 2008
52.215-2	Audit and Records--Negotiation	OCT 2010
52.215-2 Alt II	Audit and Records--Negotiation (Oct 2010) - Alternate II	AUG 2016
52.215-8	Order of Precedence--Uniform Contract Format	OCT 1997
52.215-10	Price Reduction for Defective Certified Cost or Pricing Data	AUG 2011
52.215-11	Price Reduction for Defective Certified Cost or Pricing Data-- Modifications	AUG 2011
52.215-12	Subcontractor Certified Cost or Pricing Data	OCT 2010
52.215-13	Subcontractor Certified Cost or Pricing Data--Modifications	OCT 2010

52.215-15	Pension Adjustments and Asset Reversions	OCT 2010
52.215-16	Facilities Capital Cost of Money	JUN 2003
52.215-23	Limitations on Pass-Through Charges	OCT 2009
52.215-23 Alt I	Limitations on Pass-Through Charges (Oct 2009) - Alternate I	OCT 2009
52.216-8	Fixed Fee	JUN 2011
52.219-8	Utilization of Small Business Concerns	NOV 2016
52.219-9	Small Business Subcontracting Plan	AUG 2018
52.219-9 Alt II	Small Business Subcontracting Plan (JAN 2017) Alternate II	NOV 2016
52.219-16	Liquidated Damages-Subcontracting Plan	JAN 1999
52.222-1	Notice To The Government Of Labor Disputes	FEB 1997
52.222-3	Convict Labor	JUN 2003
52.222-4	Contract Work Hours and Safety Standards - Overtime Compensation	MAY 2018
52.222-19	Child Labor -- Cooperation with Authorities and Remedies	JAN 2018
52.222-21	Prohibition Of Segregated Facilities	APR 2015
52.222-26	Equal Opportunity	SEP 2016
52.222-35	Equal Opportunity for Veterans	OCT 2015
52.222-36	Equal Opportunity for Workers with Disabilities	JUL 2014
52.222-37	Employment Reports on Veterans	FEB 2016
52.222-50	Combating Trafficking in Persons	MAR 2015
52.223-6	Drug-Free Workplace	MAY 2001
52.223-11	Ozone-Depleting Substances and High Global Warming Potential Hydrofluorocarbons.	JUN 2016
52.223-12	Maintenance, Service, Repair, or Disposal of Refrigeration Equipment and Air Conditioners.	JUN 2016
52.223-18	Encouraging Contractor Policies To Ban Text Messaging While Driving	AUG 2011
52.225-8	Duty-Free Entry	OCT 2010
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.227-1	Authorization and Consent	DEC 2007
52.227-1 Alt I	Authorization And Consent (Dec 2007) - Alternate I	APR 1984
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	DEC 2007
52.227-10	Filing Of Patent Applications--Classified Subject Matter	DEC 2007
52.227-11	Patent Rights--Ownership By The Contractor	MAY 2014
52.228-3	Worker's Compensation Insurance (Defense Base Act)	JUL 2014
52.228-4	Workers' Compensation and War-Hazard Insurance Overseas	APR 1984
52.228-7	Insurance--Liability To Third Persons	MAR 1996
52.230-1 (Dev)	Cost Accounting Standards Notices and Certification (Deviation 2018-O0015).	JUL 2018
52.230-2 (Dev)	Cost Accounting Standards (DEVIATION 2018-O0015)	JUL 2018
52.230-3 (Dev)	Disclosure and Consistency of Cost Accounting Practices (DEVIATION 2018-O0015)	JUL 2018
52.230-4 (Dev)	Disclosure and Consistency of Cost Accounting Practices - Foreign Concerns (DEVIATION 2018-O0015)	JUL 2018
52.230-5 (Dev)	Cost Accounting Standards - Educational Institution (DEVIATION 2018-O0015)	JUL 2018
52.230-6	Administration of Cost Accounting Standards	JUN 2010
52.232-9	Limitation On Withholding Of Payments	APR 1984
52.232-17	Interest	MAY 2014
52.232-18	Availability Of Funds	APR 1984
52.232-20	Limitation Of Cost	APR 1984
52.232-22	Limitation Of Funds	APR 1984
52.232-23	Assignment Of Claims	MAY 2014
52.232-23 Alt I	Assignment of Claims (May 2014) - Alternate I	APR 1984

52.232-25	Prompt Payment	JAN 2017
52.232-25 Alt I	Prompt Payment (Jan 2017) Alternate I	FEB 2002
52.232-33	Payment by Electronic Funds Transfer--System for Award Management	JUL 2013
52.232-39	Unenforceability of Unauthorized Obligations	JUN 2013
52.232-40	Providing Accelerated Payments to Small Business Subcontractors	DEC 2013
52.233-1	Disputes	MAY 2014
52.233-1 Alt I	Disputes (May 2014) - Alternate I	DEC 1991
52.233-3	Protest After Award	AUG 1996
52.233-3 Alt I	Protest After Award (Aug 1996) - Alternate I	JUN 1985
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.237-3	Continuity Of Services	JAN 1991
52.242-1	Notice of Intent to Disallow Costs	APR 1984
52.242-3	Penalties for Unallowable Costs	MAY 2014
52.242-4	Certification of Final Indirect Costs	JAN 1997
52.242-13	Bankruptcy	JUL 1995
52.243-2	Changes--Cost-Reimbursement	AUG 1987
52.243-2 Alt V	Changes--Cost-Reimbursement (Aug 1987) - Alternate V	APR 1984
52.243-6	Change Order Accounting	APR 1984
52.243-7	Notification Of Changes	JAN 2017
52.244-5	Competition In Subcontracting	DEC 1996
52.244-6	Subcontracts for Commercial Items	AUG 2018
52.245-1	Government Property	JAN 2017
52.245-1 Alt II	Government Property (JAN 2017) Alternate II	APR 2012
52.245-9	Use And Charges	APR 2012
52.246-23	Limitation Of Liability	FEB 1997
52.246-24	Limitation Of Liability--High-Value Items	FEB 1997
52.246-25	Limitation Of Liability--Services	FEB 1997
52.247-1	Commercial Bill Of Lading Notations	FEB 2006
52.249-6	Termination (Cost Reimbursement)	MAY 2004
52.249-14	Excusable Delays	APR 1984
52.251-1	Government Supply Sources	APR 2012
52.251-2	Interagency Fleet Management System (IFMS) Vehicles And Related Services	JAN 1991
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	SEP 2011
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2008
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	SEP 2013
252.203-7003	Agency Office of the Inspector General	DEC 2012
252.203-7004	Display of Hotline Posters	OCT 2016
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7005	Oral Attestation of Security Responsibilities	NOV 2001
252.204-7008	Compliance With Safeguarding Covered Defense Information Controls	OCT 2016
252.204-7009	Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information	OCT 2016
252.204-7012	Safeguarding Covered Defense Information and Cyber Incident Reporting	OCT 2016
252.204-7015	Notice of Authorized Disclosure of Information for Litigation Support	MAY 2016
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991

252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Country that is a State Sponsor of Terrorism	OCT 2015
252.209-7005	Reserve Officer Training Corps and Military Recruiting on Campus	MAR 2012
252.209-7999 (Dev)	Representation by Corporations Regarding an Unpaid Delinquent Tax Liability or a Felony Conviction under any Federal Law (Deviation)	JAN 2012
252.211-7000	Acquisition Streamlining	OCT 2010
252.211-7003	Item Unique Identification and Valuation	MAR 2016
252.211-7007	Reporting of Government-Furnished Property	AUG 2012
252.215-7000	Pricing Adjustments	DEC 2012
252.215-7002	Cost Estimating System Requirements	DEC 2012
252.215-7010	Requirements for Certified Cost or Pricing Data and Data Other Than Certified Cost or Pricing Data	JAN 2018
252.215-7011	Requirements for Submission of Proposals to the Administrative Contracting Officer and Contract Auditor.	JAN 2018
252.215-7012	Requirements for Submission of Proposals via Electronic Media.	JAN 2018
252.215-7013	Supplies and Services Provided by Nontraditional Defense Contractors.	JAN 2018
252.219-7003	Small Business Subcontracting Plan (DOD Contracts)	APR 2018
252.223-7001	Hazard Warning Labels	DEC 1991
252.223-7002	Safety Precautions For Ammunition And Explosives	MAY 1994
252.223-7003	Changes In Place Of Performance--Ammunition And Explosives	DEC 1991
252.223-7004	Drug Free Work Force	SEP 1988
252.223-7006	Prohibition On Storage, Treatment, and Disposal of Toxic or Hazardous Materials	SEP 2014
252.223-7007	Safeguarding Sensitive Conventional Arms, Ammunition, and Explosives	SEP 1999
252.225-7000	Buy American--Balance Of Payments Program Certificate-- Basic (Nov 2014)	NOV 2014
252.225-7001	Buy American And Balance Of Payments Program-- Basic	DEC 2017
252.225-7002	Qualifying Country Sources As Subcontractors	DEC 2017
252.225-7004	Report of Intended Performance Outside the United States and Canada--Submission after Award	OCT 2015
252.225-7007	Prohibition on Acquisition of United States Munitions List Items from Communist Chinese Military Companies	SEP 2006
252.225-7009	Restriction on Acquisition of Certain Articles Containing Specialty Metals	OCT 2014
252.225-7010	Commercial Derivative Military Article--Specialty Metals Compliance Certificate	JUL 2009
252.225-7012	Preference For Certain Domestic Commodities	DEC 2017
252.225-7016	Restriction On Acquisition Of Ball and Roller Bearings	JUN 2011
252.225-7017	Photovoltaic Devices	JAN 2018
252.225-7018	Photovoltaic Devices--Certificate	JAN 2018
252.225-7025	Restriction on Acquisition of Forgings	DEC 2009
252.225-7031	Secondary Arab Boycott Of Israel	JUN 2005
252.225-7043	Antiterrorism/Force Protection Policy for Defense Contractors Outside the United States	JUN 2015
252.225-7048	Export-Controlled Items	JUN 2013
252.225-7049	Prohibition on Acquisition of Commercial Satellite Services From Certain Foreign Entities - Representations	JAN 2018

252.225-7050	Disclosure of Ownership or Control by the Government of a Country that is a State Sponsor of Terrorism	JAN 2018
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns	SEP 2004
252.227-7013	Rights in Technical Data--Noncommercial Items	FEB 2014
252.227-7014	Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation	FEB 2014
252.227-7015	Technical Data--Commercial Items	FEB 2014
252.227-7016	Rights in Bid or Proposal Information	JAN 2011
252.227-7017	Identification and Assertion of Use, Release, or Disclosure Restrictions	JAN 2011
252.227-7019	Validation of Asserted Restrictions--Computer Software	SEP 2016
252.227-7025	Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends	MAY 2013
252.227-7026	Deferred Delivery Of Technical Data Or Computer Software	APR 1988
252.227-7027	Deferred Ordering Of Technical Data Or Computer Software	APR 1988
252.227-7028	Technical Data or Computer Software Previously Delivered to the Government	JUN 1995
252.227-7030	Technical Data--Withholding Of Payment	MAR 2000
252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 2016
252.227-7039	Patents--Reporting Of Subject Inventions	APR 1990
252.228-7000	Reimbursement for War-Hazard Losses	DEC 1991
252.231-7000	Supplemental Cost Principles	DEC 1991
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	JUN 2012
252.232-7010	Levies on Contract Payments	DEC 2006
252.235-7004	Protection of Human Subjects	JUL 2009
252.243-7002	Requests for Equitable Adjustment	DEC 2012
252.244-7000	Subcontracts for Commercial Items	JUN 2013
252.244-7001	Contractor Purchasing System Administration	MAY 2014
252.245-7001	Tagging, Labeling, and Marking of Government-Furnished Property	APR 2012
252.245-7002	Reporting Loss of Government Property	DEC 2017
252.245-7003	Contractor Property Management System Administration	APR 2012
252.245-7004	Reporting, Reutilization, and Disposal	DEC 2017
252.246-7000	Material Inspection And Receiving Report	MAR 2008
252.246-7001	Warranty Of Data	MAR 2014
252.246-7003	Notification of Potential Safety Issues	JUN 2013
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000
252.247-7028	Application for U.S. Government Shipping Documentation/Instructions	JUN 2012
252.249-7002	Notification of Anticipated Contract Termination or Reduction	OCT 2015
252.251-7000	Ordering From Government Supply Sources	AUG 2012

CLAUSES INCORPORATED BY FULL TEXT

52.204-21 BASIC SAFEGUARDING OF COVERED CONTRACTOR INFORMATION SYSTEMS (JUN 2016)

(a) Definitions. As used in this clause--

David Lassner
President

November 9, 2018

MEMORANDUM

TO: Lee Putnam
           Chairperson, Board of Regents

FROM: David Lassner
           President

SUBJECT: Request for Approval in Concept of the University of Hawaiʻi at Mānoa Reorganization Plan Including Reconsolidation of the Positions of Chancellor, University of Hawaiʻi at Mānoa and President, University of Hawaiʻi

A. <u>SPECIFIC ACTION REQUESTED</u>

    The administration requests that the Board of Regents ("Board") approve in concept the reorganization described herein, including the re-consolidation of the positions of UH Mānoa Chancellor and UH President as well as the establishment of a UH Mānoa Provost position as an Officer of the University of Hawaiʻi. The administration further recommends that the Board authorize the President to conduct all formal consulation that is required and appropriate, and to complete the reorganization in accord with applicable policies. The President would return to the Board for additional approval only if the consultation process results in substantive high-level changes to the concepts presented in this request as described in the attachment.

B. <u>RECOMMENDED EFFECTIVE DATE</u>

    Upon approval.

C. <u>ADDITIONAL COST</u>

    There are no additional costs associated with this request. The reorganization is being designed to be cost-neutral. In addition, it will not create or require additional senior level executive (EM) positions.

D. <u>PURPOSE</u>

As has been reported to the Board of Regents previously, the UH Mānoa Interim Chancellor has been working over the past year to develop a proposal to reorganize the offices of the Mānoa Chancellor's and Vice Chancellors. The proposal has evolved significantly and as the current proposal directly impacts the Office of the President as well as a number of offices that report directly to the President, this reorganization is being brought to the Board of Regent. This is consistent with the resolution passed by the Board of Regents in March 2018, in which the Regents directed the President to bring to the Board the UH Mānoa reorganization plan by the end of 2018 and in which the Board further indicated that it would view with interest the possible re-consolidation of the positions of UH Mānoa Chancellor and UH President within the context of the reorganization plan.

E. <u>BACKGROUND INFORMATION</u>

Work has been underway for over a year to develop a reorganization of the offices of the Mānoa Chancellor's and Vice Chancellors, and the proposal presented to the Board in the Attachment represents the work of a focused Design Team in consultaion with the broader campus. The proposal has been informed and improved by multiple open campus forums, online feedback, "mini-retreats" with students, faculty, and staff about individual areas, and consultation on some or all of the proposal with groups including the Mānoa Deans, the Mānoa Faculty Senate Executive Committee, the Mānoa Faculty Senate Committee on Administration and Budget, ASUH, GSO, Kualiʻi Council, the Student Caucus, the Council of Chancellors, the UH Officers and the Mānoa Cabinet (vice chancellors). To be sure, not every group agrees with every element presented today. But the Design Team has thoughtfully considered the input received in developing the proposal.

The primary elements of the proposal on which Board approval is sought include:

1) This proposal would establish a new provost position for UH Mānoa, as is common at U.S. research universities. This would be the chief academic officer for the campus with full responsibility and authority for research, education & student success. This position would have a singular focus on the success of our students and faculty in education and research and their growth. The provost would supervise the vice provosts (described below) as well as all academic deans and directors (who currently report to 3 different positions). The provost would have full budget authority for all academic units. Importantly,

the provost would be formally identified as an Officer of the University of Hawaiʻi and would be a fully independent and dedicated voice of UH Mānoa in the president's cabinet alongside the vice presidents and other university chancellors.

2) This proposal would establish four vice-provost positions reporting to the provost. These would be:

a. The Vice Provost for Educational Excellence will pproactively ensure a portfolio of high-quality, inspiring and responsive undergraduate and graduate credential programs that prepare students for lifetime success. This vice provost will also oversee a program focused on faculty excellence and success to rrecruit, retain and support a diverse world-class university faculty with excellence in teaching, research and service.

b. The Vice Provost for Research, Scholarship and Graduate Studies will be responsible to enhance the prominence of UH Mānoa as one of the world's premiere international research universities by fully integrating education and research with a focus on the challenges and opportunities facing Hawaiʻi and the world. This vice provost will also oversee a program focused on graduate student success to ensure that graduate students have the distinctive support and advocacy needed to succeed.

c. The Vice Provost for Student Success will advance the holistic success of all students across their academic journey and through personal growth and development. This office will also provide advocacy and support for all students. The vice provost will oversee programs that ensure the academic success of all students from entry through timely graduation as well as a student growth and development program that ensures the holistic development of all students via exceptional co-curricular and wellness services. That will include a student equity, excellence and diversity program that promotes access, inclusion and success for all students.

d. The Vice Provost for Enrollment Management will be responsible to attract, enroll and help retain a diverse and thriving community of undergraduate and graduate learners from Hawaiʻi and the world. This office will integrate thoroughly to advance retention through a Strategic Enrollment Management Team that involves the other vice provost offices as well.

3) During the development of these first aspects of the proposal, the Design Team came to what is likely the most controversial aspect of this proposal: the recommendation to re-consolidate the positions of the UH Mānoa Chancellor and the UH President. We came to this conclusion somewhat reluctantly, but firmly and clearly. This recommendation is based on several factors. First, when we reviewed the history of the UH Mānoa Chancellor position we realized that it has never been stable other than when combined with the position of the UH president. In the first 12 years after establishment of the position in 1972 we observed that at least 6 different individuals filled the chancellor position (including interim and acting). Following some 17 years of relative stability in which just two individuals filled the joint position of president and chancellor, the positions were separated in 2001. Since then seven individuals have filled the position. This has presented significant challenges for the progress and growth of the campus. While one can point to various reasons for the instability, the fact remains that the separate position has yet to be successful for any extended period of time.

The Design Team believes that the evidence suggests that while in principle these are two different positions, in practice it is extremely difficult for a UH Mānoa Chancellor to succeed within the heterogenous UH System and Hawaiʻi's complex political environment. We therefore set out to create a structure that could maximize the chances of success of the senior leaders and the campus. This includes the provost position as described above, the formal recognition of two "hybrid" vice president as described below with clarity around administrative roles outlined here and through prior reorganizations directed by the Board beginning in 2015. The Design Team has attempted to address the factors that we believe drove the separation in 2001. One element of this is dropping the use of the UH Mānoa Chancellor title, which tends to signify that one person is doing two jobs. As at the University of Washington and Indiana University, the UH President will serve as CEO of the system's flagship research university in partnership with an empowered provost.

4) The Chief Business Officer of UH Mānoa will report to the president and serve as the senior business and finance officer for the Manoa campus. While the provost will be responsible for all academic budgetary decisions involving the vice provosts, schools, colleges, and campus-level institutes, the Chief Business Officer will execute those decisions and support all campus-level finance and business processes and their external connections to the UH System and State, ensuring financial sustainability and accountability for the campus.

5) A new office of equity, climate and conflict resolution with support UH Mānoa and the System as we continue our work to create a safe, welcoming and equitable climate for students, faculty and staff of all backgrounds and beliefs. This office will bring together expertise and staff from at least 6 currently separate and independent units to provide education, advocacy, support and training programs to advance campus climates including for all protected classes along with confidential advisors and respondent advocates. A separate group will focus on compliance with a single intake mechanism and case management program that utilizes a team of professional fact-finders. A new ombuds office has long been requested, and will help increase the use of informal conflict resolution.

6) Two current UH vice presidents will be formally designated as "hybrid" vice presidents and formally made part of the Mānoa campus leadership. Both the Vice President for Administration and the Vice President for IT / Chief Information Officer have substantial responsibilities relating to the Mānoa campus that are in addition to their work for the system and the other nine campuses. This structure will ensure that they are part of and accountable to the Mānoa campus for their distinctive work there.

It should also be noted that this proposal is also fully consistent with and advances the Board's directive in August 2015 when it deliberated on the "WICHE Report" that the President move forward to reconfigure and consolidate administrative offices serving UH Mānoa and the UH System.

Should this request be approved, the President would develop the detailed reorganization proposal and documentation and conduct detailed formal consultation as required by policy and practice. Typically this would represent several inches of paper with details. The Board would not be asked to review these details documenting every individually impacted position and reporting line. But the President would return to the Board should the formal consultation result in substantive change to any of the high-level concepts presented here.

F. <u>ACTION RECOMMENDED</u>

The administration recommends that the Board of Regents ("Board") approve in concept the reorganization described herein, including the re-consolidation of the positions of UH Mānoa Chancellor and UH President as well as the establishment of a UH Mānoa Provost position as an Officer of the University of Hawai'i. The administration further recommends that the Board authorize the President to conduct all formal consulation that is required and appropriate, and to complete the reorganization

in accord with applicable policies. The President would return to the Board for additional approval only if the consultation process results in substantive high-level changes to the concepts presented in this request as described in the Attachment.

Attachment

cc: Executive Administrator and Secretary of the Board of Regents

Proposed Conceptual Redesign of UH Mānoa Campus Organization (Chancellor and Vice Chancellor Offices Only)

Design Team

Michael Bruno, VC for Research and Interim VCAA

Kathy Cutshaw, VC for Administration, Finance and Operations

Chip Fletcher, Associate Dean of SOEST

Jan Gouveia, VP for Administration

Lori Ideta, Interim VC for Students

David Lassner, Interim Mānoa Chancellor & UH President

Laura Lyons, Interim Dean of LLL

Christine Sorensen Irvine, (Former) Chair of SEC

(With lots of help!)

Key Objectives – What are we trying to achieve?

➢Strong and strategic enrollment management: recruitment and retention

➢Meaningful integration of research and education, including undergraduate involving all colleges, schools, ORUs and institutes

➢Improved student success outcomes through integrated support for both academic success and student growth & development

➢Enhance and strengthen Mānoa's role as a premiere Asia-Pacific focused global "R1" research university

➢Strengthen, streamline and clarify advocacy and compliance programs that support protected classes

➢Provide stable leadership and strong voice for Mānoa

Redesign Considerations

➤ Rather than focusing at this time on existing organizational units and subunits, focus on outcomes we are trying to achieve and how to align the people and processes that support those outcomes.   Use a non-hierarchical portrayal. Conceptual design does not capture nor is it intended to include every current organizational subunit.

➤ Do not organize around current people and their current roles.

➤ Organizational structure should reflect our priorities and create the conditions that will stimulate and support student, faculty, school and college success - with improved accountability for outcomes.

➤ Be realistic that reporting lines are important, but there is no perfect organizational structure. In addition to the formal lines, we need to ensure that everyone is committed to and capable of effectively working across boundaries and silos.

➤ Create unit titles that reflect desired outcomes.

➤ Integrate graduate and undergraduate processes wherever possible.

➤ Provide Provost with singular focus on the success of our students and faculty in education and research.

➤ Hawaiian Place of Learning is a priority for the entire campus and remains directly staffed at the CEO level.

➤ No elimination of faculty/staff positions; no increase in senior EM leadership positions.

Strawman 2 for Discussion Purposes
titles and functional groupings still conceptual and tentative

Chancellor

Chancellors Cabinet, Advisory groups: MFS, ASUH, GSO, Kuali'I, FAR

Chanc Office (campus design, community relations...)

VP Admin: Comms, Facilities, Construction, HR

Provost

VC Student Affairs

VC Finance & Admin

Campus Climate, Diversity and Conflict Resolution

Intercollegiate Athletics

Provost Office (Academic Budget...)

Deans & Directors of colleges, schools and campuswide academic units and institutes

Vice Provost Academic Affairs

Vice Provost Research & Grad Education

Vice Provost Enrollment Management

Dean of Students, Student Residential Life, Career Services, Campus Center, NSE, Intl Student Svcs

Budget & Finance, Campus Analytics

TIX, EEO, Gender, Civil Rights, LGBTQ+, Underrepresented (SEED) programs

Student Success - Retention, Advising, Learning Communities,

Strat Planning, Accreditation, Assessment, Pgm Review, GenEd,

Graduate Student Services

Recruitment, Admissions, Records

Health Services, Mental Health Services

Campus Services (Security, Parking Operations, Bookstores, Faculty Housing Operations)

Conflict Resolution - Ombuds, Mediation, Grievances

Intl Programs & Relationships, Study Abroad

Academic Personnel (T&P, Periodic Review, Faculty Development, Workload)

Research Support, EHSO, undergraduate research, campus research initiatives

Registration, Fin Aid

Shared Admin Service Centers

1 Dec 2017

Information Technology

Administration

Colleges, Schools, ORUs & Institutes

Academic Excellence

Advancement

President

Provost

Research, Scholarship and Graduate Studies

Equity, Climate & Conflict Resolution

Business

Student Success

Native Hawaiian Affairs

Intercollegiate Athletics

Enrollment Management

Mānoa Role

Hybrid System/Mānoa Role

President's Cabinet

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PROVOST

Chief Academic Officer: full responsibility and authority for research, education & student success

Singular focus on the success of our students and faculty in education and research

- **ALL campus-level schools, colleges, ORUs, institutes, Library & UH Press**

- **Vice Provosts**

- **Budget decision-making authority for all reporting units**

- **Meaningful integration of research and education**

- **Campus Strategic Planning**

Independent and dedicated voice of Mānoa in UH System cabinet; formally designated in BOR Policy as an "Officer" of UH alongside vice presidents and other university chancellors

OFFICE OF GLOBAL ENGAGEMENT

Advance programs and initiatives that increase the global connectedness and stature of UHM

- Develop broad campus-wide strategies ("foreign policy") for global engagement (countries, institutions, NGOs) that position Mānoa as a premier Asia-Pacific research university

- Infuse global thinking and engagement throughout entire institution

- Support for all international agreements, partnerships and activities - service to all schools and colleges
    - Coordinate input as needed on specialized agreements

- Protocol support for the campus

- Fulbright program, international scholarship opportunities

- As needed, logistic support and advice for UH faculty sabbaticals abroad and visiting scholars from abroad

- Coordinate physical presences abroad as needed

- Support but don't lead international student recruitment

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VICE PROVOST FOR EDUCATIONAL EXCELLENCE

Proactively ensure a portfolio of high-quality, inspiring and responsive undergraduate and graduate credential programs that prepare students for lifetime success

- Strategies, policies and practices for innovative program portfolio management (degrees & certificates)
- Curricular design and approvals
- General Education
- High DFW (unsuccessful course) initiative
- Campus strategy for distance and online learning
- Innovative learning opportunities including Honors College, Interdisciplinary Studies, senior capstone requirement
- Undergraduate & Graduate Institutional Learning Objectives
- Campus Accreditation
- Assessment
- Undergraduate & Graduate Program Review
- Transfer degree pathways and articulation
- Study Away programs - one intake and support mechanism for UHM students to study internationally or nationally, and to host/support visiting students from elsewhere

FACULTY EXCELLENCE & SUCCESS

Recruit, retain and support a diverse world-class university faculty with excellence in teaching, research and service

- Faculty hiring
- Onboarding of new and international faculty (teaching, research, community, networking) including what it means to thrive in Hawaiʻi
- Faculty life (housing, childcare, maternity/paternity, networking) and FAQs
- Department Chair Development & Support
- Partner/Spousal hires
- Tenure & Promotion
- Periodic Review
- Review of workload policy and practice
- Faculty grievances related to Collective Bargaining Agreement (UHPA)
- Professional development for faculty, including mentoring
- Support for active pedagogies and engaged learning

VICE PROVOST FOR RESEARCH, SCHOLARSHIP AND GRADUATE STUDIES

Enhance the prominence of UHM as one of the world's premiere international research universities by fully integrating education and research with a focus on the challenges and opportunities facing Hawai'i and the world.

- Increase campus research productivity and scholarship (pre-award support, proposal development, assistance meeting broader impact requirements)
- Facilitate more interdisciplinary cross-campus team scholarship
- Undergraduate research initiatives (connected to Honors & undergrad education)
- Authority for campus RTRF - startup and seed support, matching funds, faculty & student travel program
- Limited Submission Opportunities
- Campus innovation & entrepreneurship: iLab, etc.
- Research communication and community outreach
- Laboratory & research safety - mutually supportive through strong links with facilities management and deans/directors

GRADUATE STUDENT SUCCESS

Ensure that graduate students have the distinctive support and advocacy needed to succeed.

- Grad student point-of-contact and advocate
- Committee approvals
- Progress to degree
- Dissertation and thesis support & processes
- Graduate faculty designations
- TA training
- Awards & activities

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VICE PROVOST FOR STUDENT SUCCESS

Advance the holistic success of all students across their academic journey and through personal growth and development; Provide advocacy and support for all students.

STUDENT ACADEMIC SUCCESS

Ensure the academic success of all students from entry through timely graduation including through high impact practices

- Onboarding - New student orientation to campus resources including what it means to thrive in Hawai'i in partnership with entire campus including recruiters & admissions (handoff), Hānai Program
- Advising - Reengineer current processes, execute whatever portion of advising is centralized, e.g. undeclared majors. Provide consistent advising policies/procedures/handbook for whatever is decentralized
- Athletic academic advising & support
- Reengineer/Rationalize/Communicate campus and unit learning assistance services (e.g. tutoring) as part of Student Success Center initiative
- Student retention initiatives including input on scholarships
- Course scheduling to meet student needs
- Student success systems (STAR, early warning)
- Peer mentoring: Grad/Undergrad
- Graduation
- Alumni Outcomes / Post-graduation Success (with other alumni relations & services)
- First & Second Year Pgms / E.g. Learning Communities
- Service Learning
- ROTC

STUDENT GROWTH & DEVELOPMENT

Ensure the holistic development of all students via exceptional co-curricular and wellness services

- Career services (general), coordinating with colleges for specifics
- Counseling & mental health services
- Health services
- Student union & recreational facilities
- Co-curricular activities, intramurals, student organizations
- Student conduct
- Student residential life [student housing facilities move to facilities)
- Care of international students - including visa processing (in collaboration with faculty/staff visa processing)

STUDENT EQUITY, EXCELLENCE & DIVERSITY

Ensuring access, inclusion and success for all students

- Disability services
- Multicultural student services
- TRIO / SSS
- Veteran and military student services
- High School outreach & bridge programs for under-represented students including support for decentralized bridge programs

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VICE PROVOST FOR ENROLLMENT MANAGEMENT
(Undergraduate and Graduate)

Attract, enroll and help retain a diverse and thriving community of learners from Hawai'i and the world

(Integrates thoroughly with Retention through Strategic Enrollment Management Team)

- Marketing & recruitment (including international)
- Recruitment materials - including web sites
- Engagement with schools and colleges, alumni (to assist with recruiting)
- Admissions
- Campus strategy for all financial aid & scholarships for recruitment and retention
- Student records
- Transfer student recruitment (with transfer advisors)
- Graduate student enrollment management functions – coordinated with colleges and/or departments
- Analytics for recruitment, yield and retention
- Early college

Approximate* History of the Separate Mānoa Chancellor Position Since Created in 1972

Separate (Approximate Chancellor History)			Combined			Separate		
Year	UH President	UHM Chancellor	Year	UH President	UHM Chancellor	Year	UH President	UHM Chancellor
1972	Cleveland	Gorter	1984	Simone	Simone	2001	Dobelle	Neubauer
1973	Cleveland	Gorter	1985	Simone	Simone	2002	Dobelle	Neubauer
1974	Matsuda	Gorter	1986	Simone	Simone	2003	Dobelle	Englert
1975	Matsuda	Yamamura	1987	Simone	Simone	2004	McClain	Englert
1976	Matsuda	Yamamura	1988	Simone	Simone	2005	McClain	Englert
1977	Matsuda	Yamamura	1989	Simone	Simone	2006	McClain	Konan
1978	Matsuda	Yamamura	1990	Simone	Simone	2007	McClain	Konan
1979	Matsuda	McKaughan	1991	Simone	Simone	2008	McClain	Hinshaw
1980	Matsuda	Long	1992	Simone	Simone	2009	Greenwood	Hinshaw
1981	Matsuda	Long	1993	Mortimer	Mortimer	2010	Greenwood	Hinshaw
1982	Matsuda	Anderson	1994	Mortimer	Mortimer	2011	Greenwood	Hinshaw
1983	Matsuda	Kosaki	1995	Mortimer	Mortimer	2012	Greenwood	Hinshaw
			1996	Mortimer	Mortimer	2013	Greenwood	Apple
			1997	Mortimer	Mortimer	2014	Lassner	Apple
			1998	Mortimer	Mortimer	2015	Lassner	Bley-Vroman
			1999	Mortimer	Mortimer	2016	Lassner	Bley-Vroman
			2000	Mortimer	Mortimer	2017	Lassner	Lassner

* Notes

1) Includes interim and acting periods of service
2) Partial years of service in position not depicted, so terms may be off by up to one year

Summary:

Matsuda – 10 yrs as Pres w/ 6 Chancellors

Simone – 9 years as Pres & Chancellor

Mortimer – 8 years as Pres & Chancellor

2001-2018 – 4 Presidents w/ 7 Chancellors

Recombination of Mānoa Chancellor and System President Positions

Regardless of theoretic considerations and external recommendations about optimal roles and structures:

➢ **Our history and evidence (per chart) are clear: Mānoa has never had stable leadership with a separate Mānoa chancellor at any time since the initial creation of the Mānoa chancellor position in 1972**

- Consistent instability under 5 presidents and 13 chancellors is more than can be simply attributed to picking the wrong people (president and/or chancellor)
- The only stable periods of campus leadership since 1972 were under Simone and Mortimer in the combined role

➢ **In Hawai'i, any major issue at UH becomes an issue for the UH President; Due to its complexity, there are more such issues at Mānoa**

- Recombining avoids having the president "meddle" (real or perceived) in Mānoa affairs
- Recombining provides Mānoa the strongest possible voice with Regents and the community

➢ **There are alternative ways to address the challenges that drove the separation of the Mānoa chancellor position in 2001**

- Establish a Mānoa provost position as an officer of the UH System with full authority for and 100% focus on Mānoa education, research and student success
- Fully separate Mānoa academic leadership from System academic leadership
- Fully separate the Mānoa business and budget functions from the system CFO
- Clearly outline hybrid roles of certain vice presidents
- Articulate that overall leadership of the Mānoa campus is an integral role of the UH President; it is one fulltime job, not an add-on duty

University of Hawaiʻi President Reinstated as Mānoa CEO

Re-integrates roles of System CEO and Mānoa Campus CEO

Reporting units with Mānoa campus responsibilities include:

- Provost
- Chief Business Officer
- Equity, Climate and Conflict Resolution (Hybrid with System)
- VP for Administration (Hybrid with System)
- VP for Information Technology & CIO (Hybrid with System)
- Intercollegiate Athletics (as-is)
- Native Hawaiian Place of Learning (as-is)
- Campus advisory and constituent groups:
  - Mānoa Faculty Senate, ASUH, GSO, Kualiʻi Council, *Staff Council (pending)*

CHIEF BUSINESS OFFICER

- Overall Campus Budget - All sources of funds, all UOH-100
- Allocate all academic resources per Provost's directives
- Monitor expenditures
- Ensure appropriate reserves in compliance with UH policies
- Execute campus-level position control; allocate academic positions per Provost's directives
- Interface with UH CFO, State and Legislature regarding all Mānoa management matters
- External financial reporting
- Audit Responses
- Campus Business Office (end-user shared services)
- Organizational reports and reorganizations
- Comprehensive Campus Analytics

EQUITY, CLIMATE AND CONFLICT RESOLUTION (Hybrid)

**Create a safe, welcoming and equitable climate for students, faculty and staff
of all backgrounds and beliefs.**

- Education, advocacy, support and training programs to advance campus climate including for all protected classes
  - Confidential Advisors / Respondent Advocates
- Independent Ombuds & Informal Conflict Resolution
- Firewalled compliance program
  - Single intake mechanism and assessment/triage (e.g., interim measures)
  - Single case management program
  - Professional fact-finders/investigators

Outcomes

- Don't make reporting parties figure out where to go for what kind of concern/complaint
  (race, gender, workplace violence, Title IX, EEO…)
- Fully separate advocacy from compliance
- Resolve conflicts informally whenever possible
- Professionalize all types of investigations, fact-finding & decision-making across all forms of discrimination/harassment and misbehavior
- Create a "Social Compact" for campus life: How do we "live aloha"?

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Hybrid Mānoa/System Vice Presidents

VP ADMINISTRATION

- Human Resources
  - Staff excellence through development and support
  - <u>Non-academic</u> personnel hiring and processing
  - Faculty/staff visa processing
  - Benefits and records
  - Collective bargaining grievances (other than faculty)
- Communication
- Procurement
- Facilities, Construction, Planning
- Auxiliaries: Bookstore, Parking, Transportation, Food & Beverage services, University (Faculty) Housing, Student Housing <u>Facilities</u> (student residential life is part of Student Growth and Development)
- Campus Security & Emergency Management
- Sustainability

VP FOR INFORMATION TECHNOLOGY/ CHIEF INFORMATION OFFICER (CIO)

- Academic technologies
- Cyberinfrastructure and research technology support
- Help Desk, software licensing
- Information Security
- Management information systems
- Campus, statewide and global network design and operations

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CABINETS

UH System Officers - President, Mānoa Provost, 4yr Chancellors, Vice Presidents (weekly)

UH System Council of Chancellors – President, Mānoa Provost, All Chancellors, Vice Presidents, RCUH, Equity/Climate/Conflict Resolution (quarterly)

Mānoa Cabinet – President, Provost, Vice Provosts,Chief Business Officer, Hybrid Vice Presidents (weekly)

Provost's Council - Vice Provosts, Asst/Assoc Vice Provosts, Chief Business Officer, Hybrid Vice Presidents, Advancement, Campus-level School/College/Institute Deans & Directors, Native Hawaiian Affairs, Equity/Climate/Conflict Resolution (bi-weekly)

Mānoa Leadership Team - President, Provost's Council, Advancement, Athletics, Native Hawaiian Affairs, Equity/Climate/Conflict Resolution, ASUH, GSO, MFS, Kuali'i, *Staff Council* (quarterly)

Campus Advisory Groups

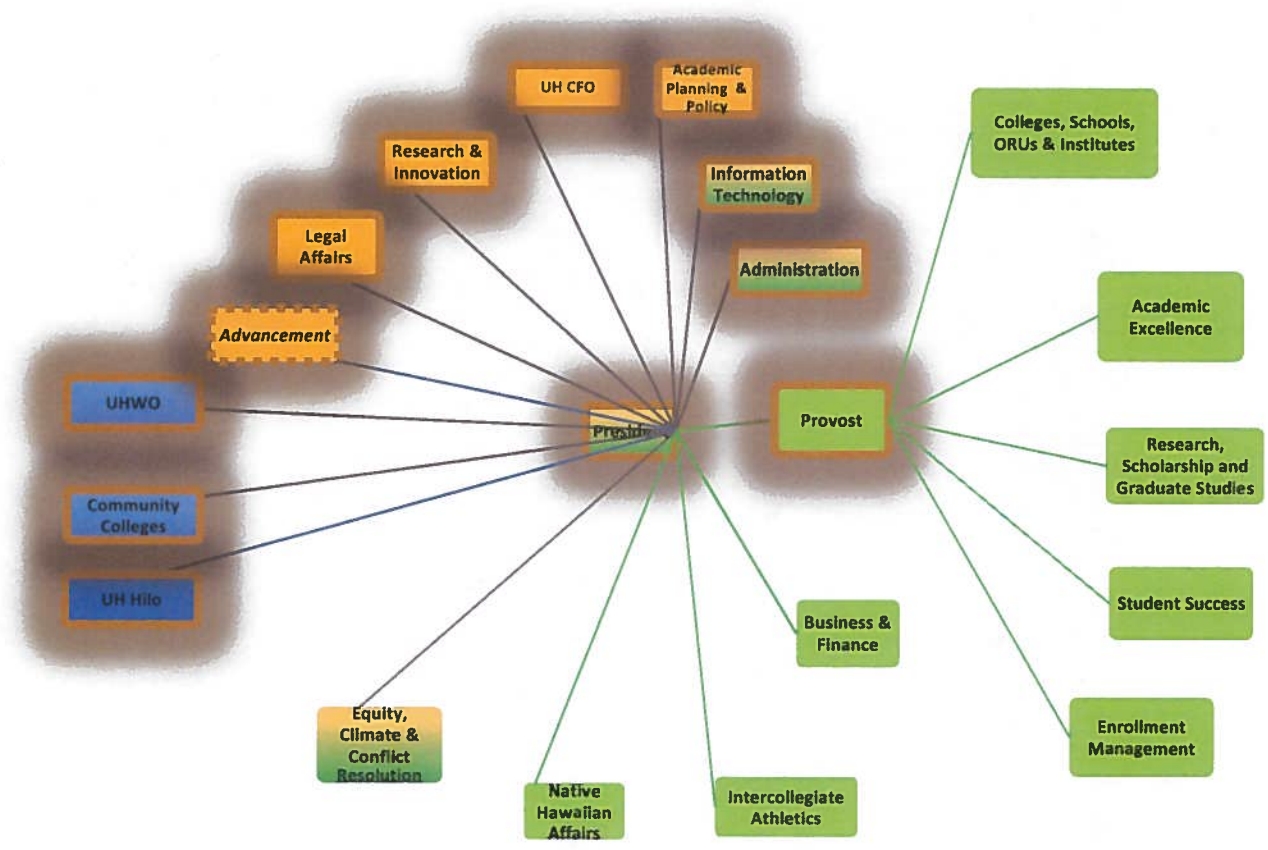Research Advisory Council

Campus Facilities Advisory Council

Mānoa Faculty Senate, ASUH, GSO, Kuali'i, *Staff Council*

CAMPUSWIDE STRATEGIC INTEGRATIVE WORKING TEAMS / PROJECTS

- Strategic Enrollment Management Team

- Campus Climate

- "Hawaiian Place of Learning"

- Development of an international strategy: "foreign policy" for global engagement

- Meaningful integration of research and education (including undergraduate)

- Re-engineering of advising

- Creating an Honors College

- Library & UH Press

- Digital and online learning

- Community engagement

- Post-Doc Program

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Key Objectives – How Are They Being Addressed

➢ **Strong and strategic enrollment management: recruitment and retention**
  - ✓ New Vice Provost for Enrollment Management; Institutionalization of Strategic Enrollment Management Team

➢ **Meaningful integration of research and education, including undergraduate, involving all colleges, schools, ORUs and institutes**
  - ✓ New Provost position with full responsibility for education and research across all academic units; New Vice Provost for Research, Scholarship and Graduate Studies with responsibility for student engagement in scholarship, including undergraduate, across all units; New integrative team

➢ **Improved student success outcomes through integrated support for both academic success and student growth & development**
  - ✓ Restructuring of many services spread across multiple VCs and AVCs with clear leadership for each

➢ **Enhance and strengthen Mānoa's role as a premiere Asia-Pacific focused global "R1" research university**
  - ✓ New Office of Global Engagement reporting to Provost charged to develop campus-wide strategies and "foreign policy" for education, research and recruitment

➢ **Strengthen and clarify advocacy and compliance programs that support protected classes**
  - ✓ New comprehensive office for equity, climate and conflict resolution

➢ **Provide stable leadership and strong voice for Mānoa**
  - ✓ Re-combine the positions of UH System President and UH Mānoa Chancellor; New Provost position

President connections:
- UH CFO
- Academic Planning & Policy
- Research & Innovation
- Information Technology
- Legal Affairs
- Administration
- Advancement
- Colleges, Schools, ORUs & Institutes
- UHWO
- Academic Excellence
- Community Colleges
- Research, Scholarship and Graduate Studies
- UH Hilo
- Provost
- Student Success
- Equity, Climate & Conflict Resolution
- Business & Finance
- Native Hawaiian Affairs
- Intercollegiate Athletics
- Enrollment Management

Legend:
- Mānoa Role
- UH System Role
- Hybrid System/Mānoa Role
- Other UH Unit
- President's Cabinet

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Next Steps

Continuing Consultation and Refinement – Through Early November

Conceptual Proposal to Regents – November 2018

Preparation of Formal Proposal with Details, Consultation and Refinement – Spring 2019

Implementation - July 2019 and beyond

"We agree that some reorganization is needed. Now if we can come to agreement on what that looks like!"

Christine Sorensen, Chair
UH Mānoa Faculty Senate Executive Committee
Testimony to UH Board of Regents,
November 16, 2017

FAQs 1/2

Q: Which positions will be filled with current people and which recruited?
A: That is TBD. This high-level proposal focuses on a preferred structure independent of the current people

Q: What is the role of the Mānoa Vice Provost for Research relative to the System Vice President for Research & Innovation?
A: The Mānoa Vice Provost for Research is focused on increasing and enhancing research success by Mānoa faculty and students. The System Vice President has responsibility for a set of extramural support and research compliance functions for all 10 UH campuses as well as commercialization, economic development initiatives, statewide priorities and federal relations.

Q: How will Mānoa have its own advocate in UH System deliberations and decisions?
A: The Provost will be a member of the President's Systemwide Cabinet and an Officer of the UH System, where s/he will serve as a fully independent voice of Mānoa in all systemwide planning and decision-making.

Q: How exactly will this result in meaningful integration of research & education?
A: The organization chart doesn't itself change any individual practices and policies. But this approach unifies the reporting lines from three to one for our campuswide schools, colleges and ORUs. The new Provost and the Vice Provost for Research, Scholarship and Graduate Studies will facilitate campus-wide efforts, including with a new integrative team, to ensure that all students, including undergraduates, are provided opportunities for experiential learning and engagement including with Mānoa's great research faculty. The new structure will also make it more straightforward to align matters such as T&P practices and engagement of ORU and "R" faculty in teaching and mentoring including with undergraduates.

FAQs 2/2

Q: What is the "Advancement" box shown on the Mānoa/System chart and how will Advancement work for and at Mānoa?
A: The long-serving CEO and President of the UH Foundation (UHF) has announced her retirement. In consultation with UHF and UH leadership, we are recruiting a new UHF CEO who will carry a UH title as well: VP of Advancement. This is standard practice in higher education today across the country and will help us improve our effectiveness in philanthropy and alumni relations through closer integration between UH and UHF. As today, the advancement organization (UHF) will serve Mānoa and the entire UH System but with the UHF leader as part of the UH senior leadership.

Q: Isn't the Provost position a new layer of bureaucracy?
A: No, it represents unification of the units responsible for education, research and student success. One leader will have full responsibility and authority, including budget, for all of education, research and student success across all Mānoa units. This is common at many R1 research institutions and represents the consolidation of responsibilities and authority currently assigned to multiple vice chancellor positions.

Q: Didn't WICHE recommend keeping the positions of UH President and UHM Chancellor separate?
A: Yes, and in principle this makes sense. The Design Team recommends recombining these positions not based on the theoretic roles of the two positions but in consideration of the very practical challenges faced since the separation and the clear historic evidence that a separate Mānoa chancellor has never been able to succeed over an extended period.

UNIVERSITY
of HAWAIʻI
SYSTEM

18 NOV -9 A11 :29
November 9, 2018   RECEIVED

MEMORANDUM   '18 NOV -9 A10 :43

TO: Lee Putnam
          Chairperson, Board of Regents

FROM: David Lassner
          President

SUBJECT: Authorization for Agreement Between the University of Hawaiʻi and the
          University of Hawaiʻi Foundation

SPECIFIC ACTION REQUESTED

The administration requests that the Board of Regents ("Board") authorize the President
to enter a new memorandum of agreement ("MOA") between the University of Hawaiʻi
("the University" or "UH") and the University of Hawaiʻi Foundation ("UHF") to replace
the agreement that has been in place since 2010. The new MOA is based on an
Association of Governing Boards ("AGB") model MOU and is consistent with the
findings and recommendations made by the Permitted Interaction Group on the UH-
UHF Relationship and adopted by the full Board on August 16, 2018 (Attachment 1)
with material terms set forth below.

RECOMMENDED EFFECTIVE DATE

Upon approval.

ADDITIONAL COST

There are no additional costs associated with this request at this time. UH is currently
paying UHF three (3) million dollars ($3,000,000) annually to support UHFconducting
the University's advancement program, and this will remain unchanged until and unless
specific modifications are mutually agreed to in the future. Certain in-kind contributions,
e.g., office space and parking, are also to be provided by UH to UHF.

PURPOSE

The current Agreement for Services between UH and UHF was entered in September 2010, with an original termination date of June 30, 2018. The 2010 agreement expired at the end of June 2018 and has been extended by mutual agreement pending completion of discussions between the two organizations.

Because this is a contract that over its life will total more than $5,000,000, and because it is a partnership with significant impact on policies, programs and operations, the President is seeking board authorization to enter a new memorandum of agreement with UHF. Future modifications to the MOA will not be brought to the Board for approval unless the modifications are deemed material by the President after consultation with the Board leadership.

BACKGROUND INFORMATION

On June 1, 2017, the Board created a permitted interaction group ("PIG") (then-Chair Jan Sullivan and Regents Randolph Moore and Wayne Higaki) to plan for the new agreement between UH and UHF to replace the then-existing agreement expiring on June 30, 2018. The PIG was to focus on

1. Review of the current relationship between UH and UHF.

2. Inventory of best practices for fundraising.

3. Evaluation of what is working and what needs more attention.

The PIG met with President Lassner, UHF President & CEO Donna Vuchinich, and UHF Trustees Catherine Ngo, Chair, Rich Wacker, Stanford Carr, Kent Youel, and Scott Wo. Shidler College of Business Dean Vance Roley participated in several of the task group meetings, as well. The PIG and UHF Trustee participants (collectively, "Group") met at least seven times beginning in September 2017 and ending with an all-day meeting in June 2018. The Group discussed various issues, as enumerated in the findings and recommendations below. Resource materials were provided and discussed. The Group found the AGB publication entitled, "Illustrative Memorandum of Understanding Between a Public Institution or System and an Affiliated Foundation" ("Illustrative Memorandum") to be of greatest relevance and utility, and the administration has utilized this document as a starting point in negotiation of the material terms of the new agreement (attached to Attachment 1). The "Findings and Recommendations" of the PIG are provided as Attachment 1 to this memorandum.

Taking these recommendations into consideration, and using the AGB's Illustrative Memorandum as a foundational document, the leadership of UHF and UH met to draft and negotiate a MOA. The MOA, which is also still subject to approval by the UHF Board of Trustees, has the following material terms:

(1)   Affirming that UHF exists to advance the mission of UH. UHF shall be responsible for planning and executing, with UH, comprehensive fundraising, a modernized program for alumni and donor relations programs and external communications in support of the strategic priorities of UH. UHF shall also be responsible for philanthropic asset management and disbursement in accord with donor wishes as well as applicable policy and law.

(2)   The UHF Chief Executive Officer ("CEO") shall serve as a chief advancement official of the University as a member of the President's cabinet, and the University shall provide an honorific title of University "Vice President" to symbolize this role; the CEO will not be an employee of the University. Other UHF employees may also be provided honorific UH titles in recognition of their roles in UH advancement.

(3)   The UH President shall support UHF in leading the creation of a culture that supports the importance of philanthropy throughout UH. The UH President shall serve as an *ex officio* voting member of the UHF Board of Trustees and UHF's Executive Committee as well as any UHF executive compensation committee.

(4)   The Chair of the Board of Regents or a standing appointee shall serve as an *ex officio* non-voting member of the UHF Board of Trustees and UHF's Executive Committee as well as any UHF executive compensation committee.

(5)   Provisions for appropriate and prudent data-sharing as necessary to support the advancement program, and requirement that UH and UHF share changes in policy and procedure with each other.

(6)   UHF must be provided sufficient funding and human and capital resources to effectively, professionally and successfully execute its responsibilities under the MOA, and both parties are to be responsible for establishing effective financial plans to fund the cost of the University's advancement program including UHF's operations and services.

(7)   Fair, reasonable and appropriate financial and in-kind support is to be provided by the University and UHF has the ability to assess reasonable and appropriate fees and develop other sources of funding to support the University's advancement program. University financial support shall include, but not be limited to the payment of compensation by the University to UHF

as provided for by law. UHF shall initially continue to be paid three million dollars ($3,000,000) annually, in addition to its current practice of collecting fees on gifts and certain funds. UHF will work with the President to develop a more strategic schedule of fees, and this schedule may be modified by the President (without BOR approval).

(8)   Subject to mutual agreement as set forth in separate "Service Agreements", UHF, either directly or through its related or affiliated entities, may serve as an instrument for entrepreneurial activities and administrative services for the University, including but not limited to purchasing, developing, or managing real estate and student housing, rehabilitating University facilities.

(9)   Coordination of strategic communications issued by UH and UHF regarding gifts, and the UHF CEO's collaboration in University strategic planning are required.

(10)   There shall be better coordination of the efforts of UHF, with other UH-affiliated nonprofits such as the UH Alumni Association, Ahahui Koa Anuenue, and Friends of the Cancer Center.

(11)   Agreement to plan a strategic program that increases the prominence of private funds in advancing university research.

(12)   Identification of a process to collaboratively develop goals and plans for the next multi-year fundraising campaign.

ACTION RECOMMENDED

The administration recommends that the Board authorize the President to enter into a MOA between the University and UHF that includes the material terms set forth above and is consistent with the findings and recommendations made by the PIG and adopted by the full Board on August 16, 2018. Future modifications to the MOA will not be brought to the Board for approval unless the modifications are deemed material by the President after consultation with the Board leadership.

Attachment 1: Report of The Permitted Action Group for UH-UH Foundation
                Relationship, adopted by the Board on August 16, 2018

cc: Executive Administrator and Secretary to the Board of Regents

REPORT OF THE PERMITTED ACTION GROUP FOR
UH-UH FOUNDATION RELATIONSHIP

The purpose of this final report is to share the resulting findings and recommendations of the Permitted Interaction Group for UH-UH Foundation Relationship (PIG), to the full board. Deliberation and decisionmaking regarding the final report and dissolution of the PIG will take place during a subsequent meeting, pursuant to the statute on permitted interactions under the Sunshine Law, Section 92-2.5(b), Hawaii Revised Statutes.

I.   Background

    A.   The PIG was formed by the Board of Regents on June 1, 2017; link to minutes here:

       https://www.hawaii.edu/offices/bor/regular/minute/201706010930.regular.pdf

       1.   The PIG included the following Regents:

          a)   Vice Chair Randy Moore, Chair of the PIG

          b)   Regent Wayne Higaki

          c)   UH Board Chair Jan Sullivan (ex-officio member of the UH Foundation (UHF) Board)

       2.   UHF Trustees participating in the task group were Catherine Ngo, Chair; Rich Wacker, Vice Chair; Stanford Carr, Vice Chair; Kent Youel, Chair of the Strategic Plan Committee; and Scott Wo, Chair of the Investment Committee.

       3.   UH President David Lassner and UHF President & CEO Donna Vuchinich participated in task group meetings. Shidler College of Business Dean Vance Roley participated in several of the task group meetings.

    B.   Purpose of the PIG was to plan for the agreement between the UH and UHF that will replace the then-existing agreement expiring on June 30, 2018. The PIG was to focus on:

       1.   Review of the current relationship between UH and UHF.

       2.   Inventory of best practices for fundraising.

       3.   Evaluation of what is working and what needs more attention.

    C.   The PIG and UHF Trustee participants (collectively, "Group") met at least seven times beginning in September 2017 and ending with an all-day

meeting in June 2018. The Group discussed various issues, as enumerated in the findings and recommendations below.

D. Resource materials were provided and discussed. The Group found the Association of Governing Boards' publication entitled, "Illustrative Memorandum of Understanding Between a Public Institution or System and an Affiliated Foundation" to be of greatest relevance and utility; a copy is attached hereto.

II. Findings and Recommendations

A. UHF is a separately incorporated designated as a 501(c)(3) nonprofit organization by the Internal Revenue Service. It raises money from private donors, stewards donors, accounts for the receipt and expenditure of donated funds, maintains records of donors and donations, invests donor funds (hiring and monitoring investment managers), and manages alumni relations for UH.

B. UHF's annual operating expenses approximate $13 million, of which UH pays $3 million (the cap set by statute in 2006 on the amount of UH tuition and fees special funds that can be used to support UHF) and UHF generates the balance through unrestricted gifts, interest earned on donations prior to expenditure, and fees assessed on most donations, on fundraising events, and on the corpus of the UHF endowment.

C. Beyond soliciting donations, UHF has recently expanded its strategic activities by purchasing the Atherton YMCA facility on University Avenue to secure property adjoining the land-locked UH Manoa campus. The property is leased to UH and work is underway to redevelop it as an innovation hub.

D. The Group identified the following recommendations for elements of the new partnership between UH and UHF, which is to be formalized in a new agreement between UH and UHF:

1. Make the UHF CEO concurrently a UH vice president and member of the president's cabinet.

2. Make the UH president, currently an ex officio nonvoting member of the UHF board and executive committee, an ex officio voting member of the UHF board and executive committee.

3.   Identification of other UH resources that could be used to support advancement, to reduce the UHF fees on gifts and on the endowment corpus.

4.   Potential expansion of the activities UHF may undertake on behalf of UH, such as real estate development.

5.   Closer coordination and integration of strategic communications issued by UH and UHF.

6.   Better integration of the alumni relations and development functions.

7.   Better coordination and alignment of the efforts of UHF, UH, and other UH-affiliated nonprofits such as the UH Alumni Association, Ahahui Koa Anuenue, and Friends of the Cancer Center.

8.   Identification of priorities for philanthropy that advance UH strategies.

9.   Collaborative establishment of goals for the next multi-year fundraising campaign.

III.   Conclusion

The Group members agreed at their June 9 all-day meeting that its objectives had been accomplished and the negotiation of a new contract would be the responsibility of the UH and UHF executives, for ultimate approval of the UH and UHF boards. Because of the short time left on the existing memorandum of agreement between UH and UHF, the Group members agreed that a short extension[1] of the current agreement was in order to provide sufficient time to negotiate a new, more detailed, longer term agreement.

The Chair expresses his gratitude to the PIG members and the participating UHF Trustees for their time and dedication.

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[1] A three-month extension has since been executed.

Illustrative Memorandum of Understanding

Between a Public Institution or System and an Affiliated Foundation

AGB ASSOCIATION OF
GOVERNING BOARDS
OF UNIVERSITIES AND COLLEGES

AGB ASSOCIATION OF
GOVERNING BOARDS
OF UNIVERSITIES AND COLLEGES

ABOUT AGB

Since 1921, the Association of Governing Boards of Universities and Colleges (AGB) has had one mission: to strengthen and protect this country's unique form of institutional governance through its research, services, and advocacy. Serving more than 1,280 member boards, nearly 2,000 institutions, and 35,000 individuals, AGB is the only national organization providing university and college presidents, board chairs, trustees, and board professionals of both public and private institutions and institutionally related foundations with resources that enhance their effectiveness.

In accordance with its mission, AGB has developed programs and services that strengthen the partnership between the president and governing board; provide guidance to regents and trustees; identify issues that affect tomorrow's decision making; and foster cooperation among all constituencies in higher education. For more information, visit www.agb.org.

Illustrative Memorandum of Understanding

Between a Public Institution or System and an Affiliated Foundation

AGB ASSOCIATION OF GOVERNING BOARDS OF UNIVERSITIES AND COLLEGES

Institution-Foundation MOUs:
Recommended Principles and Practices

I nstitutionally related foundations play a vital role in advancing the missions of public colleges and universities, serving as gift repositories, fundraisers, asset managers, and advocates, and undertaking real-property projects and other entrepreneurial ventures. When well-structured, foundation-institution partnerships enable public colleges and universities to leverage opportunities and resources otherwise unavailable to state entities and to engage the talent, insights, relationships, and financial support of community, business, and philanthropic leaders. The close integration of public and private entities may, however, create concerns about external influence over institutional affairs, conflicts of interest, and transparency and accountability. In 2005, the Association of Governing Boards of Universities and Colleges (AGB) and the Council for Advancement and Support of Education (CASE), working with a national task force, developed an illustrative memorandum of understanding (MOU) that was widely promulgated and served as a model for many institutions and systems. The 2005 illustrative MOU provided a catalyst and starting point for conversations among institution and foundation leaders about the role of foundations, the structure of development, and the respective responsibilities of institution and foundation boards. While the principles informing the 2005 MOU remain sound, the context in which foundations operate has changed significantly.

The growing need for private support is leading many institutions to explore changes to the structure of their development programs and encourage their foundations to play a more-active role in fundraising and assume increased responsibility for real estate projects. At the same time, institution administrators and boards may feel the need to exercise increasing levels of oversight over affiliated entities that represent important institutional resources and potential risks that might fall outside of the parameters of the institution's risk management practices. To help public institutions and foundations adapt to these changes, AGB, working with CASE and an advisory group of public higher education leaders, has revised the 2005 illustrative MOU, including guidance on issues that should be taken into consideration when thinking about foundation-institution partnerships and recommended practices for the development and implementation of MOUs. It should be emphasized that there is no definitive best model for foundation-institution partnerships; the illustrative MOU is presented as a starting point for a collaborative process of assessment and strategic thinking about how the foundation and institution can most-effectively work together. When developing an MOU, legislative or regulatory regimes, institution or system polices, institutional culture, financial considerations, and strategic objectives must be considered to identify the best model for a particular institution at a given point in time.

FOUNDATION INDEPENDENCE

Changed contexts and perceptions related to foundation independence merit special consideration. For several decades, foundation leaders saw foundation independence as a vital means of safeguarding donor privacy, ensuring foundations' ability to fulfill their fiduciary obligations and enhancing flexibility and fundraising capacity. AGB's 1994 publication, "College and University Foundations," outlined two different taxonomies that characterized foundations by relative degrees of institutional control, financial independence, operational autonomy, and scope of responsibilities. Foundations were seen as ranging from small, passive entities that served primarily as gift repositories and endowment managers, to robust, autonomous organizations that executed a comprehensive range of advancement and entrepreneurial services on behalf of their institutions. Endowment size, financial and operational independence, and board engagement were loosely correlated with fundraising capacity. The same publication included an analysis of court rulings on the applicability of state freedom of information laws to affiliated foundations. This and subsequent research suggested that organizational independence was a key factor in determining whether foundations should be treated as private corporations or state entities. In the past decade, however, court rulings, state legislation, changes in system policy, and heightened standards of accountability have changed. In California and Iowa, for instance, legislative and judicial actions have opened foundation records but created some protections for donor information. Recognizing the importance of transparency in sustaining trust, many foundations are increasingly opting to voluntarily disclose information to the extent possible without compromising donor privacy or business-sensitive information. The need to operate more efficiently, better share information, and demonstrate transparency has also led some institutions and foundations to integrate select functions. AGB's research suggests, however, that most foundation leaders believe that a degree of independence remains essential for foundations to fulfill their fiduciary responsibilities and advance their missions. The appropriate degree of independence for any foundation will be determined by multiple factors, including state law, system policy, financial resources, functions performed by the foundation, and institutional culture and history.

Well-crafted MOUs help clarify the boundaries between institution and foundation, identify and document state resources used by the foundation, clarify respective responsibilities for functions that may be conducted jointly by the foundation and institution, clarify relationships between institution and foundation staff, and affirm the foundation's status as an independently governed charitable corporation. When revising or developing a new MOU, institutions and foundations should ask if the relationship articulated in the MOU ensures that the foundation board has the capacity to exercise independent judgment in fulfilling its fiduciary obligations and commitments to donors. Legal counsel should be consulted to determine whether the terms of the MOU increase the likelihood that the foundation would be treated as a public entity subject to open records laws, prevailing wage standards, or other regulations applicable to state institutions that would limit its ability to serve its mission and advance institutional

priorities. Finally, the financial and operational implications of the MOU for both institution and foundation should be examined. An MOU that mandates a high degree of independence may incur spending on redundant staff or operational resources rather than putting funds to use in ways that could more efficiently advance institutional priorities.

PURPOSES OF THE MOU

- Thoughtfully undertaken, the process of developing or updating the MOU provides an opportunity for both institution and foundation leaders to examine how the foundation can most effectively advance the mission of the institution, develop a shared vision for the future partnership, and clarify mutual expectations and responsibilities.

- The MOU enumerates the primary ways in which the foundation supports the institution and clearly delineates the responsibilities of the foundation in its relationship with the institution and the institution with respect to the foundation.

- The MOU affirms the independent corporate status of the affiliated foundation and articulates the ways in which it fulfills its charitable purpose of institutional support. (The corporate status of affiliated foundations may also be addressed in state law or system policy.)

- The MOU provides transparency and accountability regarding the use of both state and private resources.

- The MOU documents the expectations of the institution or system and confirms the status of the foundation as a representative of the institution in its interactions with donors and the public. The MOU serves as an enforceable contract, but perhaps more importantly, it memorializes agreements about key elements of the foundation-institution relationship, providing a shared point of reference should disagreements between the foundation and institution arise.

- MOUs provide a vital source of continuity through leadership transitions and serve as an important tool to educate new administrators and board members, as well as external constituents, about the role of the foundation and its relationship with the primary institution.

THE MOU: PRINCIPLES, PROCESS, AND IMPLEMENTATION

- The dialogue informing the development of the MOU may be more important than the resulting contract. Any effective foundation-institution partnership must be based on mutual understanding and trust. The MOU process, thoughtfully undertaken, is an invaluable means of fostering this.

- The institution president or chancellor, the chair or other representative of the institution's governing board, the foundation chief executive, and the foundation board chair should all participate in the process of developing the MOU and be signatories to the final document. This responsibility should not be delegated from the start to attorneys or other representatives. Discussion among the principle stakeholders helps to ensure that the final MOU will reflect a genuine consensus and address strategic issues rather than legal quibbles.

- The MOU process may follow naturally from strategic or campaign planning as a means of identifying how the foundation can most-effectively advance institutional priorities and objectives. An MOU developed in response to a specific conflict or issue will likely do little to foster effective collaboration and may limit the flexibility that is one of the benefits of a foundation.

- The MOU is intended to provide stability and continuity, but it should be reviewed on some regular basis. As noted above, the conclusion or planning of a campaign or development of a new strategic plan may provide the catalyst for revisiting the MOU, but absent such transitional events, the foundation and institution should review the MOU every five years or so. The review process provides an occasion for reflection on ways the foundation might be more effectively engaged. It can also help ensure that new staff and volunteer leaders understand the terms of the relationship, preclude mission drift or unwitting departure from policy, and head off potential conflicts.

- A joint retreat including the foundation and institution boards and staff provides a valuable opportunity to assess the existing relationship and explore ways to enhance and strengthen the partnership prior to review and revision of the MOU.

- An external facilitator with a sound understanding of institutionally related foundations can provide valuable insights into the way alternative foundation-institution models work and help ensure that the process is perceived as equitable.

- The MOU need not address every aspect of the foundation-institution relationship; existing institution and foundation policies may simply be referenced, and issues that are likely to require more regular reconsideration can be addressed in additional agreements.

- While MOUs serve important legal purposes, they should, to the extent possible, be written in plain language. An unduly legalistic MOU is less useful as a tool to orient and educate board members and may occlude rather than provide transparency regarding the foundation-institution relationship. For similar reasons, the MOU should not be so lengthy or detailed as to preclude easy perusal.

ELEMENTS FOR POSSIBLE INCLUSION IN THE MOU

Not every MOU will address the same elements, but the following issues should be discussed and considered for inclusion:

Foundation-Institution Relationship

- An introduction summarizing the overall relationship between the foundation and its affiliated institution or system. This statement should broadly define the foundation's responsibilities and clarify the foundation's standing as an independent public trust, specifying that assets held by the foundation are dedicated to support the mission of the affiliated institution or system.

- Designation of the foundation as the repository for gifts made in support of the institution in accordance with state law or institution policy and reference to policies regarding the acceptance of restricted gifts. The foundation's use of the institution's name and service marks/trademarks and the institution's use of the foundation's name and service marks/trademarks. A brief description of overlapping board structures, joint meetings, and reporting relationships of the foundation chief executive if he or she also serves as an officer of the institution. (Foundation bylaws typically enumerate institution administrators and others designated as ex-officio members of the foundation board.)

Responsibilities of the Institution or System

- A statement of the institution board's responsibilities relating to determination of institutional mission and priorities, employment and compensation of university employees, oversight of university operations, and other key issues where the work of the foundation and institution intersect.

- A description of the ways institutional priorities and objectives and other information essential to the foundation's ability to fulfill its mission will be shared with the foundation.

Responsibilities of the Foundation

- A statement of the foundation board's responsibilities for investment and stewardship of foundation assets, employment and compensation of foundation employees, and operational oversight and risk management.

- A statement of the foundation's responsibility to comply with state and federal laws, maintain its tax-exempt status, and avoid or properly manage potential conflicts of interest involving staff or board members.

- A description of the appropriate ways in which the foundation board may participate in advocacy efforts on behalf of the institution.

- A description of services and resources provided by the foundation in support of the institution, and notification of any change in business purpose or scope.

- A description of donor and alumni records owned by the foundation and provisions for the use of such data by the institution, if allowable by law.

- A description of required reporting, audits, and other accountability practices.

Finances and Administration

- A description of the reporting relationship of the foundation chief executive and authority for hiring, assessment, determination of compensation, and termination of the foundation chief executive.

- A description of compensation or other benefits provided by the foundation to institution administrators or staff.

- A description of how the foundation is financed, including a summary of institution resources (including staff, if any) provided for use by the foundation.

- Provisions for the use of unrestricted gifts.

Terms of the MOU

- A provision for updating and periodic review of the MOU.

- Definitions of terms and conditions, including circumstances for terminating the relationship or the dissolution of the foundation and distribution of the assets it holds. The MOU might also specify processes by which conflicts can be managed and mitigated.

- A formal adoption of the MOU by the institution's and/or system governing board's leaders and the foundation board's leadership.

A NOTE ON SYSTEMS AND SYSTEM FOUNDATIONS

System foundations may receive and manage resources supporting the system as a whole or manage endowments and other long-term investments on behalf of multiple campus foundations or accounts. Similarly, they may coordinate and support fundraising and provide development services for campuses across a system, provide support for planned giving or other specialized services for campus foundations/development programs, or play little role in supporting campus development. MOUs may, accordingly, vary widely from the illustrative model that follows, but many of the principles and practices outlined above remain applicable.

MOUs of foundations supporting campuses overseen by a system board may also vary from those affiliated with institutions with individual campus governing boards. While boards with oversight responsibility for multiple campuses may be tempted to mandate a uniform MOU for use with all foundations affiliated with campuses within the system, such an approach undermines the value of the MOU process, eliminating strategic discussion about the most-effective ways foundations can support their affiliated campuses and imposing structures that may not be well adapted to the specific circumstances of individual campuses and foundations. System boards do, however, have a fiduciary responsibility for the campuses under their oversight and may adopt policies for campus relationships with affiliated entities such as minimum reporting requirements and financial controls, limitations on the use of state resources, rules regarding compensation of institution employees by the foundation, and elements to be addressed in campus-foundation MOUs.

Illustrative Memorandum of Understanding Between a Public Institution or System and an Affiliated Foundation

Note: AGB commends this illustrative memorandum of understanding to their members for consideration when drafting or revising their own such documents. The following illustrative document includes examples of best practice that each foundation and public institution or system should consider based upon their own needs and relationships. Foundations and institutions are encouraged to consult with legal counsel when developing an MOU to ensure that the final document conforms to federal and state laws and policies.

THIS AGREEMENT was entered into as of this _____ day of _____, 20__, by and between the _____ [name of institution or system (the Institution)] and the _____ [name of the foundation (the Foundation)].

ꙭ The Foundation was organized and incorporated in ____ [year] for the purpose of stimulating voluntary private support from alumni, parents, friends, corporations, foundations, and others for the benefit of the Institution.

ꙭ The Foundation exists to raise and manage private resources supporting the mission and priorities of the Institution, provide opportunities for students, and contribute to institutional excellence.

ꙭ The Foundation is dedicated to assisting the Institution by fostering a culture of philanthropy, growing the endowment, and providing financial and other support for long-term academic and other institutional priorities. *[Note: The MOU should identify specific functions such as real-property management or other entrepreneurial work assumed by the foundation in addition to or in lieu of fundraising responsibilities.]*

ꙭ As stated in its articles of incorporation, the Foundation is a separately incorporated 501(c)(3) organization and is responsible for identifying and nurturing relationships with potential donors and other friends of the Institution; soliciting cash, securities, real and intellectual property, and other private resources for the support of the Institution; and acknowledging and stewarding such gifts in accordance with donor intent and fiduciary responsibilities.

ꙭ The Institution designates the Foundation as the repository of private gifts made in support of the Institution unless otherwise specified by the donor. This provision might address whether the foundation can endorse checks made out to the university for gifts.

ꙭ In connection with its fundraising and asset-management activities, the Foundation retains personnel with expertise in advancement services, fundraising, gift planning, investment management, and other capacities necessary for the fulfillment of its mission and works with the Institution to assist and advise in such activities. *[Note: Not all foundations retain personnel; in such instances, personnel conducting foundation business report to other institutional staff, but the foundation board may be engaged in assessment processes and hiring and compensation decisions.]*

- The Foundation and the Institution will jointly establish gift-acceptance policies, naming policies, and provisions for the establishment of scholarships, chairs, and other endowed purposes.

- Consistent with its mission to help to advance the plans and objectives of the Institution, the Foundation is allowed to associate the name "Institution" in connection with the operations of the foundation; however, the Foundation will operate under its own seal and logotype and shall not use the university seal or other identifying marks in the promotion of its business and activities. *[Note: It is not unusual for foundations, upon mutual agreement, to have the authority to use the institution's seal and marks.]*

- In consideration of the mutual commitments herein contained, and other good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

INSTITUTION OR SYSTEM RESPONSIBILITIES

- The Governing Board of the Institution is responsible for overseeing the mission, leadership, and operations of the institution.

- The Governing Board of the Institution is responsible for determining philanthropic and strategic priorities.

- The Governing Board of the Institution is legally responsible for the performance and oversight of all aspects of Institution operations.

- The Governing Board of the Institution is responsible for the employment, compensation, and evaluation of all Institution employees, including the President or Chancellor ("President"). *[Note: In some cases, the foundation may provide funds to supplement the compensation of the institution's chief executive. The governing board, however, remains solely responsible for setting total compensation and evaluating the performance of the chief executive.]*

- The Institution President is responsible for communicating on a regular basis the priorities and long-term plans of the Institution, as approved by the Governing Board, to the Foundation.

- The Institution recognizes that the Foundation is a separate, private corporation with the authority to keep all records and data confidential, consistent with the law.

- The President of the Institution shall serve as an ex-officio member of the Foundation Board and shall assume a prominent role in fundraising activities. *[Note: This can be with or without vote. Consult legal counsel for the most appropriate structure, and factor that into the language.]*

- The Chief Executive of the Foundation shall be included as a member of the Institution President's cabinet and senior administrative team. *[Note: If the foundation is totally independent, the chief executive should have regular access to this group, and language in this document should reflect this.]*

- The Institution shall include the Foundation as an active and prominent participant in strategic planning for the Institution.

- The Institution shall establish and enforce policies that support the Foundation's ability to respect the privacy and confidentiality of donor records.

- The Institution shall ensure that gift funds and other privately contributed resources are used in compliance with donor intent.

- The Institution recognizes that the Foundation bears major responsibility for fundraising. University representatives will coordinate fundraising initiatives, including major gifts solicitations with the Foundation. *[Note: When a foundation supports a system or institution for which multiple affiliated entities raise and manage private support, the MOU should indicate how the organizations work together to most effectively identify, cultivate, solicit, and steward donors. The MOU might also clarify, without comprehensively detailing, the relationship between the foundation and alumni association or other affiliated entities.]*

- The President and other senior administrators of the Institution will work in conjunction with the leadership of the Foundation Board of Directors and the Foundation Chief Executive to identify, cultivate, and solicit prospects for private gifts.

FOUNDATION RESPONSIBILITIES

- The Foundation shall maintain its status as a separately incorporated 501(c)(3) nonprofit organization created to raise, manage, distribute, and steward private resources to support the various priorities of the Institution. *[Note: Language should be added to clarify the exact entity the foundation supports—for example, a system-wide university, a single campus, an academic unit within the university, or a campus within the system.]*

- The Foundation Board of Directors is responsible for the control and management of all assets of the Foundation, including the prudent management of all gifts, consistent with donor intent.

- The Foundation is responsible for the performance and oversight of all aspects of its operations based on a comprehensive set of bylaws that clearly addresses the board's fiduciary responsibilities, including expectations of individual board members based upon ethical guidelines and policies. The Foundation will apprise the institution of significant changes made to the bylaws.

- The Foundation shall establish and enforce policies to identify and manage potential conflicts of interest and ensure that foundation assets do not directly or indirectly unduly benefit an individual or other person.

- The Foundation is responsible for the employment, compensation, and evaluation of all its employees, including the Foundation Chief Executive. The Institution President will be included as a prominent participant in discussion and decision making regarding the hiring, assessment, and termination of the Foundation Chief Executive. *[Note: MOU language should clarify whether the foundation has its own employees or relies on institution employees to fulfill its responsibilities.]*

- The Foundation may earmark a portion of its unrestricted funds to a discretionary fund for the President of the Institution and will either transfer a percentage of those funds annually to the Institution in compliance with state law and university policies or reimburse appropriate presidential expenditures. *[Note: All such expenditures must comply with the IRS 501(c)(3) code and be consistent with the foundation's mission. Such funds will be audited as part of the foundation's annual independent audit.]*

Fundraising

- The Foundation shall create an environment conducive to increasing levels of private support for the mission and priorities of the Institution.

- The Foundation is responsible for planning and executing comprehensive fundraising and donor-acquisition programs in support of the strategic priorities identified by the President and Institution Governing Board. These programs include annual giving, major gifts, planned gifts, special projects, and campaigns as appropriate. *[Note: When there are shared responsibilities for fundraising, or if the institution is responsible for all fundraising activities, language should be added that clarifies each entity's roles and responsibilities. For example: The university wishes to hire the expertise of the foundation to provide coordination and assistance in the operation, development, accounting, management, and marketing activities of the university development office. Or the foundation wishes to provide such services, not as an employee or agent of the university, but as an independent organization.]*

- The Foundation will establish, adhere to, and periodically assess its gift-management and acceptance policies. It will promptly acknowledge and issue receipts for all gifts and provide appropriate recognition and stewardship of such gifts.

- The Foundation shall not accept grants from state or federal agencies, except in special circumstances that are approved by the Foundation Board of Directors and the governmental agency. *[Note: Some foundations, such as those serving in support of university health centers, can be called upon to accept and manage governmental grants].*

- The Foundation shall establish and enforce policies to protect donor confidentiality and rights. *[Note: See the "Donor Bill of Rights" developed by the American Association of Fund-Raising Counsel (AAFRC), Association for Healthcare Philanthropy (AHP), Council for Advancement and Support of Education (CASE), and the Association of Fundraising Professionals (AFP).]*

Asset Management

- The Foundation will receive, hold, manage, invest, and disburse contributions of cash, securities, patents, copyrights, and other forms of property, including immediately vesting gifts and deferred gifts that are contributed in the form of planned and deferred-gift instruments.

- The Foundation will establish prudent asset-allocation, disbursement, and spending policies that adhere to applicable federal and state laws including the Uniform Prudent Investor Act (UPIA) and the Uniform Prudent Management of Institutional Funds Act (UPMIFA).

- The Foundation will engage an independent accounting firm annually to conduct an audit of the Foundation's financial and operational records and will provide the Institution with a copy of the annual audited financial statements, including management letters. *[Note: Management letters, including concerns and/or recommendations about management practices, are typically shared with institutional presidents or chancellors in those cases where the foundation is dependent or interdependent].*

- The Foundation will establish internal controls and other enterprise risk management practices commensurate with the Board's fiduciary responsibility.

Entrepreneurial Activities

- The Foundation will explore current opportunities, including acquisition and management of real estate or personal property on behalf of the Institution, for future allocation, transfer, or use.

- The Foundation may serve as an instrument for entrepreneurial activities for the Institution and engage in such activities as purchasing, developing, or managing real estate for campus expansion and student housing, or participating in joint ventures that advance the mission of the institution. It also may hold licensing agreements and other forms of intellectual property, borrow or guarantee debt issued by their parties, or engage in other activities to increase foundation revenue with no direct connection to an institutional purpose.

FINANCES AND ADMINISTRATION

Transfer of Funds

- The Foundation will transfer funds to the designated entity within the Institution in compliance with applicable laws, Institution and Foundation policies, and gift agreements. *[Note: Disbursement policies should be developed in collaboration with institution administrators to facilitate effective financial planning while ensuring that gift funds are spent in a timely manner and in compliance with donor intent.]*

- The Foundation will disclose any terms, conditions, or limitations imposed by donor or legal determination on the gift. The Institution will abide by such restrictions and provide appropriate documentation.

- The Foundation's disbursements on behalf of the Institution must be reasonable business expenses that support the Institution, are consistent with donor intent, and do not conflict with the law. *[Note: Expenditures for luxury travel, presidential residences, or other donor cultivation activities perceived as lavish or conferring undue benefits on institution or foundation staff have repeatedly compromised the reputations of colleges and universities. Both foundation and institution boards have a responsibility to ensure that such risks are effectively managed.]*

- All requests for Foundation funds other than regular disbursements and expense reimbursements must be submitted to the Foundation by the President of the Institution or his or her designee.

Funding

- The Foundation, in collaboration with the Institution, is responsible for establishing a financial plan to underwrite the cost of Foundation programs, operations, and services.

- In consideration for Foundation services including, but not limited, to those enumerated in this agreement, the Institution will provide the Foundation with fair and reasonable compensation or payment for services. The amount of compensation will be negotiated on an annual basis by _____ [date] of the preceding year.

- In consideration of Foundation services, the Institution will also provide in-kind support including: [list major in-kind support such as staff, office space, and technology]. *[Note: Institution support for foundation services may be detailed in a separate contract for services. Also, if the foundation does not receive any funding from the institution or system, then language should specify this.]*

- The Foundation has the right to use a reasonable percentage of the annual unrestricted funds; assess fees for services; or assess fees on gifts, endowed funds, and other investments. *[Note: The use of fees and assessments should be decided in consultation with institution administrators, applied uniformly, and disclosed to donors.]*

- The Foundation, at its own expense, will provide office space, computer and telephone systems, utilities, adequate personnel, office supplies, and other such services that may be necessary or required to fulfill its responsibilities and obligations. *[Note: Depending on the degree of independence of the foundation, and if state law permits, the institution may help the foundation by providing support that may include personnel, office space, utilities, and services, or it may contract with the foundation for the services it provides; language should take this into account. Language should also be added to clarify whether the institution or the foundation owns the computer server and the records on the server. Institution gifts-in-kind should be appropriately reported in the foundation's annual report.]*

- The Foundation shall maintain, at its own expense, copies of the plans, budgets, and donor and alumni records developed in connection with the performance of its obligations.

- The Foundation will provide access to data and records to the Institution on a need-to-know basis in accordance with applicable laws, Foundation policies, and guidelines. The Foundation will provide copies of its annual report and other information that may be publicly released. *[Note: State regulations and case law should be taken into consideration to ensure that data-sharing practices are compatible with expectations regarding foundation and donor privacy.]*

TERMS OF THE MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding, made this ___ [day] of _____ [month], 20__ [year], by and between the board of the Institution and the Foundation (an Internal Revenue Code 501(c)(3) nonprofit corporation), is intended to set forth policies and procedures that will contribute to the coordination of their mutual activities.

To ensure effective achievement of the items of the agreement, the Institution and Foundation officers and board representatives shall hold periodic meetings to foster and maintain productive relationships and to ensure open and continuing communications and alignment of priorities. The Institution and Foundation will review and amend this agreement at least every five years.

Either party may, upon 90 days prior written notice to the Chief Executive and Board Chair of the other party, terminate this agreement. The party initiating termination of the agreement must act in good faith to provide an opportunity for a meeting to include Institution and Foundation executives and Board Chairs (or the Board Chairs' designees) of both parties within 30 days of initial written notice of intention to terminate the agreement.

Notwithstanding the foregoing, either party may terminate this MOU in the event the other party defaults in the performance of its obligations and fails to cure the default within a reasonable time after receiving written show cause notice to the Chief Executive and Board Chair of the defaulting party.

Should the Institution choose to terminate this agreement, the Foundation may require the Institution to pay, within 180 days of written notice, all debt incurred by the Foundation on the Institution's behalf, including, but not limited to, lease payments, advanced funds, and funds borrowed for specific initiatives. Should the Foundation choose to terminate this agreement, the Institution may require the Foundation to pay debt it holds on behalf of the Foundation in like manner.

Consistent with provisions appearing in the Foundation's bylaws and its articles of incorporation, should the Foundation cease to exist or cease to be an Internal Revenue Code 501(c)(3) nonprofit corporation, the Foundation will transfer its assets and property to the Institution, to a reincorporated successor Foundation, to another 501(c)(3) organization affiliated with the Institution, or to the state or federal government for public purposes, in accordance with the law and donor intent.

IN WITNESS WHEREOF, the parties have caused this Memorandum of Understanding to be executed by their duly authorized officers as of the day and date first above written.

_____   _____
Chair   Chair
Board of The Institution   Board of The Foundation

Date: _____   Date: _____

_____   _____
President or Chancellor   Chief Executive
The Institution   The Foundation

Date: _____   Date: _____

ACKNOWLEDGMENTS

ADDITIONAL RESOURCES

Effective Foundation Boards: A Guide for Members of Institutionally Related Foundations. AGB Press, 2012.

Margin of Excellence. The New Work of Higher Education Foundations, by Rick Legon. AGB, 2005.

The Governance Committee (Foundation Boards), by Jim Lanier. AGB Press, 2014.
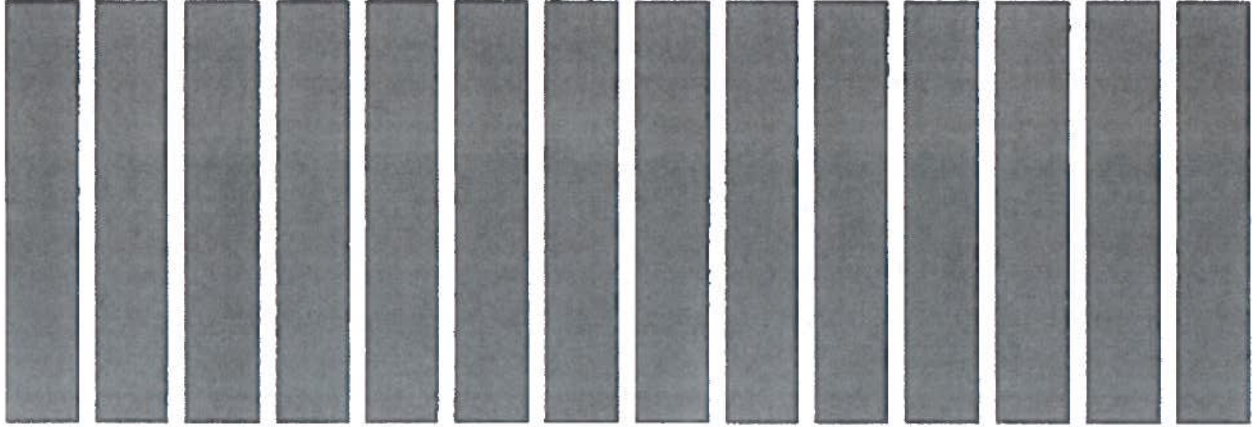
AGB ASSOCIATION OF
GOVERNING BOARDS
OF UNIVERSITIES AND COLLEGES

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Background, Considerations and Approaches for the Next UH Tuition Schedule

Board of Regents

November 15, 2018

Recent Tuition Schedule History

Year Approved	Academic Years Covered / Amendments
March 2001	2001-02, 02-03, 03-04, 04-05, 05-06
May 2005	2006-07, 07-08 ,08-09, 09-10, 10-11, 11-12
October 2011	2012-13, 13-14, 14-15, 15-16, 16-17
	May 2015: Reduced previously approved increases for 2015-16, 16-17
July 2016	2017-18, 18-19, 19-20
	June 2017: Reduced LLM only

Summary of Considerations for the 2017-2020 (Current) Tuition Schedule

- Tuition setting goals:
  - Maintain affordable access to public higher education for every qualified Hawaiʻi resident
  - Ensure financial sustainability
  - Modernize and repair campus facilities and environments to be safe, sustainable and supportive of modern 21st century teaching & learning
- Approved Schedule
  - No increase in 2017-18
  - 2 percent resident tuition increase in 2018-19 and 2019-20 for Mānoa; Smaller increases for other units
  - Comparable dollar increases for non-resident tuition
  - All revenue from increases set aside solely for investments in facilities

Current 2017-2020 Tuition Schedule 1/2

		Annual Increase		
	2016-17	2017-18	2018-19	2019-20
UH Mānoa UG				
Resident	$10,872	$0	$216	$216
Non-Resident	$32,904	$0	$216	$216
UH Mānoa GR				
Resident	$15,288	$0	$312	$312
Non-Resident	$36,768	$0	$312	$312
UH Hilo and UH West Oʻahu UG				
Resident	$7,200	$0	$72	$72
Non-Resident	$20,160	$0	$72	$72
UH Hilo GR				
Resident	$11,496	$0	$120	$120
Non-Resident	$26,328	$0	$120	$120
UHCC Lower Div (Per SH)				
Resident	$126	$0	$2.50	$2.50
Non-Resident	$340	$0	$2.50	$2.50
UHCC Upper Div (Per SH)				
Resident	$300	$0	$3.00	$3.00
Non-Resident	$840	$0	$3.00	$3.00

Current 2017-2020 Tuition Schedule 2/2

		Annual Increase		
	2016-17	2017-18	2018-19	2019-20
UH Mānoa Grad Bus (Master's)				
Resident	$21,288	$0	$0	$0
Non-Resident	$38,352	$0	$0	$0
UH Mānoa Grad Educ (EdD)				
Resident	$16,824	$0	$0	$0
Non-Resident	$38,280	$0	$0	$0
UH Mānoa Grad Nursing				
Resident	$24,024	$0	$0	$0
Non-Resident	$45,504	$0	$0	$0
UH Mānoa Law JD				
Resident	$22,392	$0	$0	$0
Non-Resident	$45,816	$0	$0	$0
UH Mānoa Law LLM				
Resident	$44,640	-$15,624	$0	$0
Non-Resident	$44,640	-$15,624	$0	$0
UH Mānoa Medicine				
Resident	$36,672	$0	$0	$0
Non-Resident	$71,328	$0	$0	$0
UH Hilo Grad Nursing				
Resident	$18,744	$0	$192	$192
Non-Resident	$37,392	$0	$192	$192
UH Hilo Pharmacy				
Resident	$23,376	$240	$240	$240
Non-Resident	$40,320	$240	$240	$240

Facilities Investments from Current Tuition Increase Revenue

	2018-19	2019-20*	Notes
Annual Rate Increase	2%	2%	Cumulative 4% to facilities in 2019-20
UH Mānoa	$2,360,000	$4,720,000	First commitment of new investment to facilities
UHCC	$1,300,000	2,600,000	Facilities Investment Fund
Annual Rate Increase	1%	1%	Cumulative 2% to facilities in 2019-20
UH Hilo	$260,000	$520,000	Facilities Investment Fund
West Oʻahu	$130,000	$250,000	Facilities Investment Fund

* Tuition collected in 2019-20 is in addition to revenue from previous annual rate increase

University Policy on Tuition

Access

"...every qualified Hawai'i resident shall have an opportunity to pursue postsecondary education within the university system."

Affordability

"... keep costs to resident students at the lowest practical level while maintaining a financial aid program that responds to the needs of students who cannot meet the costs of attendance."

Regents Policy 6.202

Basic Considerations Outlined in University Policy

1.   Comparability of tuition charges with those at regional and national peer institutions

2.   Differential tuition rates by unit missions, student level (undergraduate, graduate, professional), and residency

3.   Accessibility and the mix of students (ethnic background, income levels, residents and non-residents, etc.)

4.   Financial aid availability and use

5.   The cost of education and the sharing of that cost between students and the general public

No one consideration overrides others; All are considered holistically

Regents Policy 6.202

Schedule of Consultation for Tuition <u>Increases</u>

1. Research, policy review and proposal preparation	Fall 2015	*Fall 2017 - ongoing*
2. BOR tuition setting discussion	January 2016	*November 15, 2018*
3. BOR reviews tuition proposal prior to public meetings	February 2016	*January 2019*
4. Proposal distribution / public meetings	March - May 2016	*Feb - March 2019*
5. Revisions	May 2016	*April 2019*
6. BOR consideration and action	June 2016	*April 2019*
7. Filing with Lt. Governor	June 2016	*May 2019*
New rates would go into effect	Fall 2017	*Fall 2020*

Background on Affordability

- Affordability challenges are most acute for the lowest-income populations

- Affordability challenges negatively impact enrollment and graduation

- Tuition is just one part of the total cost of attendance, which is over twice the cost of tuition & fees

- UH provides considerable institutional aid

Components of Cost of Attendance

Annual Direct and Indirect Prices for Full-Time Students
UHCC Resident Students[1], AY2018-19[2]
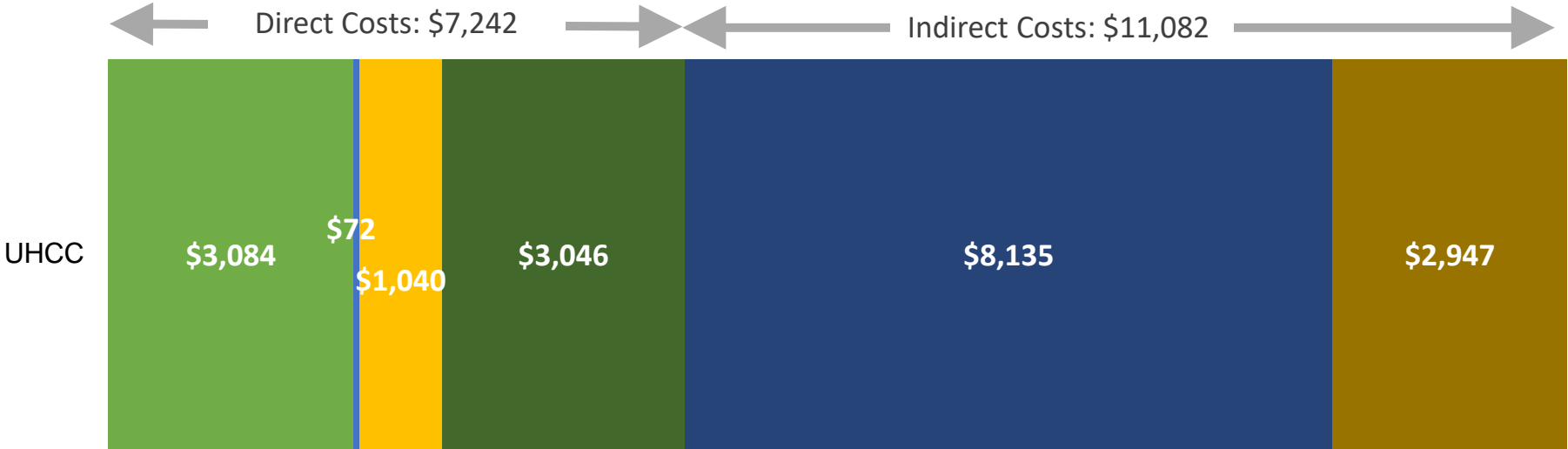
← Direct Costs: $7,242 → ← Indirect Costs: $11,082 →

UHCC

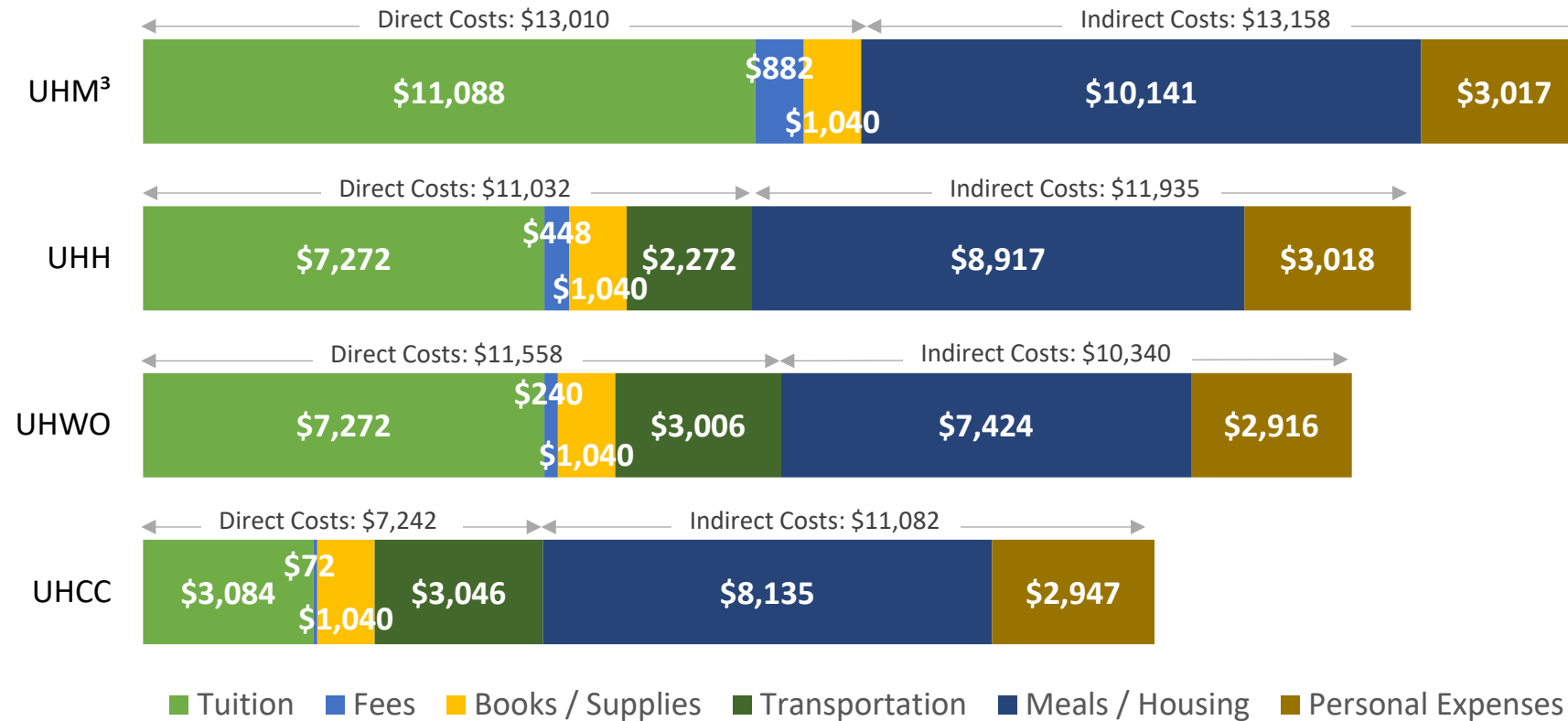| $3,084 | $72 / $1,040 | $3,046 | $8,135 | $2,947 |

■ Tuition ■ Fees ■ Books / Supplies ■ Transportation ■ Meals / Housing ■ Personal Expenses

1 Estimated Direct and Indirect Prices for students who pay the in-state tuition rate. Weighted average by living arrangement (excludes unknown values). Based on IPEDS FA's Net Price Calculation for Group 4 (Section 1: Part G). Group 4 students are those who are undergraduate full-time, first-time degree/certificate-seeking who paid in-state or in-district tuition rate and were awarded any Title IV federal student aid

2 Based on 2017-18 weighted averages for living arrangements.

3 UH Mānoa Transportation cost is included in their Fees.

Tuition, fees, books and transportation are less than half of the total costs at most institutions. Maximum Pell award for 2018 is $6,095.

Annual Direct and Indirect Prices for Full-Time Students
Undergraduate Resident Students[1], AY2018-19[2]

UHM[3]
Direct Costs: $13,010 | Indirect Costs: $13,158
- Tuition: $11,088
- Fees: $882
- Books / Supplies: $1,040
- Meals / Housing: $10,141
- Personal Expenses: $3,017

UHH
Direct Costs: $11,032 | Indirect Costs: $11,935
- Tuition: $7,272
- Fees: $448
- Books / Supplies: $1,040
- Transportation: $2,272
- Meals / Housing: $8,917
- Personal Expenses: $3,018

UHWO
Direct Costs: $11,558 | Indirect Costs: $10,340
- Tuition: $7,272
- Fees: $240
- Books / Supplies: $1,040
- Transportation: $3,006
- Meals / Housing: $7,424
- Personal Expenses: $2,916

UHCC
Direct Costs: $7,242 | Indirect Costs: $11,082
- Tuition: $3,084
- Fees: $72
- Books / Supplies: $1,040
- Transportation: $3,046
- Meals / Housing: $8,135
- Personal Expenses: $2,947

Legend: ■ Tuition ■ Fees ■ Books / Supplies ■ Transportation ■ Meals / Housing ■ Personal Expenses

1 Estimated Direct and Indirect Prices for students who pay the in-state tuition rate. Weighted average by living arrangement (excludes unknown values). Based on IPEDS FA's Net Price Calculation for Group 4 (Section 1: Part G). Group 4 students are those who are undergraduate full-time, first-time degree/certificate-seeking who paid in-state or in-district tuition rate and were awarded any Title IV federal student aid
2 Based on 2017-18 weighted averages for living arrangements.
3 UH Mānoa Transportation cost is included in their Fees.

In AY 2016-17, the average FTF[1], resident undergraduate students received less aid from UH (except at UH Hilo) than did FTF at peers

UH Cost of Education[1] and Price Net of Federal, State and Institutional Aid
UH Units and their Comparison Groups, AY 2016-17

UH Unit and Comparison Group(s)	Average Cost of Attendance (Sticker Price)[2]	Average Financial Aid[3]	Difference in Financial Aid
UH Mānoa	$23,053	$7,574	-$1,128
Peer Group Avg	$23,469	$8,702	
UH Hilo	$21,011	$7,186	+$92
Auto Peer Group Avg	$20,042	$7,094	
UH West Oʻahu	$14,258	$5,687	-$1,123
Auto Peer Group Avg	$19,844	$6,810	
UHCC Avg	$12,582	$4,426	-$483
Auto Peer Group Avg	$12,670	$4,909	

1 The cost data are for Group 3: defined as first-time, full-time degree seeking undergraduates who paid the in-state or in-district tuition rate and who were awarded grant or scholarship aid from the federal government, state/local government, or the institution.
2 Average Cost of Attendance is the sum of tuition and fees, average room and board, books and supplies, and other expenses.
3 Average Financial Aid is defined as grant or scholarship aid from federal, state/local and institutional sources.
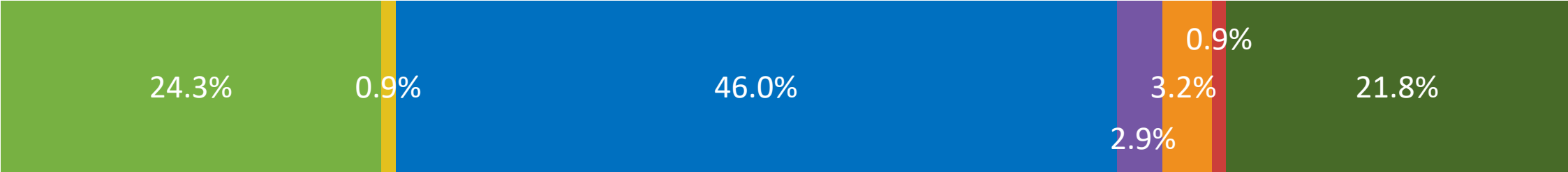Source: IPEDS Data Center; Student Financial Aid surveys, Part F.
UH Institutional Research and Analysis Office; July 2018.

Grants and Scholarships Awarded
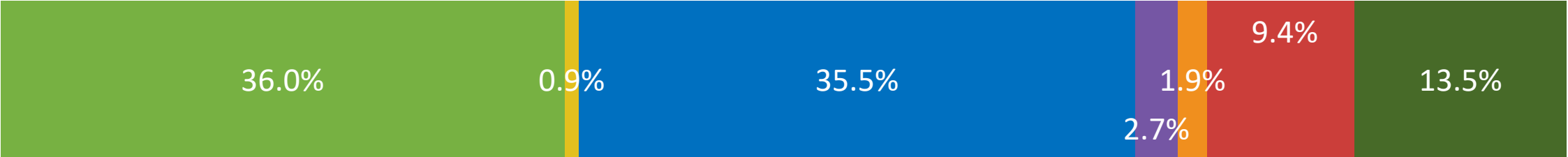and On-Campus Employment
All Undergraduates, AY 2016-17

UH Mānoa — $69.9 million

Pell	Federal Other	Institutional	State	UHF	Other (External)	Student Wages
24.3%	0.9%	46.0%	2.9%	3.2%	0.9%	21.8%

UH Hilo — $18.9 million

Pell	Federal Other	Institutional	State	UHF	Other (External)	Student Wages
36.0%	0.9%	35.5%	2.7%	1.9%	9.4%	13.5%

Legend: Pell, Federal Other, Institutional, State, UHF, Other (External), Student Wages

UH Institutional Research and Analysis Office; July 2018.

Grants and Scholarships Awarded and On-Campus Employment All Undergraduates, AY 2016-17

UH West O'ahu
$8.0 million

Pell	Federal Other	Institutional	State	UHF	Other (External)	Student Wages
55.1%	0.8%	27.2%	3.3%	2.5%	1.7%	9.5%

UH Community Colleges
$44.5 million

Pell	Federal Other	Institutional	UHF	Other (External)	Student Wages
61.8%	1.4%	14.7%	4.0%	3.4%	13.7%

Legend: ■ Pell ■ Federal Other ■ Institutional ■ State ■ UHF ■ Other (External) ■ Student Wages

UH Institutional Research and Analysis Office; July 2018.

Unmet Need is largest for students at the lowest income levels

Affordability for First-Time Full-Time Students at the University of Hawaii – Manoa, 2016
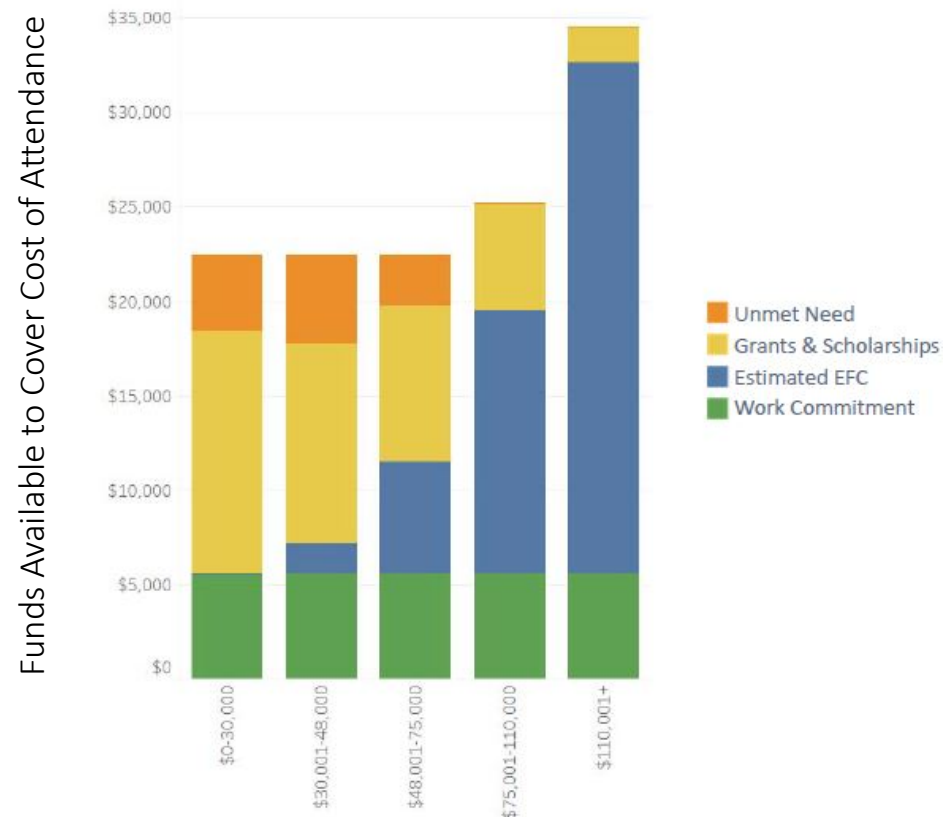
Affordability for First-Time Full-Time Students at the Hilo and West Oahu Campuses, 2016

Source: NCHEMS.
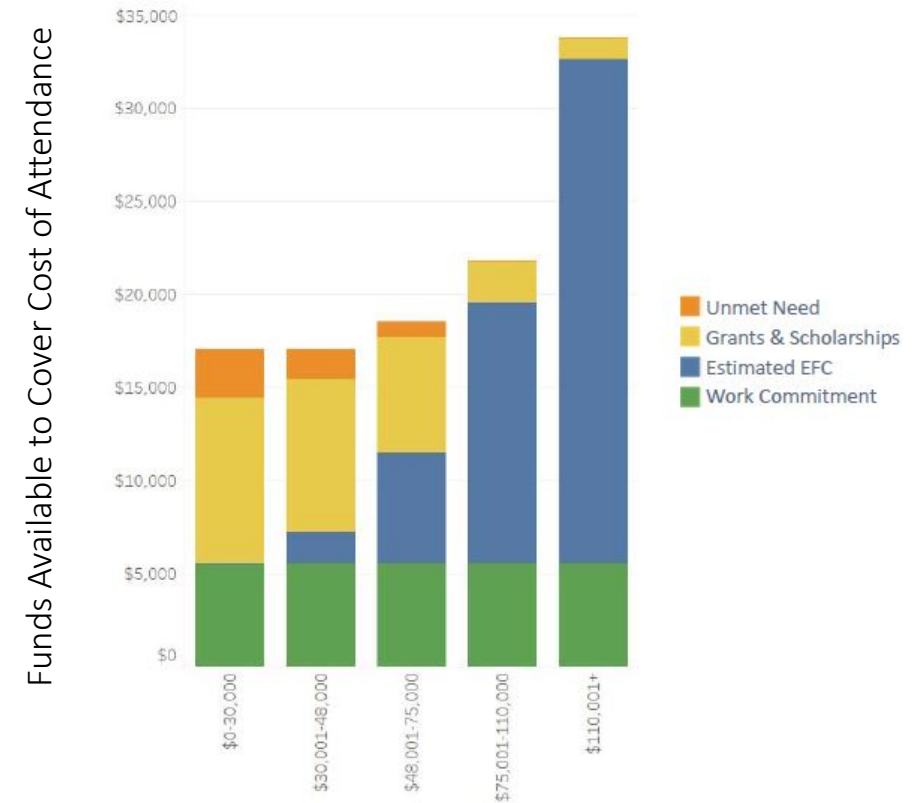
Possible Steps to Enhance Affordability

- Extend Hawaii Promise program to all campuses (request pending)

- Increase share of tuition invested in need-based aid (must be based on campus strategies)

- Increase student employment opportunities (request pending)

- Increase Foundation-based scholarships (will be a focus for next campaign)

- Zero/Low Cost Textbooks (work underway)

- More affordable student housing (pending)

Access & Student Mix

Enrollment of Underrepresented Ethnic Groups
Undergraduates, Fall 2010 - Fall 2018
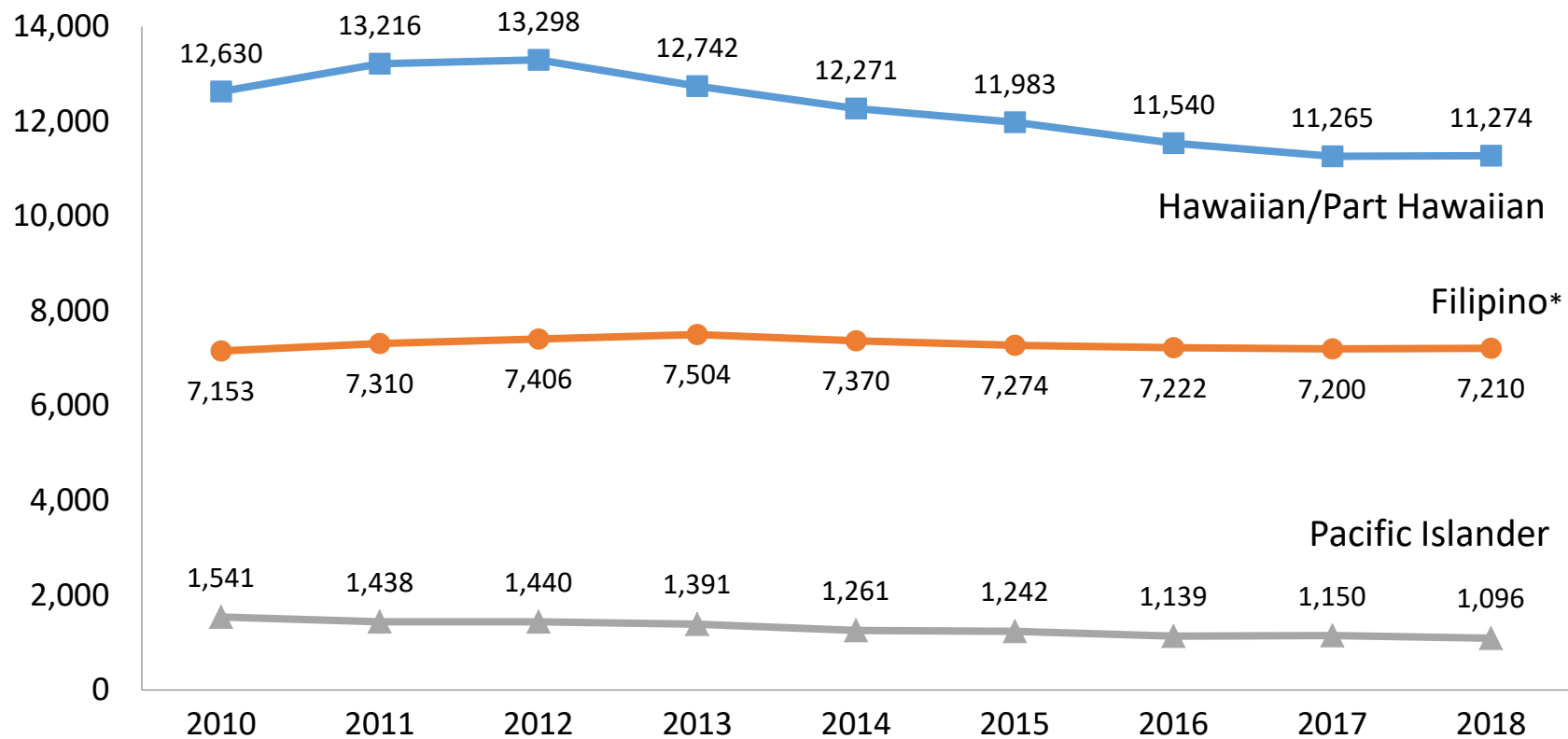
Pacific Islander includes Guamanian/Chamorro, Micronesian, Mixed Pacific Islander,
Other Pacific Islander, Pacific Islander, Samoan, Tongan.
* Only Filipino students are below parity with population.

Historic Background on Tuition Standing Relative to Peers

During 2006-07, UH had some of the lowest published tuition rates in the country.

During the great recession, the decline in Hawai'i state investment in public higher education was among the highest in the country.

During that same period, UH tuition increases were among the largest in the country. As a result:

- Resident undergraduate rates are now close to peers

- Non-resident undergraduate rates are now higher than peers

- Graduate resident and non-resident rates are now much higher than peers

- Some enrollment declines are correlated with tuition rate changes

UH Mānoa undergraduate resident somewhat higher than WICHE and Flagship peers but undergraduate non-resident rates significantly higher

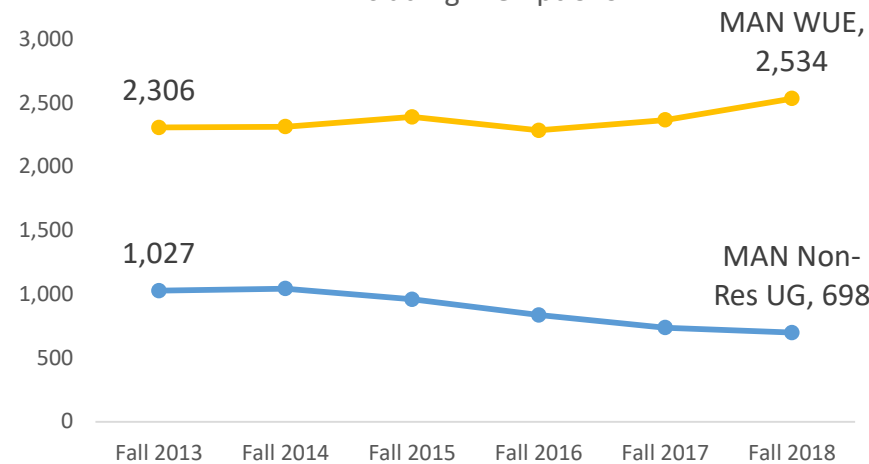UH Mānoa Resident Undergraduate Tuition and Fees with projections for Peers
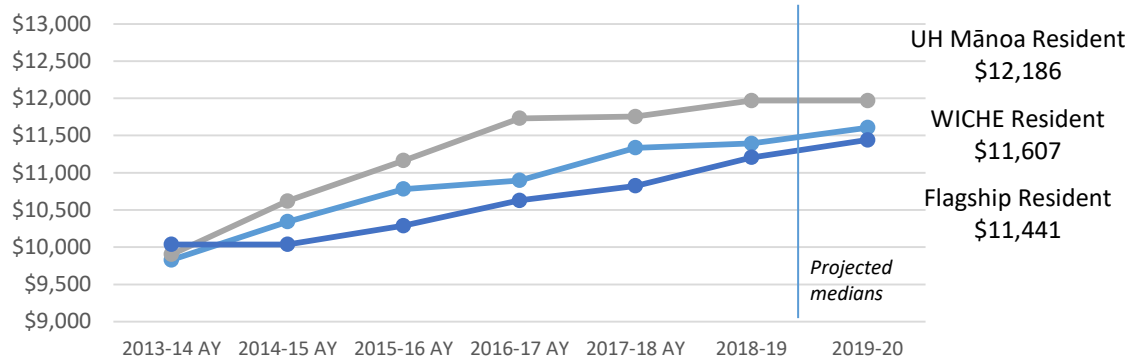
UH Mānoa Resident $12,186

WICHE Resident $11,607

Flagship Resident $11,441

Projected medians

UH Mānoa Non-Resident Undergraduate Tuition and Fees with projections for Peers

UH Mānoa Non-Resident $34,218

WICHE Non-Resident $31,612

Flagship Non-Resident $31,058

Projected medians
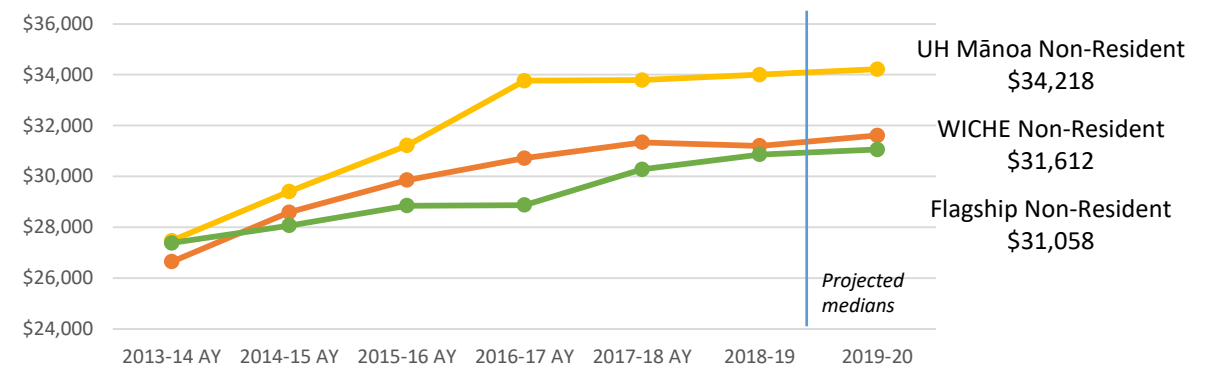
UH Mānoa Undergraduate Non-Resident Enrollment Excluding Exemptions

While undergraduates paying non-resident tuition have decreased by 32%, WUE enrollment has increased by 10%.
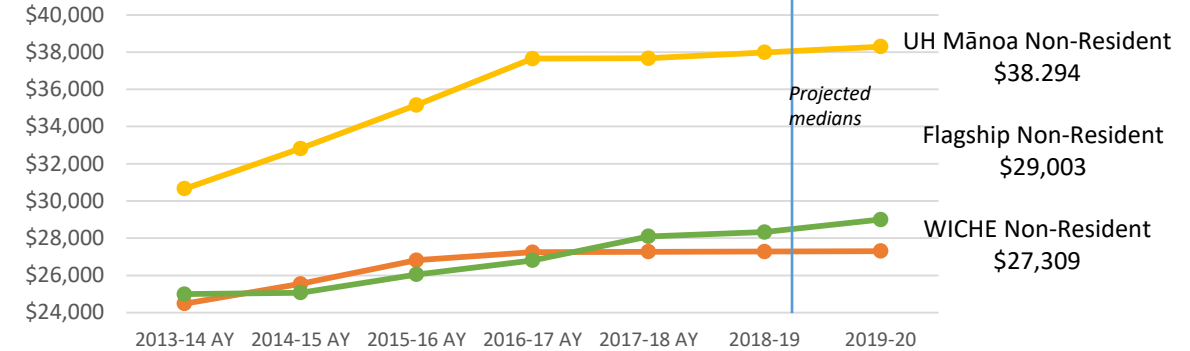
MAN WUE, 2,534

2,306

MAN Non-Res UG, 698

1,027

Data sources: 2013-14 to 2017-18, IPEDS; 2018-19, campus websites. Medians exclude Hawai'i.

UH Mānoa graduate rates are significantly higher

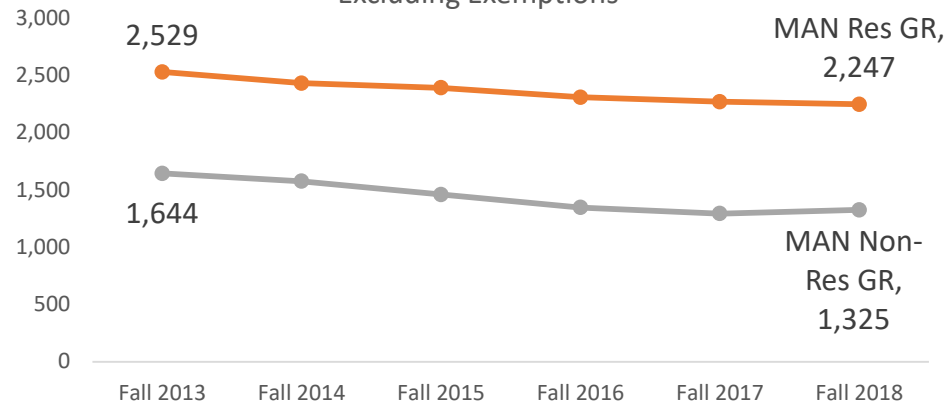Mānoa Resident Graduate Tuition and Fees with projections for Peers

UH Mānoa Resident $16,814

WICHE Resident $13,205

Flagship Resident $12,486
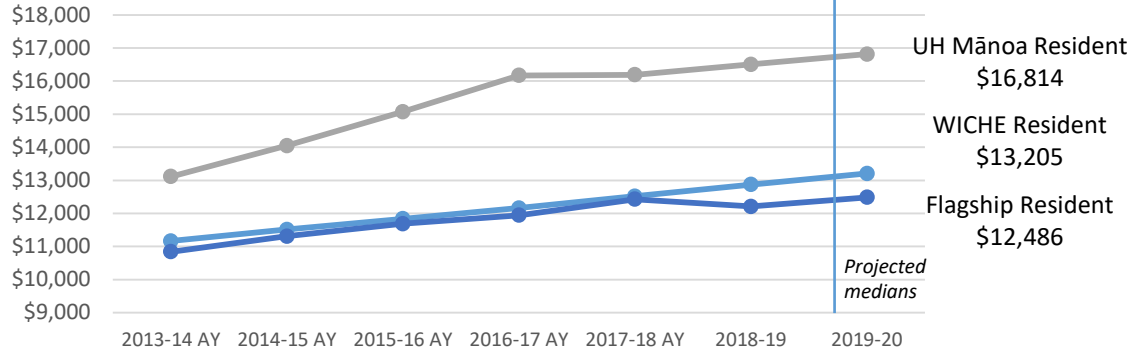
UH Mānoa Non-Resident Graduate Tuition and Fees with projections for Peers

UH Mānoa Non-Resident $38.294

Flagship Non-Resident $29,003

WICHE Non-Resident $27,309

UH Mānoa Graduate Enrollment
Excluding Graduate JD, LLM, MBA, MD
Excluding Exemptions

Enrollment of graduate students have declined by 11% for residents and 19% for non-residents.

MAN Res GR, 2,247
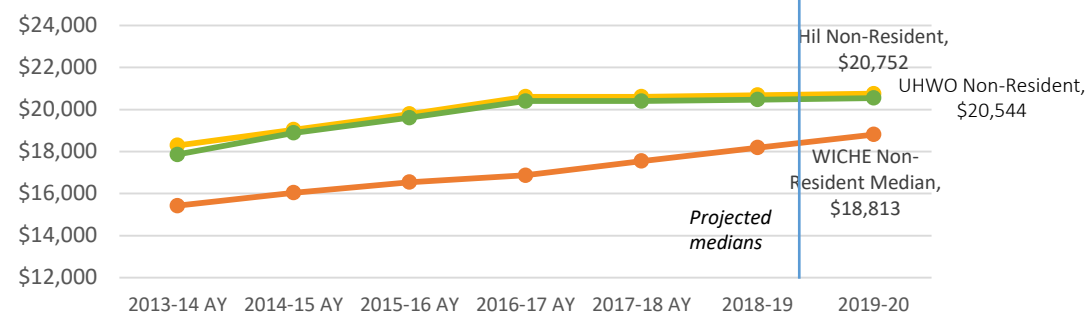
2,529

1,644

MAN Non-Res GR, 1,325

UH Hilo and West Oʻahu undergraduate tuition is higher than WICHE peers

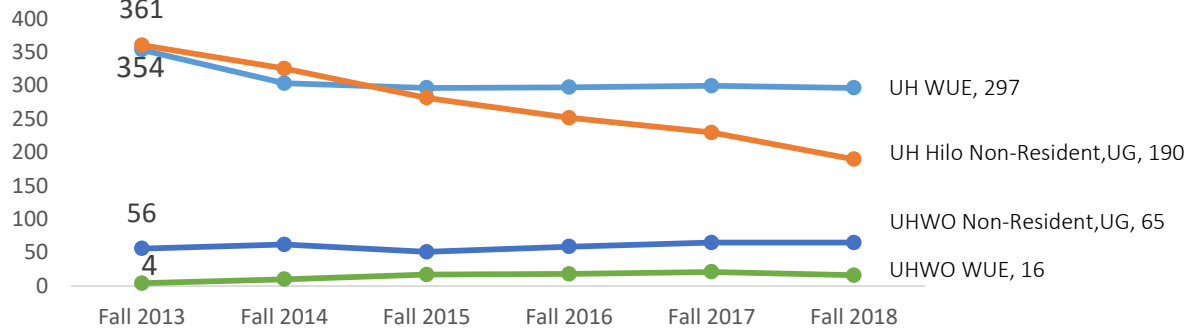### UH Hilo Resident Undergraduate and UH West Oʻahu Tuition and Fees with projections for Peers
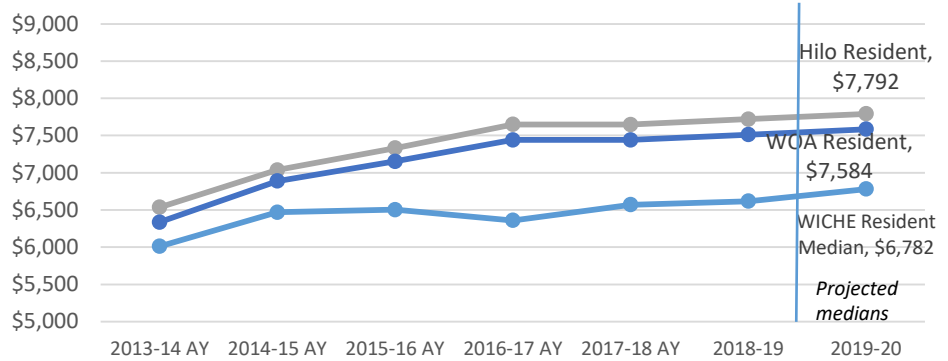
Hilo Resident, $7,792

WOA Resident, $7,584

WICHE Resident Median, $6,782

Projected medians

UH Hilo Non-Resident Undergraduate and UH West Oʻahu Tuition and Fees with projections for Peers

Hil Non-Resident, $20,752

UHWO Non-Resident, $20,544

WICHE Non-Resident Median, $18,813

Projected medians

Hilo and West Oʻahu Undergraduate Non-Resident Enrollment Excluding Exemptions

361

354

56

4

UH WUE, 297

UH Hilo Non-Resident,UG, 190

UHWO Non-Resident,UG, 65

UHWO WUE, 16

Hilo's WUE enrollment has remained relatively steady since 2014, while enrollment of non-resident-paying students has decreased by 42% over the same time period.
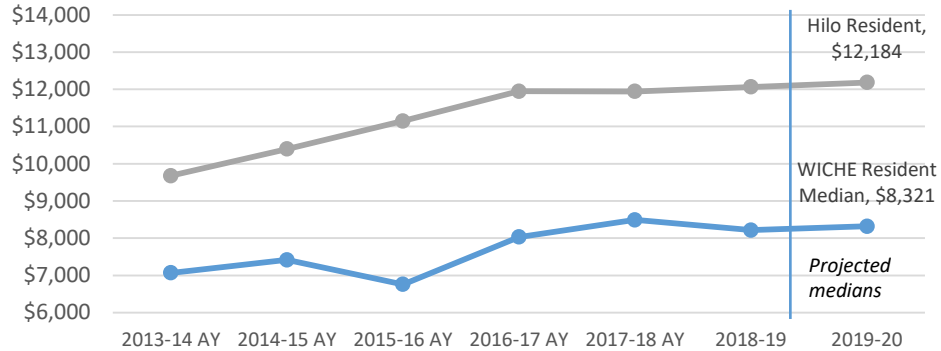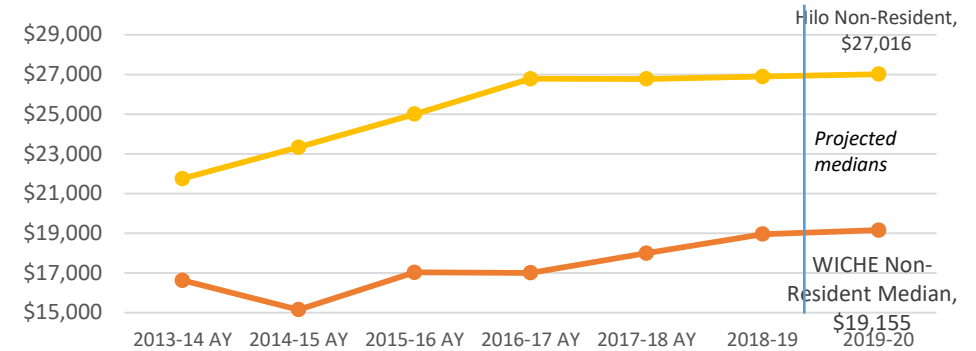
Data sources: 2013-14 to 2017-18, IPEDS; 2018-19, campus websites. Medians exclude Hawaiʻi.

UH Hilo graduate rates significantly higher

### Hilo Resident Graduate Tuition and Fees with projections for Peers

Hilo Resident, $12,184

WICHE Resident Median, $8,321

Projected medians

Hilo Non-Resident Graduate Tuition and Fees with projections for Peers

Hilo Non-Resident, $27,016

Projected medians
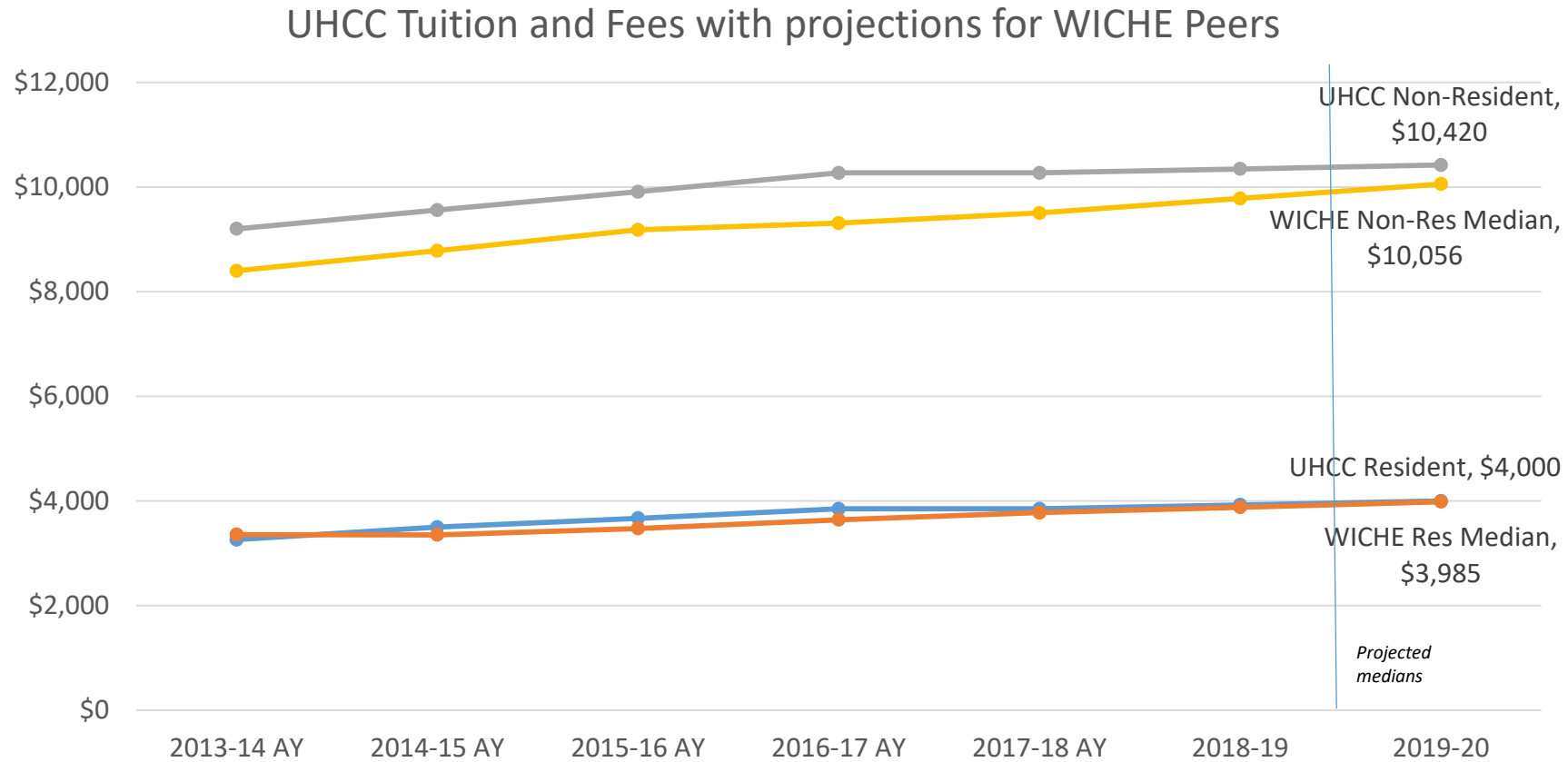
WICHE Non-Resident Median, $19,155

Graduate enrollment at Hilo has been trending upward for both residents and non-residents.

Hilo Graduate Enrollment Excluding Graduate PharmD Excluding Exemptions
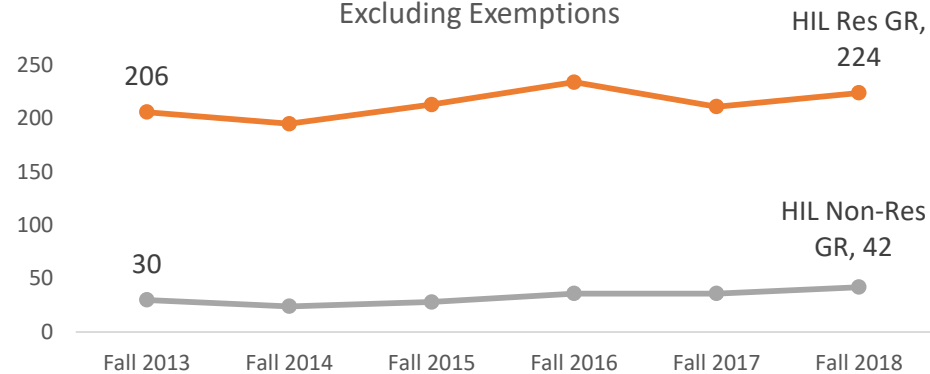
HIL Res GR, 224

206

HIL Non-Res GR, 42

30

Data sources: 2013-14 to 2017-18, IPEDS; 2018-19, campus websites. Medians exclude Hawaiʻi.

UH Community College resident tuition is near WICHE peers, but non-resident rate is higher

UHCC Tuition and Fees with projections for WICHE Peers

- UHCC Non-Resident, $10,420
- WICHE Non-Res Median, $10,056
- UHCC Resident, $4,000
- WICHE Res Median, $3,985
- Projected medians

Data source for 2013-14 to 2017-18: WICHE; 2018-19: campus websites. Medians exclude Hawai'i. UHCC based on 15 credits per semester.

COST OF EDUCATION: Does Undergraduate Non-Resident tuition cover at least 100% of per-student Education & Related Expenditures at UH Mānoa?

(E&R expenditures includes expenditures on instruction, student services, and a pro-rated share of academic services, institutional services and operations and maintenance)

Full-Time Undergraduate Tuition by Resident / Non-Resident
as a % of E&R Expenditures per Fall FTE Student - UH Mānoa
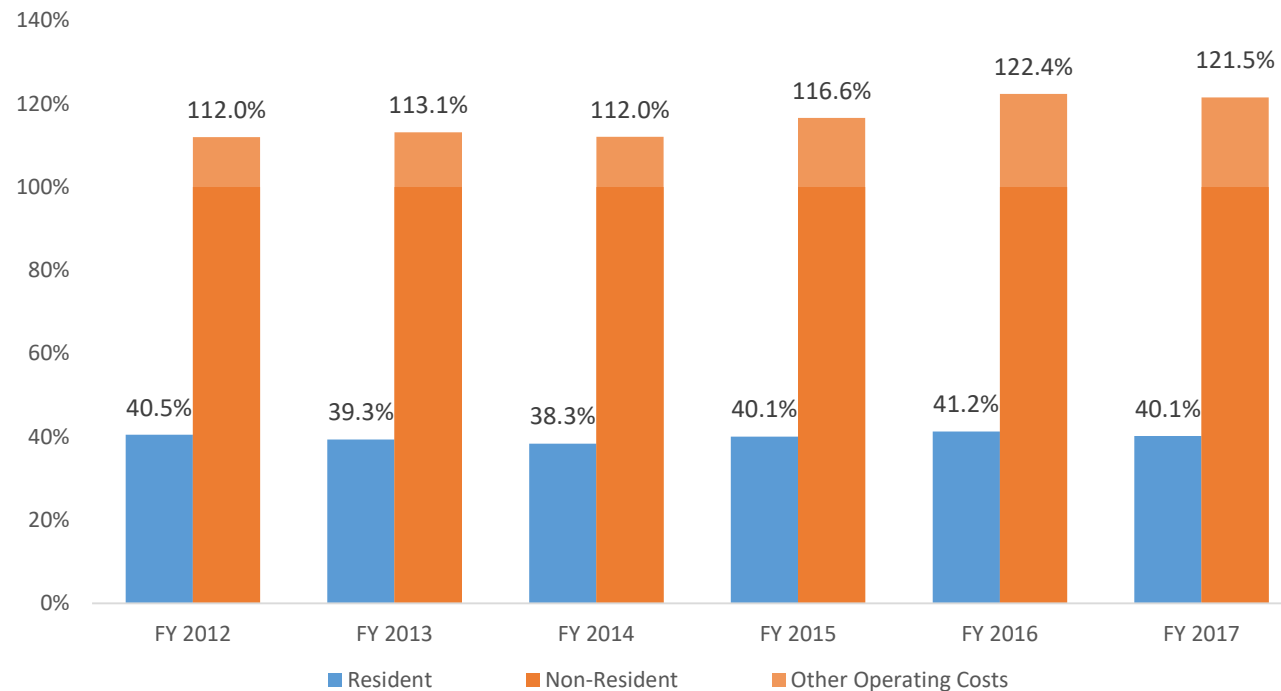
Percentages are similar at UH Hilo and UH West Oʻahu

Available National Insights on How Tuition Impacts Enrollment

- NCHEMs cites studies that generally found a 3-4% change in enrollment with a $1000 change in price

- Northeastern University's experience is that for every 5% their price exceeds competitors' list price, they see a 0.5% decrease in applicants. And for every 1% their net price exceeds competitors' they see a decrease in yield by 1%

- Changes in published tuition price can have a greater impact on enrollment than changes in grants/scholarships

- Low-income students and community college students are more sensitive to price (demand increases if the price for alternatives becomes higher)

Summary

- Affordability is a growing concern and tuition is a key component

- UH tuition rates have risen above their peers at our 4-year institutions, markedly so for non-residents

- UHCC rates continue to be close to their peers, but have risen more than peers in recent years

- Major price differences may be impacting enrollment in some categories

High-Level Options

1. Extremely moderate tuition increases over a multi-year period at rates similar to the current schedule (0%, 1%, 2%) tied to specific purposes, e.g.,

   - Facilities repair, improvement, modernization

   - Increased amount of tuition returned to aid

   - Specific elements of inflation out of university's control

2. Hold tuition constant

3. Reduce tuition in categories that significantly exceed peers and where there is reason to believe total revenue will increase

4. Combinations of the above

5. Reconsideration of 2019-20 rates in light of decisions for 2020-21 and beyond

Additional Technical Changes

- Correct Maui College 4-year tuition rates with a cap at 12 credits as full-time, to conform with UH Hilo and UH West Oʻahu practice

- Re-examine tuition rates for upper division programs within the community colleges

Discussion

Fewer students at Hawaiʻi institutions have debt than their peer institutions

UH Undergraduate Student Loan Debt, AY2016-17

	UH[1]		Peers[2][3]
	% of Graduates with Debt	$ Average Debt	% of Graduates with Debt
UHM	44%	$24,269	55%
UHH	58%	$28,731	69%
UHWO	46%	$18,492	76%
UHCCs	17%	$12,355	N/A

1 Based on Common Data set survey methodology. Includes: (1) First-time, undergraduate students at the institution and (2) Only loans made to student while enrolled at the institution. Excludes: (1) Transfer-in students, (2) Money borrowed at other institutions, (3) Parent PLUS loans, and (4) Pharmacy BA degrees since Pharmacy BA students are graduate degree seekers.
4-year campuses are based on first degree earned. CC campuses are based on higher degree earned.

2 For UH Mānoa, peers are their official campus peer. For other campuses, it is IPEDS Auto Selected peers. IPEDS Peers is the median of each campus' IPEDS Peers.

3 Source: The Institute for College Access & Success (TICAS), https://ticas.org/posd/map-state-data#
Most college-level data are taken directly from U.S. Department of Education sources and the Common Data Set (CDS).