

**University of Hawai‘i Maui College  
Information Technology Department  
Program Review**



**Academic Year 2018-2019**

## **1. Program Description**

### **Mission**

The mission of the Information Technology (IT) department is to assist faculty and staff in the advancement of knowledge through the use of technology and to make available such technological tools that serve to promote the mission of the college.

### **Vision**

The overall vision of IT is to develop, maintain and expand state of the art technologies to provide a learning environment that enables faculty, staff and students the opportunity to develop knowledge and skills to succeed in the 21st century and beyond.

### **Description**

IT is a service-oriented department that plays a critical role in support of the daily operations of the college by providing high quality technical services. IT plans, obtains funding, acquires, installs, and supports the necessary technological tools and resources for education, training, and the use of technology for instructional, academic, and administrative support for the college on the Kahului campus and its Outreach centers in Hāna and Lahaina, and on Molokaʻi and Lānaʻi.

IT is located in the Kaʻaʻike Building, the central hub for the college's telecommunications network, integrating a broad range of computing, multimedia, and telecommunication technologies. The department is subdivided into Computing Services and Media Services. Each of these units work in partnership to deliver the utmost in quality customer service, support, and assistance. The IT team is comprised of dedicated staff (figure 1) who make certain that campus technology runs smoothly. They continuously strive to improve the technology resources on campus to support the overall mission of UH Maui College (UHMC).

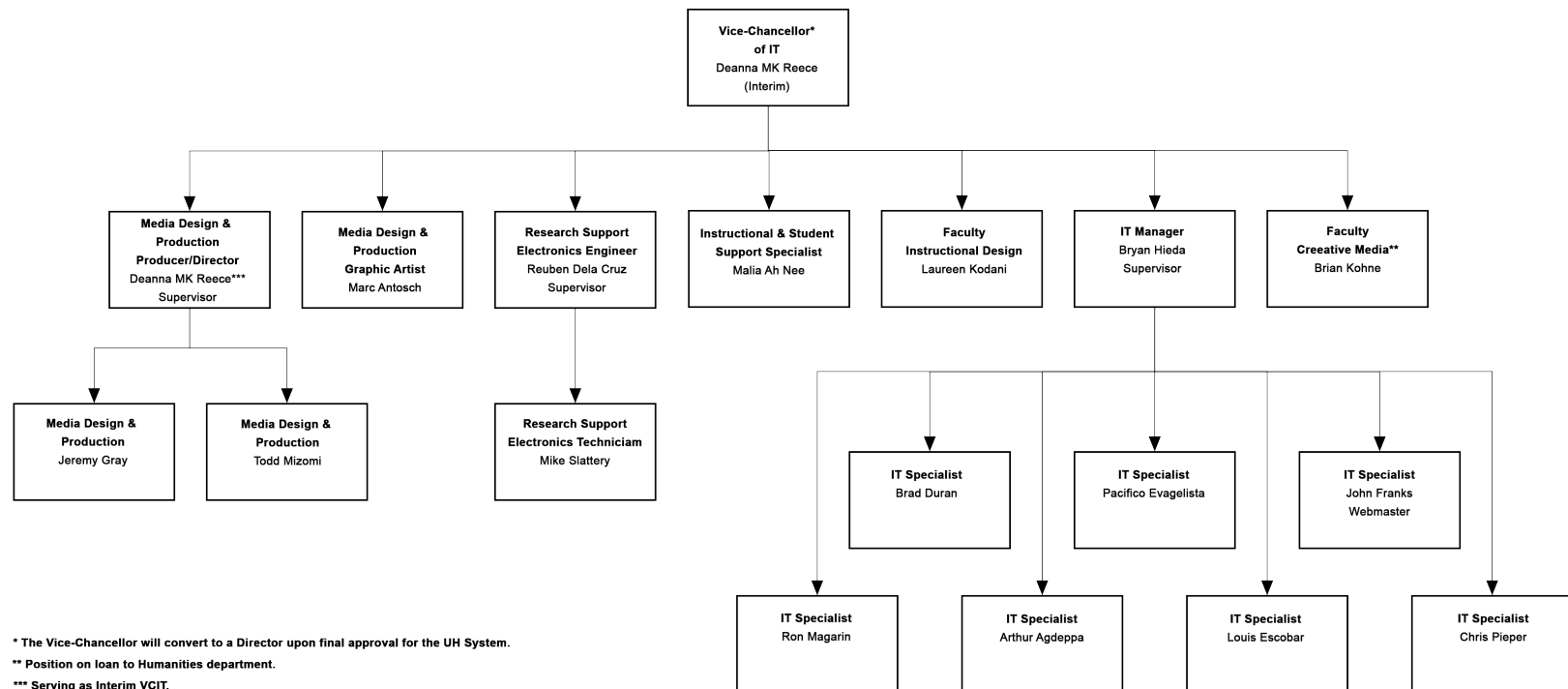


Figure 1. UHMC IT Organizational Chart

Computing Services supports:

- hardware
- software
- peripherals
- servers
- networks (ethernet and wifi)
- cybersecurity
- UHMC website
- VoIP (telephony)
- UHMC Help Desk

Media Services supports:

- distance learning
- audio visual (AV) services
- electronics
- AV production
- digital asset management
- duplication
- graphic arts services
- instructional design services
- training

## 2. Measurements of the Unit

IT is tasked with providing a wide variety of academic and institutional support services. These services are organized into nine major categories:

### **1. Provide, install, service and assess computer and peripheral equipment**

Computer and peripheral equipment and support services for classrooms, labs, faculty and staff offices.

### **2. Provide, install, assess and service audio/visual equipment**

Audio/visual equipment and support services for classrooms, labs, and special events.

### **3. Provide and maintain campus network services**

Wired and wireless internet access, VoIP services.

### **4. Provide technical and production services for distance learning (DL)**

Technical and instructional support for course instruction taught via DL.

### **5. Provide graphics and marketing support, printing, photocopying and duplication services and a faculty/staff work room**

Duplication, printing, desktop publishing, laminating, velo-binding, graphic arts services, including catalog and schedule of classes development, informational and marketing publications and other promotional activities.

### **6. Provide website design, development and support for UHMC homepage**

Content development, design and consultation services, miscellaneous external website support, video streaming support, workshops, training and marketing services.

### **7. Provide Help Desk operations and support services**

Computer and multimedia troubleshooting and repair services for faculty, staff, and students.

### **8. Provide orientation and training for multimedia and computing technology**

Computing technology support and multi-media design services for course instruction, program development, and content creation.

### **9. Provide marketing support services for the college's programs**

Technology and consultation services to assist with program information dissemination and overall college marketing and advertising.

Table 1 shows the quantitative indicators used in measuring the workload and effectiveness of the unit.

Table 1

Quantitative Indicators of UHMC IT Department.

Indicator	AY 16-17	AY 18-19	% diff
Demand			
Campus enrollment			
Fall	3,342	3,092	-7.48
Spring	2,919	2,753	-5.69
FTE faculty	170	123	-27.65
FTE staff	128	167	30.47
Efficiency			
Operation hours per week	70	65	-7.14
Student hire hours per week	115	65	-43.48
Casual hire hours per week	n/a	35	n/a
Completed Work Requests (via OS ticket, email, phone and f2f)			
Computing	1,006	1,740	72.96
Engineering/AV	1,752	2,199	25.51
Instructional Design	n/a	515	n/a
Graphic Arts	182	142	-21.98
Duplication	8	54	575
Number of copies generated	370,058	301,925	-18.41
Media Production (total hours)	349	1,293	270.49
DL/Cable/Videoconferencing (total hours)	5,645	3,909	-30.75
Number of Instructional Computers (Kahului and Outreach Centers)	1,822	1,800	-1.21

### 3. Analysis of the Unit

#### Quantitative Indicators

Table 1 shows that campus enrollment has slightly decreased, the number of faculty has decreased and the number of staff has increased. In keeping with the slight decrease in enrollment, the number of hours of DL and cable classes has decreased. Along with this decrease in DL and cable classes is a slight decrease in operational hours and student hire hours, which were balanced out by adding casual hire hours. Casual hires provide consistent availability from semester to semester vs. student hires whose schedules change from semester to semester. This was necessary to allow the Producer/Director release time to serve as the interim Vice-Chancellor of IT, which added significantly to her workload.

There were increases all around in the number of workorders completed by computing, engineering/av, and duplication services. While there were less requests for graphic arts services, there was an enormous increase in production hours due to UHMC hosting two large conferences on campus during the academic year and other project requests for marketing and content creation.

Due to budget considerations for the campus, one open computer lab was converted to a non-computer classroom.

## Other Data Collection and Analysis

A survey was conducted in the early Spring 2018 semester that included performance data that were collected from three open ended questions. Responses indicate that technology on campus needs to be updated on a regular schedule to keep up with changing technology. In general, users appreciate the level of support that they receive but would like more training in both hardware and software use. Recurring themes include the need for improved wireless access, newer computers, updated and additional software applications, audio-visual improvements in classrooms, workshops, technology training, additional media production staff, and additional instructional design support.

To address some of these needs, IT submitted requests for funding via the system equipment replacement. 10 new projectors, 7 interactive displays, and 4 polycom units were acquired. New computer equipment for several departments was purchased through the Student Tech Fee and an externally funded source specifically earmarked for student computer purchases.

A new series called TechBits was implemented to assist in fulfilling the requests for training. These workshops are conducted via Zoom desktop video conferencing about once per month for a duration of one hour each. The response has been positive and requests for more training via this medium has continued. Table 2 shows the topics and attendance from the TechBits workshops conducted this academic year.

Table 2

### TechBits Webinars Conducted

Topic	Attendees	Details
Multi-factor Authentication (MFA/2FA)	16	<ul style="list-style-type: none"><li>● overview - rational and purpose</li><li>● changing password</li><li>● how to use</li><li>● setting up an alternate authentication method</li><li>● changing your device</li><li>● if you lost your device</li><li>● strategies for creating passwords</li></ul>
Google Part 1	23	<ul style="list-style-type: none"><li>● Gmail</li><li>● GDocs</li><li>● GDrive</li></ul>
Tips, Resources and Services (Tips and Tricks)	19	<ul style="list-style-type: none"><li>● VIA</li><li>● VPN</li><li>● FileDrop</li><li>● Campus Wifi (conference)</li><li>● Spirion</li><li>● Account Scrambler</li><li>● Know thy URL</li><li>● Ohana Email</li><li>● Dept Email</li></ul>

Work orders and requests for service and support in the nine major functional categories show that demand for these services continues to be high. Media production continues to show an increase in demand. The current numbers do not reflect the projects and requests that are not fulfilled due to a shortage of staff in that area. The demand for training continues to increase as reflected in many of the responses from the open-ended questions.

### **Strengths**

The major strength of the IT department is its people. The staff are extremely dedicated to the campus and will go the extra mile to ensure that the technology needs of the faculty, staff, students, and administration are met. This includes both the credit and the non-credit programs. Staff will arrive early, stay late, work double shifts and even come in on weekends to ensure that the campus networks are up and running and DL classes are covered. There is no price that can be put on this kind of commitment.

### **Weaknesses**

Another common theme from the open-ended responses was to upgrade computer hardware, software, and AV technology in classrooms. This has proven to be challenging since the current combined IT budget, which includes both the computing and media sides of the house, is severely inadequate considering the department is tasked with purchasing, maintaining and upgrading all technology in all classrooms on the Kahului campus and the four Outreach centers. Basic software, which includes software for network functionality and firewalls for security, takes up about 40% of the budget. Computer and AV personnel need to travel to Moloka'i and Lāna'i for repairs and installations which adds to the drain on the budget. As technology has improved, there are certain types of consumer equipment that has dropped in price, however, the demand for newer technologies such as interactive display boards has been cost prohibitive. As many software vendors switch to subscriptions, this could add to the already inadequate budget. This lack of funding is the main of weakness of the unit.

## **4. Action Plan**

- Transition campus computers to a Virtual Desktop System (VDI)
  - A proof of concept test of two computer classrooms was done during the past academic year with positive results. Plans to move ahead to expand to other classrooms are in process.
- Upgrade network connection speeds to support 10 GB at individual buildings. (in process)
- Deploy a second firewall to allow for better threat protection performance and provide redundancy in the event we lose our primary firewall. (in process)
- Upgrade AV in classrooms.
- Upgrade wireless access points, bandwidth speed, and campus coverage.
- Provide more workshops and training via Zoom and face to face.
- Transition ITV classes to Zoom to provide more class opportunities for students.
  - This process has begun by reducing the number of ITV classes and increasing the number of classes offered via Zoom. This will also be done in partnership with UH-Academic Technologies.
- Roll out X Pro Wordpress framework for the UHMC website to all users.



- Work with Campus Security to upgrade the campus' security camera network.
- Work with O&M to move power outlets in identified classrooms to accommodate ceiling mounted projectors.

## 5. Resource Implications

Keeping up with technological advances requires UHMC to invest in campus needs which requires support from the entire campus. Equipment purchases and replacements have been possible only with the assistance of external grants, gifts, departmental partnerships, equipment replacement funds, and Student Tech Fees. There is also the increase in subscription based software for various functions for the campus networks and curriculum support. Additionally, the demand for video production support and training services has continued to increase. This demand comes from a variety of programs including credit, non-credit, and grants. As UHMC moves forward in adding more hybrid courses, the demand for high quality video and audio content is increasing. There is also high demand for instructional design services to support the transition to more hybrid courses.

- To assist with additional requests for video production and instructional design support in hybrid course transition, IT requests a full-time Media Design & Production Band B position be added to the staff.
- IT also requests the addition of a Distance Learning coordinator, an 11-month faculty position, that can support all DL classes in all modalities and coordinate DL functions on campus and with other campuses.
- Additional funding is requested to cover upgraded instructor and student computers for classrooms, AV upgrades in classrooms, updates to the campus wifi network to allow for continued growth, and purchasing software licenses to ensure network functionality and security.