



## The Hawai'i Health Career

# NAVIGATOR

A Directory of Health Professions and Resources



A Publication of the Hawai'i/Pacific Basin Area Health Education Center

[www.ahec.hawaii.edu](http://www.ahec.hawaii.edu)

## Aloha Students, Parents, Teachers, Counselors, and Interested Individuals,

This book is designed to help whether you want to go into the health professions, you know someone who does, or you want more health professionals in our state. It is designed to let you know what is available and how to pursue a healthcare career. It is also a work in progress, so let us know your feedback.

We all walk a different path in life and we all decide on a career in different ways and at different times. I decided to be a doctor when I was 12, after seeing my brother being born. It took my mother more than 36 hours of difficult labor and he was the ugliest thing I had ever seen. I thought my parents were going to be so disappointed that they did all this work for such an ugly baby. But when the doctor held him up, mom said, "He's beauuuutiful!" I couldn't believe it!

At first I thought she had lost her mind. But the more I thought about it, the more I realized that it would not have made a difference what he looked like (he looks just fine today), because of how much love she felt for him. Over the next few weeks to months, I realized that I wanted to have a job that brought such love and happiness to people. I realized that I wanted to be a doctor and deliver babies.

It was not easy. I needed scholarships and loans to go to college. I volunteered in hospitals and offices. I took the hard courses and tests, I sought out an expert to help me write my application essay and then I studied and studied and studied some more. I had failures and successes along the way. But I became a doctor and I'm glad I did. I have a very interesting career with a lot of variety and financial stability. I can help people one-on-one or in large groups. I can teach, do research and create programs to change things that I see as barriers to everyone getting excellent healthcare. And so can you! You don't have to be a straight "A" student (although it helps). What you really need is commitment and the desire to listen to and understand people. This book is designed to help YOU achieve your dreams and not quit until you get there.

We, at the Hawai'i/Pacific Basin Area Health Education Center (AHEC) office at the John A. Burns School of Medicine (JABSOM), want to help everyone who wants to be in health professions get there. This book is designed to help you get ideas about which health profession to pursue and how to go about it. It is for use by students of all ages, teachers, career counselors, parents and anyone else interested in pursuing a health career from ages 8 to 80. All the information here will be updated regularly at [www.ahec.hawaii.edu](http://www.ahec.hawaii.edu). Our goal is that this book, as well as the accompanying activity booklet and website, will be a one-stop-shop for information on pursuing health careers. We invite you to also utilize other resources offered by our AHEC office, including career orientation sessions (yes, we will come to your school and you can come to JABSOM), summer career camps, mentoring, volunteer opportunities, training, practice interviewing and loan repayment opportunities. We look forward to working with you, just call us at 808-692-1060, email us at [ahec@hawaii.edu](mailto:ahec@hawaii.edu), or go to [www.ahec.hawaii.edu](http://www.ahec.hawaii.edu) for more information.

We hope you benefit from this book and that you will let us know how we can improve it. Please contact my office at [ahec@hawaii.edu](mailto:ahec@hawaii.edu) with suggestions for the book and/or more information on our programs, including organizing a health professional to speak at your school, linking students with health career mentors, or volunteering with AHEC.

Sincerely,



Kelley Withy, MD, PhD  
Hawai'i/Pacific Basin AHEC Director  
John A. Burns School of Medicine





The Hawai`i Health Career

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A Directory of Health Professions and Resources

Second Edition

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## TABLE OF CONTENTS

HOW TO USE THIS BOOK	6
WHY PURSUE A CAREER IN HEALTHCARE?	7
BENEFITS OF BEING IN A HEALTHCARE CAREER	8
NOTE TO PARENTS, TEACHERS, COACHES, AND MENTORS	8
HOW TO BECOME A HEALTH PROFESSIONAL	9
WHY GO TO COLLEGE?	9
TIPS TO STRENGTHEN YOUR APPLICATION	10
FINANCIAL AID	11
WRITING YOUR ESSAY	12
MATCHING YOUR PERSONALITY WITH A FUN CAREER	12
PREPARING FOR PROFESSIONAL PROGRAMS	13
CAREER SPOTLIGHTS	14
HIGHER EDUCATION OPPORTUNITIES	18
HEALTH CAREER COMMUNITY RESOURCES	20
* STATEWIDE RESOURCES	20
* BIG ISLAND (HAWAI`I ISLAND) RESOURCES	25
* KAUA`I ISLAND RESOURCES	27
* LĀNA`I ISLAND RESOURCES	29
* MAUI ISLAND RESOURCES	30
* MOLOKA`I ISLAND RESOURCES	32
* O`AHU ISLAND RESOURCES	33
HAWAI`I HEALTH CAREERS ALPHABETICAL INDEX	40
HAWAI`I HEALTH CAREERS	41-138
NOTES	139

# HEALTH CAREERS ALPHABETICAL INDEX

A		M	
Acupuncturist	41	Marriage and Family Therapist	87
Athletic Trainer	42	Massage Therapist	88
Audiologist	43	Medical Assistant	89
B		Medical Illustrator	90
Bioinformatics Professional	44	Medical Interpreter	91
Biomedical Engineer	45	Medical Laboratory Scientist	92
Biomedical Equipment Technician	46	Medical Laboratory Technician	93
Biomedical and Behavioral Health Researcher	47	Medical Librarian	94
Biostatistician	48	N	
Blood Bank Technology Specialist	49	Naturopathic Doctor	95
C		Nuclear Medicine Technologist	96
Cancer/Tumor Registrar	50	Nursing: Vocational (CNA and LPN)	97
Cardiovascular Technician/Technologist	51	Nursing: Professional (RN and APRN)	100
Care Coordinator	52	O	
Certified Coding Specialist	53	Occupational Therapist	104
Certified Medical Transcriptionist	54	Occupational Therapy Assistant	105
Certified Rolfer	55	Optician	106
Child Life Specialist	56	Optometrist	107
Chiropractic Assistant	57	P-Q	
Chiropractor	58	Patient Services Representative	108
Community Health Worker	59	Perfusionist	109
Cytotechnologist	60	Personal Trainer	110
D		Pharmacist	111
Demographer	61	Pharmacy Technician	112
Dental Assistant	62	Phlebotomist	113
Dental Hygienist	63	Physical Therapist	114
Dental Laboratory Technician	64	Physical Therapy Assistant	115
Dentist	65	Physician	116
Diagnostic Medical Sonographer	66	Physician Assistant	118
Dietetic Technician	67	Podiatrist	119
Dietitian	68	Prosthetist/Orthotist	120
Dosimetrist	69	Psychiatric Aide/Technician	121
E		Psychologist	122
Embalmer	70	Public Health Professional	123
EMS Personnel	71	R	
Environmental Health Specialist	72	Radiation Therapy Technologist	124
Epidemiologist	73	Radiologic Technologist	125
F		Recreational Therapist	126
Fitness and Wellness Instructor	74	Rehabilitation Counselor	127
Forensic Scientist	75	Respiratory Therapist	128
Funeral Director	76	S-U	
G		School Health Professional	129
Genetic Counselor	77	Social Worker	130
Gerontologist	78	Speech-Language Pathologist	131
H-L		Substance Abuse Counselor	132
Healthcare Administrator	79	Surgical Technician/Assistant	133
Health Educator	80	V-Z	
Health Information Manager/Administrator	81	Veterinarian	134
Health Information Technician	82	Veterinary Assistant	135
Histologic Technician	83	Veterinary Technician	136
Histotechnologist	84	Vision Assistant	137
Home Health Aide	85	Vision Technician/Technologist	138
Licensed Professional Counselor	86		

# HOW TO USE THIS BOOK

If you **think you might want to go into a healthcare career** but do not know which one, then we recommend you scroll through the health fields in the second part of this book. Unless otherwise specified, the resource for all of the salary and job growth information was O\*Net Online, which is free and compiles employment data for a variety of careers across the United States. All of the information is specific to Hawai'i unless otherwise noted (e.g. national). This information includes salary range, job market outlook, and where you can receive training for that career locally.

### ACUPUNCTURIST



**SALARY RANGE**  
\$51,890 - 126,800

**LENGTH OF TRAINING**  
2,250 Total Training Hours

**JOB GROWTH**  
11%

**LENGTH OF TRAINING AND REQUIREMENTS:**  
Acupuncturists are required to graduate from an accredited acupuncture school with a Master's degree in acupuncture and oriental medicine. They must complete 1800 hours of acupuncture training, with at least 450 hours in Chinese herbal training.

**LICENSURE/CERTIFICATION:**  
Acupuncturists must obtain a license to practice in the State of Hawai'i.

**EDUCATIONAL PROGRAMS:**  
Hawai'i College of Oriental Medicine (Hilo and Waimea, Big Island)  
Institute of Clinical Acupuncture and Oriental Medicine  
World Medicine Institute  
www.akkamonline.org

**PROFESSIONAL ASSOCIATIONS:**  
American Academy of Medical Acupuncture  
www.medicalacupuncture.org  
American Association of Acupuncture and Oriental Medicine  
www.aakomonline.org  
Council of Colleges of Acupuncture and Oriental Medicine  
www.ccaom.org  
Hawai'i Oriental Medicine and Acupuncture Association  
www.homaa.org  
National Certification Commission for Acupuncture and Oriental Medicine  
www.nccaom.org

Acupuncture originated in China over 2,000 years ago, making it among the oldest healing practices in the world. It is now considered a form of Complementary and Alternative Medicine. Acupuncturists use a variety of techniques to stimulate specific points along the body that restore and maintain health. Acupuncturists are usually trained as physicians in China, where they do hand or electrical stimulation manipulations using thin, solid, metallic needles. Acupuncturists may also receive training in "QiGong," a Chinese practice involving breathing patterns, body movements, and posture control. Acupuncture is a treatment that many health professionals (e.g. massage therapists, chiropractors, nurse practitioners, and physicians) include as part of an integrated medical practice.

**WORK ENVIRONMENT:**  
Acupuncturists may work in physician offices, clinics, hospitals, or have their own private practice. Some choose to examine a patient's physical and emotional symptoms in addition to medical history.

**AREAS OF SPECIALIZATION:**  
Acupuncturists can specialize in weight loss, cosmetics, oncology, internal medicine, infertility, stress, depression, migraines, chronic and acute pain, Chinese herbology, QiGong, or acupuncture treatments.

ACUPUNCTURIST

**Students, Parents, and Teachers:**

The **STUDENT COMPANION BOOK** is an additional resource specifically for students of all levels, which can be accessed on our website, [www.ahec.hawaii.edu](http://www.ahec.hawaii.edu).

If you **already know you want to enter a health career**, but do not know which one, then looking through the career descriptions in this book will help. Next, go to the *Health Career Community Resources* section for your specific island to see what local resources are available. You will realize there are many programs, mentors, activities, and more available right now! You can find even more programs that are available throughout the state of Hawai'i on the *Statewide Resources* page.

#### HIGHER EDUCATION OPPORTUNITIES

UNIVERSITY OF HAWAII (UH) SYSTEM (WWW.HAWAII.EDU)

UH Manoa	UH Maui
UH Hilo	UH West Hawaii

HAWAII PACIFIC UNIVERSITY (WWW.HPU.EDU)

CHAMINADE UNIVERSITY (WWW.CHAMINADE.EDU)

BRIGHAM YOUNG UNIVERSITY (WWW.BYU.EDU)


MAINLAND PARTNER UNIVERSITY

ONLINE AND OTHER UNIVERSITIES/COLLEGES

#### GOING TO THE MAINLAND: WESTERN UNDERGRADUATE EXCHANGE (WUE)

University of Hawai'i participates in the WUE Program, which makes it possible for Hawai'i residents to receive tuition rates at the Hawai'i Resident Rate + 1.5 while at a mainland school. Unfortunately, this currently does not cover Architecture, Nursing, and Dental hygiene programs, but a 10% in-state discount may be available for those students.

ARIZONA	CALIFORNIA	IDAHO
MONTANA	NEVADA	UTAH
WASHINGTON	WYOMING	



For more information visit [www.uhce.edu/wue/](http://www.uhce.edu/wue/) or [retoria.hawaii@hawaii.edu](mailto:retoria.hawaii@hawaii.edu)

**If you have questions, contact us at the Hawai'i AHEC**  
808-692-1060 or [ahec@hawaii.edu](mailto:ahec@hawaii.edu). We are here to help!

## WHY PURSUE A CAREER IN HEALTHCARE?

We are excited to share that healthcare career opportunities are growing faster than almost any other field! Labor experts say the number of people working in healthcare has nearly *quadrupled* in the last 50 years (yes, that's multiplied by four!) Bureau of Labor statistics show the range of healthcare careers and the number of overall jobs in almost every field in healthcare have grown. As long as the population keeps growing and people live longer, this trend will continue. The reasons for this are many, including new occupations arising from advances in medicine and technology; a new emphasis on preventive medicine that has created the need for more primary care professionals; and an expansion in our aging population that has increased the demand for new and different skill sets. This adds up to good news if you are choosing a career in healthcare! In other words, a career in healthcare comes with **job security**. Many people are drawn to healthcare because of the availability of jobs as soon as they finish their training or degree program. Job security is a very common and practical reason to select a healthcare profession.

Another practical reason to enter the healthcare field is **a good salary**. Many healthcare professionals receive better salaries and benefit packages than their counterparts with similar levels of training in other fields. By completing training for a healthcare job early, many people are happy to discover they are in a good position to advance to more challenging positions with even higher pay over time.

Beyond practical considerations, many people go into healthcare careers because of the appeal of **helping people**. In fact, healthcare jobs are often nicknamed "the helping professions" because they deliver services in person, cannot be replaced by automated means, and yield the satisfaction of nurturing human needs. Those drawn to these "helping professions" will delight in knowing that experts say the possibilities for helping people through healthcare are on the rise because new scientific research will allow for improved care in the future.

Another special advantage of working in healthcare is that the field offers **variety**. This guarantees that there are plentiful options when it comes time to select a job that is a good fit for one's own interpersonal skills and individual capabilities. Having plenty of options in a chosen field of employment is closely linked to long-term job satisfaction. In any field, a career door can unexpectedly close. If this happens in healthcare, however, there are numerous prospects for transferring to another setting where old skills can be applied with renewed and rewarding meaning.

It is important to note that many healthcare opportunities are available in Hawai'i, so you can **stay in the Islands** and help your local communities! This is especially rewarding to healthcare workers who grew up in areas that are medically underserved (where there is a shortage of healthcare professionals). Many Hawaiian and Pacific Islander healthcare professionals who work locally derive great satisfaction in knowing they are embracing a time-honored cultural tradition of giving back to their community.

Healthcare encompasses as many as **200** different careers. Professionals who work directly with patients often specialize in specific populations, such as young children or the elderly. Some careers enable professionals to concentrate on particular health issues and diseases, such as injury prevention or cancer treatment. Other careers focus on specific body systems, such as respiratory (lungs) or cardiac (heart) care. All health careers emphasize **teamwork** because professionals from different fields work together to provide the best possible treatment plan for a patient. In some healthcare careers, professionals do not deal directly with patients. This category includes opportunities in information technology, biomedical or clinical research, computer systems, as well as business and administration of healthcare.

There are a variety of careers to choose from and you can work your way up the career ladder once you are in the health field. You will feel encouraged once you begin to ask yourself "is a healthcare career right for me?" There are so many opportunities that you will be sure to find a health career that suits your needs and fulfills your expectations for a productive working situation. Of course you will face some challenges, such as the length of training for the most specialized positions, and how to finance your training, but this book is designed to help guide you through those challenges so you can feel more confident pursuing a career in healthcare.

## BENEFITS OF BEING IN A HEALTHCARE CAREER

Benefit	Translates To
Growing job market	Can almost always find a job
Hundreds of careers and specialties	Flexibility of work and ability to change jobs within a career
Early entry into health careers and pathway to advance	You can earn an income shortly after graduating high school and work your way up while having financial stability (for example, starting as a CNA, then an RN, then an APRN or MD)
Satisfying career	Helping others, good salary, variety of opportunities for you
Good salary	You do not have to worry about money as much as some other careers

### Note to Parents, Teachers, Coaches, and Mentors:

Hawai`i needs **you** to encourage today's youth to become the competent core of tomorrow's healthcare workforce. The healthcare industry now ranks as one of Hawai`i's biggest providers of jobs. Meanwhile, the well-being of residents from Ka`u to Kekaha depends on having an adequate number of employees to fill these jobs and provide quality care and accessible services.

The state of Hawai`i alone has a shortage of 600 physicians right now, and there is an even greater shortage for most other health professions. The shortage in healthcare professionals does not just end in Hawai`i. Healthcare professionals are needed across the entire rest of the Pacific, from Samoa to Saipan.

You can play a vital role by encouraging Hawai`i's youth to volunteer at health worksites and participate in K-12 community programs. Students may also need assistance in applying for training programs in healthcare as young adults. In providing this guidance to students, you can insure their education takes place in Hawai`i, where we hope they will stay to serve their community. Training in Hawai`i is a good way to ensure that tomorrow's quality healthcare is sensitive to the needs of Hawai`i's ever-diverse population. Training programs in healthcare — from elementary school through advanced degree levels — can improve the way health professionals approach patients and communities. By assisting our youth in planning to be a part of tomorrow's healthcare workforce, you are actually helping all of Hawai`i residents to live a healthier life.

Many of Hawai`i's schools offer opportunities to engage students in training for hundreds of healthcare jobs. How? They offer healthcare service pathways, clinical health elective classes, or healthcare completer designation classes. These classes are important because they will show up on a student's diploma and be considered by interviewers for professional training programs and worksites. If the school in your area does not offer the Career and Technical Education (CTE) course that your student wants to pursue, there might be other activities for them outside of school. Along with helping students to consider all of the rewarding possibilities that await them with a career in healthcare, we hope that you can also be aware of the steps that will help them achieve these goals. You are invited to use this book as a beacon of information for lighting the numerous roads for students to become a healthcare professional. Mahalo for being there for Hawai`i's youth!



# HOW TO BECOME A HEALTHCARE PROFESSIONAL

Healthcare careers usually require a certificate or degree program after high school. However some, such as Certified Nurse's Aide (CNA), can take only six weeks to complete and you can start as soon as you are 18 years old. Therefore, the first step is to think about what you actually want to do. Look through the pages in the second half of this book and see what looks good to you. Then browse the *Community Resources* pages to find out whom you can contact to gain experience in health professions. Then, when you are ready, sign up for training. You can start with a profession that requires minimal training and receive additional training when you are already working in the field. It is like climbing a ladder. If you already know right now what you want to be, then go for it! Use this book to explore careers and find the resources you need to get to your goal!

**LEVELS OF TRAINING:** There are several levels of training outlined below. In many cases, the levels build on each other. For example, you can start working with a certificate, then pursue an associate's degree, move on to a bachelor's degree, and even end up getting a master's, doctoral, or other professional degree.

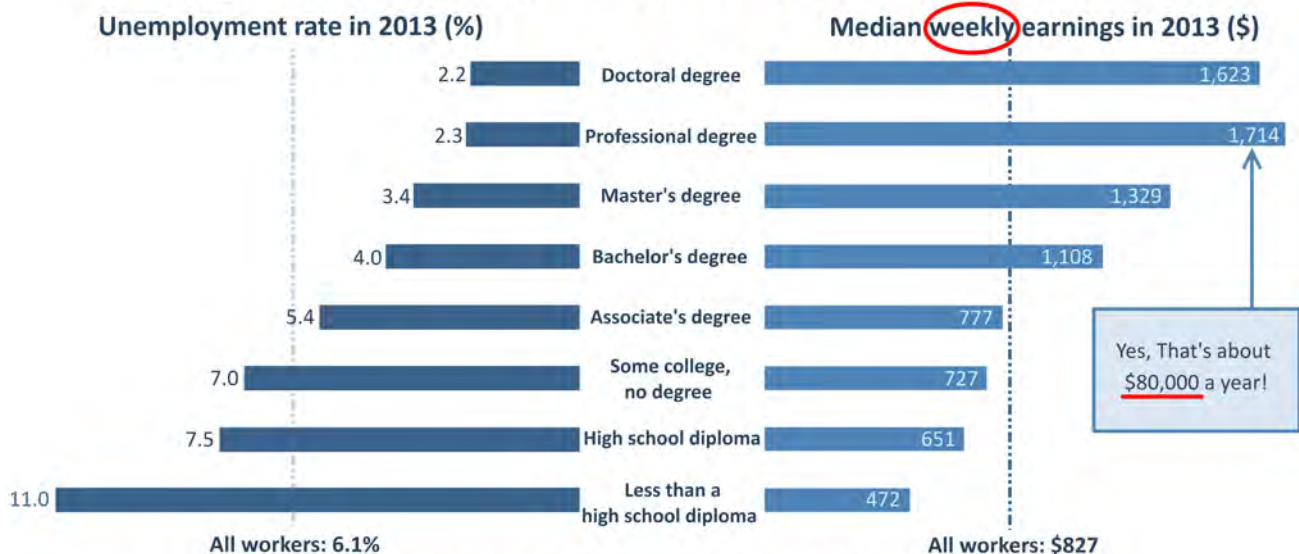
For example, professional degrees include physician, lawyer, pharmacist, optician, psychologist, dentist, and veterinarian.

Degree	Length of Training
<b>Certificate</b>	usually takes weeks up to 1 year of college education.
<b>Associate's Degree</b> AA, AS	usually takes about 2 - 3 years of college education.
<b>Bachelor's Degree</b> BA, BS	usually takes about 4+ years of college education.
<b>Master's (Graduate) Degree</b> MA, MS, MPH, Med	usually takes an additional 2+ years of school after completing a bachelor's degree program; total of 6+ years of college education.
<b>Doctoral Degree</b> MD/DO, DDS, DVM	usually takes an additional 3 - 7+ years of school after completing a bachelor's degree program; total of 7 - 11+ years of college education.
<b>Professional Degree</b> PhD, EdD, JD, PsyD, ThD	usually takes an additional 3 - 7+ years of school after completing a bachelor's degree program; total of 7 - 11+ years of college education.

## WHY GO TO COLLEGE?

A better salary, high employment rates, job mobility, flexibility, and a higher level of independence (see below).

### Earnings and unemployment rates by educational attainment



## TIPS TO STRENGTHEN YOUR APPLICATION

While it is true that there are tons of job opportunities available in healthcare, the more training you have, the more choice and pay you are likely to receive in the job market. With lots of competition for only a limited number of student spots, you will want to be at the top of your game. So get as much training as you can! Find a program you are interested in and apply. Here are some suggestions to help you choose a career and to strengthen your application.

How do you choose what you want to do for the rest of your life and show your knowledge and experience related to this profession to schools? Admissions committees do not just look at grades and test scores (which are still very important). The school or training program needs to know that you have what it takes academically and professionally to do well in their programs. They are very interested in knowing that you have thought through your decision well and know the pros and cons. How do they figure that out? They take a look at all of your experiences that you provide to them in your application, as well as your essay, letters of recommendation, and resume. How do you figure out what should be in that application? Here are some ideas:

### **VOLUNTEERING** WHY IS IT IMPORTANT?

Perhaps you are interested in health careers but you are not sure which one is the best fit for you. You want a career that allows you to utilize your strengths and also enjoy. One way to explore the possibilities before you go to college or apply for a training program is to volunteer. Through hands-on volunteer activities, you can learn a lot about yourself and your career goals. You may learn if you can stand the sight of blood, what your communication style is, or perhaps what age group you prefer to work with. There is nothing worse than wasting time and money to find out later that you do not really want to be in a certain career. It is better to do your homework first. Volunteering is also a way to familiarize yourself with a lot of different career options before you make your decision. Not only does volunteering improve your application for entering health professions education programs, but it also helps you define who you are and what you want to do.

### **SHADOWING** WHAT IS IT?

Shadowing is basically following someone around who is doing what you think you want to do for a career. You can see if you would like to do those things and ask the tough questions to help you determine if that career is right for you. Plus, sometimes you find someone you relate to who is willing to be a mentor beyond the shadowing experience.

### **RESEARCH EXPERIENCE** HOW DOES IT HELP YOU?

Have you ever wondered how to cure diabetes or cancer? Research exploration takes patience, responsibility and endurance. It requires an inquisitive mind to ask the important questions and an organized person to be able to answer them. Research can be stimulating, satisfying, and it shows how responsible you are and how you work as a member of a team. Doing research demonstrates all these things to schools and will most likely help you find a mentor and someone to write you a strong letter of support.

### **WHAT IS A MENTOR?**

A mentor is someone who can help you understand the direction you are pursuing because they have already been through many of the challenges you will face. All of us have many mentors in life, starting with our family members, teachers and friends. But maybe you are going somewhere they have never been, so you want to find someone to help guide you through the process. The best way to do this is to talk to people who are already doing what you want to do and see if you have things in common. Do you admire the way s/he deals with challenges? If so, ask if that person will be one of your mentors. And remember, you will be asked to mentor others too!

# FINANCIAL AID

## Do you want to go to college, but do not think you or your family can afford it?

There are many methods of financial assistance available to students. Here are the four main types:

SCHOLARSHIPS	GRANTS	LOANS	WORK-STUDY
<ul style="list-style-type: none"> <li>Free aid based on student achievement (i.e. grades, activities, service, work, etc.)</li> <li>Usually a separate application is required</li> <li>Examples: University/college, community, corporate</li> </ul>	<ul style="list-style-type: none"> <li>Free aid based on a student's need, which is determined by completing the FAFSA application</li> <li>Examples: Federal Pell Grant and Federal Supplemental Opportunity Grant (FSEOG)</li> </ul>	<ul style="list-style-type: none"> <li>Money that must be paid back</li> <li>Most have a 6-9 month grace period after graduation before payments begin</li> <li>Two Types:                             <ul style="list-style-type: none"> <li>Subsidized: interest is deferred until you start repaying the loan</li> <li>Unsubsidized: interest is charged starting with the first disbursement</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A federal program that provides employment for undergraduate and graduate students with financial need</li> <li>Students complete part-time work in exchange for assistance with educational costs</li> <li>Tax Free Income</li> </ul>

Check out these websites for more information about financial assistance opportunities:

- [www.studentaid.ed.gov](http://www.studentaid.ed.gov)
- [www.fafsa.ed.gov](http://www.fafsa.ed.gov)
- [www.going2college.org](http://www.going2college.org)
- [www.studentloans.gov](http://www.studentloans.gov)

- [www.hawaiicommunityfoundation.org/scholarships](http://www.hawaiicommunityfoundation.org/scholarships)
- [apps.ksbe.edu/financialaid/](http://apps.ksbe.edu/financialaid/)
- [www.pauahi.org/scholarships/](http://www.pauahi.org/scholarships/)
- [www.alulike.org/services/kaipu\\_hana.html](http://www.alulike.org/services/kaipu_hana.html)

For need-based financial aid, including student loans, grants and work-study, students must fill out the Free Application for Federal Student Aid or FAFSA. No matter how many schools you are applying to, you only need to fill out one FAFSA application and list the schools you want your FAFSA information to go to. The FAFSA is available starting January 1 for the upcoming year and should be completed as soon as possible if you are planning to enroll in college that Fall.

Keep in mind you have to fill out and submit your FAFSA application every year while you are in school. You should fill out the application regardless of your financial situation, as most students qualify for some form of assistance. For more details visit each college's financial aid office website, where you can get more information about deadlines and specific opportunities available at that college or university.

It is important to note that there will most likely be a separate scholarship application for each scholarship that you want to apply for. Also, the scholarship application might be due earlier than the general admissions deadlines. You can find scholarship opportunities at the school you want to attend or from other local charitable organizations, civic groups and area foundations.

*Communities and medical organizations often provide scholarships to local students.* Check with your high school guidance counselor, your AHEC office, [www.ahec.hawaii.edu](http://www.ahec.hawaii.edu), and your college financial aid office for more information about how to apply for scholarships.

There are two additional scholarships for some health professions training programs: 1) National Health Service Corps, [www.nhsc.hrsa.gov](http://www.nhsc.hrsa.gov), which will pay for training in exchange for your commitment to serve in an area of need, and 2) the Native Hawaiian Health Scholarship Program for primary care and behavioral health professionals in Hawai'i (primary care physicians, physician assistants, nurse practitioners, psychologists, psychiatrists, social workers) who will practice in an area of need in Hawai'i. The scholarship will pay back part or all of your loans depending on how long you work in the area of need. Visit [www.ahec.hawaii.edu](http://www.ahec.hawaii.edu) for more information.

For a great overview of how to finance your education, visit [www.moneygeek.com/education/college/](http://www.moneygeek.com/education/college/) to explore resources about student loans, work-study options, grants & scholarships, loan repayment, and more.

## WRITING YOUR ESSAY FOR COLLEGE OR SCHOLARSHIPS

Most colleges and universities require you to submit an essay or personal statement along with the other required materials (i.e. ACT/SAT scores, high school transcripts, letters of recommendations) as a way to decide between students with similar profiles.

Keep in mind the admissions staff members have read hundreds of essays, so keep it simple and remain true to who you are. Below are some points to keep in mind as you are preparing to write your essay.

- Start working on your essays early. Do not wait until the last minute to write one, because this essay is your best opportunity to share the “real” you with the people who are making decisions for admissions and scholarships.
- Proofread! You do not want to submit an essay that has grammar mistakes or misspellings. Allow more than one person to read over your essay. Ask someone that you think would be able to provide constructive feedback (e.g. guidance counselor, teacher, mentor, AHEC staff)
- Answer the question that is asked. Keep to your key points and do not ramble on.
- Keep in mind who your target audience is. Make sure your choice of language is appropriate for the audience. Do not use slang or acronyms that you would text to your friends.
- Reflect on the characteristics that make you unique and set you apart from the rest of the applicants.
- Be sure to submit your college application and essay before the deadline date. There is nothing worse than putting a lot of time and effort into an application that will not be considered because it was submitted past the deadline.

### Additional college essay resources:

[www.princetonreview.com](http://www.princetonreview.com)  
[www.collegeboard.com](http://www.collegeboard.com)  
[www.essayedge.com](http://www.essayedge.com)

### QUALITIES THAT BENEFIT FUTURE HEALTHCARE PROVIDERS

- Leadership and decision making skills
- Commitment to lifelong learning
- A strong sense of responsibility
- Compassion
- Emotional maturity
- Commitment to serve people from all backgrounds
- Empathy and altruism
- Moral and ethical integrity
- Hard-working and dedicated nature
- Ability to work as part of a team
- Excellent listening and communication skills

## MATCHING YOUR PERSONALITY WITH A FUN CAREER

Inquisitive and investigative: You may enjoy being a Biomedical Researcher, a Forensic Scientist, or a Physician, because all require curiosity.

Artistic: You could be a medical illustrator!

Tech-savvy: Medical records are currently being converted to an electronic system at the national level, which makes Health Information Technology an exciting new profession.

Problem solver: Social Work or Community Health Work may be for you.

Social person who loves meeting new people: You may be interested in becoming a nurse, medical translator or work in community health.

Leader: You should consider being a physician or hospital administrator (or both at the same time)!

The best way to figure this out is by **1) shadowing people** in the profession you are considering and **2) finding a mentor** in the field you are interested in and meet with them regularly. The Community Resources pages of this book can help you find mentors and shadowing experiences. AHEC can help too, just call us at 808-692-1060.

## PREPARING FOR PROFESSIONAL PROGRAMS

You graduated high school and are now in college. There are several things you need to focus on as you continue your college training. Depending on the career you have chosen, you may already be in a health professions training program. For example, if your career requires a certificate, associate's, or bachelor's degree, you are already working to achieve your goal. If you have chosen a career that requires more advanced education beyond a bachelor's degree, chances are you will have to go through an application and selection process to be accepted into that educational program (e.g. nursing, physician assistant, perfusion technology, physical therapy, audiology, medical school, or pharmacy school).

If you want to be accepted into a professional program, you have to really focus while you are working on your bachelor's degree to make yourself a competitive applicant. Here are some tips for accomplishing that goal. It is important to have excellent grades, but it is just imperative to show that you are well-rounded in other areas of your life, including community service and extracurricular activities that help you define your life and career goals. The admissions committees for professional degree programs are looking for applicants who are able to manage multiple responsibilities, who show discipline, who are committed to the field and who demonstrate time management skills—these are the students who are most likely to be successful.

ACADEMIC FACTORS	PERSONAL FACTORS	KEEP IN MIND...
Meet with your pre-professional advisor regularly.	Start/continue meaningful volunteer and leadership experiences.	Know the application deadlines and follow them. They are unforgiving!
Concentrate on excellence your first few semesters.	Begin forming quality relationships with faculty members.	Have the appropriate GPA and entrance exam scores for your career.
Retake any prerequisite classes with poor grades.	Explore the field of your choice by shadowing/researching it.	Develop a well-written personal statement and application that helps you stand out from the crowd. AHEC can help!
Develop a strong background in natural science.	Participate in scientific research if available.	Cultivate excellent faculty recommendations and provide the faculty with everything they need to write them (i.e. your CV/resume, a pre-addressed, stamped envelope and procedures for submitting, and even a draft letter about yourself if they request it).
Find the library and learn how to use it.	Join the pre-professional club. At UHM, look into the Prehealth/prelaw Advising Center: <a href="http://manoa.hawaii.edu/undergrad/pac/">manoa.hawaii.edu/undergrad/pac/</a>	Sharpen your interviewing skills by practicing. Have your friends and family interview you with questions that you may be asked. AHEC can provide a practice interview upon request as well.
Take diverse classes for a broad background, but make sure you complete all prerequisites.	Participate in interesting extracurricular activities.	Know about the institution you are applying to—Google it! Remember, you have to ask them questions too.
Select a major based on your skills and interests. It is not mandatory to major in science, but you need a strong foundation in science.	Sharpen your written and verbal communication skills by reading books and writing papers.	Research current events (news) for your field and check professional associations' websites.
Prepare in advance for entrance exams.	Take advantage of all opportunities to learn and grow.	Know the application deadlines and follow them. They are unforgiving! <i>(This is so important that we remind you twice).</i>

Keep your career goal in the forefront of your mind and just keep working towards it. At times it may seem like there is so much to do as you are preparing for your career with applications, interviews, trainings, and classes. Keep in mind it will be well worth it when you achieve your goal and you are able to help others make a difference in your community. In some health careers, the major (specific course of study at a college or university) you select is already determined based on your career choice. In other health careers, like a physician, research scientist, or a healthcare administrator, you have many choices for your undergraduate major that will all be applicable to a professional degree.

### Nurse Practitioner Prioritizes Prevention for Teens

Hokulani Porter, RN, MSN, APRN

Nanakuli Satellite, Waiʻanae Coast Comprehensive Health Center



As a nurse practitioner at a Nanakuli family clinic, Hokulani Porter often looks into the eyes of young patients and sees a reflection of herself growing up amid the poverty common to Oʻahu’s Leeward Coast. “My parents divorced and my mom was on public assistance. I used to believe ‘that’s just the way it is for everyone’. The idea of becoming a medical professional seemed quite far-fetched back then.”

Something changed when Hokulani listened to a speaker who came to her high school encouraging students to become volunteers for the Special Olympics. Hokulani responded and gave up her free time to provide assistance at competitions for athletes with disabilities. The experience made her excited about what else she could do in life.

She buckled down in her studies and applied for colleges and scholarship opportunities. Her hard work paid off, and she was accepted to a university in California. Still not sure what she wanted to be (she majored in Spanish), she gravitated back to serving people with disabilities at a camp during summer break. The camp had outstanding equipment, making it possible for those with disabilities to safely experience activities like horseback riding and archery. But more than the equipment, Hokulani says the campers themselves made a profound impression on her. “They really charged up my batteries. They had an awareness that life was difficult, but they found pride in daily accomplishments. They had a healthy outlook.”

The experience fired up her interest in a career where she could help others live healthier lives by connecting the dots between their mental and physical states, their personal and cultural histories and their day-to-day environment. This is the job of a Nurse Practitioner, or as Hokulani describes it: “not to only diagnose and treat illness, but to also help a person manage in daily life better to prevent illness or to cope better if and when it occurs... the idea is to help people take control over their health.”

Hokulani’s message about the importance of preventing illness is especially important on the Leeward Coast, where chronic disease rates are high and are apt to burden people at an earlier age. The causes for this are complex. Some diseases can be attributed to drug and alcohol use and other poor lifestyle choices, often made in the teen years. “These are things adolescents do to anesthetize themselves against the lack of hope hanging over their lives,” Hokulani says, adding that the situation can be frustrating. However, Hokulani is passionate about working with teens on the Leeward Coast and believes that she can help them make better decisions.

In order to be in a position to positively influence teen health choices, she gained expert training to perform her job. In addition to her nurse practitioner degree, she earned a degree in public health, studying the “social determinants” of health. Social determinants are the differences in health status that divide the rich from the poor. Hokulani says that the latest public health research indicates that the differences are not only unfair, but also avoidable. Speaking from her own life experience, as well as her academic training, she says education helps individuals to prevent disease from overtaking their lives. Disease prevention education is so important to Hokulani that she brings brochures about college scholarship opportunities to the clinic where she works. She has also teamed up with other medical professionals to open a Waiʻanae Coast wellness center focused on adolescent needs. Hokulani says some of the best medicine she can offer teens is her empathy. “I can say I know just how you feel now, but you can’t let today’s troubles define who are for the rest of your life.”

### Eye Doctor Had Career “Vision”

Layne Hashimoto, OD

Optometrist at Eye Care Center of Kaua`i, Lihue



Growing up on Kaua`i, it was a requirement for Dr. Hashimoto to wear glasses. This did not stop him from playing the sports that he loved, but sometimes his “four-eyed look” made him the target of inevitable teasing. During “small kid time” the teasing could even bring tears. Dr. Hashimoto also realized that in addition to his love for sports, he was also intrigued by the field of science. It was this interest in science that led him to seek out a job shadowing position with Dr. Lyman Yoshimura, a local optometrist. As a teenager, Dr. Hashimoto noted that smiles —not tears— were the norm at Dr. Yoshimura’s office. This positive experience is what made Dr. Hashimoto

decide, as a high school student, that a career in optometry was right for him. “I noticed that the optometry office was always calm and clean. The exam was easy and painless. Best of all, people left with the very thing they wanted — better vision. It was a happy experience for all,” Dr. Hashimoto says.

While still a student at Kaua`i High School, Dr. Hashimoto heard about an optometry program at Pacific University in Oregon that streamlined the usual eight years of training into seven years. He was accepted into the program and excited to attend, even if it meant he would soon long for all things homegrown - Hawaiian food, weather, and people. He also faced a huge academic workload and was constantly busy. But Dr. Hashimoto never lost sight of his goal of becoming an optometrist, and was able to succeed within the program.

After he earned his degree, Dr. Hashimoto returned to his hometown and partnered with other local optometrists and physicians to establish the Eye Care Center of Kaua`i. “Coming back home to practice optometry is extra special,” he says, “because the Kaua`i community is as tightly knit as ever.” Many of his patients are long-time family friends, members of his extended family, or even people who attended Kaua`i High School with him. Dr. Hashimoto treats his patients with techniques he learned from the Pacific University optometry program, but he notes that is also very important to stay up-to-date on the fast-moving technological advances in optometry. For example, there is an exciting new machine available that can read blood sugar from tears to detect if diabetes is hindering a patient’s vision.

One of Dr. Hashimoto’s favorite things about his job is being able to set his own hours. This frees him up to play the sports he enjoyed while growing up on Kaua`i. He also says optometry pays well. However, financial reward should not be the main motive for entering any healthcare field, he cautions. “If you only choose a career for the money, you are more likely to eventually drop out, because whatever you choose is going to be part of your everyday life and you want to be fulfilled by it.”

### Occupational Therapist Creates a Melding of Music and Work

Steven D. Kline, ORT/CEAS

Director of Occupational Therapy, West Kaua`i Medical Center



In its simplest terms, an occupational therapist helps people with disabilities and injuries to manage and regain skills that enable participation in everyday activities. “The profession is also music to the ears” says Steven Kline. For proof, he shares a story about a woman he treated at West Kaua`i Medical Center, where he is Director of Occupational Therapy. He met the client when she was in the early stages of recovery from an injury to her hand. Make that a musically adept hand. All of her life she had been strumming a Hawaiian ukulele, but the injury made her musical future uncertain. It was clearly a depressing prospect for her, Steven recalls. “I casually mentioned I wanted to learn ukulele and she perked up and said, ‘I will teach you!’” Steven, a music-lover who has used his free-time to direct

musical theatre on Kaua`i, just happened to have an ukulele in his office. He brought out the instrument and the client taught him a four-chord Hawaiian melody that day. More importantly, her mood brightened. After discharge from the hospital, the patient got back to jamming and continued to offer Steven the occasional ukulele lesson. This is an important example of how a holistic treatment can simultaneously improve a patient’s psychological and physical state.

“The goal of occupational therapy is to help people live life to the fullest, even with physical limitations, so I do many diverse things including fun stuff with clients,” he says. Sometimes, however, a person’s condition is terminal. He shares this because he does not want to sugar-coat the challenges of his profession. “This is a job where it is important to show empathy,” he says, noting that many of his occupational therapy interventions hinge on teamwork with other medical professionals as well as building support from a client’s family members.

While Steven describes himself as very right-brained (a creative type, in other words), he never imagined that his creativity could be channeled into occupational therapy. While in high school, he was assigned to write a paper about occupational therapy, which sparked his interest in the profession. However, his low-income background meant he would face huge hurdles in covering college tuition costs. Luckily, he participated in a work-study plan with his college’s financial aid office, where he learned about scholarship opportunities. “I went after everything I could. Money-wise, it all worked out,” Steven says.

It is important to share that Steven’s first job as an occupational therapist did not quite work out. It was at a mainland facility, where they defined his duties very narrowly. Fourteen years ago, when he was hired for the Kaua`i job, he was not sure what to expect in the island’s rural west side setting. But the harmony he has found there in both music and in his profession prompted him to give this piece of advice: “stick to what makes you happy. Go for the education you need to get where you want to go and don’t give up.”



### Biomedical Researcher Explores New Medical Treatments Using Bamboo Extract

Jason Higa, PhD

Junior Researcher and Lecturer, University of Hawai'i John A. Burns School of Medicine



Dr. Jason Higa, who grew up in Makakilo, O`ahu and attended Moanalua High School, did not initially set out to become a scientist. Even though he earned his undergraduate degree from UH Mānoa in biology, he never pictured himself tracking the cancer-curing powers of a tropical plant. During his undergraduate years, his forte was math. Dr. Higa was also skilled with computer science, a field he briefly pursued as an unclassified graduate student. His passion for programming was sparked after taking a course in artificial intelligence once he became a full graduate student in San Francisco, California. This fired up his ambition to design programs to help computers think more like humans instead of simple calculators.

Dr. Higa might even be plying his code-writing skills for a living today, were it not for his return to Hawai'i, his enduring interest in cell and molecular biology, and, perhaps most importantly, his acquaintanceship with UH Associate Researcher and Cell Biologist Dr. Jun Pane`e, the lead investigator on the bamboo extract experiments. Dr. Pane`e has been Dr. Higa's mentor since 2009. She says Dr. Higa's computer and math skills impressed her from the start and she sensed he would become a master of bioinformatics. While not quite a household word — at least not yet, bioinformatics is a growing interdisciplinary field that makes it possible to process the wealth of data generated by 21st century biomedical research. It is no surprise that widening demand for bioinformatics expertise follows the first sequencing of the human genome that mapped the variations of more than 20,000 genes in human DNA. "It's a common problem in biomedical research that we are faced with trying to make sense out of these massive read-outs of data," says Dr. Pane`e.

Both mentor and mentee want their bioinformatics analyses of data to go to good use. "Ultimately, we want to look at safely and conveniently delivering the bamboo extract to human consumers in a controllable way" says Dr. Pane`e. But they remain duly open to the possibility that they may need to retool and revise, if they are to ever succeed. "If we knew all the answers and all the results of our experiments, we wouldn't do them, nor would we be paid to do them. But as scientists we accept the risk in chasing hypotheses," observes Dr. Higa. He concedes the "needle-in-the-haystack" nature of his doctoral level research in cell and molecular biology comes with a price. "When I told my Dad I planned to be a doctor — but not that kind of doctor, he knew it might be a haul before I would be out in the workforce," he says. But Dr. Higa is quick to acknowledge that his parents agreed that his ardent pursuit of a doctoral degree was a respectable goal, regardless of monetary rewards. Interestingly, Dr. Higa's mother, who emigrated to Hawai'i from the Philippines and also attended UH at Mānoa, was a participant in Operation Manong, the UH organization that helped students from underserved communities transform their lives through higher education.

In spite of any obstacles, Drs. Higa and Pane`e are highly motivated by the prospect that their research will bring help to where it is needed most — right here at home. If the bamboo extract passes scientific muster and makes its way into real world applications, it would aid in the treatment of breast cancer and other chronic diseases including Type-2 diabetes, which impacts large numbers of Native Hawaiians, Pacific Islanders and numerous Asian groups in Hawai'i. This disproportionately high burden of disease is known as a health disparity. Health disparities can often be traced to non-medical causes or social determinants, such as poverty and low education. These factors can limit access to quality health care and lead to unsatisfactory health outcomes. Dr. Higa hopes to continue to positively impact health in Hawai'i through biomedical research.

## HIGHER EDUCATION OPPORTUNITIES

### UNIVERSITY OF HAWAII (UH) SYSTEM ([WWW.HAWAII.EDU](http://WWW.HAWAII.EDU))

#### O`ahu

Honolulu Community College  
Kapi`olani Community College  
Leeward Community College  
University of Hawaii at Mānoa  
University of Hawaii–West O`ahu  
Windward Community College  
Wai`anae Education Center

#### Maui

University of Hawaii Maui College  
UH Center–Maui  
Hana Education Center  
West Maui Education Center

#### Hawai`i (Big Island)

Hawai`i Community College  
University of Hawaii at Hilo  
UH Center–West Hawai`i  
North Hawai`i Education and Research Center

#### Kaua`i

Kaua`i Community College  
UH Center–Kaua`i

#### Moloka`i

Moloka`i Education Center

#### Lāna`i

Lana`i Education Center

### HAWAII PACIFIC UNIVERSITY ([WWW.HPU.EDU](http://WWW.HPU.EDU))

#### O`ahu

Honolulu Campus  
Hawai`i Loa Campus

Oceanic Institute  
Military Programs

### CHAMINADE UNIVERSITY ([WWW.CHAMINADE.EDU](http://WWW.CHAMINADE.EDU))

#### O`ahu

Main Campus

### BRIGHAM YOUNG UNIVERSITY ([WWW.BYUH.EDU](http://WWW.BYUH.EDU))

#### O`ahu

Main Campus

### MAINLAND PARTNER UNIVERSITY

#### Pacific University in Oregon Health Science Schools

[www.pacificu.edu](http://www.pacificu.edu)

### ONLINE AND OTHER UNIVERSITIES/COLLEGES

Argosy University  
Hawai`i Medical College  
Hawai`i Tokai International College  
Institute of Clinical Acupuncture and Oriental Medicine

Remington College  
University of Phoenix  
World Medicine Institute

# GOING TO THE MAINLAND: WESTERN UNDERGRADUATE EXCHANGE (WUE)

University of Hawai'i participates in the WUE Program, which makes it possible for Hawai'i residents to receive tuition rates at the Hawai'i Resident Rate x 1.5 while at a mainland school. Unfortunately, this currently does not cover Architecture, Nursing, and Dental Hygiene programs, but it is still [a great deal if you want to be on the mainland!](#)

## Alaska:

University of Alaska, Anchorage  
University of Alaska, Fairbanks  
University of Alaska, Southeast Juneau

## Arizona:

Arizona State University, Downtown  
Arizona State University, Polytechnic  
Arizona State University, West Campus  
Arizona Western College  
Central Arizona College  
Chandler-Gilbert Community College  
Cochise College  
Coconino Community College  
Eastern Arizona College  
Estrella Mountain Community College  
Gate Way Community College  
Glendale Community College  
Mesa Community College  
Mohave Community College  
Northern Arizona University  
Northern Arizona University, Yuma Campus  
Paradise Valley Community College  
Phoenix College  
Pima Community College  
Scottsdale Community College  
South Mountain Community College  
University of Arizona South  
Yavapai College

## California:

California State University, Bakersfield  
California State University, Dominguez Hills  
California State University, East Bay  
California State University, Monterey Bay  
California State University, Northridge  
California State University, Sacramento  
California State University, San Bernardino  
California State University, San Marcos  
California State University, Stanislaus  
Humboldt State University  
University of California, Merced

## Colorado:

Aims Community College  
Arapahoe Community College  
Colorado Mesa University  
Colorado Mountain College  
Colorado Northwestern Community College  
Colorado State University  
Community College of Aurora  
Community College of Denver  
Front Range Community College  
Lamar Community College  
Metropolitan State University of Denver  
Morgan Community College  
Northeastern Junior College  
Otero Junior College  
Pikes Peak Community College  
Pueblo Community College  
Red Rocks Community College  
Trinidad State Junior College  
University of Colorado, Colorado Springs  
University of Colorado, Denver  
University of Northern Colorado  
Western State Colorado University

## Idaho:

Boise State University  
College of Southern Idaho  
Idaho State University  
Lewis-Clark State College  
North Idaho College  
University of Idaho

## Montana:

Flathead Valley Community College  
Great Falls College MSU  
Helena College University of Montana  
Miles Community College  
Missoula College University of Montana  
Montana State University, Billings  
Montana State University, Bozeman  
Montana State University, Northern  
Montana Tech of the University of Montana  
University of Montana, Missoula

## College of Southern Nevada:

College of Southern Nevada  
Great Basin College  
Nevada State College  
Truckee Meadows Community College  
University of Nevada, Las Vegas  
University of Nevada, Reno  
Western Nevada Community College

## New Mexico:

New Mexico Institute of Mining & Tech.  
New Mexico Junior College  
New Mexico State University  
Northern New Mexico College  
University of New Mexico  
Western New Mexico University

## North Dakota:

Bismarck State College  
Dakota College, Bottineau  
Dickinson State University  
Lake Region State College  
Mayville State University  
Minot State University  
North Dakota State College of Science  
North Dakota State University  
University of North Dakota  
Valley City State University  
Williston State College

## Oregon:

Eastern Oregon University  
Oregon Institute of Technology  
Portland State University  
Southern Oregon University  
Western Oregon University

## South Dakota:

Black Hills State University  
Dakota State University  
Northern State University  
South Dakota State University  
University of South Dakota

## Utah:

Dixie State University  
Salt Lake Community College  
Snow College  
Southern Utah University  
University of Utah  
Utah State University  
Utah State University, Eastern  
Utah Valley University  
Weber State University

## Washington:

Central Washington University  
Eastern Washington University  
Spokane Community College  
Spokane Falls Community College  
Washington State University  
Washington State University Tri-Cities  
Western Washington University

## Wyoming:

Casper College  
Central Wyoming College  
Eastern Wyoming College  
Gillette College  
Laramie County Community College  
Northwest College  
Sheridan College  
University of Wyoming  
Western Wyoming Community College

## The Commonwealth of Northern Mariana Islands

## (CNMI):

Northern Marianas College



For more information visit [www.wiche.edu/wue](http://www.wiche.edu/wue) or [manoa.hawaii.edu/admissions/undergrad/financing/wue.html](http://manoa.hawaii.edu/admissions/undergrad/financing/wue.html)

## HEALTH CAREER COMMUNITY RESOURCES: STATEWIDE RESOURCES

### Hawai`i/Pacific Basin Area Health Education Center (AHEC)

The mission of the Hawai`i/Pacific Basin AHEC is to improve health of the underserved through education. AHEC has six program centers throughout the Hawaiian Island chain. There are three main activity areas: educating and recruiting students to health professions; educating health professions students in the rural and underserved communities of Hawai`i, often in multi-professional teams; and recruiting health care professionals to rural and underserved areas and providing continuing education. Important areas of concentration are improving video teleconferencing capabilities as well as telemedicine and telehealth utilization, and performing health and health workforce needs assessments. Programs designed especially for aspiring K-12 students include:

**Pre-Health Career Corps (PHCC):** PHCC is a group of 11-12th grade and undergraduate students interested in pursuing health careers. Students participate in structured activities through AHEC, including career awareness, job shadowing, campus exposure, mentoring, research experiences, and educational support to prepare them for a health career and to network with health professionals.

**Teen Health Camp (THC):** THC is a day-long event where students are able to participate in workshops hosted by medical students from the John A. Burns School of Medicine (JABSOM) and other health professions schools. Workshops include casting, suturing, nutrition, clinical skills, and health careers. THC is held 3-4 times per year on different islands, including Hawai`i, O`ahu, rotating between Kaua`i and Maui, and other islands when possible. THC is sustained with the help of UH partners including Native Hawaiian Center of Excellence, Na Pua No`eau, and UH HCOP.

**Speakers Bureau:** AHEC has a database of over 100 healthcare professionals throughout Hawai`i that enjoy going to schools to speak about their pathway to becoming a health professional. AHEC can connect you with these professionals. Groups can also request to visit health-related work sites.

**Biomedical Research Opportunities Database:** Created in collaboration with the INBRE Program, this database identifies biomedical researchers from across the state of Hawai`i and provides information on whether they are currently accepting high school, undergraduate, or graduate students in their lab ([inbre.jabsom.hawaii.edu](http://inbre.jabsom.hawaii.edu)).

ahec@hawaii.edu  
(808) 692-1060  
[www.ahec.hawaii.edu](http://www.ahec.hawaii.edu)

### Hawai`i Pacific Health (HPH) Student Programs

HPH is a nonprofit healthcare network of hospitals, clinics, physicians and care providers dedicated to the mission of improving the health and well-being of the people of Hawai`i and the Pacific Region. The system is anchored by four flagship hospitals: Kapi`olani Medical Center for Women & Children, Pali Momi Medical Center, Straub Clinic & Hospital, and Wilcox Memorial Hospital, which have led groundbreaking initiatives in women's health, pediatric care, cardiovascular services, cancer care and bone and joint services. The [Health Careers Internship](#) targets 12th graders and undergraduate students at the crossroads in their career pathways.

The 6-week paid summer program provides exposure to a career in clinical and non-clinical roles within a health care environment. The internship is highlighted by "careers in medicine" talks with physicians and other healthcare leaders, optional activities (including shadowing and observing surgeries) and visits to various departments and units based on the individual areas of interest. More than 700 students have already participated, and past interns rave about the opportunity to learn more about the healthcare industry and culture, interacting with patients and their families, and understanding the team effort involved in the care process. In addition, the [Summer Student Research Program](#) allows a select group of students who are planning to go to medical school to conduct hands-on bench research with HPH clinical researchers and physicians.

Shanyng Chung  
careers@hawaiipacifichealth.org  
(808) 535-7571  
[www.hawaiipacifichealth.org/careers](http://www.hawaiipacifichealth.org/careers)

## STATEWIDE RESOURCES

Program	Contact
<p><b>Alu Like, Inc.</b> This nonprofit organization provides services and activities to Native Hawaiians including community economic development, business assistance, employment preparation, training, library, educational and childcare services.</p>	<p><a href="http://www.alulike.org">www.alulike.org</a></p>
<p><b>Career Kokua (The Hawai`i Career Information Delivery System)</b> This organization provides health and science career assessments and online <i>information channels</i> on occupations, training programs, and schools.</p>	<p>Dlir.rs.hcids@hawaii.gov (808) 587-5515 <a href="http://test.hawaii.gov/labor/rs/careerinfo.shtml">test.hawaii.gov/labor/rs/careerinfo.shtml</a></p>
<p><b>GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) Hawai`i</b> This program serves students at selected low-income middle and high schools. It is hosted by College Application and Exploration Season (CAES), which is best known for assisting 12th grade students with applying to college. GEAR UP also supports the Step Up Campaign (a scholar program that increases high school student interest in rigorous coursework) and the Advanced Via Individual Determination (AVID) program, which helps low-income middle and high schools who are in the academic middle (“B”, “C”, and “D” grades) with college preparatory skills. GEAR UP also supports Summer Bridge programs at Wai`alae, McKinley, and Nanakuli. UH Mānoa works closely with GEAR UP at Farrington and Waipahu.</p>	<p><a href="http://gearup.hawaii.edu">gearup.hawaii.edu</a></p>
<p><b>Hawai`i Health Education Resources at The Queen’s Medical Center: Hawai`i Medical Library</b> Listings available at the Hawai`i Medical Library contain information on academic programs offered in Hawai`i as well as additional state and national career resources.</p>	<p><a href="http://www.hml.org/CHIS2/careers/hawaii.php">www.hml.org/CHIS2/careers/hawaii.php</a></p>
<p><b>Hawai`i State Department of Education (DOE) Career and Technical Education (CTE)</b> CTE is a structure within the DOE that allows high school students the opportunity to explore and learn through the practical application of academic and technical skills and knowledge. AHEC works closely with the CTE Health Pathways courses to provide opportunities for teachers and students. <i>Please see the following resource by island section for participating schools.</i></p>	<p>Mike Barros Michael_Barros@notes.k12.hi.us (808) 305-9707 <a href="http://www.hawaiipublicschools.org/TeachingAndLearning/StudentLearning/CareerAndTechnicalEducation/Pages/home.aspx">www.hawaiipublicschools.org/TeachingAndLearning/StudentLearning/CareerAndTechnicalEducation/Pages/home.aspx</a></p>
<p><b>Hawai`i State Department of Education (DOE) Science, Technology, Engineering, and Mathematics (STEM)</b> STEM education integrates the study of science, technology, engineering and mathematics by using scientific inquiry and engineering design as unifying processes. <i>Please see the following resource by island section for participating schools.</i></p>	<p>John Constantinou DOE STEM Education Specialist John_Constantinou/SSB/ HIDOE@notes.k12.hi.us (808) 305-9718 <a href="http://www.hawaiipublicschools.org">www.hawaiipublicschools.org</a></p>
<p><b>Health Occupations Students of America (HOSA)</b> HOSA is a national professional organization for students, professionals, and community members. It provides co-curricular activities in healthcare that emphasize the development of leadership and technical skill competencies through motivation, awareness, and recognition. Courses are academically rigorous, include hands-on activities, and aim to connect students to the community. <i>Please see the following resource by island section for participating schools.</i></p>	<p>Ada Toyama Ada_toyama@hotmail.com (808) 203-5532, ext. 1306 <a href="http://www.hawaiihosa.org">www.hawaiihosa.org</a></p>
<p><b>Kamehameha Schools Resource Centers (KSRC)</b> KSRCs serve as a link between island communities and Kamehameha School resources. Each center provides services for Native Hawaiians such as counseling on college admissions, financial aid and scholarships. KSRC also offers programs such as Kamehameha Scholars, which provides educational enrichment with a focus on college and career guidance.</p>	<p><a href="http://apps.ksbe.edu/resourcecenters">apps.ksbe.edu/resourcecenters</a></p>

## STATEWIDE RESOURCES

Program	Contact
<p><b>Managing with Aloha Book</b></p> <p>A classroom-based workbook that can be purchased. It is specifically for Hawaiian youth and provides a step-by-step guide to prepare students for transitioning into the workforce. It provides information on job search techniques, filling out an application, resume building, effective interviewing skills, networking, discovering the value of extracurricular activities, internships, and job shadowing.</p>	<p><a href="http://www.managingwithaloha.com">www.managingwithaloha.com</a></p>
<p><b>Minority Health and Health Disparities International Research Training (MHIRT) Program</b></p> <p>This program is an undergraduate research experience with the UH John A. Burns School of Medicine where students learn how to conduct research during the Spring semester and then complete an 8-week Summer research project on health and health disparities in Thailand or Cameroon.</p>	<p><a href="http://www.manoa.hawaii.edu/tropicalmedicine/?page_id=1467">www.manoa.hawaii.edu/tropicalmedicine/?page_id=1467</a></p>
<p><b>Native Hawaiian Student Pathway to Medicine</b></p> <p>This program from the Native Hawaiian Center of Excellence at the UH John A. Burns School of Medicine guides selected Native Hawaiian students on their path to becoming future physicians and health professionals. The curriculum consists of premedical workshops, individualized advising, and career counseling. Opportunities include working in the community health field and receiving assistance with applying for Medical College Admission Test (MCAT) preparation funding.</p>	<p>Sasha N.K. Fernandes, M.D.  <a href="mailto:sfernan@hawaii.edu">sfernan@hawaii.edu</a>            (808) 692-1040</p>
<p><b>Ola: Health is Everything (Movie)</b></p> <p>A locally-made film about health, hope and the power of communities to heal themselves. The movie highlights remote parts of Hawai'i and discovers selfless individuals who've created innovative solutions to the challenges affecting their communities.</p>	<p><a href="http://www.olamovie.com">www.olamovie.com</a></p>
<p><b>Pacific STEP-UP Program</b></p> <p>This program is the NIH National Institute of Diabetes and Digestive and Kidney Diseases Short-Term Research Experience for Underrepresented Persons (STEP-UP). It is located at the John A. Burns School of Medicine and is designed to provide opportunities in individualized research for underrepresented and/or disadvantaged students. The goal of this program is to expose students to hands-on laboratory, clinical or social/behavioral research, with the hope of igniting and fostering interest in scientific research and investigation. Applicants from all islands are welcome!</p>	<p>Danielle Clements  <a href="mailto:hawaii.stepup@gmail.com">hawaii.stepup@gmail.com</a>  <a href="http://stepup.jabsom.hawaii.edu/hawaii/hawaii_home.html">stepup.jabsom.hawaii.edu/hawaii/hawaii_home.html</a></p>
<p><b>Running Start</b></p> <p>This partnership between the DOE and the UH system provides an opportunity for qualified 11-12th graders to enroll in undergraduate classes through the University of Hawai'i system as part of their high school coursework.</p>	<p>Shane Payba  <a href="mailto:payba@hawaii.edu">payba@hawaii.edu</a>            (808) 984-3496  <a href="http://www.hawaii.edu/dualcredit">www.hawaii.edu/dualcredit</a></p>
<p><b>University of Hawai'i Online Learning Academy (OLA)</b></p> <p>OLA offers free online tutoring for K-12 and undergraduate students in science and math. Just go to the website (<a href="http://manoa.hawaii.edu/ola">manoa.hawaii.edu/ola</a>) and click on "Enter Tutoring Room". Sign in by using your first name only (a login and password is not required). Online Schedule: Monday-Friday, 1 pm - 10 pm &amp; Sunday, 5 pm - 10 pm</p>	<p><a href="mailto:ola@hawaii.edu">ola@hawaii.edu</a>            (808) 956-3714  <a href="http://manoa.hawaii.edu/ola">manoa.hawaii.edu/ola</a></p>
<p><b>University of Hawai'i Pre-Health/Pre-Law Advising Center</b></p> <p>The Pre-Health/Pre-Law Advising Center (PAC) is a walk-in resource center for students interested in law, medicine (e.g. allopathic, chiropractic, naturopathic, osteopathic, podiatric), or the health sciences (e.g. dentistry, optometry, pharmacy, physician assistant, occupational therapy, physical therapy, veterinary medicine). The mission of PAC is to guide students in discovering their paths in life and transforming their professional dreams into reality. They provide individual and group advising, workshops, mock interviews, résumé, and personal statement reviews. The PAC serves anyone in the state who is interested in pursuing a career in law or health.</p>	<p>Kiana Shiroma  <a href="mailto:uhpac@hawaii.edu">uhpac@hawaii.edu</a>            (808) 956-8646  <a href="http://www.manoa.hawaii.edu/undergrad/pac">www.manoa.hawaii.edu/undergrad/pac</a></p>

## STATEWIDE RESOURCES

UNIVERSITY  
of HAWAII  
MĀNOA

### Undergraduate Admissions

#### Early Admissions Programs

The primary goal of the Doctor of Medicine Early Acceptance Program (DMEAP) at the University of Hawai'i at Mānoa (UHM) is to commit access to the John A. Burns School of Medicine (JABSOM) to outstanding high school graduates throughout the state of Hawai'i who have demonstrated exceptional ability and commitment to pursuing a medical degree. DMEAP prepares Hawai'i residents to become exemplary medical students through a quality undergraduate education at UHM.



DMEAP is a joint program offered by the John A. Burns School of Medicine and Undergraduate Programs at the University of Hawai'i at Mānoa, including: the Honors Program, Pre-Health/Pre-Law Advising Center, ACE Learning Communities, Student Housing Services, and the Office of Admissions. Students in 12th grade that are Hawai'i residents are encouraged to apply. Students enter the program in their first year of undergraduate school at UHM.

Acceptance into DMEAP signifies a commitment by both JABSOM and the student. JABSOM commits to accepting the student upon entry to UH Mānoa, and the student commits to attending JABSOM upon successful completion of their undergraduate degree and DMEAP requirements. Thus, admission to DMEAP precludes applying to other medical schools. A commitment to serve in Hawai'i upon completion of medical training is highly desirable.

#### Eligibility

To be eligible, applicants must meet all of the following requirements:

- Be a resident of the State of Hawai'i as determined by UH's Hawai'i Residency Requirements
- Must graduate from a Hawai'i high school
- Have a minimum high school grade point average (GPA) of 3.8 or higher
- Have a minimum combined SAT score of 1800 (critical reading/mathematics/writing) and/or a minimum ACT composite score of 27 (including the writing section)
- Have completed or currently in-progress college preparatory pre-calculus, biology, chemistry, and physics

#### Desirable experiences include:

- Advanced Placement (AP) credits
- Demonstration of achievement in extra-curricular or co-curricular activities

#### Benefits

DMEAP participants receive an exemplary pre-med education with the added benefit of early acceptance into JABSOM.

They will:

- Receive scholarship support covering undergraduate tuition costs for four years
- Participate in the Honors Program
- Reside in an on-campus residence hall their first year to facilitate participation in an ACE Learning Community
- Receive priority registration
- Receive training in cultural competencies in health professions
- Receive regular academic advising and guidance from PAC
- Receive mentoring from JABSOM faculty
- Work with JABSOM faculty to establish early relationships with the medical community
- Engage in appropriate community service
- Have the opportunity to participate in programs such as Study Abroad, National Student Exchange, or UHM's Congressional Internship Program

**For more information visit:**

[manoa.hawaii.edu/admissions/undergrad/early\\_admissions](http://manoa.hawaii.edu/admissions/undergrad/early_admissions)

## STATEWIDE RESOURCES

### Join the Hawai`i Pre-Health Careers Corps (PHCC)!

The **PHCC** is a NEW program available from the Hawai`i/Pacific Basin Area Health Education Center (AHEC) at the John A. Burns School of Medicine (JABSOM) for students that want to learn about health careers, receive mentoring, and be part of a group support system. Activities include campus visits, mentoring, research opportunities, and provider shadowing. The **PHCC** is a multi-year program that 11th-12th graders and undergraduate students can join to gain valuable experience before entering a health career. Visit [www.ahec.hawaii.edu/phcc](http://www.ahec.hawaii.edu/phcc) for more information or to join from any island.

Area of Activity	Year 1 Activities	Year 2 Activities	Year 3 Activities	Year 4 Activities
<b>Career Readiness</b>	<ul style="list-style-type: none"> <li>• Receive Health Careers Navigator book</li> <li>• Participate in Teen Health Camp, UH Health Career Opportunity Program (HCOP), or AHEC Summer Camps</li> </ul>	<ul style="list-style-type: none"> <li>• Assist with improving and updating web-based Navigator book</li> <li>• Assist with organizing Teen Health Camp</li> <li>• Shadow health care providers</li> <li>• Assist with career presentations</li> </ul>	<ul style="list-style-type: none"> <li>• Give talks to students about health professions in Hawai`i</li> <li>• Write newsletter article(s)</li> </ul>	<ul style="list-style-type: none"> <li>• Give health careers orientation sessions at your academic institution</li> </ul>
<b>Campus Exposure</b>	<ul style="list-style-type: none"> <li>• Visit health professions campuses and participate in local health career or campus career fairs on their island</li> </ul>	<ul style="list-style-type: none"> <li>• Perform course shadowing at healthcare campuses</li> <li>• Volunteer at your local campus</li> </ul>	<ul style="list-style-type: none"> <li>• Enroll in health careers training preparatory classes at local college</li> </ul>	<ul style="list-style-type: none"> <li>• Volunteer to provide tours to students visiting your health career campus</li> </ul>
<b>Mentoring</b>	<ul style="list-style-type: none"> <li>• Participate in quarterly group mentoring sessions and receive follow-up mentoring</li> </ul>	<ul style="list-style-type: none"> <li>• Provide email mentoring for a new PHCC student matched by island and interests</li> </ul>	<ul style="list-style-type: none"> <li>• Meet with PHCC Staff about career goals and decide career mentor</li> </ul>	<ul style="list-style-type: none"> <li>• Meet with and shadow mentor</li> <li>• Monthly emails with mentor</li> </ul>
<b>Research</b>	<ul style="list-style-type: none"> <li>• Participate in health workforce research for their interest area with AHEC</li> </ul>	<ul style="list-style-type: none"> <li>• Learn to do literature searches on health research and assist with a publication for the Hawai`i Journal of Medicine and Public Health</li> </ul>	<ul style="list-style-type: none"> <li>• Apply to Hawai`i Pacific Health research opportunities</li> <li>• Apply to NIDDK STEP-UP Diabetes Research Program and other local NIH opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Apply to Hawai`i Pacific Health undergraduate research</li> <li>• Apply for INBRE research and other undergraduate research programs</li> </ul>
<b>Education Sessions</b>	<ul style="list-style-type: none"> <li>• Inquiry-based case learning session at group mentoring</li> </ul>	<ul style="list-style-type: none"> <li>• Email and social media etiquette training at group mentoring</li> </ul>	<ul style="list-style-type: none"> <li>• Professionalism discussion at group mentoring</li> </ul>	<ul style="list-style-type: none"> <li>• Graduation party</li> </ul>



## BIG ISLAND (HAWAI`I ISLAND) RESOURCES

Program	Contact
<p><b>Girls Exploring Math and Science</b> (GEMS; Grade 5) is a program in Kona specifically designed for girls, where they get to see how math, science, and technology are incorporated into professions. This program includes hands-on exhibits and workshops.</p>	<p>Laurel Gregory Lgregory@hawaii.edu (808) 969-8833 kona-hi.aauw.net/gems/</p>
<p><b>Hale Ho`ola Hamakua</b> (<i>formally Honoka`a Hospital</i>; Grades 9-12) offers volunteer opportunities for students in a wide variety of services that help patients, visitors, and staff.</p>	<p>Theresa Glowania tglowania@hhsc.org (808) 932-4130 www.halehoolahamakua.org/ volunteers.html</p>
<p><b>Hawai`i Community College</b> offers training to become a Licensed Vocational Nurse, Registered Nurse, or Substance Abuse Counselor.</p>	<p>(808) 934-2500 www.hawaii.hawaii.edu</p>
<p><b>Hawai`i Teen Health Camp</b> (THC; Grades 6-12) is a one-day event led by medical students from the John A. Burns School of Medicine (JABSOM) that aims to enhance student enthusiasm for entering healthcare fields by addressing education and career planning needs. THC offers interactive workshops, skill demonstrations, fun activities, and discussions with local healthcare professionals and students.</p>	<p>Nem Lau Nem_Lau/HAWAIIDO/ HIDOE@notes.k12.hi.us (808) 313-3740</p>
<p><b>Health Center 21 Online Classes</b> (Grades 11-12) is a web-based learning site for the CTE Health Career Pathways course (<i>Pahoa High School</i>).</p>	<p>www.aeseducation.com/ healthcenter21/</p>
<p><b>HI DOE STEM</b> (Grades K-12) integrates the study of science, technology, engineering, and mathematics by using scientific inquiry and engineering design as unifying processes (available at <i>Kea`au and Kealakehe High Schools</i>).</p>	<p>John Constantinou John_Constantinou/SSB/ HIDOE@notes.k12.hi.us (808) 305-9718</p>
<p><b>HI State Department of Education (DOE) Career and Technical Education (CTE) Pathways</b> (Grades 6-12) provides opportunities for students to explore healthcare through the practical application of academic, technical skills, and knowledge. High schools with health career pathways include: <i>Hilo, Honoka`a, Ka`u, Kea`au, Kealakehe, Kohala, Pahoa, and Waiakea</i>.</p>	<p>Sherilyn Lau sherilyn_lau@hawaiidoe.org (808) 305-9707 www.hawaiipublicschools.org</p>
<p><b>Hilo Area Health Education Center (AHEC)</b> has extensive partnerships with academic programs, community groups, and local healthcare organizations. AHEC provides volunteer opportunities at the Hilo Medical Center in conjunction with HOSA (Health Occupations Students of America), supports 1-2 day hospital visitation programs, and hosts John A. Burns School of Medicine (JABSOM) students.</p>	<p>Lisa Rantz lrantz@hhsc.org (808) 932-3636 www.ahec.hawaii.edu</p>
<p><b>Hilo Medical Center: Hawai`i Island Family Medicine Residency</b> is a physician training program designed to meet healthcare needs in the local community and rural areas throughout the state.</p>	<p>Kristine McCoy (808) 932-4358 www.hifmr.org</p>
<p><b>Kaiser Permanente West Hawai`i Clinics</b> (16+ years old) provide shadowing experiences for students.</p>	<p>(808) 334-4400 hp.kp.volunteer@kp.org</p>

## BIG ISLAND (HAWAI`I ISLAND) RESOURCES *(Continued)*

Program	Contact
<p><b>Ka`u Hospital</b> is a Critical Access Hospital (CAH) that offers volunteer opportunities for students.</p>	<p>Sabrina Ervin (808) 932-4392 www.kau.hhsc.org</p>
<p><b>Ka`u Rural Health Community Association, Inc.</b> (KRHCAI) has a variety of programs available. Some include: mentoring for Long Term Care Nursing, courses in Certified Nursing Assistant and Medical Billing/Coding, Ka`u Rural Health Academy, organizing a Ka`u Practical Nursing cohort with Hawai`i Community College, and hosting a Community Health Worker Program.</p>	<p>Jessie Marques krhcai@yahoo.com krhcai.com</p>
<p><b>Kohala Hospital</b> is a 28-bed Critical Access Hospital (CAH) with 24-hour emergency services that offers volunteer opportunities for students.</p>	<p>Sadie Young or Cheryl Rocha (808) 889-6211 kohala.hhsc.org</p>
<p><b>Kona Community Hospital (KCH) Auxiliary</b> (18+ years old) provides the volunteer support base for service, fundraising and “friendraising.”</p>	<p>Judy Donovan (808) 322-9311 www.kch.hhsc.org</p>
<p><b>Massage School</b> programs are available, including the Big Island Academy of Massage and Aloha Massage Academy.</p>	<p>www.hilomassage.com www.aloha-massageacademy.com</p>
<p><b>Nā Pua No’eau</b> (Grades K-12) helps Hawai`i’s youth develop interest and academic capacity, which includes special health career pathways and STEM-focused initiatives during the summer and the academic year. The <b>Ke Ola Mau Scholars Program with Nā Pua No’eau</b> supports Native Hawaiian students with current or prospective healthcare-related majors at UH Mānoa and UH Hilo campuses.</p>	<p>University of Hawai`i at Hilo Toni Mallow mallow@hawaii.edu (808) 974-7678 UH University Center, West Hawai`i (808) 322-4867 nprn.uhh.hawaii.edu</p>
<p><b>North Hawai`i Community Hospital Volunteer Services Program</b> (13+ years old) provides opportunities for students, who become an integral part of the `ohana of caregivers at the hospital.</p>	<p>Wayne Higaki, wayne.higaki@NHCH.com (808) 881-4695 www.nhch.com/cms/View.aspx/ Show/Volunteers</p>
<p><b>Pūlama I Ke Ola Healthcare Conference</b> (Grades 9-12) is hosted annually by UH Hilo and other partners to introduce high school students to the healthcare disciplines and promotes interest in health careers.</p>	<p>Cecilia Mukai, PhD cmukai@hawaii.edu (808) 932-7072</p>
<p><b>Registered Independent Student Organizations (RISO)</b> include the clubs available at UH Hilo, including: Colleges Against Cancer Aspiring Doctors, UH Hilo Pharmacy Club, Pre-Pharmacy Club, HOSA Club, Nursing ‘Ohana Psychology Club, or you could start your own club!</p>	<p>(808) 932-7377 hilo.hawaii.edu/campuscenter/riso</p>
<p><b>Science Camps of America</b> (Grades 8-12) immerses teens in hands-on science education in a summer camp setting.</p>	<p>(678) 619-0974 www.sciencecampsamerica.com</p>
<p><b>University of Hawai`i, Hilo</b> offers training for careers in Counseling Psychology, Pharmacist, and Pharmacy Technician.</p>	<p>(808) 932-7446 www.hilo.hawaii.edu</p>

## KAUA`I ISLAND RESOURCES

Program	Contact
<p><b>Hale Ho`omalu (East Kaua`i) and Nana’s House (West Kaua`i)</b> are family support centers run by the nonprofit group, <b>Child &amp; Family Service</b>. They offer volunteer opportunities in community outreach and client services.</p>	<p>(808) 821-2520 (Hale Ho`omalu)            (808) 338-0252 (Nana’s House)  <a href="http://www.childandfamilyservice.org/volunteer.html">www.childandfamilyservice.org/volunteer.html</a></p>
<p><b>Hawai`i Health Occupations Students of America</b> (HOSA; Grades 9-12) provides students with health education and volunteer opportunities to enhance leadership, community involvement, and technical skill competencies in healthcare professions.</p>	<p>Ada Toyama  <a href="mailto:ada_toyama@hotmail.com">ada_toyama@hotmail.com</a>  <a href="http://www.hawaiihosa.org">www.hawaiihosa.org</a></p>
<p><b>HI State Department of Education Career Technical Education (CTE)</b> (Grades 9-12) is an educational structure that allows students the opportunity to explore and learn through the practical application of academic, technical skills, and knowledge. The Health Pathways course is available at the following High Schools: <i>Kapa`a, Kaua`i, and Waimea</i>.</p>	<p>Sherilyn Lau  <a href="mailto:sherilyn_lau@hawaiidoe.org">sherilyn_lau@hawaiidoe.org</a>            (808) 305-9707</p>
<p><b>HI State Department of Education STEM</b> (Grades 9-12) education integrates the study of science, technology, engineering, and mathematics by using scientific inquiry and engineering design as unifying processes (available at <i>Kaua`i High School</i>).</p>	<p>John Constantinou  <a href="mailto:John_Constantinou/SSB/HIDOE@notes.k12.hi.us">John_Constantinou/SSB/HIDOE@notes.k12.hi.us</a>            (808) 305-9718</p>
<p><b>HI State Department of Health</b> provides volunteer experiences for students interested in family-centered, community-based comprehensive, coordinated care for youth with special health care needs.</p>	<p>Cheryl Keli`ipo            (808) 241-3376  <a href="http://health.hawaii.gov/cshcn/home/communitypage">health.hawaii.gov/cshcn/home/communitypage</a></p>
<p><b>Ho`ola Lahui Hawai`i</b> provides Summer Health Camps, CPR and First Aid certified clinics, lomi, la'au lapa'au. In schools, they plan year-round programs dealing with boys and their health issues, youth mentorship, and young men’s and young women's group.</p>	<p>Sean A. Chun  <a href="mailto:seanchun@hawaii.edu">seanchun@hawaii.edu</a>  <a href="http://www.hoolalahui.org">www.hoolalahui.org</a></p>
<p><b>Hui o Nā Mākua Ho`okahi o Kaua`i</b> is a nonprofit program for single parents that meets almost any need as it arises, including providing meals, housing, transportation, and career development .</p>	<p>Marilyn Mohler            (808) 639-1070  <a href="mailto:MarilynMohler33@aol.com">MarilynMohler33@aol.com</a>  <a href="http://apps.ksbe.edu/kaiwakiloumoku/makalii/feature-stories/hui_na_makua">apps.ksbe.edu/kaiwakiloumoku/makalii/feature-stories/hui_na_makua</a></p>
<p><b>Kaua`i Community College</b> helps Students Succeed in their education by providing support services and resources such as Dedicated career counselors, Vet center and advising, Disability/Mental Health Counselors, Wellness Center, Kipaipai Program, Learning Resource Center, Peer Mentoring, Student clubs, financial aid, and free tutoring to advance development in the healthcare fields. Training programs include: Nursing, Massage, CNA, Medical Assisting, Home Healthcare, MSW-concentration in medical (UHM), Dental Assisting, and School Health Aid.</p>	<p><a href="http://www.kauai.hawaii.edu">www.kauai.hawaii.edu</a></p>
<p><b>Kaua`i Economic Development Board: Aloha ‘Ike Grants</b> (GK-12 teachers) provide monthly funding opportunities (up to \$5,000) so that teachers can coordinate projects outside of their existing curriculum.</p>	<p>Mia Ako            (808) 245-6692  <a href="http://www.kedb.com/about-kedb/programs/">www.kedb.com/about-kedb/programs/</a></p>

## KAUA`I ISLAND RESOURCES *(Continued)*

Program	Contact
<p><b>Kaua`i Medical Reserve Corps</b> is organized and operated by the Hawai`i State Department of Health, Kaua`i District Health Office in collaboration with numerous community partners. The Kaua`i MRC serves a community of 62,000 which includes both the islands of Kaua`i and Ni`ihau. The mission of the Kaua`i MRC is to establish a team of local volunteers who can contribute their skills and expertise to medical and public health service throughout the year and during times of community need.</p>	<p>Tommy Noyes (808) 241-3555 <a href="http://www.medicalreservecorps.gov/MrcUnits/UnitDetails/405">www.medicalreservecorps.gov/MrcUnits/UnitDetails/405</a></p>
<p><b>Kaua`i Planning and Action Alliance/DOE (Keiki to Career Program)</b> creates learning opportunities by partnering with the Department of Education (DOE) to connect community resources with classrooms through networking with Hawai`i's industry.</p>	<p>Stacey Gillette Stacey@kauainetwork.org <a href="http://www.hawaii.edu/cte/index.html">www.hawaii.edu/cte/index.html</a> (808) 274-3509</p>
<p><b>Kaua`i Teen Health Camp</b> (THC; Grades 6-12) is a one-day event led by medical students from the John A. Burns School of Medicine (JABSOM) that aims to enhance student enthusiasm for entering healthcare fields by addressing education and career planning needs. THC offers interactive workshops, skill demonstrations, fun activities and discussions with local healthcare professionals and students.</p>	<p>Kau'i Mead kauional@hawaii.edu (808) 692-1066 <a href="http://www.ahec.hawaii.edu">www.ahec.hawaii.edu</a></p>
<p><b>Living Life Source Foundation</b> provides scholarships for health professions students in Native Hawaiian charter or immersion schools to increase Native Hawaiian enrollment in health education programs. Hawaiian practitioners train and mentor in health related work with upstream services including healing and therapy, clinical massage therapy, lomilomi (Hawaiian massage), kahea lapa'au (spiritual healing), la`au lapa'au (herbal healing), hoo`ponopono (individual/group counseling), Healing Arts of Emei Qigong, sustainable farming, Hawaiian language, Kaito Gakko (Peaceful Martial Arts), home visits and blessings, and sacred site restoration.</p>	<p>Sheri Fitzgerald <a href="http://www.livinglifefoundation.org/education-program-grants">www.livinglifefoundation.org/education-program-grants</a></p>
<p><b>Massage Schools</b> include Aloha Lomi Massage Academy and Pacific Center Awareness and Bodywork Massage School (PCAB).</p>	<p><a href="http://www.alohalomiacademy.com">www.alohalomiacademy.com</a> <a href="http://www.awarenessandbodywork.com">www.awarenessandbodywork.com</a></p>
<p><b>Nā Lei Wili — Kaua`i Area Health Education Center</b> (Grades K-12) has activities that promote health career including the Patch Fitness Program and a two-week Summer Health Adventure (SHA). Students at Waimea High School participate in a weekly career exploration activity, attend community health fairs, gain volunteer experiences at the local hospital, and mentor SHA students.</p>	<p>Fran Becker becker.fran@gmail.com (808) 246-8986 <a href="http://www.ahec.hawaii.edu">www.ahec.hawaii.edu</a></p>
<p><b>Nā Pua No'eau</b> (Grades 9-12) is for Native Hawaiian students to develop interest and academic capacity to attend college. The goal is to build a workforce that is creative and reflects the values and perspectives of the local Hawaiian community and other underrepresented groups.</p>	<p>Malia Chun (808) 245-8387</p>
<p><b>Office of Continuing Education and Training (OCET)</b> has adult literacy courses that are held across the community for Kaua`i residents to meet higher education needs.</p>	<p>(808) 245-8318 <a href="http://sites.google.com/a/hawaii.edu/office-of-continuing-education">sites.google.com/a/hawaii.edu/office-of-continuing-education</a></p>

## KAUA`I ISLAND RESOURCES *(Continued)*

Program	Contact
<b>Samuel Mahelona Memorial Hospital</b> is Kaua`i's Eastside Critical Access Hospital located in Kapa`a and offers volunteer opportunities.	Jennifer (808) 822-4961 www.smmh.hhsc.org
<b>Wilcox Memorial Hospital</b> is a 72-bed facility that has volunteer opportunities available for students.	Shanyn Chung 808-535-7571 careers@hawaiipacifichealth.org

## LĀNA`I ISLAND RESOURCES

Program	Contact
<b>HI State Department of Education Career Technical Education (CTE)</b> (Grades 9-12) is an educational structure that allows students the opportunity to explore and learn through the practical application of academic, technical skills, and knowledge. The support and involvement of business and industry in CTE is critical to the preparation of tomorrow's skilled workforce.	Sherilyn Lau sherilyn_lau@hawaiidoe.org (808) 305-9707
<b>HI State Department of Education STEM</b> (Grades 9-12) education integrates the study of science, technology, engineering, and mathematics by using scientific inquiry and engineering design as unifying processes. It is offered at <i>Lāna`i High School</i> .	John Constantinou John_Constantinou/SSB/ HIDOE@notes.k12.hi.us (808) 305-9718
<b>Huli Au Ola — Maui County Area Health Education Centers</b> (Grades K-12) is based in Moloka`i, but is also open to participants from Maui and Lāna`i. Maui AHEC has a weekly health education program for K-12 students that covers Native Hawaiian healing practices, environmental awareness activities, team-building, and study skills. In collaboration with Native Hawaiian Healthcare Systems, they also offer a one-week residential Summer Institute with STEM activities, team building, study skills, and a fun family night focused on science-learning.	Rosie Davis rosiedavis777@yahoo.com (808) 553-3623 www.ahec.hawaii.edu
<b>Maui or Moloka`i Teen Health Camp</b> (THC; Grades 6-12) is a one-day event led by medical students from the John A. Burns School of Medicine (JABSOM) that aims to enhance student enthusiasm for entering healthcare fields by addressing education and career planning needs. THC offers interactive workshops, skill demonstrations, fun activities, and discussions with local healthcare professionals and students. Highly motivated students may be able to receive travel assistance to attend.	Kau'i Mead kauional@hawaii.edu (808) 692-1066 www.ahec.hawaii.edu
<b>Nā Pua No`eau</b> (Grades K-12) helps Hawai`i's youth develop interest and academic capacity, which includes health career pathways and STEM-focused initiatives during the summer and the academic year.	Chantell Schillings chantell@hawaii.edu (808) 565-9100 npr.uhh.hawaii.edu
<b>STEMworks™</b> (Grades K-12) is a multi-faceted, hands-on program where students use the most current, high-end technologies in actual community service learning projects. During the STEMworks™ process, students learn how to develop an industry partner relationship, provide an actual deliverable, and maintain an ongoing solution for the future.	Leslie Wilkens or Isla Young Maui Economic Development Board (808) 875-2300 stemworkshawaii.org

## MAUI ISLAND RESOURCES

Program	Contact
<p><b>Health Occupations Students of America (HOSA)</b> (Grades 9-12) is a national professional organization for students, professionals, and community members which provides co-curricular activities in healthcare that emphasize the development of leadership and technical skill competencies through motivation, awareness, and recognition.</p>	<p>Ada Toyama Ada_toyama@hotmail.com (808) 205-5532, ext 1306</p>
<p><b>HI State Department of Education Career Technical Education</b> (CTE; GK-12) is an educational structure that allows students the opportunity to explore and learn through the practical application of academic and technical skills and knowledge. The support and involvement of business and industry in CTE is critical to the preparation of tomorrow's skilled workforce. Health Pathways are at these high schools: <i>Baldwin, King Kekaulike, Lahainaluna, and Maui.</i></p>	<p>Sherilyn Lau sherilyn_lau@hawaiidoe.org (808) 305-9707</p>
<p><b>HI State Department of Education STEM</b> (GK-12) education integrates the study of science, technology, engineering, and mathematics by using scientific inquiry and engineering design as a unifying processes. Programs available at the following high schools: <i>Baldwin, Hāna, King Kekaulike, Lahainaluna, and Maui.</i> <i>STEM is also available at intermediate schools, including Iao, Maui Waena, and Lokelani. Kihei Charter School also has a STEM program.</i></p>	<p>John Constantinou John_Constantinou/SSB/ HIDOE@notes.k12.hi.us (808) 305-9718</p>
<p><b>Hui No Ke Ola Pono</b> is a private, not for profit community-based health enhancement, disease prevention and health care center. They provide programs on nutrition, health management, and health care referrals for the community of Maui in a culturally caring manner.</p>	<p>www.hnkop.org</p>
<p><b>Huli Au Ola — Maui County Area Health Education Centers</b> (Grades K-12) is based in Moloka'i, but is also open to participants from Maui and Lāna'i. They have a weekly health education program for K-12 students that covers Native Hawaiian healing practices, environmental awareness activities, team-building, and study skills. In collaboration with Native Hawaiian Healthcare Systems, they also offer a one-week residential Summer Institute with STEM activities, team building, study skills, and a fun family night focused on science learning.</p>	<p>Rosie Davis rosiedavis777@yahoo.com (808) 553-3623 www.ahec.hawaii.edu</p>
<p><b>Kaiser Permanente</b> provides their members with both health care and health coverage in one place. Maui Lani Medical Office offers primary and after-hours care and an expanded pharmacy.</p>	<p>(808) 243-6050 hi.kp.volunteer@kp.org</p>
<p><b>Kula Hospital Auxiliary</b> is a volunteer service for patients, residents, and families.</p>	<p>(808) 876-4400 www.mauimemorialmedical.org /our-family/kula-hospital/ default.aspx</p>
<p><b>Maui Memorial Medical Center</b> (Grades 9-12) has a Summer Medical Internship through the Maui Memorial Medical Center Foundation. This program is designed to give participants a "window" into the practice of medicine from the perspective of a physician.</p>	<p>Melvin Burton (808) 874-8774 www.mauimemorialmedical.org</p>
<p><b>Maui Teen Health Camp</b> (THC; Grades 6-12) is a one-day event led by medical students from the John A. Burns School of Medicine (JABSOM) that aims to enhance student enthusiasm for entering healthcare fields by addressing education and career planning needs. THC offers interactive workshops, skill demonstrations, fun activities and discussions with local healthcare professionals and students.</p>	<p>Kau'i Mead kauional@hawaii.edu (808) 692-1066 www.ahec.hawaii.edu</p>
<p><b>Massage School</b> is available at Maui School of Therapeutic Massage.</p>	<p>(808) 572-2277 www.massagemau.com</p>

## MAUI ISLAND RESOURCES *(Continued)*

Program	Contact
<p><b>Nā Pua No'eau</b> (Grades K-12) helps youngsters develop interest and academic capacity. Includes special health career pathways and STEM-focused initiatives during summer and the academic year. Integrates curriculum with core values of Native Hawaiian and other underrepresented groups.</p>	<p style="text-align: center;">Ohua Morando, ohua@hawaii.edu (808) 984-3364</p>
<p><b>Running Start: University of Hawai'i Maui College</b> (Grades 11-12) is a statewide program for academically qualified juniors and seniors to enroll in college classes through the University of Hawai'i system as part of their high school coursework.</p>	<p style="text-align: center;">Shane Payba payba@hawaii.edu (808) 984-3496 www.hawaii.edu/runningstart</p>
<p><b>STEMworks™</b> (Grades K-12) is a multi-faceted, hands-on program where students use the most current, high-end technologies in actual community service learning projects. During the STEMworks™ process, students learn how to develop an industry partner relationship, provide an actual deliverable, and maintain an ongoing solution for the future. Programs are offered at the following high schools: <i>Baldwin, Hana, King Kekaulike, Lahainaluna, Maui, and Kihei Charter School</i>. STEMworks is also available at these intermediate schools: <i>Iao, Kalama, Lokelani, and Maui Waena</i>.</p>	<p style="text-align: center;">Leslie Wilkens or Isla Young Maui Economic Development Board (808) 875-2300 www.medb.org</p>
<p><b>University of Hawai'i Maui College</b> offers degree programs in: Community Health Worker; Dental Assistant; Dental Hygiene; Dental Laboratory Technician; Home Health Aide; Nursing Offers the following clubs: Pre-Professional Health Club; HOSA.</p>	<p style="text-align: center;">(808) 984-3500 www.maui.hawaii.edu/ studentlife/clubs/clubs-and- organizations</p>

## MOLOKA`I ISLAND RESOURCES

Program	Contact
<p><b>Health Occupations Students of America (HOSA)</b> (Grades 9-12) is a national professional organization for students, professionals, and community members that provides co-curricular activities in healthcare that emphasize the development of leadership and technical skill competencies through motivation, awareness, and recognition.</p>	<p>Ada Toyama Ada_toyama@hotmail.com (808) 205-5532, ext 1306</p>
<p><b>HI State Department of Education Career Technical Education (CTE)</b> (K-12) is an educational structure that allows students the opportunity to explore and learn through the practical application of academic and technical skills and knowledge. The support and involvement of business and industry in CTE is critical to the preparation of tomorrow's skilled workforce. King Keakaulike, Hana High, Lahainaluna High, Maui High, Baldwin High.</p>	<p>Sherilyn Lau sherilyn_lau@hawaii DOE.org (808) 305-9707</p>
<p><b>HI State Department of Education STEM</b> (Grades K-12) education integrates the study of science, technology, engineering and mathematics by using scientific inquiry and engineering design as unifying processes. Moloka`i Middle (both Immersion and Non-Immersion), Moloka`i High (both Immersion and Non-Immersion).</p>	<p>John Constantinou John_Constantinou/SSB/ HIDOE@notes.k12.hi.us (808) 305-9718</p>
<p><b>Huli Au Ola — Maui County Area Health Education Center</b> (Grades K-12) is based in Moloka`i, but is also open to participants from Maui and Lāna`i. They have a weekly health education program for K-12 students that covers native healing practices, environmental awareness activities, team-building, and study skills. In collaboration with Native Hawaiian Healthcare Systems, they also offer a one-week residential Summer Institute with STEM activities, team building, study skills, and a fun family night focused on science-learning.</p>	<p>Rosie Davis rosiedavis777@yahoo.com (808) 553-3623 www.ahec.hawaii.edu</p>
<p><b>Moloka`i General Hospital</b> is a 15 bed Critical Assess Hospital (CAH) which provides emergency care, lab services, x-ray services, outpatient chemotherapy, acute care, physical therapy, and a full service midwifery program.</p>	<p>Alicia Teves (808) 553-5331 www.molokaigeneralhospital.org</p>
<p><b>Moloka`i Teen Health Camp</b> (THC; Grades 6-12) is a one-day event led by medical students from the John A. Burns School of Medicine (JABSOM) that aims to enhance student enthusiasm for entering healthcare fields by addressing education and career planning needs. THC offers interactive workshops, skill demonstrations, fun activities and discussions with local healthcare professionals and students.</p>	<p>Kau'i Mead kauional@hawaii.edu (808) 692-1066 www.ahec.hawaii.edu</p>



## O`AHU ISLAND RESOURCES

Program	Contact
<p><b>Castle Medical Center Volunteer Program</b> (16+ years old) is a 160 bed facility that is the primary health care facility for Windward O`ahu. CMC focuses on providing patient-centered health care. Volunteers may work directly with patients or experience procedures behind the scenes.</p>	<p>(808) 263-5500 www.castlemed.org</p>
<p><b>Children’s Discovery Center</b> (Pre-K to Grade 2) provides an environment that encourages children to use their senses of touch, sight, hearing, and smell to gain a better understanding of the world around them. Exhibits include: Tot Spot; Fantastic You (Human Body); Your Town; Hawaiian Rainbows; Your Rainbow World; Rainforest Adventures.</p>	<p>info@discoverycenterhawaii.org (808) 524-KIDS (524-5437)</p>
<p><b>Curriculum Research &amp; Development Group (CRDG)</b> (Pre-K to 12) provides students with programs related to curriculum development focused in science, technology, engineering and math (STEM). Includes support for summer enrichment STEM learning and exploration for students entering grades 3–12.</p>	<p>(808) 956-8176 www.manoa.hawaii.edu/crdg</p>
<p><b>Hawai`i/Pacific Basin Area Health Education Center</b> (AHEC) provides health careers recruitment, training and retention activities for students of all ages including Speaker’s Bureau, PreHealth Career Corps, Teen Health Camp, Teen Mentorship Academy and more. See page 20 for more info.</p>	<p>Dr. Kelley Withy ahec@hawaii.edu (808) 692-1060 www.ahec.hawaii.edu</p>
<p><b>Hawai`i Pacific University Pre-Health Club and Alpha Epsilon Delta</b> is for students interested in health professions and the Alpha Epsilon Delta is the Academic Honors Society for pre-health students.</p> <p><b>Hawai`i Pacific University School of Health and Society Research Opportunities</b> contact Michaela Rinkel at mrinkel@hpu.edu</p>	<p>www.hpu.edu/Studentlife/Clubs/ PreHealth_Club%20.html www.hpu.edu/Honors/ HonorSocieties/ AlphaEpsilonDelta.html</p>
<p><b>Hawai`i State Department of Education STEM</b> (Grades 9-12) education integrates the study of science, technology, engineering and mathematics by using scientific inquiry and engineering design as unifying processes. Participating high schools include <i>Castle, Farrington, McKinley, Mililani, and Roosevelt</i>.</p>	<p>John Constantinou John_Constantinou/SSB/ HIDOE@notes.k12.hi.us (808) 305-9718</p>
<p><b>Hawai`i State Hospital (HI State Department of Health)</b> provides services to approximately 14,000 adults with severe and persistent mental illness. Provides volunteer experiences of six months or longer.</p>	<p>(808) 586-4686 www.health.hawaii.gov/amhd</p>
<p><b>Health Occupations Students of America, HOSA</b> (Grades 9-12) provides students with health education and volunteer opportunities with the ultimate goal of enhancing leadership, community involvement and technical skill competencies in healthcare professions. Focuses on motivation, awareness and recognition as an integral part of instruction in health science education instructional program. Participating high schools include <i>Aiea, Campbell, Castle, Farrington, Kahuku, Kailua, Kalani, Kapolei, Leilehua, McKinley, Mililani, Moanalua, Nanakuli, Pearl City, Radford, Roosevelt, Wai’anae, and Waipahu</i>.</p>	<p>Ada Toyama Ada_toyama@hotmail.com (808) 203-5532, ext. 1306 www.hawaiihosa.org</p>

## O`AHU ISLAND RESOURCES *(Continued)*

Program	Contact
<p><b>HI State Department of Education Career Technical Education (CTE)</b> (Grades 9-12) is an educational structure that allows students the opportunity to explore and learn through the practical application of academic and technical skills and knowledge. The support and involvement of business and industry in CTE is critical to the preparation of tomorrow's skilled workforce. Participating high schools include <i>Aiea, Campbell, Castle, Farrington, Kahuku, Kailua, Kalani, Kapolei, Leilehua, McKinley, Mililani, Moanalua, Nanakuli, Pearl City, Radford, Roosevelt, Wai'anae, and Waipahu</i> .</p>	<p>Sherilyn Lau  <a href="mailto:sherilyn_lau@hawaii DOE.org">sherilyn_lau@hawaii DOE.org</a>            (808) 305-9707</p>
<p><b>Honolulu Community Action Program: Hā Initiative Creative STEM After School Program</b> (Grades 2-8) is a fun and creative place during after-school time. Encourages kids to learn and grow by exploring the worlds of STEM. Provides participants an after-school snack. Includes tutoring, hands-on science projects and computer activities, collaborative social environment and opportunity to join LEGO League robotics team.</p>	<p>(808) 521-4531  <a href="http://www.hcapweb.org">www.hcapweb.org</a></p>
<p><b>Hui Mālama O Ke Kai</b> (Grades 7-12) is an after school program in Waimānalo. The Waimānalo 'Ōpio Program focuses on ho'okele (navigation) and other community service projects, trains students to become mentors, perpetuating a cycle of social responsibility and instilling self-confidence.</p>	<p>(808) 259-2031  <a href="http://www.huimalamaokekai.org">www.huimalamaokekai.org</a></p>
<p><b>IDeA Network for Biomedical Research Excellence (INBRE)</b> is a statewide grant program involving most of our undergraduate-based institutions and nearly all of our community colleges. The core mission of INBRE is to get students involved in biomedical research right from the beginning of their college experience. INBRE also supports a cadre of professional investigators as mentors for the INBRE intern experience. Students can find a listing of potential research mentors on the INBRE webpage.</p>	<p><a href="http://inbre.jabsom.hawaii.edu">inbre.jabsom.hawaii.edu</a></p>
<p><b>Kahi Mohala Behavioral Health</b> offers behavioral health care services are for patients experiencing emotional or behavioral problems that interfere with daily functioning in work, family, social and /or school settings.</p>	<p>(808) 671-8511  <a href="http://www.kahimohala.org">www.kahimohala.org</a></p>
<p><b>Kahuku Medical Center</b> is the only facility on the North Shore and North-East coastline. The hospital has 21 beds and provides 24 hour emergency care, Lab, Radiology, Pharmacy, Physical/Occupational/Speech Therapy, Social Services and Dietary services.</p>	<p>(808) 293-9221  <a href="http://www.kahuku.hhsc.org">www.kahuku.hhsc.org</a></p>
<p><b>Kaiser Permanente</b> provides their members with both health care and health coverage in one place. Moanalua Medical Center is a full-service medical facility offering a range of specialties and 24 hour emergency service.</p>	<p>(808) 432-0000  <a href="http://www.thrive.kaiserpermanente.org/care-near-hawaii">www.thrive.kaiserpermanente.org/care-near-hawaii</a></p>
<p><b>Kapi`olani Medical Center for Women &amp; Children</b> is at the forefront of vital Medical Education and community health outreach programs. Volunteer opportunities are available.</p>	<p>Shanyn Chung            808-535-7571  <a href="mailto:careers@hawaiiipacifichealth.org">careers@hawaiiipacifichealth.org</a></p>

## O`AHU ISLAND RESOURCES *(Continued)*

Program	Contact
<p><b>Ke Ola Mau Scholars Program with Nā Pua No'eau</b> (Grades 9-12) for Native Hawaiian students with current or prospective healthcare related majors at UHM and UHH. Participants are eligible for stipends to assist with community service and/or internships and research projects in respective healthcare fields.</p>	<p style="text-align: center;">Kehau Bishaw bishawbh@hawaii.edu (808) 956-9410 www.nflrc.hawaii.edu/ languageroadmap/index.php/na-pua-noeau-ke-ola-mau-scholars-program-healthcare</p>
<p><b>Kokua Kalihi Valley Family Health Center</b> hosts tours of facilities and provides shadowing experiences for students.</p>	<p style="text-align: center;">www.kkv.net</p>
<p><b>Kū I Ka Mana</b> (Grades 6-8) provides in-school mentoring to Waimanalo Elementary and Intermediate School student by six community mentors and after school health education and career development activities by medical students.</p>	<p style="text-align: center;">Jennifer Molnar jmolnar@waimanalohealth.org</p>
<p><b>Kuakini Medical Center Volunteer Auxiliary</b> (14+ years old) program allows volunteers to assist health systems employees with acute care, long-term care, and geriatric care services.</p>	<p style="text-align: center;">(808) 547-9184 www.kuakini.org</p>
<p><b>Kuaola</b> (Grades 6-8) offers mentoring by first-year medical students in the community in Nanakuli. This program focuses on increasing pre-teen and teen interest in science and health and promoting disease prevention programs using a variety of activities inclusive of culture and art. Links to medically underserved community as a means of enhancing commitment to service learning among participating medical students.</p>	<p style="text-align: center;">Kelli-Ann Voloch voloch@hawaii.edu</p>
<p><b>Massage Schools</b> include Hawai`i School of Professional Massage, Hawai`i Massage Academy, Hawai`i Healing Arts College, and Elite Massage Academy Heartspire School of Hawaiian Massage.</p>	<p style="text-align: center;">www.messagecenterhi.com www.hawaiimassageacademy.net www.hhacdirect.com www.elite.massageacademy.com www.heartspire.com</p>
<p><b>Medical Student Mentorship Program at John A. Burns School of Medicine (JABSOM)</b> pairs first-year medical students with undergraduate students for student mentoring. The medical students also provide mentoring and curriculum development assistance at Kailua High School (CTE Health Pathways) and Waimanalo Elementary (after school program).</p>	<p style="text-align: center;">msmp@hawaii.edu www.uhmsmp.org</p>
<p><b>My Individual Development Plan (IDP)</b> is a program by Science Careers which offers free resources and support to PhD students in science and health-related fields.</p>	<p style="text-align: center;">myidp.sciencecareers.org</p>
<p><b>Nā Pua No'eau</b> (GK-12) helps youngsters develop interest and academic capacity. Includes special health career pathways and STEM-focused initiatives during summer and academic year. Integrates curriculum with core values of Native Hawaiian and other underrepresented groups.</p>	<p style="text-align: center;">Kinohi Gomes kinohi@hawaii.edu (808) 956-9410 www.npn.uhh.hawaii.edu</p>

## O`AHU ISLAND RESOURCES *(Continued)*

Program	Contact
<p><b>NIH Office of Intramural Training &amp; Education Careers Blog</b> was established by the Career Services Center within the Office of Intramural Training and Education (OITE), National Institutes of Health (NIH) to increase awareness of OITE services among trainees; to respond to frequently asked questions about and offer guidance with the career planning and job search process; and to share new and updated career information and resources with all NIH trainees.</p>	<p><a href="http://www.oitecareersblog.wordpress.com/blog-policy/">www.oitecareersblog.wordpress.com /blog-policy/</a></p>
<p><b>O`ahu Teen Health Camp</b> (THC; Grades 6-12) is a one-day event led by medical students from the John A. Burns School of Medicine (JABSOM) that aims to enhance student enthusiasm for entering healthcare fields by addressing education and career planning needs. THC offers interactive workshops, skill demonstrations, fun activities and discussions with local healthcare professionals and students.</p>	<p>Kau'i Mead kauional@hawaii.edu (808) 692-1066 <a href="http://www.ahec.hawaii.edu">www.ahec.hawaii.edu</a></p>
<p><b>Pacific STEP-UP Program</b> is the NIH National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) Short-Term Research Experience for Underrepresented Persons (STEP-UP). It is located at the John A. Burns School of Medicine and designed to provide opportunities in individualized research for underrepresented and/or disadvantaged students. The goal of this program is to expose students to hands-on laboratory, clinical or social/behavioral research, with the hope of igniting and fostering interest in scientific research and investigation.</p>	<p>Danielle Clements hawaii.stepup@gmail.com <a href="http://stepup.jabsom.hawaii.edu/hawaii/hawaii_home.html">stepup.jabsom.hawaii.edu/hawaii/ hawaii_home.html</a></p>
<p><b>Pali Momi Medical Center</b> is a 126 bed facility which is a part of Hawai`i Pacific Health and offers volunteer experiences.</p>	<p>Shanyn Chung 808-535-7571 careers@hawaiipacifichealth.org</p>
<p><b>Queen's Medical Center</b> is an acute medical care facility and the largest private hospital in Hawai`i with 505 acute care beds and 28 sub acute beds. QMC offers volunteer opportunities that start at 64 hours. Participants must complete TB training, have parental consent and participate in C.A.R.E. training (Compassion, Aloha, Respect and Excellence).</p>	<p>(808) 691-4397 <a href="http://www.queensmedicalcenter.org/volunteer-services">www.queensmedicalcenter.org/ volunteer-services</a></p>
<p><b>Queen's Medical Center West Oahu</b> volunteer program. If you are interested in applying to become a volunteer, apply online at <a href="http://www.queens.org">www.queens.org</a></p>	<p>(808) 691-3000 Volunteer Coordinator (808) 691-3197</p>
<p><b>Richard T. Mamiya Science Program Center, Bishop Museum</b> (Pre-K to Grade 8) has a program called "The Science Adventure", which is an immersive learning environment of interactive exhibits on the geology, biology and oceanography of the Hawaiian Islands. Exhibits explore ocean, wind and the volcanic forces. Aligns with HCPS III Science Standards. Special features include guided, hands-on programs.</p>	<p>(808) 848-4168 education@bishopmuseum.org</p>
<p><b>Shriner's Hospital for Children</b> delivers the highest quality care to children with a host of orthopedic, neuromusculoskeletal and neurodevelopmental disorders and diseases. Offers volunteer experiences for students, but there is often a wait list, so call as soon as you can.</p>	<p>(808) 951-3868 <a href="http://www.shrinershospitalsforchildren.org">www.shrinershospitalsforchildren.org</a></p>

## O`AHU ISLAND RESOURCES *(Continued)*

Program	Contact
<p><b>SimTiki Lab</b> (Grades 6-12) provides healthcare simulation based in the healthcare education center at the John A. Burns School of Medicine. Facilitates over 3,000 simulation-based training encounters annually. As a community resource, spans broad training needs in middle school, high school and through college and medical school.</p>	<p>Kris Hara, RRT  <a href="mailto:harakm@hawaii.edu">harakm@hawaii.edu</a>            (808) 692-1096  <a href="http://www.simtiki.org">www.simtiki.org</a></p>
<p><b>Student-2-Student Program</b> at the Leeward Community College reaches out to low-income high school students. This program introduces them to the college application process, financial aid, and understanding financial concepts like credit, loans, and money management.</p>	<p><a href="http://www.leeward.hawaii.edu">www.leeward.hawaii.edu</a></p>
<p><b>Straub Clinic &amp; Hospital</b> is a fully integrated medical center with 159 beds. Volunteer opportunities are available, as is the Health Careers Internship and Summer Student Research Program (See page 20).</p>	<p>Shanyn Chung            808-535-7571  <a href="mailto:careers@hawaiiapacifichealth.org">careers@hawaiiapacifichealth.org</a></p>
<p><b>Teen Mentorship Academy</b> (Grades 9-12) uses mentorship to assist students in Health Career Pathways classes within high school settings. Mentors from diverse healthcare careers answer student questions and provide personalized insight about their respective experiences in preparing for and pursuing healthcare professions.</p>	<p>Kau'i Mead  <a href="mailto:kauional@hawaii.edu">kauional@hawaii.edu</a>            (808) 692-1066  <a href="http://www.ahec.hawaii.edu">www.ahec.hawaii.edu</a></p>
<p><b>Touch the Future Hawai'i</b> (Grades 6-12) is a student mentorship program to communicate the importance of health professions and help students realize their educational goals. The first phase of the program includes Pacific University Faculty, Staff and Graduates meet with students in grades 6-12 via web conference. The second phase will include onsite meetings Ilima Intermediate School is acting as a pilot for the program.</p>	<p>Katie Parker  <a href="mailto:kparker@pacificu.edu">kparker@pacificu.edu</a></p>
<p><b>Tripler Army Medical Center</b> is the only Federal Tertiary care hospital in the Pacific Basin. TAMC also provides a full service Family Medicine/Primary Care clinic and provides Army Medicine training programs for its members.</p>	<p>(808) 433-6631  <a href="http://www.tamc.amedd.army.mil">www.tamc.amedd.army.mil</a></p>
<p><b>UH Health Sciences Simulation Center</b> at the Manoa School of Nursing is a 7000 sq. ft. state-of-the-art facility for clinical simulation for students, educators and practicing health care providers. UH THSSC uses real life clinical situations so that students can gain the experience, confidence and skills they need to provide quality care. The center integrates state-of-the art equipment, electronic patient records and practices currently used by the state's leading medical centers. As a statewide resource, the center supports lifelong learning opportunities for Hawai'i's practicing nurses and the entire health care team. The Center provides tours and can create custom experiences for DOE Health Academies and students in grades 9-12.</p>	<p>Lorrie Wong            (808) 956-7709  <a href="mailto:lorriew@hawaii.edu">lorriew@hawaii.edu</a>  <a href="http://thssc.nursing.hawaii.edu/">thssc.nursing.hawaii.edu/</a></p>
<p><b>UH John A. Burns School of Medicine (JABSOM)</b> is a diverse learning community committed to excellence and leadership in educating current and future healthcare professionals and leaders and delivering high-quality healthcare. Offers programs in cell and molecular biology, clinical research, epidemiology, developmental and reproductive biology, and tropical medicine.</p>	<p>(808) 692-1000  <a href="http://www.jabsom.hawaii.edu">www.jabsom.hawaii.edu</a></p>
<p><b>UH Kapi`olani Community College</b> offers training for careers such as Certified Medical Transcriptionist, Certified Nurse's Aide, Dental Assistant, Emergency Medical Services, Certificate Licensed Vocational Nurse, Massage Therapy, Medical Assistant, Medical Technology, Occupational Therapy Assistant, Phlebotomy Technician Certificate, Physical Therapy Assistant, Radiation Therapy Technologist, Radiologic Technologist, and Respiratory Care Practitioner.</p>	<p>(808) 734-9000  <a href="http://www.kapiolani.hawaii.edu">www.kapiolani.hawaii.edu</a></p>

## O`AHU ISLAND RESOURCES *(Continued)*

Program	Contact
<p><b>UH Mānoa - University of Hawai`i at Mānoa</b> is the flagship university in the University of Hawai`i System and offers over 80 programs of study.</p>	<p>(808) 956-8111 www.hawaii.edu</p>
<p><b>UH Mānoa - College Opportunities Program (COP)</b> prospective/incoming freshman at the University of Hawai`i at Mānoa. Provides academic training and counseling for those who want to attend UHM but do not meet minimum requirements for admission.</p>	<p>Mike Maglaya copuhm@hawaii.edu (808) 956-6186 www.hawaii.edu/cop</p>
<p><b>UH Mānoa - Myron B. Thompson School of Social Work</b> has Social work programs in Hawai`i that prepare students to be educated global citizens capable of leveraging community partnerships that advance social justice and health equality. For example, UHM Myron B. Thompson School of Social Work faculty and practitioners serving as field (practicum) instructors function as leaders in the areas of child and family services, gerontology, health, and behavioral/mental health. The School's Distance Education option offers neighbor island residents an opportunity to complete their MSW degree via a blended approach of interactive television, computer-based technology, and face-to-face instruction.</p>	<p>(808) 956-7182 www.hawaii.edu/sswork</p>
<p><b>UH Mānoa - STEM Pre-Academy Program (Teachers, Grades 6-8)</b> fosters student inspiration in STEM subjects through teacher workshops, technical focus sessions, providing equipment, and collaborative interaction. This program helps teachers develop and implement research and technology-based student curriculum. The <i>open-AIRE borrowing program</i> provides free equipment for teachers and the <i>STEM Intercommunity Portal (SIP)</i> allows teachers to stay connected with each other and to local community partners.</p>	<p>www.sip-hawaii.org</p>
<p><b>UH Mānoa - Student Equity, Excellence and Diversity (SEED)</b> offers 18 programs for promoting college opportunity for disadvantaged and underrepresented groups.</p>	<p>Amy Agbayani seed@hawaii.edu (808) 956-4642</p>
<p><b>UH Mānoa - Student Life &amp; Development Clubs</b> include Dental Hygiene, Pre-Medical Association, Pre-Pharmacy Association, Student Nurses Association, and many more.</p>	<p>www.manoa.hawaii.edu/ studentlife/studentorg</p>
<p><b>UH Mānoa - Undergraduate Research Opportunities Program (UROP)</b> gives participants access to research opportunities. Supports presentation awards for student-initiated independent undergraduate research and creative endeavors at UH Mānoa. Links students with researchers worldwide.</p>	<p>urop@hawaii.edu (808) 956-7492</p>
<p><b>UH School of Nursing and Dental Hygiene (SONDH)</b> provides an innovative, caring and multicultural environment in which faculty, students and staff work together to generate and transmit knowledge, wisdom and values to promote quality of life and health for present and future generations. The school offers the BS in Dental Hygiene, the only DH baccalaureate program in Hawaii. Professional nursing degrees offered include the AD to BS, traditional BS, MS, DNP, and PhD in nursing. Courses are provided using face to face, online, and blended (hybrid) methods to provide statewide access to nursing education. They also have a successful direct high school entry program.</p>	<p>Office of Student Services (808) 956-8939 nursing@hawaii.edu www.nursing.hawaii.edu/home</p>

## O`AHU ISLAND RESOURCES *(Continued)*

Program	Contact
<p><b>University of Hawai`i Cancer Center</b> Summer Internship is an intensive program designed to provide research experience and mentorship for high school and undergraduate students who are interested in cancer research.</p>	<p><a href="http://www.uhcancercenter.org/education-outreach/professionals-students/undergraduate-student-opportunity">www.uhcancercenter.org/education-outreach/professionals-students/undergraduate-student-opportunity</a></p>
<p><b>University of Hawai`i Health Careers Opportunity Program (HCOP)</b> (Grades 9-12 and some college) provides students in schools from underrepresented and disadvantaged backgrounds with an opportunity to develop the skills needed for academic success in health sciences and college entry; offers Summer residential enrichment program on the UH Mānoa campus to increase learning through problem-based activities, career exploration, and personal developmental activities.</p>	<p style="text-align: center;">Agnes Malate  <a href="mailto:amalate@hawaii.edu">amalate@hawaii.edu</a>            (808) 956-9262  <a href="http://www.hawaii.edu/diversity/HCOP">www.hawaii.edu/diversity/HCOP</a></p>
<p><b>University of Hawai`i - West O`ahu</b> located in Kapolei, is a comprehensive university with an emphasis on baccalaureate education founded in liberal arts, service professional, career-related, and applied fields. Training programs offered include Health Care Administrator, Nursing, and Nursing Practice.</p>	<p style="text-align: center;">(808) 689-2800  <a href="http://www.uhwo.hawaii.edu">www.uhwo.hawaii.edu</a></p>
<p><b>University of Phoenix, Hawai`i</b> offers health professions training in: Health Administration and Nursing.</p>	<p style="text-align: center;">(866) 766-0766  <a href="http://www.phoenix.edu">www.phoenix.edu</a></p>
<p><b>Wahiawa General Hospital</b> (14+ years old) has a volunteer services program that allows students to match their skills and interests with meaningful assignments.</p>	<p style="text-align: center;">(808) 621-4243  <a href="http://www.wahiawageneral.org">www.wahiawageneral.org</a></p>
<p><b>Wai`anae Campus of Leeward Community College</b> is a satellite campus located on the beautiful Wai`anae coast of O`ahu. It offers a variety of first and second year college credit classes in liberal arts, education, business, and career and technical areas. Students can complete a majority of the course requirements for an Associate of Arts or an Associate of Arts in Teaching degree. They are beginning a peer mentoring program between current students and students at Intermediate Schools in Waianae and Nanakuli to learn about the importance of college.</p>	<p style="text-align: center;"><a href="http://www.leeward.hawaii.edu/leewardccw">www.leeward.hawaii.edu/leewardccw</a></p>
<p><b>Wai`anae High School</b> has a Medical Simulation Center and a partnership with the University of Hawai`i brings college students into the school to teach students utilizing the Simulation Center on Fridays. In addition, there is a partnership with Tripler Army Medical Center where students visit for ten weeks (six hours a day on Thursdays) and apply their health care skills in an actual health care setting.</p>	<p style="text-align: center;">Phillip DePorto            349-7618  <a href="mailto:p.deporto@seariders.k12.hi.us">p.deporto@seariders.k12.hi.us</a></p>
<p><b>Walden University (online)</b> offers health professions training in Nursing Informatics, and Acupuncture.</p>	<p style="text-align: center;">(866) 492-5336  <a href="http://www.waldenu.edu">www.waldenu.edu</a></p>
<p><b>Youth Health Corps Program</b> (Grades 9-12) is based at Wai`anae Coast Comprehensive Health Center and assigns student participants from Leeward O`ahu to shadow health care providers at specific WCCHC clinic sites within various professions. Health care professionals act as mentors, offering instruction, hands-on activities and final evaluation of student performance in clinic environment.</p>	<p style="text-align: center;">Dayna Lapina, <a href="mailto:dlapina@wcchc.com">dlapina@wcchc.com</a>            (808) 697-3449  <a href="http://www.wcchc.com">www.wcchc.com</a></p>

# HEALTH CAREERS ALPHABETICAL INDEX

A		M	
Acupuncturist	41	Marriage and Family Therapist	87
Athletic Trainer	42	Massage Therapist	88
Audiologist	43	Medical Assistant	89
B		Medical Illustrator	90
Bioinformatics Professional	44	Medical Interpreter	91
Biomedical Engineer	45	Medical Laboratory Scientist	92
Biomedical Equipment Technician	46	Medical Laboratory Technician	93
Biomedical and Behavioral Health Researcher	47	Medical Librarian	94
Biostatistician	48	N	
Blood Bank Technology Specialist	49	Naturopathic Doctor	95
C		Nuclear Medicine Technologist	96
Cancer/Tumor Registrar	50	Nursing: Vocational (CNA and LPN)	97
Cardiovascular Technician/Technologist	51	Nursing: Professional (RN and APRN)	100
Care Coordinator	52	O	
Certified Coding Specialist	53	Occupational Therapist	104
Certified Medical Transcriptionist	54	Occupational Therapy Assistant	105
Certified Rolfer	55	Optician	106
Child Life Specialist	56	Optometrist	107
Chiropractic Assistant	57	P-Q	
Chiropractor	58	Patient Services Representative	108
Community Health Worker	59	Perfusionist	109
Cytotechnologist	60	Personal Trainer	110
D		Pharmacist	111
Demographer	61	Pharmacy Technician	112
Dental Assistant	62	Phlebotomist	113
Dental Hygienist	63	Physical Therapist	114
Dental Laboratory Technician	64	Physical Therapy Assistant	115
Dentist	65	Physician	116
Diagnostic Medical Sonographer	66	Physician Assistant	118
Dietetic Technician	67	Podiatrist	119
Dietitian	68	Prosthetist/Orthotist	120
Dosimetrist	69	Psychiatric Aide/Technician	121
E		Psychologist	122
Embalmer	70	Public Health Professional	123
EMS Personnel	71	R	
Environmental Health Specialist	72	Radiation Therapy Technologist	124
Epidemiologist	73	Radiologic Technologist	125
F		Recreational Therapist	126
Fitness and Wellness Instructor	74	Rehabilitation Counselor	127
Forensic Scientist	75	Respiratory Therapist	128
Funeral Director	76	S-U	
G		School Health Professional	129
Genetic Counselor	77	Social Worker	130
Gerontologist	78	Speech-Language Pathologist	131
H-L		Substance Abuse Counselor	132
Healthcare Administrator	79	Surgical Technician/Assistant	133
Health Educator	80	V-Z	
Health Information Manager/Administrator	81	Veterinarian	134
Health Information Technician	82	Veterinary Assistant	135
Histologic Technician	83	Veterinary Technician	136
Histotechnologist	84	Vision Assistant	137
Home Health Aide	85	Vision Technician/Technologist	138
Licensed Professional Counselor	86		



# ACUPUNCTURIST



Source: Hawai'i & Pacific Basin AHEC/Elizabeth Chen Christenson (2015)

Photo: An acupuncturist in Kailua (O'ahu) treats a patient.

Acupuncture originated in China over 2,000 years ago, making it among the oldest healing practices in the world. It is now considered a form of Complementary and Alternative Medicine. Acupuncturists use a variety of techniques to stimulate specific points along the body that restore and maintain health. Acupuncturists are usually trained as physicians in China, where they do hand or electrical stimulation manipulations using thin, solid, metallic needles. Acupuncturists may also receive training in “Qigong,” a Chinese practice involving breathing patterns, body movements, and posture control. Acupuncture is a treatment that many health professionals (e.g. massage therapists, chiropractors, nurse practitioners, and physicians) include as part of an integrated medical practice.

## WORK ENVIRONMENT:

Acupuncturists may work in physician offices, clinics, hospitals, or have their own private practice. Some choose to examine a patient's physical and emotional symptoms in addition to medical history.

## AREAS OF SPECIALIZATION:

Acupuncturists can specialize in weight loss, cosmetics, oncology, internal medicine, infertility, stress, depression, migraines, chronic and acute pain, Chinese herbology, Qigong, or acupressure treatments.

## SALARY RANGE

\$51,890 - \$126,800

## LENGTH OF TRAINING

2,250 Total Training Hours

## JOB GROWTH

11%

## LENGTH OF TRAINING AND REQUIREMENTS:

Acupuncturists are required to graduate from an accredited acupuncture school with a master's degree in acupuncture and oriental medicine. They must complete 1800 hours of acupuncture training, with at least 450 hours in Chinese herbal training.

## LICENSURE/CERTIFICATION:

Acupuncturists must obtain a license to practice in the State of Hawai'i.

## EDUCATIONAL PROGRAMS:

Hawai'i College of Oriental Medicine (Hilo and Waimea, Big Island)  
Institute of Clinical Acupuncture and Oriental Medicine  
World Medicine Institute

## PROFESSIONAL ASSOCIATIONS:

American Academy of Medical Acupuncture  
[www.medicalacupuncture.org](http://www.medicalacupuncture.org)  
American Association of Acupuncture and Oriental Medicine  
[www.aaaomonline.org](http://www.aaaomonline.org)  
Council of Colleges of Acupuncture and Oriental Medicine  
[www.ccaom.org](http://www.ccaom.org)  
Hawai'i Oriental Medicine and Acupuncture Association  
[www.homaa.org](http://www.homaa.org)  
National Certification Commission for Acupuncture and Oriental Medicine  
[www.nccaom.org](http://www.nccaom.org)

# ATHLETIC TRAINER



Source: University of Hawai'i (UH) Athletic Department (2015)

Photo: UH athletic trainers check on an injured football player.

Athletic trainers specialize in preventing, diagnosing and treating muscle and bone injuries and illnesses. They work with people of all ages and various skill levels, from children to professional athletes. Athletic trainers work closely with licensed physicians and other health care providers to evaluate and treat patients under their care.

## WORK ENVIRONMENT:

Athletic trainers may work in colleges, universities, professional schools, professional sports, private offices, physician's offices, hospitals, fitness and recreational sports centers, sports medicine clinics, military, and law enforcement.

## AREAS OF SPECIALIZATION:

Athletic trainers can work with just about anyone who is physically active, including people of all ages and backgrounds.

## LENGTH OF TRAINING/REQUIREMENTS:

To work in Hawai'i, athletic training positions require at least a bachelor's degree with specific coursework related to athletic training, such as kinesiology.

## SALARY RANGE

\$39,520 - \$61,170

## LENGTH OF TRAINING

4+ Years

## JOB GROWTH

11%

## LICENSURE/CERTIFICATION:

In order to practice as an athletic trainer, one must pass a state or nationally administered credentialing exam. For Hawai'i, an individual must pass the national certification exam administered by the Board of Certification, Inc. (BOC). To be eligible for this examination, an individual must have already completed their bachelor's degree and maintain current certification in First Aid and Emergency Cardiac care (ECC).

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa:

Athletic Training: BS, MS, PhD

Kinesiology Rehabilitation Science: BS, MS, PhD

## PROFESSIONAL ASSOCIATIONS:

Board of Certification, Inc. (BOC)

[www.bocatc.org](http://www.bocatc.org)

Commission on Accreditation of Athletic Training Education (CAATE)

[www.caate.net](http://www.caate.net)

Hawai'i Athletic Trainer's Association

[www.hawaii-ata.org](http://www.hawaii-ata.org)

Hawai'i Department of Commerce and Consumer Affairs: Athletic Trainer

[hawaii.gov/dcca/pvl/programs/athletictrainer](http://hawaii.gov/dcca/pvl/programs/athletictrainer)

National Athletic Trainers' Association (NATA)

[www.nata.org](http://www.nata.org)

# AUDIOLOGIST



Source: Hawai'i & Pacific Basin AHEC/UH Dept. of Communication Sciences & Disorders (2015)

Photo: An audiologist examines a patient's ear structure.

Audiologists are the allied health professionals who evaluate, diagnose, treat and manage hearing loss and balance disorders (e.g. vertigo) in adults and children. Audiologists conduct hearing and balance tests as well as fit and dispense devices such as hearing aids, other assistive listening devices and custom ear plugs. Audiologists also program cochlear implants, which are hearing devices implanted under the skin.

## WORK ENVIRONMENT:

Audiologists work in a variety of healthcare facilities including physician's offices, hospitals, private practice, audiology clinics, speech and hearing clinics, military programs, schools, and private industries. Some travel between different facilities. Audiologists work closely with nurses, physicians, audiology assistants and others in the healthcare professions.

## AREAS OF SPECIALIZATION:

Audiologists may specialize in specific populations such as infants, children, adolescents, adults or the elderly. Audiologists may also specialize in specific fields such as medical, educational, rehabilitative, or industrial audiology. Audiologists may also dispense hearing aids and assistive listening devices.

## SALARY RANGE

\$47,580 - \$110,960

## LENGTH OF TRAINING

6 - 10 Years

## JOB GROWTH

34%

## LENGTH OF TRAINING AND REQUIREMENTS:

Audiologists must earn a doctoral degree (PhD or AuD) in order to be eligible for national certification.

## LICENSURE/CERTIFICATION:

A Hawai'i Audiology License is required. So is one of the following certifications:

ASHA Certificate of Clinical Competence (CCC) in Audiology  
Board Certification from the American Board of Audiology

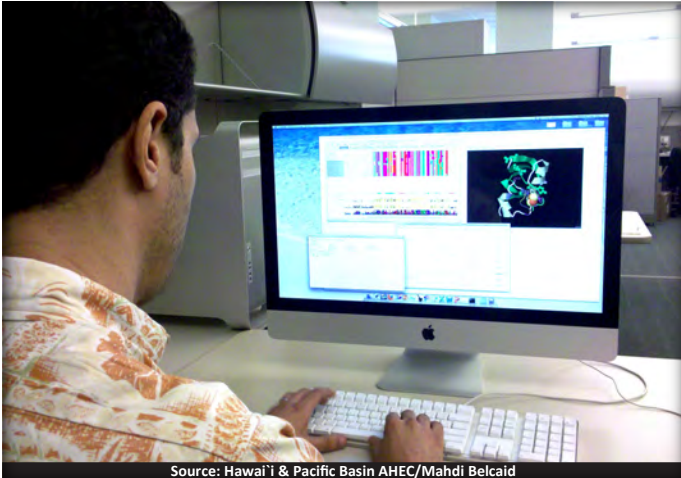
## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa:  
Interdisciplinary Studies (CSD): BA and a Post-Baccalaureate Prerequisite Program

## PROFESSIONAL ASSOCIATIONS:

American Academy of Audiology  
[www.audiology.org](http://www.audiology.org)  
American Speech-Language Hearing Association  
[www.asha.org](http://www.asha.org)  
Hawai'i Speech Language and Hearing Association  
[www.hsha.org](http://www.hsha.org)

# BIOINFORMATICS PROFESSIONAL



Source: Hawai'i & Pacific Basin AHEC/Mahdi Belcaid

Photo: A bioinformatics professional analyzes a virtual model of a protein.

In collaboration with biologists, bioinformatics professionals pioneer novel methodologies to manage, analyze and report on the large heterogeneous datasets that are produced in today's biological experiments. Bioinformatics professionals can work in either research or commercial settings, must have strong computer science skills, and be familiar with mathematical and statistical processes.

## WORK ENVIRONMENT:

Most bioinformatics professionals work in university medical centers, research firms, biotechnology, or pharmaceutical companies.

## AREAS OF SPECIALIZATION:

Bioinformatics professionals specialize in either biological data analysis or software engineering. While the first area of specialization is predominantly quantitative, the second focuses on software design. However, both fields of specialization require thorough a understanding of the underlying biology.

## SALARY RANGE

\$28,860 - \$92,190

## LENGTH OF TRAINING

6+ Years

## JOB GROWTH

-12%\*

\*For biological scientists, all other

## LENGTH OF TRAINING/REQUIREMENTS:

A master's or doctoral degree is required.

## LICENSURE/CERTIFICATION:

Although there is no licensure or certification required, but professionals in bioinformatics may work in fields where other licensures or certifications are required (e.g. research, teaching, or pharmaceuticals).

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa  
Information and Computer Science: BS, MS

## PROFESSIONAL ASSOCIATIONS:

Bioinformatics Organization  
[www.bioinformatics.org](http://www.bioinformatics.org)  
International Society for Computational Biology  
[www.iscb.org](http://www.iscb.org)

# BIOMEDICAL ENGINEER



Source: National Institutes of Health (NIH)

Photo: President Barack Obama learns about the results of an experimental Ebola vaccine.

Biomedical engineers design systems and products to help solve medical and health-related problems that can improve the quality and effectiveness of patient care. Biomedical engineers design and develop medical equipment and instruments, systems and products (e.g. artificial implants and organs, devices that replace body parts, and pacemakers). They install, adjust, maintain, repair, or provide technical support and training for use of biomedical equipment.

## WORK ENVIRONMENT:

Biomedical engineers typically work indoors in a variety of settings including hospitals, laboratories, classrooms, research facilities and government regulatory agencies. They work with scientists, healthcare workers, or other engineers.

## AREAS OF SPECIALIZATION:

Biomedical engineers may specialize in bioinstrumentation, biomechanics, biomaterials, systems physiology, clinical engineering, imaging, computers, and rehabilitation engineering.

## SALARY RANGE

\$52,680 - \$139,350

## LENGTH OF TRAINING

6 - 10 Years

## JOB GROWTH

27%

## LENGTH OF TRAINING/ REQUIREMENTS:

A Bachelor of Science degree in Biomedical Engineering (or other engineering fields) and a master's or PhD in Biomedical Engineering.

## LICENSURE/CERTIFICATION:

None required at this time.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa

Biological Engineering: BS, MS

Molecular Biosciences and Biological Engineering:  
MS, PhD

## PROFESSIONAL ASSOCIATIONS:

American Institute for Medical and Biological  
Engineering

[www.aimbe.org](http://www.aimbe.org)

Biomedical Engineering Society

[www.bmes.org](http://www.bmes.org)

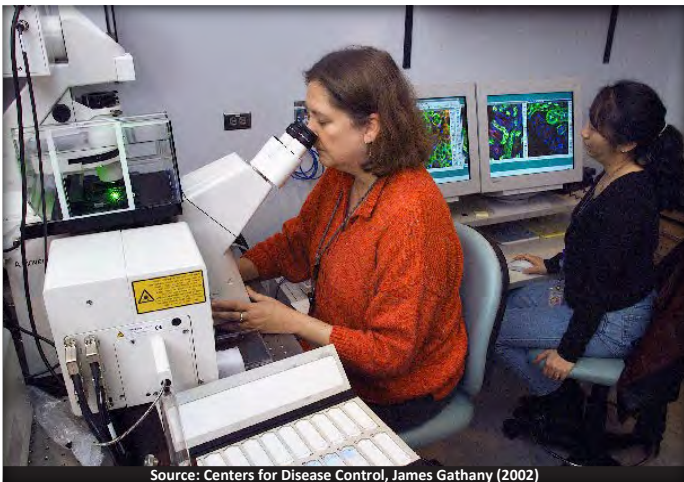
IEEE Engineering in Medicine and Biology Society

[www.embs.org](http://www.embs.org)

Society for Biological Engineering

[www.ache.org/sbe](http://www.ache.org/sbe)

# BIOMEDICAL EQUIPMENT TECHNOLOGIST/TECHNICIAN



Source: Centers for Disease Control, James Gathany (2002)

Photo: Using a laser light, biomedical equipment technologists work with a confocal microscope to diagnose pathogens.

Biomedical Equipment Technicians/Technologists (BMET) use electro-mechanical skills to make sure equipment is maintained and running properly. They test, calibrate, replace and repair parts or entire pieces of equipment. BMETs may also be known as Medical Equipment Repairers. They maintain a maintenance record and perform routine check-ups on the equipment, as well as explain and train other members of the healthcare team how to use a given device. Patients and the entire healthcare team depend on BMETs to ensure the successful execution of daily medical procedures and record keeping. To be a BMET requires dexterity, communication, trouble-shooting skills, physical stamina, and mechanical knowledge.

## AREAS OF SPECIALIZATION:

BMETs can specialize in anything from complex electronic medical equipment to simple hospital bed repairs. Some specialties require certification in biomedical, radiology, and/or laboratory equipment repairs, as well as quality systems and healthcare technology management.

## WORK ENVIRONMENT:

BMETs are employed by professional and commercial equipment wholesalers to work in hospitals, clinics, and private medical practices. They can also work in health and personal care stores, in addition to being employed by hospitals or healthcare systems. BMETs can also work in research laboratories.

## SALARY RANGE

\$33,640 - \$86,000\*

## LENGTH OF TRAINING

2+ Years

## JOB GROWTH

35%\*

\*For medical equipment repairers

## LENGTH OF TRAINING/REQUIREMENTS:

BMETs must have at least a two-year associate's degree related to electronics or engineering. Some places of employment have on-the-job training. BMETs frequently attend trainings so they can be up-to-date on new technologies.

## LICENSURE/CERTIFICATION:

Though not required, BMETs can obtain certification in the following specialties to increase chances of employment: equipment (biomedical, radiology, or laboratory) and management (quality systems or healthcare technology).

## EDUCATIONAL PROGRAMS:

Kapi`olani Community College  
Medical Laboratory Technician: AS  
Hawai`i Technology Institute  
Heald College- Honolulu

## PROFESSIONAL ASSOCIATIONS:

American Society for Quality  
[www.asq.org](http://www.asq.org)  
Association for the Advancement of Medical Instrumentation  
[www.aami.org](http://www.aami.org)  
International Association of Healthcare Central Service Material Management  
[www.iahcsmm.org](http://www.iahcsmm.org)  
Medical Equipment and Technology Association  
[www.mymeta.org](http://www.mymeta.org)

# BIOMEDICAL AND BEHAVIORAL HEALTH RESEARCHER



Source: Keoki Stender/Dr. Angel Yanagihara: University of Hawai'i (2013)

Photo: A researcher collects box jellyfish on SCUBA for her research on the biochemistry of nematocysts (stinging cells).

Research (including Basic, Translational, or Clinical) is the exciting field where individuals and teams make discoveries that can change the entire health landscape. Researchers work in a wide variety of health and science-related disciplines. As a researcher, your work may focus on better understanding biology and disease, investigating drug and treatment affects, or developing and testing interventions to improve health behaviors and access to care. In this field, every day offers the opportunity to make a new discovery.

## WORK ENVIRONMENT:

Researchers work as part of either a laboratory based team or a clinical research group. They perform and design experiments and interpret and discuss results with colleagues.

Research involves a lot of time reading scientific literature and collecting data, as well as conveying your work to others and working collaboratively with others. For example, researchers may interact with patients, community research participants, and policy makers, as well as other scientists.

## AREAS OF SPECIALIZATION:

Researchers may choose to specialize in the basic sciences (e.g., biology or chemistry), the clinical sciences (e.g., medicine, nursing, pharmacy, or social work), the environmental sciences, the social sciences (e.g., economics, political science, psychology, or sociology), the public health sciences, or other field.

## LENGTH OF TRAINING/ REQUIREMENTS:

A graduate degree is usually required for positions in this field.

## SALARY RANGE

\$42,830 - \$149,310

## LENGTH OF TRAINING

4 - 10 Years

## JOB GROWTH

27%

## LICENSURE/CERTIFICATION:

No licenses or certifications are required.

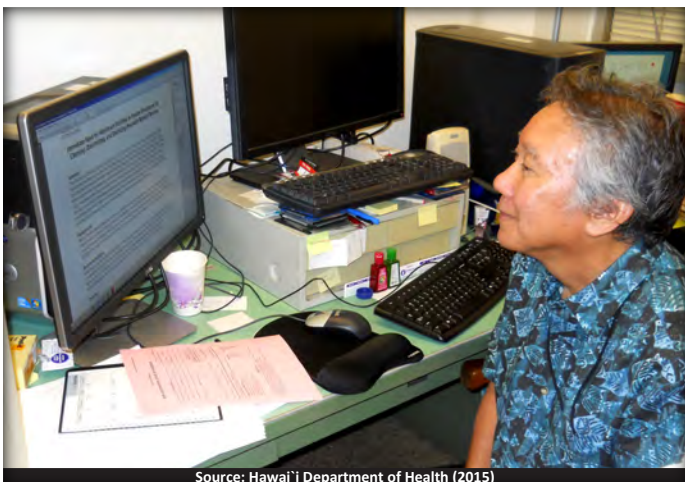
## EDUCATIONAL PROGRAMS:

Chaminade University  
Hawai'i Pacific University  
University of Hawai'i Hilo  
University of Hawai'i Maui College  
University of Hawai'i West O'ahu  
BA/BS in Basic, Clinical, or Social Science  
University of Hawai'i at Mānoa  
BA/BS in Basic, Clinical, or Social Sciences  
Masters in Basic, Clinical, or Social Sciences  
Doctoral Degrees  
Biomedical Science  
Cell & Molecular Biology  
Chemistry  
Clinical Research  
Developmental and Reproductive Biology  
Epidemiology  
Microbiology  
Molecular Biosciences and Biological Engineering  
Nursing  
Public Health  
Social Welfare  
Tropic Medicine  
Zoology

## PROFESSIONAL ASSOCIATIONS:

Americans for Medical Progress  
[www.amprogress.org](http://www.amprogress.org)  
American Public Health Association  
[www.apha.org](http://www.apha.org)  
Foundation for Biomedical Research  
[www.fbresearch.org](http://www.fbresearch.org)  
National Association for Biomedical Research  
[www.nabr.org](http://www.nabr.org)  
Society for Behavioral Medicine  
[www.sbm.org](http://www.sbm.org)  
States United for Biomedical Research  
[www.statesforbiomed.org](http://www.statesforbiomed.org)

# BIOSTATISTICIAN



Source: Hawai'i Department of Health (2015)

Photo: A biostatistician writes a report for the Hawai'i State Department of Health.

Biostatisticians develop information describing the overall health and well-being of a population. They collaborate with many different professionals in the health field to design studies, evaluate new treatments, assess the safety and effectiveness of medications, and educate Hawai'i's population about the issues going on in the environment. Biostatisticians draw conclusions and make predictions on the data that they have collected and analyzed to assess disease risk factors and their effects on individuals and populations.

## WORK ENVIRONMENT:

Biostatisticians often work as part of a team of scientists, so their work environment will vary. They may work for state and local health departments, governmental health-related agencies, private sector, biopharmaceuticals, and education and research institutions.

## AREAS OF SPECIALIZATION:

Biostatisticians may specialize in statistics, mathematics, or survey methodology.

## LENGTH OF TRAINING/REQUIREMENTS:

Biostatisticians sometimes have a bachelor's degree in statistics, mathematics, or survey methodology. The majority of biostatisticians have a master's or doctoral degree.

## SALARY RANGE

\$43,830 - \$89,850\*

## LENGTH OF TRAINING

4 - 10 Years

## JOB GROWTH

21%\*

\*For all statisticians

## LICENSURE/CERTIFICATION:

None required at this time.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa  
Public Health: BA, MPH, MS, DrPH, PhD  
University of Hawai'i Cancer Center  
Summer Internships in Epidemiology and  
Prevention and Control for undergraduate and high  
school students

## PROFESSIONAL ASSOCIATIONS:

Association of Clinical and Translational Statisticians  
[www.actstat.org](http://www.actstat.org)  
American Statistical Association  
[www.amstat.org](http://www.amstat.org)  
International Society for Clinical Biostatistics  
[www.iscb.info](http://www.iscb.info)  
International Statistical Institute  
[www.isi-web.org](http://www.isi-web.org)



# BLOOD BANK TECHNOLOGY SPECIALIST



Source: Blood Bank of Hawai'i (2015)

Photo: A blood bank technology specialist analyzes blood samples.

Blood bank technology specialists (or blood bank technicians) run routine tests at blood bank centers, transfusion centers, reference laboratories, and research facilities. They provide support to physicians in transfusion therapies, investigate any harmful responses to blood transfusions, and supervise the collection of blood donations. These specialists test the blood for compatibility and antibody identification and ensure the safety of blood transfusions. They can also manage a patient's blood during intra- and postoperative blood salvage and transfusion. Blood bank technicians have knowledge of genetics, immunology mechanisms, blood compounds and groups, and the collection and storage of blood. Additionally, they are aware of donor processes, transfusions, and possess administrative skills.

## AREAS OF SPECIALIZATION:

Blood bank technology specialists can take the role of various team members such as administrators, regulatory managers, technical and procedural advisors, quality assessors, educators, and transfusion medicine researchers.

## WORK ENVIRONMENT:

Blood bank technology specialists work in hospitals, transfusion centers, blood bank centers, anemia clinics, and reference laboratories.

## SALARY RANGE

\$34,360 - \$58,010\*

## LENGTH OF TRAINING

5 - 6 Years

## JOB GROWTH

18%\*

\*For medical and clinical laboratory technicians

## LENGTH OF TRAINING/REQUIREMENTS:

A four-year Bachelor of Science degree in biological sciences with experience working in a blood bank is required before entering a one-year program to become a certified blood bank technology specialist. Training programs are often conducted in hospitals, community blood centers, and universities. Though not required, some choose to obtain a two-year master's in immunohematology.

## LICENSURE/CERTIFICATION:

Certification is required and can be completed through the American Society of Clinical Pathology Board of Certification.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa: BS  
University of Hawai'i at Hilo: BS  
Chaminade University: BS  
Hawai'i Pacific University: BS

## PROFESSIONAL ASSOCIATIONS:

American Association of Blood Banks  
[www.aabb.org](http://www.aabb.org)  
American Society of Clinical Pathology  
[www.ascp.org](http://www.ascp.org)  
Blood Bank of Hawai'i  
[www.bbh.org](http://www.bbh.org)

# CANCER/TUMOR REGISTRAR



Source: Hawai'i Pacific Health (2015)

Photo: An oncology program abstractor researches the ICD codes for different types of cancer.

Cancer/tumor registrars analyze large amounts of data by looking for patterns. The type of analysis is dependent on the coding diagnostic materials provided by doctors with cancer patients. This helps in the planning process for community health programs and other education opportunities for doctors and cancer patients.

## **WORK ENVIRONMENT:**

Cancer/tumor registrars often work for hospitals, government agencies, or in research institutions.

## **LENGTH OF TRAINING/REQUIREMENTS:**

A one-year certificate program or a two-year associate's degree program are required. Many cancer/tumor registrars transfer into this field from other professions, including health information management or medical records administration.

## **SALARY RANGE**

\$27,660 - \$71,590

## **LENGTH OF TRAINING**

1 - 2 Years

## **JOB GROWTH**

12%

## **LICENSURE/CERTIFICATION:**

Although not regulated by the State of Hawai'i, the National Cancer Registrars Association offers a Certified Tumor Registrar (CTR) credential. This can be achieved if appropriate education and exam requirements are met. Although this is not required for a career in this field, many employers seek candidates that have this credential.

## **EDUCATIONAL PROGRAMS:**

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## **PROFESSIONAL ASSOCIATIONS:**

National Cancer Registrar Association  
[www.ncra-usa.org](http://www.ncra-usa.org)

# CARDIOVASCULAR TECHNICIAN/TECHNOLOGIST



Source: Queens Medical Center/Dr. Shohet (2015)

Photo: Cardiovascular technicians in Honolulu, O`ahu demonstrate how to use an electrocardiogram (EKG) to test whether a patient has an irregularity that may be associated with heart disease.

Cardiovascular technicians (also known as non-invasive cardiographic technicians) assist the medical team, especially the physician, in diagnosing and treating heart (cardiac) and blood vessel (peripheral vascular) illnesses. Those who specialize in electrocardiograms (EKGs), Holter exams, and stress testing are known as cardiographic or EKG technicians. In addition to heart imaging, cardiovascular technicians can also help physicians implant cardiac catheters. They prepare patients for procedures, maintain and operate cardiovascular equipment, analyze images, and interpret test results. Cardiovascular technicians and technologists record and keep track of normal and abnormal findings in patients.

Cardiac sonographers (also known as echocardiographers) specialize in obtaining ultrasound images of a patient's heart muscles and chambers.

*Note:* Cardiovascular technologists and cardiac sonographers are required to have more training than Technicians.

## AREAS OF SPECIALIZATION:

Cardiovascular technicians and technologists can specialize in cardiac sonography, vascular sonography and technology, EKGs, and invasive cardiology.

## WORK ENVIRONMENT:

Cardiovascular technicians and technologists work in hospitals, private practices, clinics, and diagnostics laboratories.

## SALARY RANGE

\$37,120 - \$94,160

## LENGTH OF TRAINING

4 - 6 Years

## JOB GROWTH

30%

## LENGTH OF TRAINING/REQUIREMENTS:

Cardiovascular technicians must complete a two-year Associate of Science degree at a community college. Then, they are required to receive two to four more years of training depending on their qualifications and experience in the cardiovascular field. With this fast growing field, it is often recommended that a four-year bachelor's degree in a biological science be obtained prior to training.

## LICENSURE/CERTIFICATION:

Professional certification is required and only eligible after completing a training program. Certification can be obtained by Cardiovascular Credentialing International and the American Registry of Diagnostic Medical Sonographers.

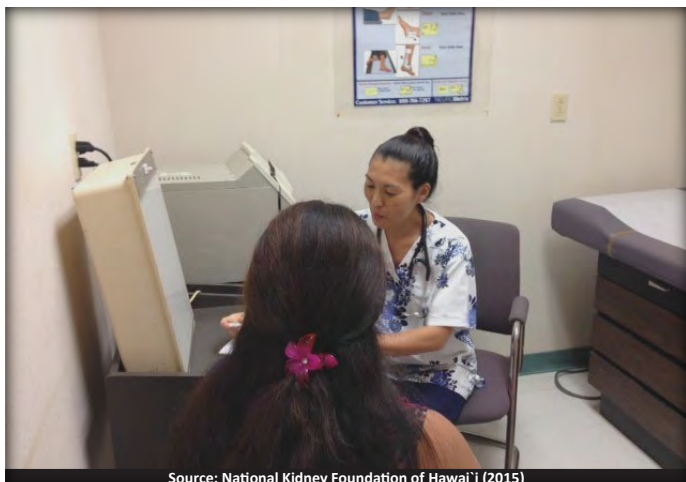
## EDUCATIONAL PROGRAMS:

University of Hawai`i at Mānoa: BS  
University of Hawai`i at Hilo: BS  
Chaminade University: BS  
Hawai`i Pacific University: BS  
Kapi`olani Community College, Medical Technician: AS

## PROFESSIONAL ASSOCIATIONS:

Alliance of Cardiovascular Professionals  
[www.acp-online.org](http://www.acp-online.org)  
American Society of Echocardiography  
[www.asecho.org](http://www.asecho.org)  
American Registry of Diagnostic Medical Sonographer  
[www.ardms.org](http://www.ardms.org)  
Cardiovascular Credentialing International  
[www.cci-online.org](http://www.cci-online.org)

# CARE COORDINATOR



Source: National Kidney Foundation of Hawai'i (2015)

Photo: A care coordinator helps a patient decide on a procedure.

Care coordinators focus on the administrative side of healthcare and provide quality assurance. They are the liaisons between the patient and the health system. Care coordinators work to ensure high quality health care by helping patients fully understand their care. Care coordinators can also create new policies that are in the best interest of the patient. They help patients make informed decisions about the options of care available, as well as provide referrals, locate community resources, and research funding options.

This may also include managing human resources, handling patient case management, preparing public relations information, as well as developing and coordinating patient-centered care programs. Care coordinators may model care through the "Patient-Centered Medical Home" (PCMH) model that expands access and options for courses of treatments to fit the needs to the patient while being cost effective and cultivating a more engaging patient relationship.

## AREAS OF SPECIALIZATION:

Care coordinators can work in any area of healthcare. This may include internal medicine, emergency, dental, psychiatric, audiology, ophthalmology, cardiology, gynecology, sports medicine, pediatrics, geriatrics, dermatology, or oncology.

## WORK ENVIRONMENT:

Care coordinators may work in outpatient offices, hospitals, private practices, dental offices, or any location where patients need to decide between and prepare for treatments.

## SALARY RANGE

\$34,560 - \$107,140

## LENGTH OF TRAINING

2+ Years

## JOB GROWTH

12%\*

\*For administrative service managers

## LENGTH OF TRAINING/REQUIREMENTS:

Depending on the employer, care coordinators may need to be a licensed registered nurse or social worker. In other locations, they may be required to have an associate's or bachelor's degree in a relevant area such as health administration. Specialized training to be a care coordinator is dependent on the area or department in which they are hired. In general, employers prefer two years of healthcare experience and previous supervisory experience.

## LICENSURE/CERTIFICATION:

The need for licensing differs among job sites. Some employers require nurses and social workers who are interested in becoming care coordinators to be licensed as a registered nurse or social worker and to have prior working experience.

## EDUCATIONAL PROGRAMS:

Brigham Young University-Hawai'i: BSW  
Hawai'i Pacific University: BSN, MSW  
University of Hawai'i at Mānoa: BSN, BSW, MSW  
University of Hawai'i at Hilo: BSN  
University of Hawai'i West O'ahu  
Healthcare Administration: BA

## PROFESSIONAL ASSOCIATIONS:

American Case Management Association  
[www.acmaweb.org](http://www.acmaweb.org)  
National Association of Healthcare Quality  
[www.nahq.org](http://www.nahq.org)  
American Hospital Association  
[www.aha.org](http://www.aha.org)  
Agency in Healthcare Research and Quality  
[www.ahrq.gov](http://www.ahrq.gov)  
Association for Patient Experience  
[www.patient-experience.org](http://www.patient-experience.org)  
American Association of Healthcare Administrative Management  
[www.aaham.org](http://www.aaham.org)

# CERTIFIED CODING SPECIALIST



Source: Hawai'i Pacific Health (2015)

Photo: A Certified Coding Specialist enters data into a computer at a West O'ahu clinic.

Certified Coding Specialists are experts in the coding systems used by doctors, insurance agencies, and governments to manage the health information of patients. This is often done through using ICD-10 (International Statistical Classification of Diseases and Related Health Problems) and CPT (Current Procedural Terminology) codes, which help to classify the various patient conditions and medical procedures. This position requires skills in organization, medical procedures, and anatomy.

## WORK ENVIRONMENT:

Certified Coding Specialists work in a wide variety of settings, including hospitals, government agencies, doctor's offices and nursing homes. Other work environments have certified coding specialists as well.

## LENGTH OF TRAINING/REQUIREMENTS:

Although many employers may seek applicants with an associate's or bachelor's degree, there are also shorter training programs available that vary in length from four months to two years. Some of these training programs are available online.

## SALARY RANGE

\$27,660 - \$71,950\*

## LENGTH OF TRAINING

4 Months - 4 Years

## JOB GROWTH

12%\*

\*For medical records and health information technicians

## LICENSURE/CERTIFICATION:

Although not required in Hawai'i, multiple organizations offer professional certifications:

- American Academy of Professional Coders  
Certified Professional Coder
- American Health Information Management Association  
Certified Coding Associate  
Certified Coding Specialist

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

- American Academy of Professional Coders  
[www.aapc.com](http://www.aapc.com)
- American Health Information Management Association  
[www.ahima.org](http://www.ahima.org)

# CERTIFIED MEDICAL TRANSCRIPTIONIST



Source: Hawai'i Pacific Health (2015)

Photo: A Certified Medical Transcriptionist types data into a computer-based software program.

A Certified Medical Transcriptionist interprets and transcribes recorded audio files/tapes that physicians make. Often, doctors are too busy to type up the notes and comments they have about patients. They may send these files or tapes to a Certified Medical Transcriptionist, who listens to the doctor's notes and types a word-for-word transcription. Professionals in this field must have good listening, typing, and grammar skills. Also, they must be comfortable with and knowledgeable about medical terminology, conditions, biological science, and anatomy.

## WORK ENVIRONMENT:

Certified Medical Transcriptionists often work in hospitals, doctors' offices, or in their own homes as independent contractors.

## AREAS OF SPECIALIZATION:

Certified Medical Transcriptionists may choose to specialize in a particular medical field (e.g. oncology, pediatrics, or family medicine). This usually requires on-the-job training and work experience in the field of interest.

## ADVANCEMENT:

After gaining extensive training and experience, Certified Medical Transcriptionists may be promoted to managerial positions.

## SALARY RANGE

\$20,790 - \$47,920

## LENGTH OF TRAINING

6 Months - 3 Years

## JOB GROWTH

2%

## LENGTH OF TRAINING/REQUIREMENTS:

Training programs vary from six months to one year.

Many employers prefer to hire applicants who have some education beyond high school (i.e. a certification or associate's degree with a course emphasis on anatomy, health and medical terminology. These courses could be completed in one to three years.

## LICENSURE/CERTIFICATION:

Although certification is not required, many entry-level Medical Transcriptionists seek certification to increase their chances of finding a job. The Association for Healthcare Documentation Integrity offers the Registered Healthcare Documentation Specialist (RHDS) and the Certified Healthcare Documentation Specialist (CHDS) certifications.

## EDUCATIONAL PROGRAMS:

Kapi`olani Community College

## PROFESSIONAL ASSOCIATIONS:

American Health Information Management Association  
[www.ahima.org](http://www.ahima.org)

Association for Healthcare Documentation Integrity  
[www.ahdionline.org](http://www.ahdionline.org)

# CERTIFIED ROLFER



Source: Hawai'i & Pacific Basin AHEC (2016)

Photo: A Certified Rolfer works on a patient's knee.

Certified Rolfers are trained in the discipline of rolfing structural integration. Rolfing is a form of hands-on body manipulation and movement education that works specifically on the connective tissue of the body and relieves pain, discomfort, and prevents body compensation. Rolfing is a holistic approach to physical healing, with a combination of chiropractic, massage therapy, yoga, and connective tissue manipulation. Rolfers increase the patient's flexibility, decrease body and emotional stress, and enhance posture. A Certified Rolfer's primary goal is to physically reorganize the soft tissue of the body in relation to gravity for optimal human function.

## AREAS OF SPECIALIZATION:

Rolfers work with all types of individuals ranging from athletes, business professionals, and individuals with chronic pain.

## WORK ENVIRONMENT:

Rolfers work in their own private practices and holistic healing facilities.

## SALARY RANGE

\$16,730 - \$99,460\*

## LENGTH OF TRAINING

731 Hours

## JOB GROWTH

15%\*

\*For massage therapists

## LENGTH OF TRAINING/REQUIREMENTS:

Rolfers are certified through a program that is 731 hours long through the Rolfing Institute of Structural Integration.

## LICENSURE/CERTIFICATION:

Rolfers should be certified through the Rolfing Institute of Structural Integration.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

Rolf Institute of Structural Integration  
[www.rolf.org](http://www.rolf.org)

# CHILD LIFE SPECIALIST



Source: National Cancer Institute

Photo: A child life specialist provides outdoor recreation for children.

A child life specialist is a health professional that focuses on child and family development. Child life specialists analyze the general psychological health of children and help them to access appropriate medical services.

## WORK ENVIRONMENT:

Most child life specialists work in hospitals, rehabilitation centers and non-profit organizations.

## LENGTH OF TRAINING/REQUIREMENTS:

A high school diploma is required and applicants should seek some form of post-secondary education with an emphasis in child development, human services, social work, or psychology.

## SALARY RANGE

\$21,490 - \$47,220\*

## LENGTH OF TRAINING

Up to 2 Years

## JOB GROWTH

17%\*

\*For social and human service assistants

## LICENSURE/CERTIFICATION:

A license is not required but some employers prefer child life specialists with certifications, such as:

Child Life Council

CCLS: Certified Child Life Specialist

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American School Counselors Association

[www.schoolcounselor.org](http://www.schoolcounselor.org)

Child Life Council

[www.childlife.org](http://www.childlife.org)

Hawai'i Association for the Education of Young Children

[www.hawaiiikeiki.org](http://www.hawaiiikeiki.org)



# CHIROPRACTIC ASSISTANT



Source: Hawai'i & Pacific Basin AHEC (2015)

Photo: A Chiropractic Assistant treats a patient.

Chiropractic Assistants (CAs) provide help and perform services for chiropractors such as tests and treatments for patients.

## WORK ENVIRONMENT:

CAs often work in chiropractor offices and may perform clerical duties, x-ray assistance, or therapy assistance.

## AREAS OF SPECIALIZATION:

Chiropractic Assistants often learn a specialty through on-the-job training and may seek to work with a specialized chiropractor.

## LENGTH OF TRAINING/REQUIREMENTS:

Some CAs complete formal education and others receive on-the-job training.

## SALARY RANGE

\$23,020 - \$45,820\*

## LENGTH OF TRAINING

Up to 2 Years

## JOB GROWTH

14%\*

\*For all medical assistants

## LICENSURE/CERTIFICATION:

Optional certification exams exist. Some employers prefer applicants with certifications.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

Hawai'i Chiropractic Association  
[www.hawaiichiro.com](http://www.hawaiichiro.com)

National Academy of Chiropractic Assistants  
[www.naca-online.com](http://www.naca-online.com)

# CHIROPRACTOR



Source: Hawai'i & Pacific Basin AHEC (2015)

Photo: A chiropractor helps a patient align her spine.

A Doctor of Chiropractic care, otherwise known as a chiropractor, may assess, treat and care for patients through performing medical procedures on the spine and musculoskeletal system. Most often, chiropractors manipulate the spine and/or the body to fix a problem or relieve pain. Although they hold a doctoral degree, chiropractors are not able to prescribe medication.

## WORK ENVIRONMENT:

Most chiropractors work in private practices, hospitals/clinics, or in home healthcare. Chiropractors in private practices tend to have a high level of control over their work schedule.

## AREAS OF SPECIALIZATION:

Many chiropractors choose to specialize by working with particular populations (e.g. based on age or gender) or a special field (e.g. sports injuries or geriatrics).

## SALARY RANGE

\$22,840 - \$92,280

## LENGTH OF TRAINING

6 - 8 Years

## JOB GROWTH

6%

## LENGTH OF TRAINING/REQUIREMENTS:

Graduation from an accredited Doctor of Chiropractic (DC) program, which includes clinical experience.

## LICENSURE/CERTIFICATION:

Must obtain State of Hawai'i Chiropractor License and pass the National Board of Chiropractic Exam.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Chiropractic Association  
[www.acatoday.org](http://www.acatoday.org)  
Hawai'i Chiropractic Association  
[www.hawaiiichiro.com](http://www.hawaiiichiro.com)

# COMMUNITY HEALTH WORKER



Source: Deborah Gardner (2015)

Photo: A Community Health Worker interviews students at an O'ahu park.

A Community Health Worker (CHW) is a frontline public health worker who is a trusted member or has a close understanding of the community served. This trusting relationship enables the CHW to serve as a liaison between health and social services to facilitate patient access to services and improve the quality and cultural competency of service delivery. A CHW also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support, and advocacy. (Source: American Public Health Association)

## WORK ENVIRONMENT:

CHWs often live in the communities they serve. They can work out of hospitals, clinics, neighborhood outreach centers, public health departments, faith-based organizations, university programs, and non-profit organizations.

## AREAS OF SPECIALIZATION:

CHWs can specialize in areas such as child development or geriatric care, diabetes, women's health issues, cancer prevention, and prenatal care.

## SALARY RANGE

\$16,320 - \$41,400

## LENGTH OF TRAINING

2+ Years

## JOB GROWTH

23%

## LENGTH OF TRAINING/ REQUIREMENTS:

Entry-level positions usually require an associate's or bachelor's degree in a health or social service-related field. Federal and state public health agencies generally require a bachelor's, master's, or doctoral degree. Most CHWs also complete a brief period of on-the-job training.

## LICENSURE/CERTIFICATION:

None required at this time.

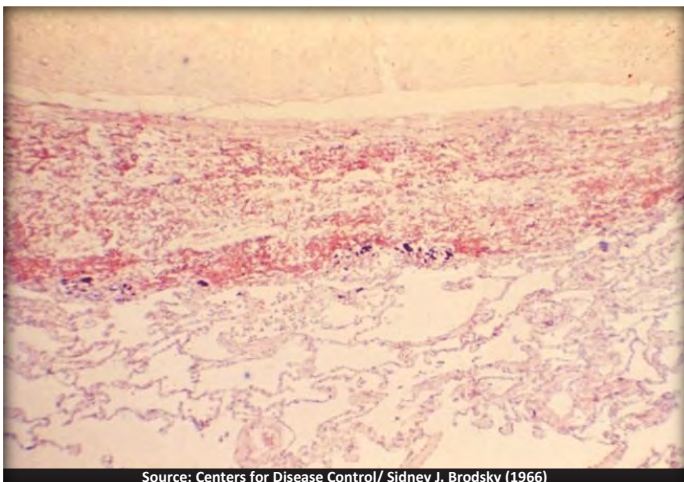
## EDUCATIONAL PROGRAMS:

Kapi`olani Community College  
Community Health Worker: CC  
University of Hawai`i at Mānoa  
Public Health: BA, MPH, MS, DrPH, PhD  
University of Hawai`i at Maui College  
Community Health Worker: CO  
Hawai`i Pacific University  
Bachelor of Science in Public Health

## PROFESSIONAL ASSOCIATIONS:

American Public Health Association  
[www.apha.org](http://www.apha.org)  
Hawai`i Public Health Institute  
[www.hiphi.org](http://www.hiphi.org)

# CYTOTECHNOLOGIST



Source: Centers for Disease Control/ Sidney J. Brodsky (1966)

Photo: *This tissue specimen revealed cytoarchitectural changes associated with anthrax.*

Cytotechnologists prepare and evaluate biological specimens from multiple sources in the body. They examine the specimens on a cellular level and analyze the identifying characteristics of the cells. A major duty of cytotechnologists is to monitor a patient's cells for any abnormal changes, which may indicate cancer or another disease. Cytotechnologists work closely with pathologists to accurately make a diagnosis and treatment plan. Cytotechnologists must be comfortable working with laboratory instruments.

## WORK ENVIRONMENT:

Cytotechnologists often work in hospitals, universities, and research institutions.

## AREAS OF SPECIALIZATION:

Cytotechnologists must seek additional training and education in order to specialize. Many specializations exist, including flow cytometry, hematology, and chromosome banding.

## LENGTH OF TRAINING/REQUIREMENTS:

A bachelor's degree in science and completion of a cytotechnologist program accredited by the Commission on Accreditation of Allied Health Education Programs are required to become a cytotechnologist.

## SALARY RANGE

\$47,880 - \$84,550

## LENGTH OF TRAINING

4+ Years

## JOB GROWTH

6%

## LICENSURE/CERTIFICATION:

Certification from the American Society for Clinical Pathology Board of Certification (ASCP BOC) is required.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Society of Clinical Pathologists

[www.ascp.org](http://www.ascp.org)

American Society for Cytotechnology

[www.asct.com](http://www.asct.com)

American Society of Cytopathology

[www.cytopathology.org](http://www.cytopathology.org)

# DEMOGRAPHER



Source: Centers for Disease Control (2015)

Photo: A demographer interviews a nurse about the types of patients that visit that specific health clinic.

Demographers, sometimes called population sociologists, study a wide range of topics which include the makeup, distribution, and trends of community populations. Demographers often observe increases or decreases in birth rates or immigration, collect and analyze statistical data to identify patterns, and predict trends in populations. This information is used to help governments, social service agencies, and companies to make long-term plans.

## WORK ENVIRONMENT:

Demographers may work for government agencies, corporations, hospitals, universities, media organizations, market research and planning, or consulting agencies.

## AREAS OF SPECIALIZATION:

Demographers can specialize in areas that relate to human populations such as health, housing, education, family characteristics, agriculture, economics, immigration, or naturalization.

## SALARY RANGE

\$43,830 - \$89,850\*

## LENGTH OF TRAINING

4+ Years

## JOB GROWTH

21%\*

\*For statisticians

## LENGTH OF TRAINING/ REQUIREMENTS:

An entry-level position would require a bachelor's degree. A master's or doctoral degree would be required for a technical research position.

## LICENSURE/CERTIFICATION:

No licenses or certifications are required at this time, but job-seekers may want to pursue optional certifications, like the Professional Researcher Certification from The Marketing Research Association, to make their application more appealing.

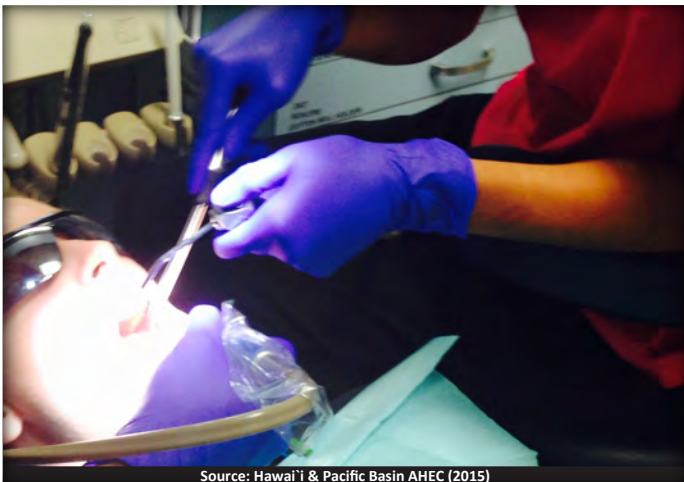
## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

International Union for the Scientific Study of Populations  
[www.iussp.org](http://www.iussp.org)  
Marketing Research Association  
[www.marketingresearch.org](http://www.marketingresearch.org)  
Populations Association of America  
[www.populationassociation.org](http://www.populationassociation.org)

# DENTAL ASSISTANT



Source: Hawai'i & Pacific Basin AHEC (2015)

Photo: A dental assistant cleans a patient's mouth during a procedure.

Dental assistants help dentists examine and treat patients. Their duties include preparing patients for treatment, organizing dental materials and instruments for procedures, and transferring instruments to the dentist during a treatment. Dental assistants also take and process dental x-rays, maintain infection control, take impressions, and make casts and appliances. Dental assistants maintain patient treatment and financial records. They also assist with administrative tasks such as scheduling appointments, treatment planning, and ordering supplies. Orthodontic assistants help orthodontists by selecting brackets or bands and placing them on a patient's braces.

## WORK ENVIRONMENT:

Most dental assistants work in private or group dental practices. Some choose to work in specialty practices, public health departments, federal agencies, military clinics, or dental schools.

## SALARY RANGE

\$21,500 - \$50,750

## LENGTH OF TRAINING

Up to 2 Years

## JOB GROWTH

6%

## LENGTH OF TRAINING/REQUIREMENTS:

A high school diploma or a two-year associate's degree are required. Dental assistants will most likely receive on-the-job training.

## LICENSURE/CERTIFICATIONS:

Certified Dental Exam  
CPR Training

## EDUCATIONAL PROGRAMS:

Kapi`olani Community College  
University of Hawai`i Maui College

## PROFESSIONAL ASSOCIATIONS:

American Dental Assistants Association  
[www.dentalassistant.org](http://www.dentalassistant.org)  
American Dental Association  
[www.ada.org](http://www.ada.org)  
Dental Assisting National Board  
[www.dentalassisting.com](http://www.dentalassisting.com)

# DENTAL HYGIENIST



Source: Image courtesy of patrisyu at FreeDigitalPhotos.net

Photo: A dental hygienist cleans a patient's teeth.

A dental hygienist is a primary care oral health professional who has graduated from an accredited dental hygiene program in an institution of higher education and is licensed in dental hygiene. Dental hygienists provide education, assessment, research, administrative, diagnostic, preventive and therapeutic services that support overall health through the promotion of optimal oral health. Registered dental hygienists work in dental offices alongside dentists. They usually see a patient before the dentist and remove tartar, stains, and plaque from teeth. Dental hygienists are also involved with educating patients on the best ways to brush and floss teeth, as well as which products to use. Dental hygienists are on the front lines of assessing a client's oral health.

## WORK ENVIRONMENT:

Dental hygienists are in demand in general dental practices and in specialty practices such as periodontics or pediatric dentistry. They may also provide dental hygiene services for patients in hospitals, nursing homes, or public health clinics.

## SALARY RANGE

\$55,620 - \$87,170

## LENGTH OF TRAINING

2 - 4 Years

## JOB GROWTH

13%

## LENGTH OF TRAINING/REQUIREMENTS:

Dental hygienists typically require a two-year associate's degree in dental hygiene. Some professionals have a bachelor's degree in dental hygiene.

## LICENSURE/CERTIFICATION:

Dental hygienists must obtain a Hawai'i license to practice.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa  
Dental Hygiene: BS  
University of Hawai'i Maui College  
Dental Hygiene: AS

## PROFESSIONAL ASSOCIATIONS:

American Dental Hygienist's Association (ADHA)  
[www.adha.org](http://www.adha.org)  
Hawai'i Dental Hygienist's Association  
[www.hdha.net](http://www.hdha.net)

# DENTAL LABORATORY TECHNICIAN



Source: Gameanna at FreeDigitalPhotos.net

Photo: A dental laboratory technician makes a pair of dentures.

Dental laboratory technicians make dental appliances (i.e. dentures, crowns, or braces) Dentists to use on patients. Not only does this require knowledge of dental anatomy, but also an artistic skill and creativity in the sculpting and molding processes.

## WORK ENVIRONMENT:

Dental laboratory technicians often work in small dental supply firms, dental schools, or have private businesses. Depending on the setting, the work hours and demands vary.

## AREAS OF SPECIALIZATION:

Dental laboratory technicians may gain additional training in ceramics, orthodontics, dentures, partial dentures, crowns, or bridges.

## LENGTH OF TRAINING/REQUIREMENTS:

Dental laboratory technicians must have a high school diploma, two-years of specialized training, and on-the-job training. Students should emphasize math and science courses in their education plan.

## SALARY RANGE

\$22,120 - \$61,390

## LENGTH OF TRAINING

Up to 1 Year

## JOB GROWTH

3%

## LICENSURE/CERTIFICATION:

No licenses or certifications are required. However, two professional organizations offer certifications after certain educational, experiential and exam criteria are met, including:

National Board for Certification in Dental Laboratory Technology  
Certified Dental Technician Diploma  
The American Board for Certification in Orthotics, Prosthetics and Pedorthics  
Technician Certification

## EDUCATIONAL PROGRAMS:

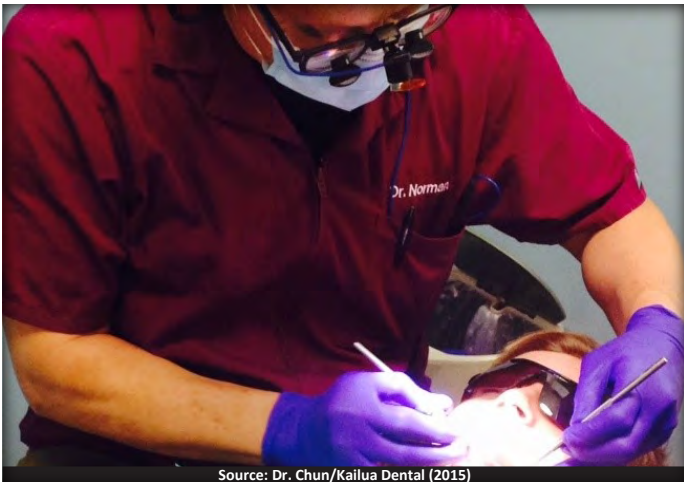
There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Board for Certification in Orthotics, Prosthetics and Pedorthics  
[www.abcop.org](http://www.abcop.org)  
American Dental Association  
[www.ada.org](http://www.ada.org)  
National Board of Certification in Dental Laboratory Technology  
[www.nbccert.org](http://www.nbccert.org)



# DENTIST



Source: Dr. Chun/Kailua Dental (2015)

Photo: A dentist in Kailua, O'ahu examines a patient.

Dentists work to promote oral health and hygiene. They perform disease diagnosis, develop treatment plans, fill cavities, attach and maintain braces, and conduct oral surgery.

## WORK ENVIRONMENT:

Most dentists are self-employed and have a team of dental professionals under their supervision. Dentists may also work in hospitals, research firms, or as instructors for dental education programs.

## AREAS OF SPECIALIZATION:

Dentists may specialize in public health, endodontics, oral pathology, oral radiology, oral surgery, orthodontics, pediatric dentistry, periodontics, or prosthodontics

## LENGTH OF TRAINING/REQUIREMENTS:

A four to six year doctoral degree is required after completing a bachelor's degree. Any undergraduate major (area of study) is acceptable as long as there is a science emphasis. The Dental Acceptance Test is taken during the junior or senior year of the bachelor's program as an entrance exam for the doctoral program. Some students complete a two-year residency after obtaining a doctoral degree.

## SALARY RANGE

\$71,860 - \$187,200

## LENGTH OF TRAINING

8 - 10 Years

## JOB GROWTH

6%

## LICENSURE/TRAINING:

Each state requires dentists to be licensed. The Hawai'i Office of Professional and Vocational Licensing covers the Hawaiian islands. Some specialties require additional state certifications.

## EDUCATIONAL PROGRAMS:

Dental Residency Program:

Queen's Medical Center: General Practice  
[www.queensmedicalcenter.org/dental-clinic](http://www.queensmedicalcenter.org/dental-clinic)

There are no degree programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your residency program and your career!

## PROFESSIONAL ASSOCIATIONS:

American Dental Association

[www.ada.org](http://www.ada.org)

American Dental Education Association

[www.adea.org](http://www.adea.org)

American Student Dental Association

[www.asdanet.org](http://www.asdanet.org)

Hawai'i Dental Association

[www.hawaiidentalassociation.net](http://www.hawaiidentalassociation.net)

Hawai'i Department of Commerce and Consumer Affairs: Office of Professional and Vocational Licensing

[www.cca.hawaii.gov/pvl](http://www.cca.hawaii.gov/pvl)

# DIAGNOSTIC MEDICAL SONOGRAPHER



Source: Praisang at FreeDigitalPhotos.net

Photo: A diagnostic medical sonographer uses an ultrasound machine to examine a patient's wrist.

A diagnostic medical sonographer (sometimes referred to as an ultrasonographer) uses ultrasound equipment to capture images of various medical conditions. After the images are collected, doctors or other specialists develop a diagnosis based on what they see.

## WORK ENVIRONMENT:

Most sonographers work at hospitals or diagnostic imaging centers.

## AREAS OF SPECIALIZATION:

Sonographers may specialize after gaining on-the-job experience in a particular field (like the cardiovascular system, gynecology, etc.).

## LENGTH OF TRAINING/REQUIREMENTS:

Formal training is required, but can vary from a few months of intensive courses, a two year associate's degree or a four year bachelor's degree.

## SALARY RANGE

\$49,800 - \$96,860

## LENGTH OF TRAINING

570 Hours - 4 Years

## JOB GROWTH

39%

## LICENSURE/CERTIFICATION:

Although no licensure/certification is required, many employers seek applicants who have a certification. Often, certifications are available in specialty areas (abdominal sonography, vascular sonography, etc.).

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

The American Registry of Diagnostic Medical Sonographers (ARDMS)  
[www.ardms.org](http://www.ardms.org)

Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS)  
[www.jrcdms.org](http://www.jrcdms.org)

Society of Diagnostic Medical Sonography  
[www.sdms.org](http://www.sdms.org)

# DIETETIC TECHNICIAN



Source: U. S. Department of Agriculture (2007)

Photo: A Registered Dietitian (left) and a Dietetic Technician (right) portion sweet potatoes for a research study.

Dietetic Technicians, Registered (DTRs) work closely with Registered Dietitians to provide food and nutrition services in clinical and community settings. Under the supervision of a Registered Dietitian, DTRs assist and educate clients on nutrition, home menu choices, health literacy, and dietary counseling.

## WORK ENVIRONMENT:

DTRs often work with Registered Dietitians in hospitals, businesses, government agencies, and non-profit organizations.

## LENGTH OF TRAINING/REQUIREMENTS:

Educational requirements vary between a two-year associate's degree, a four-year bachelor's degree, and an additional two-year master's degree program, depending on the level of experience and time spent within a supervised clinical practice.

## SALARY RANGE

\$26,610 - \$47,470

## LENGTH OF TRAINING

2 - 6 Years

## JOB GROWTH

28%

## LICENSURE/CERTIFICATION:

The minimum requirements for certification are a two-year Associate of Arts (AA) degree and a passing score on an examination provided by the Commission on Dietetic Registration.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa  
Nutrition Sciences: BA, MA

## PROFESSIONAL ASSOCIATIONS:

American Dietetic Association  
[www.eatright.org](http://www.eatright.org)  
Commission on Dietetic Registration  
[www.cdrnet.org](http://www.cdrnet.org)  
Hawai'i Dietetic Association  
[www.eatrighthawaii.org](http://www.eatrighthawaii.org)

# DIETITIAN



Source: Hawai'i & Pacific Basin AHEC (2015)

Photo: A Registered Dietitian discusses healthy meal planning using foods commonly found in Hawai'i.

Registered Dietitians (RD) promote nutrition and healthy eating practices among their clients and the community. RDs examine the nutritional strengths and weaknesses of their clients' eating habits and implement nutrition programs based on individual needs.

## WORK ENVIRONMENT:

Many RDs are self-employed or in private practices. Some are employed by hospitals, schools, government agencies, and industrial food companies.

## AREAS OF SPECIALIZATION:

RDs often work as clinicians, researchers, community health workers, or take on management roles.

## LENGTH OF TRAINING/REQUIREMENTS:

A bachelor's degree emphasizing nutrition, health, and science is desired. Some employers prefer a master's degree.

## SALARY RANGE

\$44,370 - \$79,720

## LENGTH OF TRAINING

4 - 6 Years

## JOB GROWTH

20%

## LICENSURE/CERTIFICATION:

Dietitians must be registered with the State of Hawai'i. Most employers will seek applicants with a Registered Dietitian Nutritionist (RDN) credential from the Commission on Dietetic Registration. Dietitians who have a master's or doctoral degree may earn the Certified Nutrition Specialist (CNS) advanced credential from the Certification Board for Nutrition Specialists.

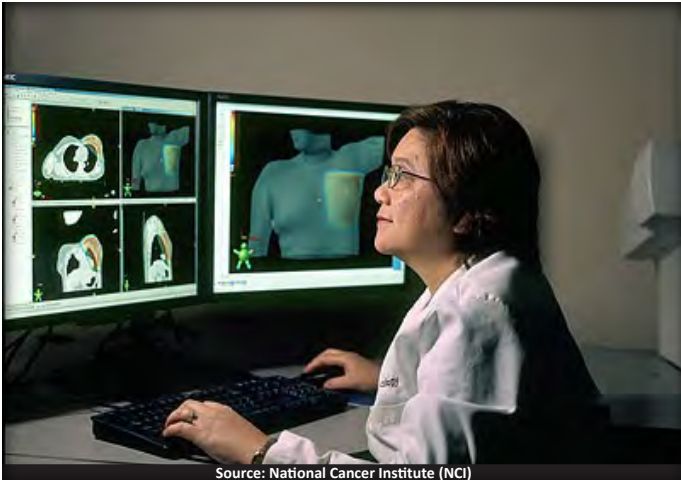
## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa  
Dietetics Program: BS, MA

## PROFESSIONAL ASSOCIATIONS:

American Dietetic Association  
[www.eatright.org](http://www.eatright.org)  
Certification Board for Nutrition Specialists  
[www.cbns.org](http://www.cbns.org)  
Commission on Dietetic Registration  
[www.cdrnet.org](http://www.cdrnet.org)  
Hawai'i Dietetic Association  
[eatrighthawaii.org](http://eatrighthawaii.org)  
Hawai'i Dietitian Licensing  
[www.eatrighthawaii.org/rules-regulations/licensure/3](http://www.eatrighthawaii.org/rules-regulations/licensure/3)

# DOSIMETRIST



Source: National Cancer Institute (NCI)

Photo: A dosimetrist administers radiation to a patient.

A medical dosimetrist develops and delivers an ionizing radiation dose to patients with cancer or tumors. Medical dosimetrists work directly with a doctor or with a team of health professionals to ensure the patient receives the proper treatment. Often, dosimetrists work with an oncology team to assist with delivering care and treatment to cancer patients.

## WORK ENVIRONMENT:

The majority of medical dosimetrists work in hospitals and cancer centers.

## AREAS OF SPECIALIZATION:

Medical dosimetrists may choose to specialize in a specific type of cancer or tumor that interests them.

## LENGTH OF TRAINING/REQUIREMENTS:

Dosimetrists must have a bachelor's degree (preferably in the field of physical sciences) and complete a dosimetry training program accredited by the Joint Review Committee on Education in Radiologic Technology. Sometimes an experiential component is required as well.

## SALARY RANGE

\$53,590 - \$118,180\*

## LENGTH OF TRAINING

4+ Years

## JOB GROWTH

23%\*

\*For radiation therapists

## LICENSURE/CERTIFICATION:

Although not required, a certification is available from the Medical Dosimetrist Certification Board.

Dosimetrists may also wish to join a professional organization, like the American Association of Medical Dosimetrists.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Association of Medical Dosimetrists  
[www.medicaldosimetry.org](http://www.medicaldosimetry.org)  
Medical Dosimetrist Certification Board  
[www.mdcb.org](http://www.mdcb.org)

# EMBALMER



Source: Hawai'i & Pacific Basin AHEC/John A. Burns School of Medicine

Photo: An embalmer prepares a cadaver for display at a funeral.

An embalmer works with the bodies of recently deceased people to ensure that the body looks appropriate for funerals or burials. Embalmers help the body to look more natural and ensure that the body will be preserved correctly.

## WORK ENVIRONMENT:

Embalmers can work in any organization that handles human bodies, including funeral homes, medical schools, local governments, military agencies, and hospitals.

## LENGTH OF TRAINING:

Two years of training are required to become an embalmer, which will most likely include an apprenticeship. Mortuary sciences schools accredited by the American Board of Funeral Service Education are available for training. Some embalmers choose to join the American Society of Embalmers.

## SALARY RANGE

\$25,030 - \$61,760

## LENGTH OF TRAINING

2+ Years

## JOB GROWTH

-13%

## LICENSURE/CERTIFICATION:

A license is required and can be earned from the Hawai'i Department of Health's Sanitation Branch by meeting one of three qualifications: 1) one year of practical experience and graduation from a recognized school of embalming, 2) two years of practical experience under a Registered Embalmer within the state and a high school diploma, or 3) five years of practical experience under a Registered Embalmer.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Board of Funeral Service Education  
[www.abfse.org](http://www.abfse.org)

American Society of Embalmers  
[www.amsocembalmers.org](http://www.amsocembalmers.org)

# EMS PERSONNEL



Source: Federal Fire Department, Hawai'i (2015)

Photo: A paramedic with the fire department examines and treats an injured patient in Hawai'i.

Emergency Medical Services (EMS) Personnel respond to urgent medical needs. They are usually the first responders to provide emergency medical care to sick or injured people in the community. EMS Personnel must be knowledgeable of medical conditions and work well under significant pressure. If necessary, EMS Personnel will take sick or injured individuals to a hospital or other health facility.

## WORK ENVIRONMENT:

EMS Personnel work in diverse settings and often have non-traditional work hours (i.e. evenings, overnight, weekends, and holidays). EMS Personnel often work for ground and air ambulance services, fire and ocean safety departments, along with hospitals or health clinics.

## ADVANCEMENT:

EMS Personnel is a collective name for many different tiers of positions. Each tier is based on education, experience, and motivation. The first tier is called the Emergency Medical Technician (EMT). The next tier is called the Mobile Intensive Care Technician (more commonly known as a Paramedic). Additional tiers include working as an Emergency Medical Dispatcher, EMS Supervisor, EMS educator, Field Training Officer, Quality Improvement, EMT Safety Manager, Firefighter, Lifeguard, or Air Ambulance Paramedic. Some EMS Personnel choose to branch into other professional directions, such as nursing, medicine, and teaching.

## SALARY RANGE

\$34,460 - \$62,140

## LENGTH OF TRAINING

Up to 2 Years

## JOB GROWTH

23%

## LENGTH OF TRAINING/REQUIREMENTS:

The EMT class is generally one college semester in length. EMTs work for one to two years and then apply for a three-semester paramedic program. In order to enter the EMT program, applicants are required to have English, medical terminology, and anatomy/physiology courses completed. Paramedics often earn associate's degrees. Both EMTs and Paramedics require high school diplomas, CPR and First Aid certifications, a good driving record, and no criminal convictions.

## LICENSURE/CERTIFICATION:

The National Registry of Emergency Medical Technicians certifies all EMT, Advanced EMT, and Paramedic professionals in America. Although multiple types of EMT certifications exist, the State of Hawai'i Department of Commerce and Consumer Affairs only issues licenses at the EMT and Paramedic levels of care.

## EDUCATIONAL PROGRAMS:

Kapi'olani Community College  
Emergency Medical Technician Certification  
Mobile Intensive Care Technician/Paramedic Certification

## PROFESSIONAL ASSOCIATIONS:

National Association of EMTs  
[www.naemt.org](http://www.naemt.org)

# ENVIRONMENTAL HEALTH SPECIALIST



Source: University of Hawai'i/Dr. Lu (2015)

Photo: An environmental health specialist looks at microbe cell cultures found in the Ala Wai canal in Waikiki.

Environmental health specialists use their knowledge of natural sciences to protect, preserve and improve the well-being of the environment and human health. Environmental health specialists conduct research, clean polluted areas, notify the public of health safety issues, advise policymakers, and work with local industries to reduce pollution.

## WORK ENVIRONMENT:

Environmental health specialists may work with state, county, and local health departments, wildlife parks, hospitals, private consulting businesses, industrial factories, and non-profit organizations.

## AREAS OF SPECIALIZATION:

Environmental health specialists might specialize in air quality, water quality, toxicology, occupational health, solid and hazardous waste, food, safety, construction, milk and dairy production, pesticide management, and wildlife management.

## SALARY RANGE

\$39,510 - \$90,330

## LENGTH OF TRAINING

4+ Years

## JOB GROWTH

6%

## LENGTH OF TRAINING/REQUIREMENTS:

Most entry level environmental health specialist jobs require a bachelor's degree in environmental science or at least a science-related field. Some environmental health specialists choose to pursue a master's or doctoral degree to advance within their career.

## LICENSURE/CERTIFICATION:

No licenses or certifications are required at this time, but environmental health specialists can earn certifications if they want to specialize in a certain area.

## EDUCATIONAL PROGRAMS:

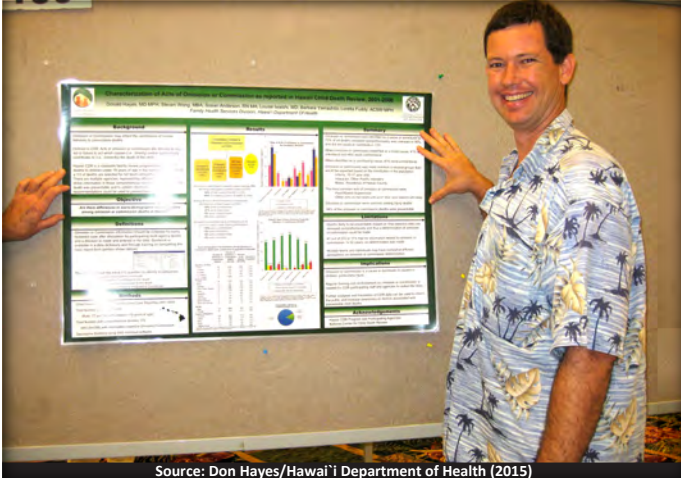
Hawai'i Pacific University  
Public Health: BS, MPH  
University of Hawai'i at Mānoa  
Public Health: BA, MPH, MS, DrPH, PhD

## PROFESSIONAL ASSOCIATIONS:

Hawai'i Environmental Health Association  
[www.hehaonline.org](http://www.hehaonline.org)  
National Environmental Health Association  
[www.neha.org](http://www.neha.org)



# EPIDEMIOLOGIST



Source: Don Hayes/Hawai'i Department of Health (2015)

Photo: An epidemiologist presents his research findings about rates of child mortality.

Epidemiologists are public health workers who investigate the causes of disease or injury within a population. Their work seeks to reduce risks and occurrences of negative health outcomes through community education and health policy. Epidemiologists collect and analyze data, report the occurrence of disease or injuries, manage public health programs, and research ways to prevent or treat epidemics.

## WORK ENVIRONMENT:

Epidemiologists often work at universities, public health schools, medical schools, hospitals, federal, state, or local health departments, or private research and development firms.

## AREAS OF SPECIALIZATION:

Epidemiologists may choose to specialize in infectious disease, emergency response; maternal and child health, chronic diseases, environmental health, injury, occupational health, substance abuse, or oral health.

## SALARY RANGE

\$43,530 - \$112,360

## LENGTH OF TRAINING

4 - 10 Years

## JOB GROWTH

10%

## LENGTH OF TRAINING/ REQUIREMENTS:

A four-year bachelor's degree is required. Most epidemiologists have a master's or doctoral degree in epidemiology or public health.

## LICENSURE/CERTIFICATION:

No licenses or certifications are required at this time.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa  
Public Health: BA, MPH, MS, DrPH, PhD  
University of Hawai'i Cancer Center  
Cancer Epidemiology Program

## PROFESSIONAL ASSOCIATIONS:

American Public Health Association  
[www.apha.org](http://www.apha.org)  
Association for Professionals in Infection Control and  
Epidemiology  
[www.apic.org](http://www.apic.org)

# FITNESS AND WELLNESS INSTRUCTOR



Source: United States Army (2009)

Photo: A fitness instructor leads a Zumba class.

Fitness and wellness instructors educate clients on how to accomplish holistic wellness through physical activity in a safe environment. They use pre-planned programs with modifications and scaled intensities appropriate for the group or client. Fitness and wellness instructors work independently or within a team to educate clients on healthy habits and to motivate them to go beyond expectations both physically and mentally.

## AREAS OF SPECIALIZATION:

Fitness and wellness instructors may specialize in yoga, crossfit, martial arts, meditation, strength and conditioning, stretching, recreational activities, zumba dance, spin, or pilates. They have the option to work one-on-one with clients, lead group fitness classes, or manage their own a fitness facility. Some fitness and wellness instructors focus on specific age groups or ability levels.

## WORK ENVIRONMENT:

Fitness and wellness instructors may work at community centers, universities, gyms, private studios, or corporate environments. They can be self-employed or work within larger organizations. Fitness and wellness instructors often have flexible schedules, but sometimes their hours are dependent on a client's schedule or when classes are scheduled within larger fitness facilities.

## SALARY RANGE

\$18,740 - \$75,860\*

## LENGTH OF TRAINING

18 Weeks - 4 Years

## JOB GROWTH

15%\*

\*For fitness trainers and aerobics instructors

## LENGTH OF TRAINING/REQUIREMENTS:

Most Instructors have on-the-job training. Training requirements for larger organizations might be an 18-week course or even a four-year bachelor's degree with an emphasis in kinesiology, science, health fields, psychology, or social work. Most instructors are required to obtain a certification in their activity of interest.

## LICENSURE/CERTIFICATION:

It is common for a certification within an area of specialization is required. For example, to become a yoga instructor for a large organization, the employee must go through a teacher training certification program and employment may not be guaranteed. Some studios have their own certification program or yoga certification courses can be found on the Yoga Alliance website. Various safety certifications can also be obtained through the National Athletic Trainer's Association, American Council on Exercise, and the American College of Sports Medicine.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa: BA  
Hawai'i Pacific University: BS  
Kapi'olani Community College: AA

## PROFESSIONAL ASSOCIATIONS:

American Council on Exercise  
[www.acefitness.org](http://www.acefitness.org)  
International Association of Wellness Professionals  
[www.internationalassociationofwellnessprofessionals.org](http://www.internationalassociationofwellnessprofessionals.org)  
Yoga Alliance  
[www.yogaalliance.org](http://www.yogaalliance.org)

# FORENSIC SCIENTIST



Source: Hawaii/Pacific Basin AHEC (2016)

Photo: A forensic scientist uses black powder to look for finger prints at a crime scene in Honolulu.

Forensic scientists, also known as crime laboratory analysts or forensic science technicians, are part of a team that investigates crime and using evidence-based sciences. In the laboratory, forensic scientists examine chemical or physical evidence. Using mathematics and complex equipment, forensic scientists draw connections between the victim(s) and the suspect(s). They write detailed reports often for judges, jurors, and lawyers and may be used as an expert witness.

## AREAS OF SPECIALIZATION:

Forensic scientists can specialize in forensic toxicology, DNA analysis, drug chemistry, engineering, psychology, pathology, criminalistics, speech, or crime scene investigation.

## WORK ENVIRONMENT:

Forensic scientists work in diverse environments which include but is not limited to laboratories, crime scenes, courthouses, morgues, federal agencies, police departments, universities, coroner offices, and hospitals.

## LENGTH OF TRAINING/REQUIREMENTS:

Forensic scientists are required to have a four-year undergraduate bachelor's degree in natural or physical sciences, as well as a higher degree such as a master's or doctoral degree in forensic science.

## SALARY RANGE

\$41,720 - \$79,730

## LENGTH OF TRAINING

6 - 10 Years

## JOB GROWTH

6%

## LICENSURE/CERTIFICATION:

Forensic scientists do need to be licensed in the State of Hawai'i. Certification is required only for certain specializations.

## EDUCATIONAL PROGRAMS:

Chaminade University: BS, MS

Hawai'i Pacific University: Certificate with BS

University of Hawai'i at Hilo: Certificate with BS

University of Hawai'i at Mānoa: BS

University of Hawai'i West O'ahu: Certificate with BS  
(joint program with Leeward Community College)

## PROFESSIONAL ASSOCIATIONS:

American Academy of Forensic Sciences

[www.aafs.org](http://www.aafs.org)

American Board of Criminalistics

[www.criminalistics.com](http://www.criminalistics.com)

American Board of Forensic Anthropology

[www.theabfa.org](http://www.theabfa.org)

American College of Forensic Examiners Institute

[www.acfei.com](http://www.acfei.com)

American Society of Crime Laboratory Directors

[www.ascl.org](http://www.ascl.org)

International Crime Scene Investigators Association

[www.icsia.org](http://www.icsia.org)

# FUNERAL DIRECTOR



Source: Hawai'i & Pacific Basin AHEC/John A. Burns School of Medicine

Photo: A funeral director helps a family make funeral arrangements for a recently deceased family member.

Funeral directors assist the families of recently deceased people with the process of finding suitable funeral plans. Professionals in this field ensure that all logistical, legal and sanitary preparations are in order. Funeral directors must be comfortable working around death and human remains. Also, since funeral directors often have direct contact with the family of the deceased person, it is important that professionals are caring, culturally sensitive and supportive. Extensive knowledge of the laws and policies regarding the care of dead bodies is essential.

## WORK ENVIRONMENT:

Funeral directors work in a variety of settings, usually based out of facilities that handle human bodies (like hospitals, military agencies, etc.). Often, this may include work in other environments, like driving specialized vehicles for transporting bodies or delivering information to appropriate sources. Some funeral directors are self-employed.

## AREAS OF SPECIALIZATION:

Some may also choose to become licensed as embalmers, especially if they operate their own funeral home.

## SALARY RANGE

\$38,350 - \$110,520

## LENGTH OF TRAINING

3 - 5 Years

## JOB GROWTH

13%

## LENGTH OF TRAINING:

Funeral directors must earn a two-year degree in mortuary science from a program accredited by the American Board of Funeral Service Education. Some earn a four-year bachelor's degree. An apprenticeship of at least one year is required before, during or after schooling. An exam is also required if a professional licensure is desired (Hawai'i does not require a license). Many join the National Funeral Directors Association and/or a state-based branch of the organization.

## LICENSURE/CERTIFICATION:

Obtain a two-year associate's degree and on-site training.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Board of Funeral Service Education  
[www.abfse.org](http://www.abfse.org)  
National Funeral Directors Association  
[www.nfda.org](http://www.nfda.org)

# GENETIC COUNSELOR



Source: Flickr, Can H. 2012, [creativecommons.org/licenses/by/3.0/deed.en](https://creativecommons.org/licenses/by/3.0/deed.en)

Photo: One of the duties of a genetic counselor may be to look at a Karyotype (a map of an individual's DNA) to determine if there are any abnormalities.

When patients or their relatives are at risk for inheriting a disorder, they are sometimes referred to a genetic counselor. Genetic counselors provide advice on the probability of the genetic disorder being passed on to the patient's children or the probability of a relative having the same disorder. Genetic counselors discuss potential diagnosis outcomes, support options for management and family planning, and are advocates for their patients. They interpret medical and family histories, educate patients about inheritance, provide access to educational resources, and are able to explain complex language in simple terms.

## AREAS OF SPECIALIZATION:

Genetic counselors may specialize in the genetics of infertility and reproduction, cancer, cardiology, fetal intervention, cystic fibrosis, hematology, metabolism, neurology, pediatrics, personalized medicine, postmortem evaluation, prenatal, and gene therapy. Additionally, genetic counselors can be instrumental in policy-making for the government.

## WORK ENVIRONMENT:

Genetic counselors can be found working in specialty prenatal clinics, education and public health settings, private practices, research laboratories, corporate environments, the government, and hospitals.

## SALARY RANGE

\$43,950 - \$99,980

## LENGTH OF TRAINING

6 - 10 Years

## JOB GROWTH

41%

## LENGTH OF TRAINING/REQUIREMENTS:

Genetic counselors must complete a four-year undergraduate degree and obtain a master's or doctoral degree in genetic counseling.

## LICENSURE/CERTIFICATION:

Genetic counselors must be certified by the American Board of Genetic Counseling or the American Board of Medical Genetics to practice in the State of Hawai'i.

## EDUCATIONAL PROGRAMS:

Though no graduate programs for genetic counseling are currently available in the state of Hawai'i, there are around 30 accredited graduate programs across the mainland. You can come back to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

The American Society of Human Genetics  
[www.ashg.org](http://www.ashg.org)  
National Society of Genetic Counselors  
[www.nsgc.org](http://www.nsgc.org)

# GERONTOLOGIST



Source: Toa55 at FreeDigitalPhotos.net

Photo: A gerontologist helps an elderly patient learn about proper hydration.

Gerontology focuses on what happens to us as we grow older. It is the study of older adults and the aging process drawing from different areas of study (e.g., anthropology, architecture, biology, criminology, dentistry, economics, geography, housing, medicine, nursing, pharmacy, physical and occupational therapy, political science, psychiatry, psychology, public health, and social work).

## WORK ENVIRONMENT:

Gerontologists can work in a variety of settings like nursing homes, senior citizen centers, community facilities, government programs, and often in education. They teach and are involved in education and the development of educational materials. They work with other professionals, such as rehabilitation therapists, physicians, dietitians, etc. to improve the lives of elderly persons.

## AREAS OF SPECIALIZATION:

Advocacy, health and social program administration, research (study the aging process in academic setting), policy and program development, and direct service in healthcare environments.

## SALARY RANGE

\$43,270 - \$155,420\*

## LENGTH OF TRAINING

2 - 10 Years

## JOB GROWTH

9%\*

\*For medical scientists, except epidemiologists (Including gerontologists)

## LICENSURE/CERTIFICATION:

The length of training will vary among fields. Many colleges and universities offer an associate's, bachelor's, or master's degree programs in gerontology. Some schools offer research programs at the doctoral and post-doctoral levels.

## EDUCATIONAL PROGRAMS:

Hawai'i Pacific University  
Graduate Certificate in Gerontology  
University of Hawai'i at Mānoa  
Adult/Gerontology Primary Care Nurse Practitioner Program (Nursing & Dental Hygiene)  
Elder Law Program (Law)  
Public Health: BA, MPH, MS, DrPH, PhD  
Social Work: BSW, MSW, PhD

## PROFESSIONAL ASSOCIATIONS:

Gerontological Society of America  
[www.geron.org](http://www.geron.org)  
Hawai'i Pacific Gerontological Society  
[www.hpgs.org](http://www.hpgs.org)

# HEALTHCARE ADMINISTRATOR



Source: National Kidney Foundation of Hawai'i (2015)

Photo: A healthcare administrator analyzes a budget for her organization.

Healthcare administrators and executives are usually in leadership or management roles for various health settings. Healthcare administrators often have a passion for supporting an infrastructure that promotes a quality health system. Healthcare administrators collaborate with professionals in other health-related fields to deliver the best care to their patients. Healthcare administrators are experts at the behind-the-scenes work that goes into health systems (i.e. human resources, patient services, finance, and accounting).

## WORK ENVIRONMENT:

Healthcare administrators often work in an office setting at a hospital or health clinic.

## AREAS OF SPECIALIZATION:

Healthcare administrators may specialize in health systems or services, extended care, rehabilitation, health services research, or human resources.

## LENGTH OF TRAINING/REQUIREMENTS:

Healthcare administrators often have a four-year bachelor's or master's degree in a health-related field. Some degree programs or employers require up to a year of supervised administrative experience.

## SALARY RANGE

\$50,080 - \$172,280\*

## LENGTH OF TRAINING

4 - 6 Years

## JOB GROWTH

15%\*

\*For medical and health services managers

## LICENSURE/CERTIFICATION:

Although no licenses or certifications are required at a state or national level, healthcare administrators may work at facilities that require certifications (e.g. nursing care facility administrators or assisted-living facility administrators). Two organizations that offer certifications are the Professional Association of Health Care Office Management and the American College of Health Care Administrators.

## EDUCATIONAL PROGRAMS:

University of Hawai'i, West O'ahu  
Healthcare Administration, BA  
University of Hawai'i at Mānoa  
MBA in Healthcare Administration from Shidler  
College of Business  
Public Administration: MS  
Public Health: BA, MPH, MS, DrPH, PhD  
SONDH - Doctor of Nursing Practice (DNP)

## PROFESSIONAL ASSOCIATIONS:

American College of Health Care Administrators  
[www.achca.org](http://www.achca.org)  
American College of Healthcare Executives  
[www.ache.org](http://www.ache.org)  
Association of University Programs Health  
Administration  
[www.aupha.org](http://www.aupha.org)  
Medical Group Management Association  
[www.mgma.com](http://www.mgma.com)  
Professional Association of Health Care Office  
Management  
[www.pahcom.com](http://www.pahcom.com)

# HEALTH EDUCATOR



Source: University of Cincinnati Student Wellness Center

Photo: A certified health education specialist helps organize a health fair that highlights local health services and programs.

Health educators conduct community needs assessments, provide health education programs, evaluate community health factors, teach health classes, develop public health campaigns, provide consultations for policymakers, advocate for health-based legislation, and perform health promotion research. Health educators can also help individuals and communities adopt healthy behaviors through health coaching and educational courses. They often work with other health professionals, civic groups, and community officials to determine the best plan of action for improving the health of their target population. Health educators educate people on the availability of health resources and encourage them to use them.

## WORK ENVIRONMENT:

Health educators may work for local health departments, non-profit organizations, hospitals, K-12 schools, universities, or large corporations.

## AREAS OF SPECIALIZATION:

Areas of specialization for health educators vary depending on the type of employment (usually relating to a health issue or population). For instance, health educators may focus on one health issue (e.g. nutrition or diabetes) or on a variety of health issues for a particular group of people (e.g. minority groups or senior citizens). Some employers seek bilingual applicants to serve diverse communities or clientele.

## SALARY RANGE

\$30,060 - \$80,760

## LENGTH OF TRAINING

4 - 6 Years

## JOB GROWTH

17%

## LENGTH OF TRAINING/REQUIREMENTS:

A four-year bachelor's degree is the minimum requirement, and a master's degree is preferred by some employers.

## LICENSURE/CERTIFICATION:

The National Commission for Health Education Credentialing offers two credentials:

Certified Health Education Specialist (CHES) Credential  
Master Certified Health Education Specialist (MCHES)

## EDUCATIONAL PROGRAMS:

Kapi`olani Community College  
Community Health Worker: CC  
University of Hawai`i at Mānoa  
Food Science/Nutrition: BS, MS, PhD  
Public Health: BA, MPH, MS, DrPH, PhD

## PROFESSIONAL ASSOCIATIONS:

American Public Health Association  
[www.apha.org](http://www.apha.org)  
National Commission for Health Education  
Credentialing  
[www.nchec.org](http://www.nchec.org)  
Society for Public Health Education  
[www.sophe.org](http://www.sophe.org)



# HEALTH INFORMATION MANAGER/ADMINISTRATOR



Source: Hawai'i Pacific Health (2015)

Photo: A director of health information services at a Hawai'i hospital prepares her department's quarterly goals.

Health information managers and administrators must be comfortable working with large amounts of data and computer systems. They are often involved in computer science-related activities and help to allow the secure and efficient flow of health information to doctors, hospitals, insurance companies, and government agencies.

## WORK ENVIRONMENT:

Health information managers and administrators often work in office environments in health facilities such as hospitals, private practices, and clinics.

## LENGTH OF TRAINING/REQUIREMENTS:

A bachelor's degree in health information from a program accredited by the Commission on Accreditation for Health Informatics and Information Management Education is required.

## SALARY RANGE

\$58,750 - \$148,090\*

## LENGTH OF TRAINING

4+ Years

## JOB GROWTH

15%\*

\*For computer and information systems managers

## LICENSURE/CERTIFICATION:

Many employers seek applicants who have a certification. The American Health Information Management Association offers the Registered Health Information Administrator (RHIA) credentials.

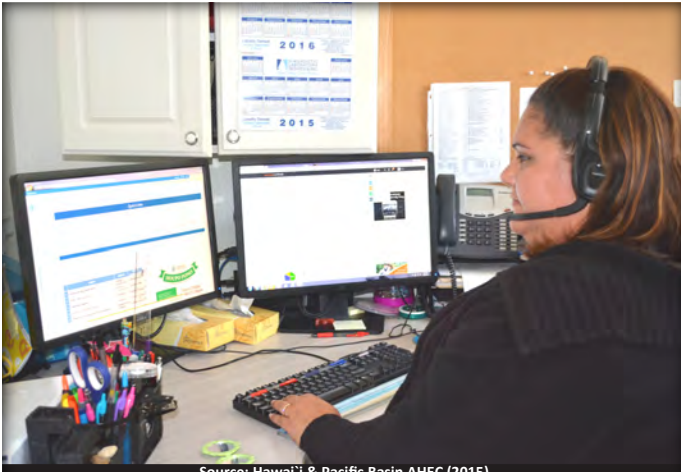
## EDUCATIONAL PROGRAMS:

Hawai'i Pacific University  
University of Hawai'i at Mānoa  
Public Health Administration: MS  
University of Phoenix - Hawai'i Campus

## PROFESSIONAL ASSOCIATIONS:

American Health Information Management Association  
(AHIMA)  
[www.ahima.org](http://www.ahima.org)  
Health Information Management Association of Hawai'i  
[himah.org](http://himah.org)

# HEALTH INFORMATION TECHNICIAN



Source: Hawai'i & Pacific Basin AHEC (2015)

Photo: A health information technician communicates with a health provider about a patient's medical records.

Health information technicians ensure that accurate, quality data is collected about patients when they receive treatments. This is essential for documenting patient care in the age of electronic health records. Often, this work helps insurance companies with their billing practices, but can also be used for other purposes (like research). Health information technicians must be comfortable with organizing complex health information, health codes, and working with computer programs.

## WORK ENVIRONMENT:

Health information technicians are able to work in a wide variety of settings. Most professionals in this field do not have much direct patient contact and work behind-the-scenes. Example work environments could be hospitals, doctors' offices, nursing homes, universities and research firms.

## LENGTH OF TRAINING/REQUIREMENTS:

An associate's degree in health information from a program accredited by the Commission on Accreditation for Health Informatics and Information Management Education. Pass examination offered by the American Health Information Management Association (AHIMA).

## SALARY RANGE

\$27,660 - \$71,590\*

## LENGTH OF TRAINING

4+ Years

## JOB GROWTH

12%\*

\*For medical records and health information technicians

## LICENSURE/CERTIFICATION:

None required, but many employers seek applicants who have a certification. The American Health Information Management Association offers the Registered Health Information Technician (RHIT) credentials.

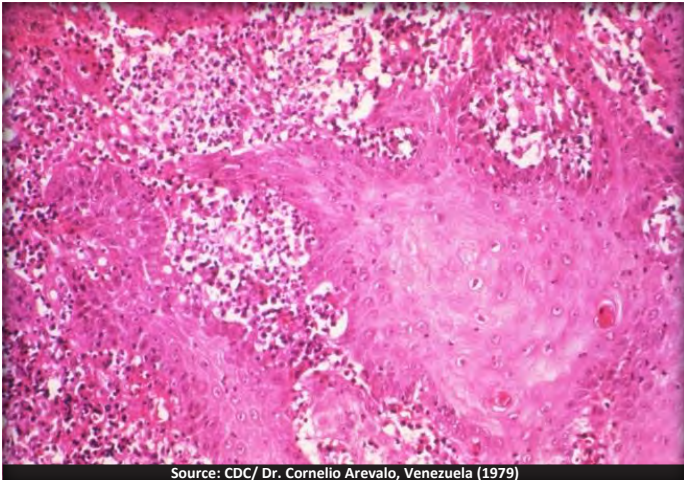
## EDUCATIONAL PROGRAMS:

Hawai'i Technology Institute  
Leeward Community College  
Med Assist School of Hawai'i  
University of Phoenix

## PROFESSIONAL ASSOCIATIONS:

American Health Information Management Association  
[www.ahima.org](http://www.ahima.org)  
Commission on Accreditation for Health Informatics and Information Management Education  
[www.cahiim.org](http://www.cahiim.org)  
Health Information Management Association of Hawai'i  
[www.himah.org](http://www.himah.org)

# HISTOLOGIC TECHNICIAN



Source: CDC/ Dr. Cornelio Arevalo, Venezuela (1979)

Photo: A histologic technician prepared this tissue sample to examine the effects of a specific disease.

Histologic technicians work under the supervision of Histotechnologists to prepare the materials needed for tissue analysis. Histologic technicians ensure that histotechnologists have the appropriate specimen for analysis, as well as the resources and instruments to get the necessary tests done.

## WORK ENVIRONMENT:

Most histologic technicians work in hospitals, universities, private research laboratories, or government agencies.

## LENGTH OF TRAINING/REQUIREMENTS:

There are two options for training. One is to complete a histotechnology educational program accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The other option is to obtain a two-year associate's degree plus complete one year of on-the-job training.

## SALARY RANGE

\$47,880 - \$84,550\*

## LENGTH OF TRAINING

3+ Years

## JOB GROWTH

6%\*

\*For computer and information systems managers

## LICENSURE/CERTIFICATION:

While it is not required, many histologic technicians choose to earn a certification from the American Society of Clinical Pathologists.

## EDUCATIONAL PROGRAMS:

There are no degree programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Society of Clinical Pathologists  
[www.ascp.org](http://www.ascp.org)  
National Society for Histotechnology  
[www.nsh.org](http://www.nsh.org)

# HISTOTECHNOLOGIST



Source: Hawai'i & Pacific Basin AHEC (2015)

Photo: A histotechnologist compares different tissue samples.

Histotechnologists prepare tissue, blood, or fluid samples for scientific analysis. Histotechnologists specialize in electron microscopy, immunofluorescence, and immunohistochemistry .

## **WORK ENVIRONMENT:**

Most histotechnologists work in hospitals, research laboratories, or government agencies.

## **LENGTH OF TRAINING/REQUIREMENTS:**

A four-year bachelor's degree in science is required, plus histotechnologists must complete a histology program accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS).

## **SALARY RANGE**

\$47,880 - \$84,550\*

## **LENGTH OF TRAINING**

3+ Years

## **JOB GROWTH**

6%\*

\*For computer and information systems managers

## **LICENSURE/CERTIFICATION:**

Histotechnologists must obtain Certification from the American Society of Clinical Pathologists

## **EDUCATIONAL PROGRAMS:**

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## **PROFESSIONAL ASSOCIATIONS:**

American Society of Clinical Pathologists

[www.ascp.org](http://www.ascp.org)

National Society for Histotechnology

[www.nsh.org](http://www.nsh.org)

# HOME HEALTH AIDE



Source: David Castillo Dominici/FreeDigitalPhotos.net

Photo: A home health aide checks the blood pressure of a house-bound patient.

Home health aides work in the homes of patients who need assistance in daily life or with medication and treatment adherence. These patients may be disabled, ill, or elderly. Although some patients are fairly independent (and only require minor help), others may be completely reliant on the home health aide to assist them in daily functioning. Home health aides should be extremely caring, patient, understanding, and knowledgeable about their patients' needs.

## WORK ENVIRONMENT:

Home health aides primarily work in the homes of the patients they care for. Home health aides usually have multiple patients, so driving may be a regular part of the job duties. It is also common for home health aides to be on-call and work on evenings and weekends. Home health aides must be able to help lift their patient or do other physical tasks.

## LENGTH OF TRAINING/REQUIREMENTS:

There is no formal education requirement for a home health aide, but individuals in this profession must be licensed and certified.

## SALARY RANGE

\$16,680 - \$32,380

## LENGTH OF TRAINING

75 Hours

## JOB GROWTH

39%

## LICENSURE/CERTIFICATION:

The National Association for Home Care and Hospice Certification requires 75 hours of training, documentation of 17 skills, and passing a written exam to demonstrate competency. Licensure is required in Hawai'i through the Department of Health.

## EDUCATIONAL PROGRAMS:

Caregiver Training School, Honolulu, HI  
Garden Isle Healthcare LLC, Lihue, Kaua'i  
Hawai'i Institute of Healthcare and Training Services:  
Hilo  
University of Hawai'i Maui College

## PROFESSIONAL ASSOCIATIONS:

Hawai'i Nurses Association  
[www.hawaiiurses.org](http://www.hawaiiurses.org)

# LICENSED PROFESSIONAL COUNSELOR



Source: National Institutes of Mental Health (2009)

Photo: A Licensed Professional Counselor speaks with a patient about his concerns.

Licensed Professional Counselors (LPCs) help people handle or resolve life issues (e.g. substance abuse or marriage counseling). LPCs differ from Psychologists and Therapists because they provide assistance in all areas of a person's life (not just mental health) and they do not perform psychological tests or diagnose psychological disorders.

## WORK ENVIRONMENT:

Most LPCs are self-employed or work for counseling centers, schools, non-profit organizations, or government agencies.

## AREAS OF SPECIALIZATION:

Counselors may choose to specialize in substance abuse or school counseling.

## LENGTH OF TRAINING/REQUIREMENTS:

A master's or doctoral degree from an accredited counseling program is required to be an LPC.

## SALARY RANGE

\$29,310 - \$71,460\*

## LENGTH OF TRAINING

6+ Years

## JOB GROWTH

17%\*

\*For mental health counselors

## LICENSURE/CERTIFICATION:

In Hawai'i, Licensed Mental Health Counselors (LMHC's) are licensed by the Department of Commerce and Consumer Affairs. All licenses require some combination of a master's degree, counseling experience, supervision (3,000 post graduate hours), and passing score on the National Counseling Exam. Some states also require an exam on mental health laws.

## EDUCATIONAL PROGRAMS:

Argosy University  
Clinical Psychology: MA  
Counseling Psychology: EdD  
Chaminade University  
Counseling Psychology: MS  
University of Hawai'i at Hilo  
Counseling Psychology: MA  
University of Phoenix  
Counseling/Clinical Mental Health: MS

## PROFESSIONAL ASSOCIATIONS:

American Counseling Association  
[www.counseling.org](http://www.counseling.org)  
American Mental Health Counselors Association  
[www.amhca.org](http://www.amhca.org)  
National Board for Certified Counselors  
[www.nbcc.org](http://www.nbcc.org)

# MARRIAGE AND FAMILY THERAPIST



Source: Windward Therapy (2015)

Photo: A Marriage & Family Therapist (MFT) in Kailua, O`ahu helps a married couple learn to communicate better.

Marriage and Family Therapists are experts in relationships and family issues. By bringing in the spouse or other family members, the Marriage and Family Therapist can treat the couple or family as a whole. They treat patients with substance abuse, mental or emotional problems, eating disorders, and poor communication.

## WORK ENVIRONMENT:

Marriage and Family Therapists often work in non-profit organizations, hospitals, schools, and private practices.

## LENGTH OF TRAINING/REQUIREMENTS:

A four-year bachelor's and a master's degree in social work, counseling, or psychology is required. They must also have supervised clinical experience as well as specialized practicum hours (hands-on training) in marriage and family therapy.

## LICENSURE/CERTIFICATION:

Marriage and Family Therapists must be licensed in Hawai`i. They must pass the National Marriage and Family Therapist exam offered by the American Association for Marriage and Family Therapy. In Hawai`i, in order to sit for the licensure exam, trainees need 1,000 client contact hours and 200 supervised training hours under a licensed Marriage and Family Therapist.

## SALARY RANGE

\$37,600 - \$92,400

## LENGTH OF TRAINING

6+ Years

## JOB GROWTH

21%

## EDUCATIONAL PROGRAMS:

Argosy University, HI  
Marriage and Family Therapy: MA  
Chaminade University  
Counseling Psychology: MS  
University of Hawai`i at Hilo  
Counseling Psychology: MA

## PROFESSIONAL ASSOCIATIONS:

American Association for Marriage and Family Therapy (AAMFT)  
[www.aamft.org](http://www.aamft.org)  
American Association for Marriage and Family Therapy: Hawai`i Division  
[www.hiamft.org](http://www.hiamft.org)  
American Counseling Association  
[www.counseling.org](http://www.counseling.org)

# MASSAGE THERAPIST



Source: Image courtesy of Ambro at FreeDigitalPhotos.net

Photo: A patient receives treatment from a massage therapist.

Massage therapists treat patients by applying manual techniques to manipulate the soft-tissues of the body, including the skin, muscles, tendons, or ligaments. Massage therapists help rehabilitate injuries, work to improve circulation by increasing the blood flow, relieve stress, alleviate pain, and may provide guidance on stretching, muscle strengthening and posture correction. Massage therapists can use their hands, fingers, forearms, elbows, and sometimes even their feet, to knead muscles. A massage can take anywhere from 5 minutes to 2 hours.

## WORK ENVIRONMENT:

Massage therapists may practice in a group or as solo practitioners. They can work in a massage office, group practice, out of their home or a client's home, in healthcare organizations (e.g. at a physician's office, hospital or health clinics), nursing homes, health clubs, fitness centers, spas, resorts, beauty and hair salons, cruise ships, sports facilities, or at special events.

## AREAS OF SPECIALIZATION:

Massage therapists may specialize in the following techniques: lomilomi, sport, deep tissue, medical, geriatric, infant, and prenatal.

## LENGTH OF TRAINING/REQUIREMENTS:

In Hawai'i, a minimum of 570 hours of training includes coursework study in human anatomy, physiology, kinesiology, pathology, ethics, professionalism and state laws, sanitation, and hands-on massage treatment modalities.

## SALARY RANGE

\$16,730 - \$99,460

## LENGTH OF TRAINING

570 Hours

## JOB GROWTH

15%

## LICENSURE/CERTIFICATION:

Massage therapists must pass the Hawai'i State Licensing Examination. A National Certification Examination in Therapeutic Massage and Bodywork is also offered, but is not necessary for practicing in Hawai'i.

## EDUCATIONAL PROGRAMS:

Aloha Lomi Massage Academy (Kaua'i)  
Aloha Massage Academy (Kona, Hawai'i)  
Big Island Academy of Massage  
Elite Massage Academy  
Hawai'i Healing Arts College  
Hawai'i Massage Academy  
Hawai'i School of Professional Massage  
Heartspire School of Hawaiian Massage  
Honolulu School of Massage  
Kapi'olani Community College  
Maui School of Therapeutic Massage  
Pacific Center Awareness and Bodywork Massage School (Kaua'i)  
Remington College

## PROFESSIONAL ASSOCIATIONS:

American Massage Therapy Association  
[www.amtamassage.org](http://www.amtamassage.org)  
American Massage Therapy Association Hawai'i  
[hi.amtamassage.org](http://hi.amtamassage.org)



# MEDICAL ASSISTANT



Source: Hawai'i/Pacific Basin AHEC/Windward Therapy (2015)

Photo: A medical assistant reads a patient's blood pressure.

Medical assistants perform clinical and administrative duties in the offices of physicians, podiatrists, chiropractors and other healthcare providers to keep healthcare delivery settings running smoothly. The duties of medical assistants vary from place to place. Medical assistants take and record patient history and personal information, measure vital signs, help Physicians with patient examinations, give patients injections as directed by the physician, schedule patient appointments, prepare blood for laboratory tests and, as times change, enter information into the electronic health records system.

## WORK ENVIRONMENT:

Medical assistants work in outpatient settings such as a Physicians' office, health clinics, hospitals, or nursing homes.

## AREAS OF SPECIALIZATION:

Administrative medical assistants, clinical medical assistants, ophthalmic medical assistants, optometric assistants, and podiatric medical assistants.

## SALARY RANGE

\$23,020 - \$45,820

## LENGTH OF TRAINING

Up to 2 Years

## JOB GROWTH

14%

## LICENSURE/CERTIFICATION:

Most employers prefer graduates of formal training programs with certification, but some employers allow on-the-job training (although this is becoming more rare).

## EDUCATIONAL PROGRAMS:

Hawai'i Medical College  
Hawai'i Technology Institute  
Kapi'olani Community College  
Kaua'i Community College

## PROFESSIONAL ASSOCIATIONS:

American Association of Medical Assistants  
[www.aama-ntl.org](http://www.aama-ntl.org)  
American Association of Podiatric Medical Assistants  
[www.aspma.org](http://www.aspma.org)  
Hawai'i Medical Assistant Certification Guide  
[www.medicalassistantcertificationguide.org/hawaii/](http://www.medicalassistantcertificationguide.org/hawaii/)  
Joint Commission on Allied Health Personnel in Ophthalmology  
[www.jcahpo.org](http://www.jcahpo.org)

# MEDICAL ILLUSTRATOR



Source: Mary Kate Wright/MKIllustrations (2015)

Photo: A medical illustrator develops digital representations of the brain and spine.

Medical illustrators have a passion for art and science. Professionals in this field must have equal talent in artistic skill and medical knowledge. Medical illustrators use extensive knowledge of human anatomy and medical procedures to create clear illustrations. These illustrations can be used in textbooks, exhibits, teaching materials, and films.

## WORK ENVIRONMENT:

Medical illustrators often work for textbook publishers, medical schools, pharmaceutical companies, and advertising agencies. Many choose to be freelance artists or independent contractors.

## AREAS OF SPECIALIZATION:

Medical illustrators may specialize in certain body parts or subjects.

## LENGTH OF TRAINING/REQUIREMENTS:

Medical illustrators obtain a bachelor's degree combining art and pre-med studies. Only a few U.S. programs offer master's degrees.

## SALARY RANGE

\$18,260 - \$92,400\*

## LENGTH OF TRAINING

4 - 6 Years

## JOB GROWTH

6%\*

\*For fine artists, including painters, sculptors, and illustrators

## LICENSURE/CERTIFICATION:

Although no licensure is required, the Association of Medical Illustrators offers the ability to become a Board Certified Medical Illustrator, which is desired by many employers.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

Association of Medical Illustrators

[www.ami.org](http://www.ami.org)

Guild of Natural Science Illustrators

[www.gnsi.org](http://www.gnsi.org)

# MEDICAL INTERPRETER



Source: Centers for Disease Control, Santanu Sen, India (2013)

Photo: A medical interpreter in India helps a Doctor treat a patient who speaks Ho, a local tribal language.

A medical interpreter helps patients with limited English skills to access appropriate medical services. This requires adequate skills in at least one language other than English, as well as extensive knowledge of the health care system and a range of health conditions and procedures.

## WORK ENVIRONMENT:

Medical interpreters often work in hospitals, clinics, and government agencies. Areas in the U.S. with a large population of non-English speakers have a higher demand for medical interpreters in additional workplaces.

## AREAS OF SPECIALIZATION:

Some medical interpreters choose to specialize in a particular medical field such as cardiology, family medicine, or emergency medicine.

## LENGTH OF TRAINING/REQUIREMENTS:

Although there is no industry-standard for education, many employers seek applicants with a bachelor's or master's degree in a health-related field, plus fluency in another language. Some employers require formal language training as well. In addition, the Interpreter must thoroughly understand and be able to communicate in English. All medical interpreters are required to pass an oral exam in order to interpret in the hospital setting.

## SALARY RANGE

\$27,100 - \$74,060\*

## LENGTH OF TRAINING

4 - 6 Years

## JOB GROWTH

38%\*

\*For interpreters and translators

## LICENSURE/CERTIFICATION:

No licenses or certifications are required, but most medical interpreters seek some type of certification. The Certification Commission for Healthcare Interpreters offers Core Certified Health Interpreter (CoreCHI) and Certified Health Interpreter (CHI) credentials. The CoreCHI can be earned using any language, but the CHI is limited to English speaking interpreters for Spanish, Arabic, and Mandarin languages. Additionally, the National Board of Certification for Medical Interpreters offers a Certified Medical Interpreter (CMI) credential for English speaking Interpreters who specialize in Spanish, Russian, Mandarin, Cantonese, Korean, and Vietnamese languages.

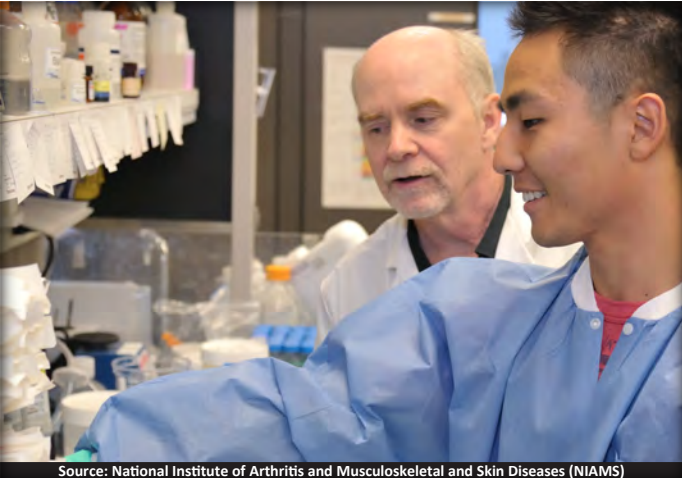
## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

Certification Commission for Healthcare Interpreters  
[www.cchicertification.org](http://www.cchicertification.org)  
International Medical Interpreters Association  
[www.imiaweb.org](http://www.imiaweb.org)  
National Board of Certification for Medical Interpreters  
[www.certifiedmedicalinterpreters.org](http://www.certifiedmedicalinterpreters.org)  
National Council on Interpreting in Health Care  
[www.ncihc.org](http://www.ncihc.org)

# MEDICAL LABORATORY SCIENTIST



Source: National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

Photo: A scientific director checks in on a Medical Laboratory Scientist's research.

Medical Laboratory Scientists (MLSs) analyze biologic samples from patients (e.g. blood and fluids) and perform laboratory tests. Accuracy in reporting the results of the tests is extremely important. MLSs have a fair amount of autonomy in analysis, interpretation of results, and understanding the pathology of disease in a patient's blood, tissues, and body fluids.

## WORK ENVIRONMENT:

Most MLSs work in hospitals or independent laboratories. Others may work in clinics, research institutions, and blood donation centers.

## AREAS OF SPECIALIZATION:

MLSs may specialize in clinical chemistry, blood banking, microbiology, urinalysis, or toxicology.

## ADVANCEMENT:

Experienced MLSs may be promoted to managerial positions (e.g. a laboratory manager or chief medical technologists). Some with higher degrees (master's or bachelor's) become university faculty.

## SALARY RANGE

\$47,880 - \$84,550\*

## LENGTH OF TRAINING

4+ Years

## JOB GROWTH (Hawai`i)

6%\*

\*For Medical Laboratory Technologists

## LENGTH OF TRAINING/REQUIREMENTS:

MLSs must obtain at least a four-year bachelor's degree in the sciences.

## LICENSURE/CERTIFICATION:

Certification is not required, but MLSs can be certified by the American Society for Clinical Pathology Board of Certification (ASCP BOC).

## EDUCATIONAL PROGRAMS:

University of Hawai`i at Mānoa  
Medical Technology: BS

## PROFESSIONAL ASSOCIATIONS:

American Society for Clinical Laboratory Science  
[www.ascls.org](http://www.ascls.org)

American Society of Clinical Pathologists  
[www.ascp.org](http://www.ascp.org)

National Accrediting Agency for Clinical Laboratory Sciences  
[www.naacls.org](http://www.naacls.org)

# MEDICAL LABORATORY TECHNICIAN



Source: National Eye Institute (NEI)

Photo: A Medical Laboratory Technician documents research findings.

Medical Laboratory Technicians (MLTs) often work with Medical Laboratory Scientists (MLSs) to perform diagnostic tests. MLTs often collect fluid samples and biological specimens from patients. MLTs must be comfortable using laboratory equipment and medical instruments, as well as accurately analyzing and reporting the results of the tests performed.

## ADVANCEMENT:

MLTs may be promoted to Clinical Laboratory Scientists after additional experience and education.

## WORK ENVIRONMENT:

MLTs often work in hospitals, research laboratories, or private companies.

## SALARY RANGE

\$34,360 - \$58,010

## LENGTH OF TRAINING

2+ Years

## JOB GROWTH (Hawai`i)

18%

## LENGTH OF TRAINING/REQUIREMENTS:

A two-year associate's degree program is required to become an MLT.

## LICENSURE/CERTIFICATION:

Certification is not required, but MLTs can choose to be certified by the American Society for Clinical Pathology Board of Certification (ASCP BOC).

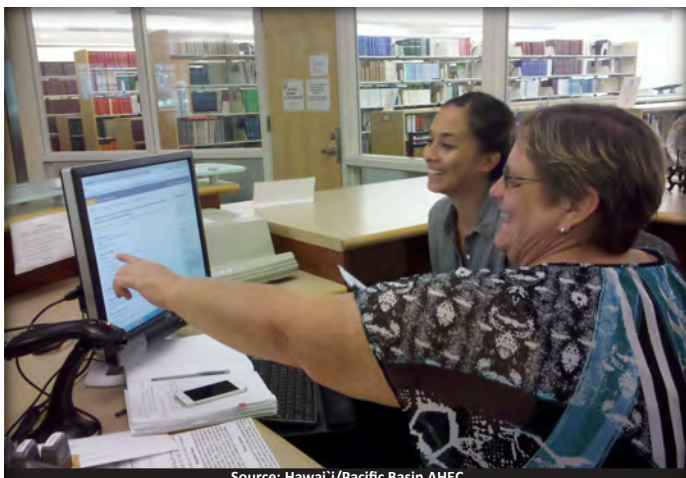
## EDUCATIONAL PROGRAMS:

Kapi`olani Community College  
Medical Laboratory Technician: AS  
University of Hawai`i at Mānoa  
Medical Technology: BS

## PROFESSIONAL ASSOCIATIONS:

American Medical Technologists  
[www.amt1.com](http://www.amt1.com)  
American Society for Clinical Laboratory Science  
[www.ascls.org](http://www.ascls.org)  
American Society of Clinical Pathologists  
[www.ascp.org](http://www.ascp.org)  
Association of Genetic Technologists  
[www.agt-info.org](http://www.agt-info.org)  
National Credentialing Agency for Laboratory Personnel  
[www.nca-info.org](http://www.nca-info.org)

# MEDICAL LIBRARIAN



Source: Hawai'i/Pacific Basin AHEC

Photo: A medical librarian helps locate a journal article at UH's John A. Burns School of Medicine.

Medical librarians help health professionals find information about medical science, research procedures, and new medical treatments. Medical librarians differ from other librarians because they must have extensive knowledge of biomedical science and medical topics. In addition to these responsibilities, medical librarians also help patients and the general public find health resources.

## WORK ENVIRONMENT:

Most medical librarians work in medical libraries, academic medical centers, research institutes, or government agencies.

## LENGTH OF TRAINING/REQUIREMENTS:

A Master of Library and Information Science (MLIS) is required from an accredited American Library Association school.

## SALARY RANGE

\$43,080 - \$80,860\*

## LENGTH OF TRAINING

6+ Years

## JOB GROWTH

7%\*

\*For all librarians

## LICENSURE/CERTIFICATION:

Although no licensure or certification is required, membership in professional organizations are available to medical librarians.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Library Association  
[www.ala.org](http://www.ala.org)

Hawai'i Library Association  
[www.hawaiilibraryassociation.weebly.com](http://www.hawaiilibraryassociation.weebly.com)

Medical Library Association  
[www.mlanet.org](http://www.mlanet.org)

# NATUROPATHIC DOCTOR



Source: Hawai'i & Pacific Basin AHEC/Dr. Alysa Nguyen, ND (2015)

Photo: A Naturopathic Doctor counsels a patient on holistic approaches to treatment.

Naturopathic Doctors (ND) are primary care providers that focus on natural healing techniques and holistic health. NDs often discuss lifestyle changes that a patient can make that would positively impact their health. NDs have academic training similar to other Primary Care Physicians (Doctors of Medicine or Doctors of Osteopathic Medicine), but do not have a required residency upon graduation. Naturopathic Doctors can only practice medicine in states that regulate Naturopathic Medicine.

## WORK ENVIRONMENT:

Most NDs work in private or group practice. Due to the state-by-state differences, some health insurance companies do not allow patients to file claims for visiting an ND. This is a large barrier for the integration of Naturopathic Medicine into larger organizations, like hospitals. Some NDs work as independent Consultants instead of as Practitioners. NDs usually need to develop business skills in order to be successful.

## AREAS OF SPECIALIZATION:

Some NDs choose to gain additional training in other fields of Complimentary and Alternative Medicine such as Acupuncture, Chinese or Oriental Medicine, or Yoga.

## SALARY RANGE

\$51,890 - \$126,800\*

## LENGTH OF TRAINING

8+ Years

## JOB GROWTH

11%\*

\*For health diagnosing and treating practitioners, all other

## LENGTH OF TRAINING/REQUIREMENTS:

A typical ND training program is a four-year bachelor's degree and four years of graduate-level training (usually in a science or health discipline). In order to specialize, optional residencies exist. The length of these residencies vary but are usually one year or more.

## LICENSURE/CERTIFICATION:

Licensure is required of all Naturopathic Doctors in Hawai'i at the state level. They must pass a national certifying exam called the Naturopathic Physicians Licensing Examinations (NPLX).

## EDUCATIONAL PROGRAMS:

Only seven programs for NDs exist in the U.S. See [www.aanmc.org/schools/](http://www.aanmc.org/schools/) for more information.

## PROGRAMS ASSOCIATIONS:

American Association of Naturopathic Physicians  
[www.naturopathic.org](http://www.naturopathic.org)  
Association of Accredited Naturopathic Medical Colleges  
[www.aanmc.org](http://www.aanmc.org)  
Hawai'i Society of Naturopathic Physicians  
[www.hawaiiind.org](http://www.hawaiiind.org)

# NUCLEAR MEDICINE TECHNOLOGIST



Source: Hawai'i Pacific Health (2015)

Photo: A nuclear medicine technologist analyzes a PET scan to make sure a patient's tissues are functioning.

Nuclear medicine technologists use nuclear medicine techniques to treat certain diseases and illnesses (especially cancers and tumors). Nuclear medicine technologists may operate special cameras that create diagnostic images of chemicals in the body, monitor patient hormone levels, and provide information to patients. Some nuclear medicine technologists help patients ingest the proper dose of a particular radioactive drug.

## WORK ENVIRONMENT:

Most nuclear medicine technologists work in hospitals and diagnostic imaging centers.

## LENGTH OF TRAINING/REQUIREMENTS:

Typically an associate's or bachelor's degree in nuclear medicine technology is required, along with clinical experience.

## SALARY RANGE

\$69,070 - \$99,190

## LENGTH OF TRAINING

2 - 5 Years

## JOB GROWTH (Hawai'i)

16%

## LICENSURE/CERTIFICATION:

Licensure is usually not required, but various organizations offer optional certifications, including:

- American Registry of Radiologic Technologists
- Nuclear Medicine Technology Certification Board
- Nuclear Medicine Technology Certification (NMTC)
- Nuclear Medicine Technologist

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROGRAMS ASSOCIATIONS:

- American Registry of Radiologic Technicians  
[www.arrt.org](http://www.arrt.org)
- American Society of Radiologic Technologists  
[www.asrt.org](http://www.asrt.org)
- Nuclear Medicine Technology Certification Board  
[www.nmtcb.org](http://www.nmtcb.org)



## NURSING: VOCATIONAL

### Certified Nurse Aide (CNA) Licensed Practical Nurse (LPN)

**You can enter the nursing field with as few as 10 weeks of training!**

Vocational nursing includes Certified Nursing Aides (CNA) and Licensed Practical Nursing (LPN). CNAs are trained to be assistants to Licensed Practical Nurses and Registered Nurses in basic care for patients. CNAs work directly with and help patients in their daily activities. LPNs receive education to provide basic nursing care and work under the direction of registered nurses (RNs), advanced practice registered nurses (APRNs) and physicians. People interested in entering the healthcare field while working towards advancing their healthcare education may start with CNA or LPN careers while continuing to go back to school to develop into professional nursing roles, allied health professionals or any of the other healthcare fields in this book. Others may choose to stay in their CNA or LPN roles as their main career path.

**Below is an overview of the most common vocational nursing roles.  
See page 100 for the listing of professional nursing roles.**

Nursing Type	Annual Salary Range	Training Length	Job Growth
Certified Nurse Aide (CNA)	\$21,880 - \$38,440	10 Weeks+	24%
Licensed Practical Nurse (LPN)	\$37,100 - \$58,480	1+ Year	17%

# NURSING: CERTIFIED NURSE AIDE



Source: CDC/Amanda Mills (2011)

Photo: A CNA conducts a blood pressure examination.

Certified Nurse Aides (CNAs) assist Nurses and other health care professionals in the care and treatment of patients. CNAs work under the supervision of Nurses or Physicians to help them perform basic duties for improving the health of their patients. CNAs are very involved in patient care and must be personable and caring. Duties may include helping patients walk, feeding patients, assisting in patient mobility, and helping patients to understand their treatment plan.

## WORK ENVIRONMENT:

CNAs can be found in any work environment where Nurses are present. This may include hospitals, home health agencies, private practices, government agencies, military agencies, doctor's offices, and wellness centers.

## LENGTH OF EDUCATION/REQUIREMENTS:

CNA training programs may last from a few months to months. An exam is required for certification.

## SALARY RANGE

\$21,880 - \$38,440\*

## LENGTH OF TRAINING

10 Weeks+

## JOB GROWTH

24%\*

\*For nursing assistants

## LICENSURE/CERTIFICATION:

Hawai'i Department of Commerce and Consumer Affairs

[www.cca.hawaii.gov/pvl](http://www.cca.hawaii.gov/pvl)

## EDUCATIONAL PROGRAMS:

American Red Cross

Healthcare School of Hawai'i

Kapi'olani Community College

Kaua'i Community College

Leeward Community College

University of Hawai'i Maui College

Windward Community College

Professional Healthcare Educators, Nurse Aide and CPR training

## PROFESSIONAL ASSOCIATIONS:

National Association of Health Care Assistants

[www.nahcacareforce.org](http://www.nahcacareforce.org)

National Network of Career Nursing Assistants

[www.cna-network.org](http://www.cna-network.org)

# NURSING: LICENSED PRACTICAL NURSE



Source: US Air Force (1987)

Photo: A Licensed Practical Nurse with the US Air Force assists a patient recovering from an injury.

Licensed Practical Nurses (LPNs) work under the direction of registered nurses, physicians and other health care professionals to provide basic medical care. They monitor patients' health, administer basic patient care (tube feeding, dressing changes, blood draw, etc.), provide the basic comforts for patients (bathing, dressings, feeding, etc.), administer medications, discuss the care they are administering and report patients' status and needs with family members, registered nurses and physicians and keep records on patients' health.

## WORK ENVIRONMENT:

Licensed practical nurses can work in a variety of settings that include hospitals, long-term care facilities, schools, doctors' offices, residential care facilities, outpatient clinics, businesses, home health agencies and health departments.

## LENGTH OF EDUCATION/REQUIREMENTS:

Most training programs are between one and two years in length at an approved educational program and may result in a certificate or an associate's degree.

## SALARY RANGE

\$37,100 - \$58,480

## LENGTH OF TRAINING

1+ Year

## JOB GROWTH

17%

## LICENSURE/CERTIFICATION:

National Council of State Boards of Nursing - National Council Licensure Examination for Licensed Practical/Vocational Nurses (NCLEX-PN)  
Hawai'i Department of Commerce and Consumer Affairs  
[www.cca.hawaii.gov/pvl](http://www.cca.hawaii.gov/pvl)

## EDUCATIONAL PROGRAMS:

Hawai'i Community College  
Kapi'olani Community College  
Kaua'i Community College  
University of Hawai'i Maui College

## PROFESSIONAL ASSOCIATIONS:

Hawai'i State Center for Nursing  
[www.hawaii-center-for-nursing.org](http://www.hawaii-center-for-nursing.org)  
National Association for Practical Nurse Education and Service, Inc. (NAPNES)  
[www.napnes.org](http://www.napnes.org)  
National Federation of Licensed Professional Nurses (NFLPN)  
[www.nflpn.org](http://www.nflpn.org)

# NURSING: PROFESSIONAL

## Registered Nurse (RN) Advanced Practice Registered Nurse (APRN)

Nursing is a diverse field with numerous career and educational opportunities. Nursing can lead to a doctorate degree in nursing practice and has many pathways to enter into the field. The most common entry points are with an Associate Degree in Nursing (ADN) or Bachelor's Degree in Nursing (BSN), both of which allow future nurses to take their exam to become a registered nurse (RN). Continuing professional advancement in nursing includes Master's Degrees and Doctoral Degrees as well as specialty certifications that can focus on a nurse's expertise in her or his practice area. It is a very exciting career with numerous specialties and the ability to obtain additional education and training at every stage.

The nursing profession is a clinical career that provides a career ladder that you can climb to get more education and responsibility. Programs exist to help nurses to go back to school to increase their education such as LPN to BSN and ADN to BSN. Master's and Graduate Entry programs also exist for people who have a bachelor's degree in a non-nursing field and would like to go back to school to obtain their RN and move directly into graduate nursing education.

**Below is an overview of the most common professional nursing roles.**

Nursing Type		Annual Salary Range	Training Length	Job Growth
Registered Nurse (RN)		\$63,190 - \$116,050	3-4 Years	17%
Advanced Practice Registered Nurses (APRN)	Nurse Practitioner (NP)	\$73,560 - \$172,460	4-6 Years	24%
	Certified Registered Nurse Anesthetist (CRNA)	\$107,240 - \$187,200	6+ Years	25%
	Clinical Nurse Specialist (CNS)	\$63,190 - \$116,050	6+ Years	17%
	Certified Nurse Midwife (CNM)	\$65,940 - \$129,140	6+ Years	29%

# NURSING: REGISTERED NURSE



Source: Hawai'i & Pacific Basin AHEC (2015)

Photo: A Registered Nurse explains how a blood glucose monitor works and helps her patient with her first test.

Registered Nurses (RNs) work with other health care specialists as part of a team to develop and implement a patient's plan of care for optimal health. Registered nurses provide comprehensive nursing assessment of the health status of a patient, collaborate with a health care team to develop and coordinate the patient's plan of care, establish nursing diagnoses, set goals for the patient and care team to meet the identified health care needs and prescribe and evaluate patient's responses to nursing interventions and communicate to the care team, patients and family. Registered nurses administer medications, delegate and assign nursing interventions to other health team members. Registered Nurses also work to develop policies and procedures, and teach both patients and other health professionals.

## WORK ENVIRONMENT:

Registered Nurses can work in a variety of settings that include hospitals, long-term care and residential facilities, schools, doctors' offices, residential care facilities, outpatient clinics, businesses, home health agencies and health departments.

## AREAS OF SPECIALIZATION:

Registered Nurses may specialize in different areas: pediatrics, geriatrics, heart care, intensive care, diabetes, women's health, labor and delivery, cancer, surgery, emergency, school health, public health, community health, education, management, and policy.

## SALARY RANGE

\$63,190 - \$116,050

## LENGTH OF EDUCATION

3 - 4 Years

3 years for an Associate degree

4 years for a Baccalaureate degree

## JOB GROWTH

17%

## LENGTH OF EDUCATION/REQUIREMENTS:

Associate's degree from community college in nursing (2 years).

Bachelor's degree in nursing (4 years).

National and local trends encourage all Associate Degree Nurses to continue on to Bachelor's degree programs or to go back to school to complete a Bachelor's Degree in Nursing.

## LICENSURE/CERTIFICATION:

National Council of State Boards of Nursing -  
National Council Licensure Examination for  
Registered Nurses (NCLEX-RN)

Licensed with the Hawai'i Board of Nursing  
Hawai'i Department of Commerce and Consumer  
Affairs

[www.cca.hawaii.gov/pvl](http://www.cca.hawaii.gov/pvl)

## EDUCATIONAL PROGRAMS (ADN is Associate degree and BSN is Bachelors degree)

Hawai'i Community College: ADN

Kapi'olani Community College: ADN

Kaua'i Community College: ADN

University of Hawai'i Maui College: ADN

University of Hawai'i at Hilo: BSN

University of Hawai'i at Mānoa: BSN, GEPN

University of Phoenix: BSN

Hawai'i Pacific University: BSN

## PROFESSIONAL ASSOCIATIONS:

American Nurses Association

[www.nursingworld.org](http://www.nursingworld.org)

Hawai'i State Center for Nursing

[www.hawaiicenterfornursing.org](http://www.hawaiicenterfornursing.org)

Hawai'i Student Nurses Association

[www.hisna.org](http://www.hisna.org)

# NURSING: ADVANCED PRACTICE REGISTERED NURSE



Source: National Cancer Institute (NCI)

Photo: A Clinical Nurse Specialist with a patient receiving chemotherapy.

Advanced Practice Registered Nurses (APRN) work in every part of the health care system. They are registered nurses prepared by graduate education and certification to assess, diagnose, and manage patient problems, order tests, refer for specialty care and treatment, and prescribe medications. Advanced Practice Registered Nurses include four specialty areas: Nurse Practitioners (NP), Certified Nurse Midwives (CNM), Clinical Nurse Specialists (CNS), and Certified Registered Nurse Anesthetists (CRNA).

## SALARY RANGE

NP:	\$73,560 - \$172,460
CRNA:	\$107,240 - \$187,200*
CNS:	\$63,190 - \$116,050
CNM:	\$65,940 - \$129,140*

## LENGTH OF EDUCATION

4 - 6 Years

## JOB GROWTH

NP:	24%	CRNA:	25%*
CNS:	17%	CNM:	29%*

\*State data not available. Data presented is national.



Source: David Castillo Dominci at FreeDigitalPhotos.net

Photo: A Certified Registered Nurse Anesthetist prepares a child for surgery.

# NURSING: ADVANCED PRACTICE REGISTERED NURSE

**Nurse Practitioners (NPs)** work as primary care providers in community health centers, private practices, clinics, long-term care facilities, and urgent care facilities and may also work in acute care at hospitals and specialty offices. Specialties include a focus for psychiatry/mental health, family/individual across the lifespan, women's health/gender-related care, neonatal, pediatrics, or adult-gerontology. Pediatric and adult/gerontology NPs can select an acute care or primary care focus.

**Certified Registered Nurse Anesthetists (CRNAs)** provide the full spectrum of anesthesia care and anesthesia related care in hospital surgical areas, outpatient surgery and other settings.

**Clinical Nurse Specialists (CNSs)** work in hospitals and provide advanced nursing care to patients, support nurses and nursing practice by developing best practices, and support the healthcare organization.

**Certified Nurse Midwives (CNMs)** specialize in women's health and childbirth and primarily work in hospitals, birth centers, and women's health primary care offices.

## **WORK ENVIRONMENT and SPECIALIZATION:**

Advanced Practice Registered Nurses work in various environments that include hospitals, clinics, private practices, university faculty, management of care facilities, as well as serve in government and non-profit agencies.

## **LENGTH OF EDUCATION/REQUIREMENTS:**

NPs have a Bachelor of Science in Nursing (BSN) or an equivalent education in Nursing. Then they obtain a Master of Science in Nursing (MSN) or Doctor of Nursing Practice (DNP) by attending graduate school.

## **EDUCATIONAL PROGRAMS:**

Hawai'i Pacific University: MSN  
University of Hawai'i at Mānoa: MSN, DNP (NP)  
University of Hawai'i at Hilo: DNP (NP)

There are no programs currently available in Hawai'i for CRNAs & CNMs, but you can receive education on the mainland and return to Hawai'i for your career!

## **LICENSURE/CERTIFICATION**

National Council of State Boards of Nursing - National Council Licensure Examination for Registered Nurses (NCLEX-RN)

Licensed with the Hawai'i Board of Nursing  
Hawai'i Department of Commerce and Consumer Affairs  
[www.cca.hawaii.gov/pvl](http://www.cca.hawaii.gov/pvl)

## **PROFESSIONAL ASSOCIATIONS:**

### National

American Association of Nurse Practitioners  
[www.aanp.org](http://www.aanp.org)

American Association of Nurse Anesthetists  
[www.aana.com](http://www.aana.com)

American College of Nurse-Midwives  
[www.midwife.org](http://www.midwife.org)

American Nurses Association  
[www.nursingworld.org](http://www.nursingworld.org)

National Association of Clinical Nurse Specialists  
[www.nacns.org](http://www.nacns.org)

### Hawai'i

Hawai'i Association of Professional Nurses  
[www.hapnurses.org](http://www.hapnurses.org)

Hawai'i State Center for Nursing  
[www.hawaiicenterfornursing.org](http://www.hawaiicenterfornursing.org)

Hawai'i Student Nurse Association  
[www.hisna.org](http://www.hisna.org)

National Association of Pediatric Nurse Practitioners—HI Chapter  
[community.napnap.org/Hawaii](http://community.napnap.org/Hawaii)

# OCCUPATIONAL THERAPIST



Source: U.S. Army/Courtesy Photo (2009)

Photo: An occupational therapist assists a patient with a water-based therapy.

Occupational therapists (OTs) treat injured, ill, or disabled patients by helping them through their day-to-day activities to increase their health and well-being. OTs assist patients in developing, recovering, and improving their everyday living and working skills. OTs observe patients complete tasks, ask them questions, review their medical history, evaluate their needs, develop treatment plans, and demonstrate exercises that can help relieve pain for chronic illnesses. Other tasks include evaluating a patient home or workplace for their condition, educating a patient's family or employer about necessary accommodations, recommending equipment, and assessing patient progress.

## WORK ENVIRONMENT:

OTs may work in homes, schools, hospitals, offices, nursing care facilities, community health centers, rehabilitation facilities, wellness centers, or research facilities.

## AREAS OF SPECIALIZATION:

Areas of specialty include physical rehabilitation, mental health, gerontology, pediatrics, hand therapy, or community health.

## SALARY RANGE

\$54,730 - \$94,060

## LENGTH OF TRAINING

6 - 10 Years

## JOB GROWTH

19%

## LENGTH OF TRAINING/REQUIREMENTS:

A master's degree in occupational therapy is required. Doctoral degree programs are also available.

## LICENSURE/CERTIFICATION:

OTs must pass an exam administered by the National Board for Certification in Occupational Therapy and register with the State of Hawai'i.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

National Board for Certification in Occupational Therapy

[www.nbcot.org](http://www.nbcot.org)

Occupational Therapy Association of Hawai'i  
[otah-hawaii.com](http://otah-hawaii.com)

Occupational Therapist PVL Listing

[hawaii.gov/dccal/pvl/programs/occupational/](http://hawaii.gov/dccal/pvl/programs/occupational/)



# OCCUPATIONAL THERAPY ASSISTANT



Source: Praisang/FreeDigitalPhotos.net

Photo: An occupational therapy assistant helps a patient strengthen her leg using an ankle weight and motion.

Occupational therapy assistants and aides, under the supervision of a certified occupational therapist, help patients through their day-to-day activities to increase their health and well-being. Occupational therapy assistants assist patients with therapeutic activities, lead children who have developmental disabilities in play activities that promote coordination and socialization, teach patients how to use special equipment, record patient progress, and complete other administrative duties. Occupational therapy aides typically handle the preparations for treatment, including gathering materials and assembling equipment. They transport patients, help with billing and insurance forms, and perform clerical tasks (e.g. filing, scheduling appointments, and answering phones).

## WORK ENVIRONMENT:

Most occupational therapy assistants and aides work in hospitals, clinics, community health centers, home health agencies, nursing homes, residential care facilities, business or industrial organizations, schools, private homes, and laboratories.

## AREAS OF SPECIALIZATION:

Occupational therapy assistants and aides may gain a specialty based on the needs of the supervisory occupational therapist.

## SALARY RANGE

\$40,770 - \$59,460

## LENGTH OF TRAINING

2+ Years

## JOB GROWTH

43%

## LENGTH OF TRAINING/REQUIREMENTS:

Training for an occupational therapy assistant requires completion of a two-year degree program from an accredited school. For an occupational therapy aide, a high school diploma is required, and then most of the training is completed on-the-job.

## LICENSURE/CERTIFICATION:

As of January 1<sup>st</sup>, 2017, occupational therapy assistants must pass two exams: 1) a national certification examination administered by the American Occupational Therapy Certification Board and 2) a Hawai'i State licensure exam. It is helpful for both occupational therapy assistants and aides to have health care experience and CPR and Basic Life Support certifications. Occupational therapy aides are not required to be licensed or certified.

## EDUCATIONAL PROGRAMS:

Kapi`olani Community College:  
Occupational Therapy Assistant (AA)

## PROFESSIONAL ASSOCIATIONS:

National Board for Certification in Occupational Therapy  
[www.nbcot.org](http://www.nbcot.org)  
Occupational Therapist Assistant PVL Listing  
[www.hawaii.gov/dccal/pvl/programs/occupational/](http://www.hawaii.gov/dccal/pvl/programs/occupational/)

# OPTICIAN



Source: Ponsulak/FreeDigitalPhotos.net

Photo: An optician prepares custom glasses for a patient based on the results from a vision test.

Opticians, also known as dispensing opticians, are health care professionals that are trained to build, develop, and fix products that improve the eyesight of the user (i.e. eyeglasses and contact lenses). Optometrists (Doctors of Optometry) and ophthalmologists (Doctors of Medicine) write prescriptions for specific products that opticians fill by making that product available to the patient.

## **WORK ENVIRONMENT:**

Opticians can be found in stores that sell eye-wear, optometrists' offices, ophthalmologists' offices, or other specialized medical practices.

## **AREAS OF SPECIALIZATION:**

Some opticians choose to specialize in specific types of eye-wear or contact lenses.

## **LENGTH OF TRAINING/REQUIREMENTS:**

Some opticians are hired directly after high school and receive on-the-job training. Otherwise, educational training programs are available that last one to two years, and may be preferred by some employers.

## **SALARY RANGE**

\$21,360 - \$51,260

## **LENGTH OF TRAINING**

Up to 2 Years

## **JOB GROWTH**

18%

## **LICENSURE/CERTIFICATION:**

Dispensing opticians must be licensed with the State of Hawai'i, which requires two years of apprenticeship and passing scores on two exams (the National Opticianry Competency Examination and the Contact Lens Registry Examination).

## **EDUCATIONAL PROGRAMS:**

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## **PROFESSIONAL ASSOCIATIONS:**

American Board of Opticianry/National Contact Lens Examiners

[www.abo-ncle.org](http://www.abo-ncle.org)

Commission on Opticianry Accreditation

[www.coaccreditation.com](http://www.coaccreditation.com)

National Academy of Opticianry

[www.nao.org](http://www.nao.org)

# OPTOMETRIST



Source: Marin/FreeDigitalPhotos.net

Photo: An optometrist performs a vision exam on her patient.

Optometrists, also known as Doctors of Optometry (OD), are health care professionals that are trained to examine, diagnose, and treat conditions of the human eyes. ODs should not be confused with DOs (Doctors of Osteopathic Medicine), ophthalmologists (medical doctors who specialize in eye and retinal surgery), or opticians (specialists who create or repair products and equipment). ODs treat various eye health conditions and can prescribe medicine for eyes.

## WORK ENVIRONMENT:

ODs usually work in private practices. Some choose to work for doctors or department stores. ODs practice mostly independently, with the exception of opticians.

## LENGTH OF TRAINING/REQUIREMENTS:

ODs have a four-year graduate education (after a four-year bachelor's degree) and must be licensed in every state. The Optometry Admissions Test must be passed before entrance into graduate school. An additional one-year residency can be performed if specialization is desired.

## SALARY RANGE

\$78,580 - \$137,840

## LENGTH OF TRAINING

8+ Years

## JOB GROWTH

9%

## LICENSURE/CERTIFICATION:

ODs must be licensed with the State of Hawai'i and must pass all five sections of the exam offered by the National Board of Examiners in Optometry. Some seek additional credentialing by becoming board-certified with the American Board of Optometry.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career! Visit [www.opted.org](http://www.opted.org) to find an accredited program.

## PROFESSIONAL ASSOCIATIONS:

American Board of Optometry  
[www.americanboardofoptometry.org](http://www.americanboardofoptometry.org)  
American Optometric Association  
[www.aoa.org](http://www.aoa.org)  
Association of Schools and Colleges of Optometry  
[www.opted.org](http://www.opted.org)  
Hawai'i Optometric Association  
[www.hawaiioptometry.org](http://www.hawaiioptometry.org)  
National Board of Examiners in Optometry  
[www.optometry.org](http://www.optometry.org)

# PATIENT SERVICES REPRESENTATIVE



Source: Hawai'i/Pacific Basin AHEC (2015)

Photo: A patient services representative helps a patient with finding health-related resources

Patient services representatives primarily manage a medical or dental office within a hospital or private practice. Duties range from medical secretarial and receptionist tasks that include identifying a patient's payment source, verifying insurance coverage, answering and transferring phone calls, scheduling appointments, collecting insurance co-payments, maintaining patient charts, and ensuring overall patient satisfaction. Patient services representatives are responsible for the written and verbal correspondence with the patient. They should also have knowledge of the electronic medical records system and registration of important documents to ensure patient and care team requests run smoothly. This position stresses the importance of customer services, strong communication, interpersonal skills, and being highly organized.

## AREAS OF SPECIALIZATION:

Patient services representatives can work in any area of healthcare.

## WORK ENVIRONMENT:

Patient services representatives usually work in a doctor's office, a health clinic, a hospital department, a dental office, with an optometrist, or any other health setting that checks in patients.

## LENGTH OF TRAINING/REQUIREMENTS:

Typically, two years of an associate's degree or medical assisting experience is required.

## SALARY RANGE

\$21,320 - \$53,830

## LENGTH OF TRAINING

2+ Years

## JOB GROWTH

13%

## LICENSURE/CERTIFICATION:

Patient services representatives may choose to become certified to increase chances of employment. The American Association of Medical Assistants (AAMA) provides a Certified Medical Assistant (CMA) certification.

## EDUCATIONAL PROGRAMS:

Kapi'olani Community College  
Leeward Community College  
Hawai'i Medical College

## PROFESSIONAL ASSOCIATIONS:

American Hospital Association  
[www.aha.org](http://www.aha.org)  
Association for Patient Experience  
[www.patient-experience.org](http://www.patient-experience.org)  
American Association of Healthcare Administrative Management  
[www.aaham.org](http://www.aaham.org)

# PERFUSIONIST



Source: Wikimedia Commons, Edrevlis (2008)

Photo: A perfusionist manages blood flow to a patient.

Perfusionists are highly trained members of the cardiothoracic surgery team, which is why they are also known as cardio-pulmonary perfusionists. They use artificial blood pumps to continue the flow of blood in a patient during surgery. If a patient's organ starts failing during surgery, a perfusionist combines tubing and artificial organs to remove and return blood to the body. Perfusionists also manage the respiratory patterns (breathing) of the patient, allowing for the cardiothoracic surgeon to focus more on the direct surgical procedure. Additionally, perfusionists monitor the conditions of the blood, such as the acid and base levels or oxygen and carbon dioxide saturation in the tissues. They are also responsible for ventricular assistance devices when patient is recovering from a heart, lung, or liver transplant. In some cases, Perfusionists are even involved in procuring the organ donation for the patient. Perfusionists are experienced with extracorporeal technology and develops the appropriate technology each patient. They are becoming increasingly important to emergency trauma cases, chemotherapy treatments, and corrections of congenital heart disease.

## AREAS OF SPECIALIZATION:

Perfusionists can specialize in specific age groups or different types of artificial organ procedures.

## WORK ENVIRONMENT:

Perfusionists typically work in operation rooms of hospitals, but can also be found in cardiovascular intensive care units and catheterization laboratories.

## SALARY RANGE

\$37,120 - \$94,160\*

## LENGTH OF TRAINING

6+ Years

## JOB GROWTH

30%\*

\*For cardiovascular technologists and technicians (including perfusionists)

## LENGTH OF TRAINING/REQUIREMENTS:

Perfusionists first obtain a four-year bachelor's degree in biological sciences and then proceed to a two-year master's program specific for the perfusionist profession.

## LICENSURE/CERTIFICATION:

A certification is required from the American Board of Cardiovascular Perfusion.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa: BS

University of Hawai'i at Hilo: BS

Chaminade University: BS

Hawai'i Pacific University: BS

There are currently no perfusion master degree programs in the State of Hawai'i.

## PROFESSIONAL ASSOCIATIONS:

American Board of Cardiovascular Perfusion

[www.abcp.org](http://www.abcp.org)

American Academy of Cardiovascular Perfusion

[www.theaacp.com](http://www.theaacp.com)

American Society of ExtraCorporeal Technology

[www.amsect.org](http://www.amsect.org)

# PERSONAL TRAINER



Source: Hawaii/Pacific Basin AHEC (2016)

Photo: A personal trainer in Kailua helps her client reach his fitness goals through guided exercise routines.

Personal trainers guide individuals to a healthier lifestyle. They work one-on-one with clients on exercise, nutrition, stretching, and recovery regimens. Personal trainers work directly with clients toward accomplishing their personal goals. Trainers focus on a client's specific fitness needs by creating detailed fitness and nutritional plans, demonstrating exercise movements, ensuring that clients use appropriate positioning for exercises, and providing educational resources on health and wellness. Personal trainers usually work independently or with a larger fitness corporation. Personal trainers may also help with the rehabilitation of a client's injury following surgery and physical therapy. Personal trainers must enjoy interacting with others, and can have both short-term and long-term clients. Personal trainers often work with clients of all ages, backgrounds, and socioeconomic levels.

## AREAS OF SPECIALIZATION:

Personal trainers can specialize in specific age groups, rehabilitation, or disease types.

## WORK ENVIRONMENT:

Personal trainers usually have the flexibility to make their own hours because they schedule appointments directly with clients. Personal trainers can work in gyms, resort fitness centers, health clinics, community centers, hospitals, or even in clients' homes.

## LENGTH OF TRAINING/REQUIREMENTS:

Personal trainers are required to have certification that can take a few months to achieve. Personal trainers may be required to have an associate's or bachelor's

## SALARY RANGE

\$18,740 - \$75,860\*

## LENGTH OF TRAINING

Up to 4 Years

## JOB GROWTH

15%\*

\*For fitness trainers and aerobics instructors

degree prior to certification, which would take two to four years to complete.

## LICENSURE/CERTIFICATION:

It is highly recommended that personal trainers are certified by a nationally recognized personal fitness organization, including the YMCA, American Council on Exercise (ACE), National Council on Strength and Fitness (NCSF), and the National Academy of Sports Medicine (NASM). Some certifications require an associate's or bachelor's degree related to exercise science, nutrition, or kinesiology. Additionally, personal trainers must demonstrate experience in their field.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa: BS  
University of Hawai'i at Hilo: BA  
Brigham Young University: BS  
Kapi'olani Community College: AA

## PROFESSIONAL ASSOCIATIONS:

Aerobics and Fitness Association of America  
[www.afaa.com](http://www.afaa.com)  
American College of Sports Medicine  
[www.acsm.org](http://www.acsm.org)  
American Council of Exercise  
[www.acefitness.org](http://www.acefitness.org)  
International Fitness Association  
[www.ifafitness.com](http://www.ifafitness.com)  
International Sports Science Association  
[www.issaonline.edu](http://www.issaonline.edu)  
National Academy of Sports Medicine  
[www.nasm.org](http://www.nasm.org)  
National Federation of Personal Trainers  
[www.nfpt.com](http://www.nfpt.com)  
National Personal Training Institute  
[www.nationalpti.edu](http://www.nationalpti.edu)  
Professional Personal Trainers Association  
[www.personaltrainerscertification.com](http://www.personaltrainerscertification.com)

# PHARMACIST



Source: Hawai'i & Pacific Basin AHEC/UH Daniel K. Inouye College of Pharmacy (2015)

Photo: A pharmacist in Honolulu provides medication counseling for a patient.

Pharmacists dispense medications that are prescribed by physicians and instruct patients on safe ways to use the medicine. Pharmacists review the interaction of medications with other drugs, food, illnesses, and diseases to assure minimal complications or side effects for the individual. They play a vital role in educating patients and must be able to communicate effectively.

## WORK ENVIRONMENT:

Pharmacists can work in a variety of settings, such as pharmacies, drug stores, hospitals, grocery stores, department stores, clinics, and government or military settings.

## AREAS OF SPECIALIZATION:

Pharmacists can specialize in fields such as psychiatric disorders, critical care, nutrition support, oncology, nuclear pharmacy, primary care therapeutic management, product development, or research.

## LENGTH OF TRAINING/REQUIREMENTS:

Following a four-year bachelor's degree, pharmacists must obtain a four-year Doctorate of Pharmacy degree (PharmD). Most PharmD programs allow entrance after two years of undergraduate work. Two years of additional training may be required if a pharmacist chooses to specialize in a specific area.

## SALARY RANGE

\$101,110 - \$144,200

## LENGTH OF TRAINING

6 - 8 Years

## JOB GROWTH

16%

## LICENSURE/CERTIFICATION:

Pharmacists must be licensed in Hawai'i by the National Association of Boards of Pharmacy. Exams include the North American Pharmacist Licensure Exam (NAPLEX) and the Multistate Pharmacy Jurisprudence Exam (MPJE).

*Other Licensures and Certifications vary by specialty.*

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Hilo  
Doctor of Pharmacy: PharmD  
Pharmaceutical Studies: PhD  
Pre-Pharmacy Program

## PROFESSIONAL ASSOCIATIONS:

American Association of Pharmaceutical Scientists  
[www.aaps.org](http://www.aaps.org)  
American Pharmacists Association  
[www.pharmacist.com](http://www.pharmacist.com)  
American Society of Health System Pharmacists  
[www.ashp.org](http://www.ashp.org)  
Board of Pharmacy Specialties  
[www.bpsweb.org](http://www.bpsweb.org)  
National Association of Boards of Pharmacy  
[www.nabp.net](http://www.nabp.net)  
National Community Pharmacists Association  
[www.ncpanet.org](http://www.ncpanet.org)

# PHARMACY TECHNICIAN



Source: Hawai'i & Pacific Basin AHEC/UH Daniel K. Inouye College of Pharmacy (2015)

Photo: Pharmacy technicians participate in a skills-building lab to enhance their pharmaceutical knowledge.

Pharmacy technicians work under the direct supervision of a licensed pharmacist. Their duties include having the necessary information needed to fill a prescription, measuring prescription amounts, packaging and labeling prescriptions, organizing and tracking inventory, processing payments and insurance claims, entering customer or patient information into an electronic system and maintaining it, and answering phone calls.

## WORK ENVIRONMENT:

Pharmacy technicians work in a variety of settings including hospitals, in home care, long-term care facilities, cancer treatment facilities, mail service facilities, educational and training programs, pharmacies, drug stores, grocery stores, department stores, and ambulatory health care organizations.

## LENGTH OF TRAINING/REQUIREMENTS:

Although not always required, many pharmacy technicians complete a one to two year training program at a community college or vocational school. Much of the experience comes from on-the-job training.

## SALARY RANGE

\$24,790 - \$48,480

## LENGTH OF TRAINING

Up to 2 Years

## JOB GROWTH

20%

## LICENSURE/CERTIFICATION:

A certification may be required depending on the employer. The National Health Career Association provides the Pharmacy Technician Certification (CPhT) program.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Hilo  
Pharmacy Studies: BA  
Maui College  
Pharmacy Technician: CC

## PROFESSIONAL ASSOCIATIONS:

American Society of Health System Pharmacists  
[www.ashp.org](http://www.ashp.org)  
National Health Career Association  
[www.nhanow.com](http://www.nhanow.com)  
Pharmacy Technician Certification Board  
[www.ptcb.org](http://www.ptcb.org)



# PHLEBOTOMIST



Source: Hawai'i & Pacific Basin AHEC/Sheri Gon (2015)

Photo: A phlebotomist in Honolulu draws blood from a patient.

Phlebotomists are professionals who are trained to draw blood samples from patients using needles. Blood is typically taken from veins or arteries and these samples are used for medical tests or donations.

## WORK ENVIRONMENT:

Phlebotomists may work in hospitals, laboratories, private practices, health clinics, or blood banks.

## LENGTH OF TRAINING/REQUIREMENTS:

A high school diploma and phlebotomy training are required. Phlebotomy training hours vary among programs, with some requiring 40 hours and some taking a year.

## LICENSURE CERTIFICATION:

It is not generally required for phlebotomists to be certified, but it is highly recommended. One program supports Phlebotomy Technicians or Donor Phlebotomy Technicians through the American Society for Clinical Pathology Board of Certification (ASCP BOC).

## SALARY RANGE

\$25,920 - \$45,390

## LENGTH OF TRAINING

Up to 1 Year

## JOB GROWTH

16%

## EDUCATIONAL PROGRAMS:

Hawai'i Medical Training Center  
Phlebotomy Technician Certification  
Healthcare Training and Career Consultants, Inc.  
Phlebotomy Technician Certification  
Kapi'olani Community College  
Phlebotomy Technician Certification  
Kaua'i Health Career Training  
Phlebotomy Technician Certification

## PROFESSIONAL ASSOCIATIONS:

American Medical Technologists  
[www.amt1.com](http://www.amt1.com)  
American Society of Clinical Laboratory Science  
[www.ascls.org](http://www.ascls.org)  
American Society of Clinical Pathologists  
[www.ascp.org](http://www.ascp.org)  
American Society of Phlebotomy Technicians, Inc.  
[www.aspt.org](http://www.aspt.org)  
National Phlebotomy Association  
[www.nationalphlebotomy.org](http://www.nationalphlebotomy.org)

# PHYSICAL THERAPIST



Source: National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

Photo: A physical therapist conducts an examination of a patient's hand to identify the presence of rheumatic disease.

Physical therapists (PTs) are healthcare professionals that assist individuals who are injured, ill, or have medical problems that limit their abilities to move and perform daily functional activities. PTs help strengthen muscles, improve mobility, and manage pain. They review patient medical history and develop a treatment plan with techniques such as stretching, hands-on therapy, and exercise to promote mobility, restore function, and reduce pain. PTs may work with patients of all ages to prevent the loss of mobility before it occurs by developing wellness programs for a healthier, more active lifestyle.

## AREAS OF SPECIALIZATION:

There are seven specialty areas of therapy including cardiovascular and pulmonary, orthopedic, clinical electrophysiological, geriatric, neurologic, pediatric, and sports.

## WORK ENVIRONMENT:

PTs may work in hospitals, clinics, nursing homes, physicians' offices, or patients' homes.

## SALARY RANGE

\$60,640 - \$98,560

## LENGTH OF TRAINING

6 - 7 Years

## JOB GROWTH

21%

## LENGTH OF TRAINING:

Most PTs obtain a four-year undergraduate degree and then spend three additional years pursuing a Doctor of Physical Therapy (DPT) degree. Master degree programs are no longer available in the U.S.

## LICENSURE/CERTIFICATION:

A license is required in all U.S. states. For more information visit [www.fsbpt.org](http://www.fsbpt.org).

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

Go to [www.apta.org](http://www.apta.org) for programs available in the United States.

## PROFESSIONAL ASSOCIATIONS:

American Physical Therapy Association

[www.apta.org](http://www.apta.org)

Hawai'i Chapter APTA

[www.hapta.org](http://www.hapta.org)

# PHYSICAL THERAPY ASSISTANT



Source: Wikimedia/SEppl (2006)

Photo: A physical therapy assistant assists a patient with an exercise.

Physical therapy assistants (PTAs) work with physical therapists (PTs) to develop treatment plans for their patients. Often, PTAs perform activities such as answering phones, clerical work, recording patient information, assisting with patient treatments, demonstrating therapeutic exercises, developing positive morale with patients, and maintaining a safe and clean work environment. Some PTs give autonomy to PTAs once a treatment plan has been developed, while other PTs prefer to be more involved with every patient. PTAs spend a lot of time with their patients, so it is important to be positive, supportive, and always willing to help a patient progress toward mobility and rehabilitation.

## AREAS OF SPECIALIZATION:

Although PTAs are trained to be versatile and work with diverse patients, some choose to work with facilities or PTs who specialize in certain disorders, age groups, or communities.

## WORK ENVIRONMENT:

PTAs work under the supervision of PTs in hospitals, clinics, nursing homes, or private businesses.

## SALARY RANGE

\$20,560 - \$56,670

## LENGTH OF TRAINING

2+ Years

## JOB GROWTH

22%

## LENGTH OF TRAINING:

A two-year associate degree from an accredited program is required to prepare PTAs for the national licensure examination.

## LICENSURE/CERTIFICATION:

Licensure is required in Hawai'i, which is obtained by passing the National PTA examination. See [www.fsbpt.org](http://www.fsbpt.org) for more information on the exam. The Commission on Accreditation in Physical Therapy Education maintains a list of over 290 accredited two-year programs for Physical Therapy Assistants at [www.capteonline.org](http://www.capteonline.org).

## EDUCATIONAL PROGRAMS:

Kapi'olani Community College  
Physical Therapy Assistant: AA

## PROFESSIONAL ASSOCIATIONS:

American Physical Therapy Association  
[www.apta.org](http://www.apta.org)  
Commission on Accreditation in Physical Therapy  
[www.capteonline.org](http://www.capteonline.org)  
Hawai'i Chapter APTA  
[www.hapta.org](http://www.hapta.org)

# PHYSICIAN

Physicians, also known as doctors, care for people, whether they are healthy, ill, or injured. They perform physical examinations, diagnose and treat illnesses, injuries, and other disorders. They can prescribe and administer medications and treatments, provide immunization services, care for pregnant women and deliver babies, perform surgery, or conduct research to aid in disease control or the development of new treatments. The practice of medicine is evolving as the healthcare system changes. Managed care and health maintenance organizations (HMOs) are creating an increased demand for primary care physicians who can provide most general healthcare needs for their patients. Physicians must be trained as either a Doctor of Medicine (MD) or a Doctor of Osteopathic Medicine (DO). These schools are four years after college. All doctors must complete a one-year internship to care for patients without supervision and most complete a residency program in their field of expertise which allows them to apply for board certification. Residency programs range from 2-8+ years, depending upon the specialty.

## WORK ENVIRONMENT:

Physicians may work long and erratic hours to respond to emergencies and the intensive care needs of their patients. They can practice independently or in a group, work in hospitals, public health agencies, health provider organizations, government agencies, or educational institutions. In addition to providing patient care, many physicians are involved in research, teaching, and administration. Primary care physicians (those in family practice, internal medicine, pediatrics, or geriatrics) are in high demand in rural areas because of past trends of physicians moving toward more specialized fields and the tendency to locate their practices in urban areas.

## EDUCATIONAL PROGRAMS:

University of Hawai'i John A. Burns School of Medicine  
Doctor of Medicine: MD  
A.T. Stills University School of Medicine at Waianae  
Coast Comprehensive Health Center Campus  
Doctor of Osteopathic Medicine: DO

## LICENSURE/CERTIFICATION:

Physicians are required to be licensed in every state. Certifying boards and governing bodies may also regulate specialties.

## SALARY RANGE

\$123,020 - \$187,200+\*

## LENGTH OF TRAINING

8+ Years

## JOB GROWTH

3%\*

\*For family and general practitioners

## PROFESSIONAL ORGANIZATIONS:

### National

American Association of Colleges of Osteopathic  
Medicine

[www.aacom.org](http://www.aacom.org)

American Association of Physician Specialists

[www.aapsus.org](http://www.aapsus.org)

American College of Osteopathic Physicians

[www.acofp.org](http://www.acofp.org)

American Osteopathic Association

[www.osteopathic.org](http://www.osteopathic.org)

Association of American Physicians

[www.aap-online.org](http://www.aap-online.org)

Association of American Physicians and Surgeons

[www.aapsonline.org](http://www.aapsonline.org)

American College of Physicians

[www.acponline.org](http://www.acponline.org)

American Medical Association

[www.ama-assn.org](http://www.ama-assn.org)

National Medical Association

[www.nmanet.org](http://www.nmanet.org)

### Hawai'i

Hawai'i Academy of Family Physicians

[www.hafp.com](http://www.hafp.com)

Hawai'i Association of Osteopathic Physicians &  
Surgeons

[www.hawaiiosteopathic.org](http://www.hawaiiosteopathic.org)

Hawai'i Independent Physicians Association

[www.hawaiipa.com](http://www.hawaiipa.com)

Hawai'i Medical Association

[www.hawaiimedicalassociation.com](http://www.hawaiimedicalassociation.com)

Honolulu County Medical Society

[www.hcmsonline.org](http://www.hcmsonline.org)

# PHYSICIAN

## AREAS OF SPECIALIZATION



Source: Hawai'i & Pacific Basin AHEC (2015)

Photo: A primary care physician listens to her patient's heartbeat at a clinic on O'ahu.



Source: Hawai'i & Pacific Basin AHEC/Dr. Eugene Ng (2015)

Photo: An ophthalmologist (and retinal surgeon) assesses a patient's retinal function at his Honolulu clinic.

- Addiction Psychiatry
- Adolescent Medicine
- Adult Psychiatry
- Allergy/Immunology
- Anesthesiology
- Cardiology
- Child & Adolescent Psychiatry
- Colorectal Surgery
- Combined Internal Medicine & Pediatrics (Med-Peds)
- Complimentary/Alternative Medicine
- Critical Care
- Dermatology
- Diagnostic Radiology
- Emergency Medicine
- Endocrinology and Metabolism
- Family Medicine
- Gastroenterology
- General Internal Medicine
- General Practice
- General Surgery
- Geriatric Psychiatry
- Geriatrics
- Gynecology (only)
- Gynecology/Oncology
- Hand Surgery
- Hematology/Oncology
- Hospitalist
- Infectious Disease
- Interventional (Therapeutic) Radiology
- Neonatology
- Nephrology
- Neuro Critical Care
- Neuro Hospitalist
- Neurological Surgery
- Neurology
- Neuroradiology
- Nuclear Medicine
- OBGYN
- Occupational Medicine
- Ophthalmology
- Orthopedic Surgery
- Otolaryngology
- Pain Management/Pain Medicine
- Palliative Medicine
- Pathology, General
- Pathology, Other subspecialties
- Pediatric Critical Care
- Pediatric Neurology
- Pediatrics, General
- Pediatric Subspecialties
- Cardiovascular
- Endocrine
- Gastrointestinal
- Hematology-Oncology
- Hospitalist
- Rheumatology
- Surgery
- Urology
- Perinatology (Maternal Fetal)
- Physical Medicine and Rehabilitation
- Plastic Surgery
- Preventive Medicine
- Psych Hospitalist
- Pulmonology
- Radiation Oncology
- Reproductive Endocrinology
- Rheumatology
- Sleep Medicine
- Sports Medicine
- Surgery & Subspecialties
- Surgical Critical Care
- Surgical Oncology
- Thoracic Surgery
- Urgent Care
- Urology
- Vascular Surgery

# PHYSICIAN ASSISTANT



Source: Dan Domizio, PA, MPH (2015)

Photo: A physician assistant discusses treatment options with his patient on the island of Hawai'i.

Physician assistants (PAs) work under the supervision of physicians. Although they may sound similar, a physician assistant and a medical assistant (MA) are not the same thing. PAs have a greater amount of education, training, and responsibilities than MAs, and can even prescribe medicine in some states (including Hawai'i). PAs help to educate patients about their health, order appropriate laboratory tests, determine a patient's medical history, and perform physical examinations.

## WORK ENVIRONMENT:

PAs can work in hospitals, clinics, private practices, or nursing homes. It is common for PAs to be on-call, on rotating shifts, or to work weekends, evenings, or holidays.

## AREAS OF SPECIALIZATION:

PAs may specialize in different types of medicine including: internal, emergency, pediatric or surgical.

## LICENSURE/CERTIFICATION:

PAs are required to complete a master's degree from a school accredited by the Accreditation Review Commission on Education for the Physician Assistant. Individuals must then pass the Physician Assistants National Certifying Examination administered by the National Commission on Certification of Physician Assistants (NCCPA). The PA training usually requires nine months to one year of classroom studies and nine to fifteen months of supervised clinical experience.

## SALARY RANGE

\$66,860 - \$116,130

## LENGTH OF TRAINING

6+ Years

## JOB GROWTH

16%

## EDUCATIONAL PROGRAMS:

There are no programs available in Hawai'i at this time, but Pacific University in Oregon, as well as other schools on the mainland, designate positions for Hawai'i students and part of the coursework can even be completed in Hawai'i. For example, Pacific University saves four spots a year for Hawai'i students.

For more information, go to [www.pacificu.edu/future-graduate-professional/colleges/college-health-professions/school-physician-assistant-studies](http://www.pacificu.edu/future-graduate-professional/colleges/college-health-professions/school-physician-assistant-studies)

## PROFESSIONAL ASSOCIATIONS:

American Academy of Physician Assistants (AAPA)  
[www.aapa.org](http://www.aapa.org)  
Hawai'i Academy of Physician Assistants  
[www.hapahawaii.org](http://www.hapahawaii.org)

# PODIATRIST



Source: Wine France (2009)

Photo: A podiatrist measures the hallux area on a patient's foot.

Doctors of Podiatric Medicine (DPM), otherwise known as podiatrists, assess the condition of patient's feet, ankles, or lower legs by reviewing their medical history and performing a physical exam. They diagnose illnesses, identify injuries, and treat foot disorders including fractures, skin and nail diseases, and tumors. These doctors also refer patients to other physicians and specialists if they detect symptoms leading to diabetes or cardiovascular disease.

## WORK ENVIRONMENT:

DPMs usually work in private or group practices, hospitals, extended care facilities, public health facilities, higher education institutions, or with the military.

## AREAS OF SPECIALIZATION:

DPMs may specialize in surgery, sports medicine, biomechanics, geriatrics, pediatrics, orthopedics, or primary care.

## SALARY RANGE

\$50,430 - \$187,200+

## LENGTH OF TRAINING

8 - 11 Years

## JOB GROWTH

23%

## LENGTH OF TRAINING/REQUIREMENTS:

DPMs must have a doctoral degree, which is a four-year program that follows a four-year undergraduate degree. Then, DPMs must complete a three-year podiatric medical and surgical residency program (PMSR).

## LICENSURE/CERTIFICATION:

Every state requires licensure with the Department of Commerce and Consumer Affairs by passing the American Podiatric Medical Licensing Exam (PMLE). There is also an optional board certification by American Board of Podiatric Surgery and Board of Podiatric Medicine.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

Hawai'i Podiatric Medical Association  
[www.podiatristshawaii.com](http://www.podiatristshawaii.com)

# PROSTHETIST/ORTHOTIST



Source: Defense Advanced Research Projects Agency/Revolutionizing Prosthetics (2012)

Photo: Prosthetic arms that were attached by prosthetists.

Prosthetists and orthotists work with patients who have some sort of physical limitation due to trauma or disease. Each patient's needs are different, so a prosthetist or orthotist must be able to work with a diversity of people, illnesses, and limitations. Prosthetists generally develop artificial limbs for patients who have had amputations or desire to replace a body part. Orthotists generally develop braces and splints to help patients heal after surgery. Prosthetists and orthotists must have a strong foundation in math and anatomy (especially bone structures) as well as a creative mind.

## AREAS OF SPECIALIZATION:

Prosthetists and orthotists may choose to specialize in a particular area of the body (e.g. upper limbs, lower limbs, spine, or head) or in a certain type of methodology (e.g. braces, splints, prosthetic limbs, or electrical circuitry for materials).

## WORK ENVIRONMENT:

Prosthetists and orthotists generally work in hospitals, universities, or private practices. They must be able to work closely with other health care professionals (e.g. doctors, nurses, physical therapists) in order to provide the best support for the patient.

## SALARY RANGE

\$35,240 - \$110,690

## LENGTH OF TRAINING

5 - 7 Years

## JOB GROWTH

36%

## LENGTH OF TRAINING:

Following a four-year bachelor's degree program, a prosthetist or orthotist must earn a master's degree from a program accredited by the Commission on Accreditation of Allied Health Education Programs. Completion of a one-year accredited residency program by the National Commission on Orthotic and Prosthetic Education is also required.

## LICENSURE/CERTIFICATION:

The State of Hawai'i does not require prosthetists and orthotists to be licensed or certified.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Academy of Orthotists and Prosthetists  
[www.oandp.org](http://www.oandp.org)

American Board for Certification in Orthotics,  
Prosthetics and Pedorthics  
[www.abcop.org](http://www.abcop.org)

American Orthotic & Prosthetic Association  
[www.aopanet.org](http://www.aopanet.org)

Commission on Accreditation of Allied Health  
Education Programs  
[www.caahep.org](http://www.caahep.org)

National Commission on Orthotic and Prosthetic  
Education  
[www.ncope.org](http://www.ncope.org)



# PSYCHIATRIC AID/TECHNICIAN



Source: U.S. Air Force, Tech. Sgt. Francesca Popp (2008)

Photo: A psychiatric aide in the U.S. Air Force discusses stress management techniques during a presentation.

Psychiatric aides and technicians work specifically with behavioral health patients. Usually, aides and technicians help psychologists, psychiatrists, or other mental health professionals with managing the treatment of patients, as well as recording information about patient behaviors, medications, and psychological activities. Psychiatric technicians have more education and experience than psychiatric aides and are given more supervisory duties and greater responsibilities.

## WORK ENVIRONMENT:

Most psychiatric aides and technicians work in hospitals, mental health clinics, or rehabilitation centers. Many work on-call, weekend, and evening shifts. Psychiatric aides and technicians rarely sit because they are actively engaging with their patients.

## ADVANCEMENT:

Psychiatric aides can be promoted to psychiatric technicians, which do similar work but have more responsibility. Psychiatric technicians may be promoted to other roles in the organization, such as unit manager or office manager. Some choose to earn degrees in counseling or therapy.

## SALARY RANGE

\$31,310 - \$44,380

## LENGTH OF TRAINING

1 - 4 Years

## JOB GROWTH

1%

## LENGTH OF TRAINING/REQUIREMENTS:

A psychiatric aide and technician program can last from one to two years as a certificate program or associate's degree, but it is also common for psychiatric aides and technicians to have a bachelor's degree in psychology, social work, or other related field. Much of their work-related duties are learned on-the-job.

## LICENSURE/CERTIFICATION:

The American Association of Psychiatric Technicians offers four levels of certification.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Association of Psychiatric Technicians  
[www.psychtechs.org](http://www.psychtechs.org)

# PSYCHOLOGIST



Source: Hawai'i & Pacific Basin AHEC (2015)

Photo: A doctor of psychology helps a patient develop healthy goals as part of the therapeutic process.

Psychologists treat and diagnose individuals with psychological disorders, as well as provide therapeutic services. Some psychologists are researchers and work as professors at universities. Psychologists have extensive training and education on therapy techniques and the various aspects of mental health. Unlike psychiatrists, psychologists cannot prescribe medication in most states.

## WORK ENVIRONMENT:

Psychologists often work in hospitals, private practices, mental health agencies, academic health centers, universities, and with the military.

## AREAS OF SPECIALIZATION:

Psychologists may choose to specialize by attending a specific doctoral program or earning a post-doctoral fellowship in a specialized field. Areas of practice and research include developmental, evolutionary, clinical, educational, experimental, and social psychology.

## LENGTH OF TRAINING/ REQUIREMENTS:

After completing a four-year bachelor's degree, psychologists must earn either a PhD or PsyD (both are doctoral degrees) in the field of psychology. A master's degree is acceptable for some purposes. Almost all psychology graduate degrees require extensive clinical practice.

## SALARY RANGE

\$42,040 - \$148,360\*

## LENGTH OF TRAINING

6 - 8 Years

## JOB GROWTH

9%\*

\*For clinical, counseling, and school psychologists

## LICENSURE/CERTIFICATION:

Psychologists must be licensed with the Hawai'i Department of Commerce and Consumer Affairs. The American Board of Professional Psychology offers board-certified credentials for psychological specialty areas. Many psychologists are also members of the American Psychological Association.

## EDUCATIONAL PROGRAMS:

Argosy University: PsyD  
University of Hawai'i at Mānoa: BS  
Brigham Young University-Hawai'i: BS

## PROFESSIONAL ASSOCIATIONS:

American Board of Professional Psychology  
[www.abpp.org](http://www.abpp.org)  
American Psychological Association  
[www.apa.org](http://www.apa.org)  
Hawai'i Department of Commerce and Consumer Affairs  
[www.cca.hawaii.gov/pvl](http://www.cca.hawaii.gov/pvl)  
National Association of School Psychologists  
[www.nasponline.com](http://www.nasponline.com)  
Rural Hawai'i Behavioral Health  
[www.iolalahui.org](http://www.iolalahui.org)

# PUBLIC HEALTH PROFESSIONAL



Photo: Public Health Students

Public health professionals help the public stay safe and get the health care they need. Getting a public health degree can prepare you to reduce population exposure to infectious diseases (like STDs); reduce morbidity from chronic diseases (like diabetes); reduce exposure to tobacco; change the built environment to encourage physical activity; advocate for improved access to health care; assure access to safe drinking water; and much more.

## WORK ENVIRONMENT:

Public health professionals work in a variety of settings, including schools, clinics, government agencies, non-profit organizations, and international health groups.

## AREAS OF SPECIALIZATION:

A number of careers in this book are typically included under the “public health” umbrella, e.g., biomedical and behavioral health researchers, biostatisticians, environmental health specialists, epidemiologists, gerontologists, healthcare administrators, health educators, and health information specialists. Public health can also be a subspecialty for other professions, e.g., public health nursing and preventive medicine.

## LENGTH OF TRAINING/REQUIREMENTS:

Public health professionals often have a four-year baccalaureate or master’s degree in public health or another health-related field. Public health researchers often have doctoral degrees.

## SALARY RANGE

\$39,510 - \$149,310

## LENGTH OF TRAINING

4 – 10 years

## JOB GROWTH

15%

## LICENSURE/CERTIFICATION:

No licenses or certifications are required at the state or national level for public health professionals. However, public health professionals can take a national examination to become Certified in Public Health (CPH). Others may be certified through subspecialty fields, e.g., public health nurses will have their nursing licenses, and public health educators can be certified through an examination from the National Commission for Health Education Credentialing.

## EDUCATIONAL PROGRAMS:

Hawai’i Pacific University  
BS in Public Health, MPH  
University of Hawai’i at Mānoa  
BA in Public Health, MPH, MS, DrPH, PhD  
Hawaii Pacific University  
Masters in Public Health

## PROFESSIONAL ASSOCIATIONS:

American Public Health Association  
[www.apha.org](http://www.apha.org)  
Hawai’i Public Health Association  
[www.hawaiiublichealth.org](http://www.hawaiiublichealth.org)

# RADIATION THERAPY TECHNOLOGIST



Source: National Cancer Institute

Photo: A radiation therapy technologist administers treatment to a patient.

Radiation therapy technologists (RTTs) work with radiation oncologists to manage the care of patients with cancer. Although the doctor may diagnose and prescribe a course of treatment, the RTT is the professional who actually administers the treatment.

## WORK ENVIRONMENT:

Most RTTs work in hospitals, cancer treatment centers, or private offices. Working around equipment that uses radiation poses a minor risk, but there are many protocols, safety measures, and personal protective equipment available to manage the risk.

## LENGTH OF TRAINING/REQUIREMENTS:

A two-year associate's or four-year bachelor's degree is usually required, plus completion of a one-year training program in radiation therapy accredited by the Joint Review Committee on Education in Radiologic Technology.

## SALARY RANGE

\$53,590 - \$118,180\*

## LENGTH OF TRAINING

3 - 5 Years

## JOB GROWTH

23%\*

\*For radiation therapists

## LICENSURE/CERTIFICATION:

The degree obtained depends on licensure level. Licensure is available through the American Registry of Radiologic Technologists upon successful completion of an exam.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Registry of Radiologic Technologists

[www.aart.org](http://www.aart.org)

Joint Committee on Education in Radiologic Technology

[www.jrcert.org](http://www.jrcert.org)

# RADIOLOGIC TECHNOLOGIST



Source: National Cancer Institute (NCI)

Photo: A radiologic technician prepares a patient for treatment.

Radiologic technologists (RTs) specialize in using X-ray, MRI, and CT scan equipment to obtain the images for doctors who order them. The doctor uses these images to assess and diagnose patients. RTs are knowledgeable of various medical conditions as well as different types of radiation.

## WORK ENVIRONMENT:

RTs often work in hospitals and diagnostic imaging centers.

## AREAS OF SPECIALIZATION:

RTs often choose to work in a wide variety of medical fields, but some may specialize in particular diseases or populations after gaining additional training.

## LENGTH OF TRAINING/REQUIREMENTS:

A two-year associate's or four-year bachelor's degree from a program accredited by the Joint Review Committee on Education in Radiologic Technology is required.

## SALARY RANGE

\$48,700 - \$89,670

## LENGTH OF TRAINING

2+ Years

## JOB GROWTH

14%

## LICENSURE/CERTIFICATION:

There are several options for licensure programs that vary in the length of time required. Licensure is available through the American Registry of Radiologic Technologists upon successful completion of an exam.

## EDUCATIONAL PROGRAMS:

Kapi`olani Community College  
Radiologic Technology: AS

## PROFESSIONAL ASSOCIATIONS:

American Registry of Radiologic Technologists  
[www.arrt.org](http://www.arrt.org)  
American Society of Radiologic Technologists  
[www.asrt.org](http://www.asrt.org)  
Joint Review Committee on Education in Radiologic  
Technology  
[www.jrcert.org](http://www.jrcert.org)  
Radiologic Society of North America  
[www.rsna.org](http://www.rsna.org)

# RECREATIONAL THERAPIST



Source: National Cancer Institute (NCI)

Photo: A recreational therapist prepares a client for a bicycle ride.

Recreational therapists work with individuals who have illnesses, disabilities, or injuries to provide physical, mental, and emotional healing. Recreational therapists often use crafts, games, music, animals, and other activities to meet the needs of their clients. Although recreational therapists hope their clients enjoy the activities, the primary purpose is therapeutic, not leisure. Not all wounds can be healed, so sometimes recreational therapists help their clients learn to cope through exploring new hobbies or interests and teaching clients to celebrate what their bodies can do instead of what they cannot do.

## AREAS OF SPECIALIZATION:

Some recreational therapists specialize in pediatrics, the developmentally challenged, the elderly, rehabilitation, or substance abuse/addiction recovery.

## WORK ENVIRONMENT:

Recreational therapists may work in hospitals, clinics, day care centers for adults and children, schools, nursing homes, rehabilitation centers, or local recreation centers.

## SALARY RANGE

\$33,180 - \$59,790

## LENGTH OF TRAINING

4+ Years

## JOB GROWTH

13%

## LENGTH OF TRAINING/REQUIREMENTS:

Recreational therapists must obtain a bachelor's degree from an accredited university and complete a formal internship.

## LICENSURE/CERTIFICATIONS:

Recreational therapists must pass a national certification examination before they can work independently with clients.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Therapeutic Recreation Association  
[www.atra-online.com](http://www.atra-online.com)

National Council for Therapeutic Recreation  
Certification  
[www.nctrc.org](http://www.nctrc.org)

# REHABILITATION COUNSELOR



Source: National Institutes of Mental Health (2009)

Photo: A rehabilitation counselor discusses treatment options with her client.

Rehabilitation counselors work with people who have had an illness, accident, or some other significant event that caused hardship or stress on their daily lives. Rehabilitation counselors work with other health professionals to develop a treatment plan, job and provide the best care. They perform job counseling and help clients discover new skills during the process of recovery or coping.

## AREAS OF SPECIALIZATION:

Rehabilitation counselors may choose to specialize in a type of client (e.g. a specific age range or gender) or a type of skill (e.g. job counseling or medical management).

## WORK ENVIRONMENT:

Rehabilitation counselors may work in hospitals, clinics, non-profit organizations, schools, or the local government.

## LENGTH OF TRAINING/REQUIREMENTS:

Most employers require a master's degree in rehabilitation counseling or a related field.

## SALARY RANGE

\$18,070 - \$55,700

## LENGTH OF TRAINING

4 - 6 Years

## JOB GROWTH

14%

## LICENSURE/CERTIFICATION:

Rehabilitation counselors must pass the National Counselor Examination given by the National Board for Certified Counselors. School counselors must pass the Praxis 1 Exam.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa  
Rehabilitation Counseling: MS

## PROFESSIONAL ASSOCIATIONS:

Council on Rehabilitation Education (CORE)  
[www.core-rehab.org](http://www.core-rehab.org)  
Hawai'i Counselors  
[www.hawaii-counselors.org](http://www.hawaii-counselors.org)  
National Rehabilitation Counseling Association (NRCA)  
[www.rca-net.org](http://www.rca-net.org)

# RESPIRATORY THERAPIST



Source: Respiratory Therapy Program at Kapi`olani Community College

Photo: A respiratory therapist models proper usage of medical equipment.

## SALARY RANGE

\$54,270 - \$77,430

## LENGTH OF TRAINING

2 - 4 Years

## JOB GROWTH (Hawai`i)

17%

## LICENSURE/CERTIFICATION:

RTs must be Certified Respiratory Therapists, which can be achieved by passing an examination given by the National Board for Respiratory Care (NBRC). In Hawai`i, RTs must also obtain a Hawai`i State Respiratory Therapist license.

## EDUCATIONAL PROGRAMS:

Kapi`olani Community College  
Respiratory Care Practitioner: AS  
University of Hawai`i West O`ahu: BS

## PROFESSIONAL ASSOCIATIONS:

American Association for Respiratory Care (AARC)  
[www.aarc.org](http://www.aarc.org)  
Department of Commerce and Consumer Affairs:  
Respiratory Therapist License  
[www.cca.hawaii.gov/pvl/programs/respiratory/](http://www.cca.hawaii.gov/pvl/programs/respiratory/)  
Hawai`i Society for Respiratory Care  
[www.hawaiircps.org](http://www.hawaiircps.org)

Respiratory therapists (RTs) focus on diagnosing lung and breathing disorders and recommending treatment methods. RTs perform patient interviews, provide patient education about lung health, administer chest examinations, manage ventilators, and are crucial in emergency situations when the patient's breathing is compromised. RTs also evaluate their patient's breath, tissue, blood, and oxygen levels. RTs work with other health professionals to develop a treatment plan for the patient.

## AREAS OF SPECIALIZATION:

RTs typically specialize in emergency care, neonatal units, or cardiopulmonary diagnostics.

## WORK ENVIRONMENT:

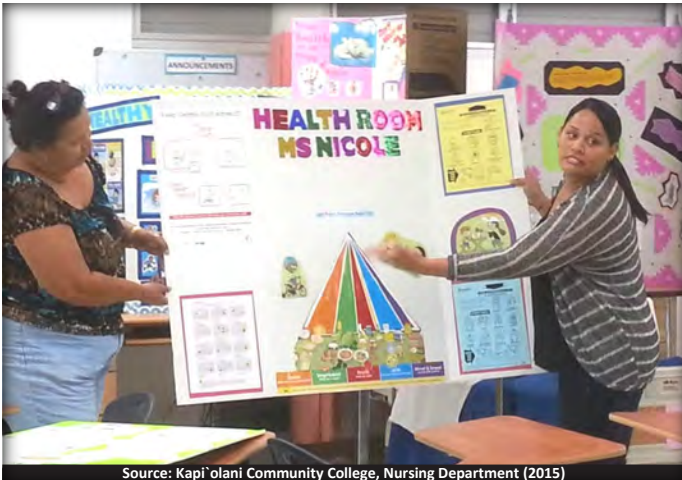
RTs may work in hospitals, clinics, nursing homes, skilled nursing and extended care facilities, home health agencies, or physicians' offices. If they work in a hospital environment, they are more likely to work 10 or 12-hour shifts during the day, evening, night, or weekend to meet the needs of the hospital's patients.

## LENGTH OF TRAINING/REQUIREMENTS:

RTs must have at least a two-year associate's degree, but employers usually prefer a four-year bachelor's degree from an accredited school. Additional clinical components are required.



# SCHOOL HEALTH PROFESSIONALS



Source: Kapi'olani Community College, Nursing Department (2015)

Photo: School health aides teach a class about nutrition.

## SALARY RANGE

\$30,060 - \$80,760\*

## LENGTH OF TRAINING

Up to 4 Years

## JOB GROWTH

17%\*

\*For health educators

## WORK ENVIRONMENT:

School health professionals work in the health rooms of primary and secondary schools.

## LENGTH OF TRAINING/REQUIREMENTS:

Becoming a school health aide/assistant requires a high school diploma. However, it is highly encouraged that they complete a medical assistant program and obtain certification. For school nurses, the minimum requirement is a bachelor's degree in nursing. Advanced practice RNs with master's and doctoral degrees including nurse practitioners provide direct diagnostic and treatment care to students.

## LICENSURE/CERTIFICATION:

School health aides/assistants should be certified in medical assisting, and must hold current certification in child and adult CPR and first aid through the American Red Cross or American Heart Association. School nurses are also required to hold current certifications in child and adult CPR, and must additionally obtain a School Nurse Certification through the National Association of School Nurses.

## EDUCATIONAL PROGRAMS:

Hawai'i Pacific University: BSN  
University of Hawai'i - Mānoa: BSN  
University of Hawai'i - Hilo: BSN  
Kapi'olani Community College: AA

## PROFESSIONAL ASSOCIATIONS:

National Association of School Nurses  
[www.nasn.org](http://www.nasn.org)  
Hawai'i State Department of Education  
[www.hawaiipublicschools.org](http://www.hawaiipublicschools.org)  
American Public Health Association: School Nurse  
[www.apha.org](http://www.apha.org)  
American School Health Association: School Nurse  
[www.ashaweb.org](http://www.ashaweb.org)

School health professionals include school nurses, school health aides, school health assistants, and substitute health aides. All of these health professionals work together to provide a healthy school environment.

School nurses serve as the health professional leader and provide nursing services for students and staff. They are typically Registered Nurses (RNs) that are able to work independently. School nurses coordinate health services including counseling, health intervention, and assessing mental health needs. School nurses also identify safety and health concerns to promote a nurturing social environment. Additionally, school nurses conduct outreach to the community, encourage parent involvement, and refer students to external resources. School nurses also perform public health screenings to prevent common childhood communicable disease and clinical tasks for patient care.

School health aides/assistants are under the supervision of the school nurse and help with daily tasks such as maintaining a clean environment, maintaining a log of student visitations, providing first aid and emergency care to students, and assisting with classroom health inspections and screenings.

## AREAS OF SPECIALIZATION:

School health professionals generally specialize in pediatrics, mental health, public health, or health education. This may include early childhood programs, elementary or secondary students, adolescents, children with special needs, or students with high-risk behaviors.

# SOCIAL WORKER



Source: Hawai'i & Pacific Basin AHEC/UH Myron B. Thompson School of Social Work (2015)

Photo: Social workers with patients in two different community settings.

Social workers are professionals who help individuals, groups, or communities enhance or restore their capacity for holistic health, including social well-being and mental health. Social workers are trained in the biopsychosocial and spiritual approach to health services and work to meet the mental health needs of their patients. Thus, social workers consider the non-medical determinants of disease such as a person's ability to navigate a complex healthcare system, obtain recommended medicine, cope with the challenges of disabling conditions, and resolve caregiving issues in the home environment. Social workers help people overcome obstacles in their lives by connecting them to social services, non-profit organizations, or government agencies.

## WORK ENVIRONMENT:

Social workers, including those in behavioral health agencies, may provide services in hospitals, community clinics, HIV and other condition-specific agencies, hospice, long-term care facilities, court, school, correctional facilities and private offices.

## LENGTH OF TRAINING:

Social workers must have at least a four-year Bachelor of Social Work (BSW) degree. The Master of Social Work (MSW) is a desired degree for most health positions.

## AREAS OF SPECIALIZATION:

Specialties may include administration, aging, child welfare, alcohol/tobacco/drugs, health, adolescents, mental health, education, couples, marriage and family therapy, social or economic justice, or the judicial system.

## SALARY RANGE

\$30,340 - \$68,610\*

## LENGTH OF TRAINING

4 - 6 Years

## JOB GROWTH

14%\*

\*For child, family, and school social workers

## LICENSURE/CERTIFICATION:

The Hawai'i Department of Commerce and Consumer Affairs requires licensure. There are three types offered in Hawai'i, including Licensed Social Worker, Licensed Bachelor Social Worker, and Licensed Clinical Social Worker. Each license requires a combination of education, work experience, and clinical experience.

## EDUCATIONAL PROGRAMS:

The Council on Social Work Education has accredited three social work programs in Hawai'i:

Brigham Young University-Hawai'i  
Social Work: BSW

Hawai'i Pacific University  
Social Work: BSW, MSW

University of Hawai'i at Mānoa  
Social Work: BSW, MSW, PhD

## PROFESSIONAL ASSOCIATIONS:

Council on Social Work Education  
[www.cswe.org](http://www.cswe.org)

National Association of Social Workers (Hawai'i)  
[www.naswhi.org](http://www.naswhi.org)

National Association of Social Workers  
[www.socialworkers.org](http://www.socialworkers.org)

# SPEECH-LANGUAGE PATHOLOGIST



Source: UH Department of Communication Sciences & Disorders (2015)

Photo: A speech-language pathologist helps a child pronounce difficult words to aid in speech development.

Speech-language pathologists evaluate, diagnose, and treat patients with communication and swallowing disorders such as stuttering, articulation disorders, language disorders, autism, language based learning disorders, reading difficulties, traumatic brain injury, voice, and swallowing disorders, aphasia, dementia, and hearing loss.

## AREAS OF SPECIALIZATION:

Speech-language pathologists often specialize in a specific age group (children, elderly, etc.) or a particular condition (hearing loss, stroke, etc.).

## WORK ENVIRONMENT:

Speech-language pathologists in medical settings such as hospitals, and skilled nursing facilities. Some work in schools, helping children develop language skills to improve their academic performance.

Others work at universities or colleges as instructors or researchers.

## LENGTH OF TRAINING/REQUIREMENTS:

Speech-language pathologists must have at least a master's degree and have clinical experience.

## SALARY RANGE

\$53,790 - \$93,380

## LENGTH OF TRAINING

6+ Years

## JOB GROWTH

11%

## LICENSURE/CERTIFICATION:

Must have a Certificate of Clinical Competence in Speech-Language Pathology from American Speech-Language-Hearing Association and must obtain a Hawai'i Speech-Language Pathology License.

## EDUCATIONAL PROGRAMS:

University of Hawai'i at Mānoa  
Interdisciplinary Studies (CSD): BA  
CSD Post-Baccalaureate Prerequisite Program  
Graduate Degree (CSD): MS

## PROFESSIONAL ASSOCIATIONS:

American Speech-Language Hearing Association  
[www.asha.org](http://www.asha.org)  
Hawai'i Speech Language and Hearing Association  
[www.hsha.org](http://www.hsha.org)

# SUBSTANCE ABUSE COUNSELOR



Source: Leeward Community College/Substance Abuse Counselor Program (2015)

Photo: A substance abuse counselor meets a new patient.

## SALARY RANGE

\$30,710 - \$61,490\*

## LENGTH OF TRAINING

2 - 6 Years

## JOB GROWTH

20%\*

\*For substance abuse and behavior disorder counselors

Substance abuse counselors work with clients who have problems with abuse or addiction to substances. They are trained in individual and group counseling and it helps in this profession to be compassionate. Substance abuse counselors may work with families, employers, probation and parole officers, or substance abuse prevention.

### WORK ENVIRONMENT:

Substance abuse counselors can be found in private practices, government agencies, correctional facilities, non-profit organizations, addiction or rehabilitation centers, and schools. Some work with clients in clinical, prevention, or administrative environments.

### LENGTH OF TRAINING:

The educational requirements for a substance abuse counselor range from a certificate, two-year associate's degree, four-year bachelor's degree, to a master's degree depending on the employer and the type of certification or license that is required.

### LICENSURE/CERTIFICATION:

Substance abuse counselors must be certified through the Hawai'i Department of Health's Alcohol and Drug Abuse Division. Some choose to become members of the National Association for Alcoholism and Drug Abuse Counselors. In Hawai'i, Certified Substance Abuse Counselors (CSACs) have International Certification and a Reciprocity Consortium (ICRC) standing.

### EDUCATIONAL PROGRAMS:

Hawai'i Community College: CO  
Leeward Community College: CC  
UH West O'ahu: UCert

### PROFESSIONAL ASSOCIATIONS:

American Society of Addiction Medicine  
[www.asam.org](http://www.asam.org)  
National Association of Alcoholism and Drug Abuse Counselors (NAADAC)  
[www.naadac.org](http://www.naadac.org)  
National Institute on Drug Abuse  
[www.drugabuse.gov/nidahome](http://www.drugabuse.gov/nidahome)  
Substance Abuse and Mental Health Services Administration  
[www.samhsa.gov](http://www.samhsa.gov)

# SURGICAL TECHNOLOGIST/ASSISTANT



Source: Centers for Disease Control

Photo: A surgical technologist assists a surgical team.

## SALARY RANGE (Hawai`i)

Technologist: \$35,640 - \$76,390

Assistant: \$39,970 - \$74,580\*

## LENGTH OF TRAINING

Technologist: 1 - 2 Years/905 Training Hours

Assistant: 1 - 2 Years

## JOB GROWTH (Hawai`i)

Technologist: 29%

Assistant: 14%\*

\*For health technologists and technicians, all other

## LENGTH OF TRAINING/REQUIREMENTS:

Surgical assistants and technologists obtain a postsecondary certificate or a two-year associate's degree from an accredited surgical technology program, community college, or the military. Some surgical assistants start as surgical technologists.

## LICENSURE/CERTIFICATION:

Surgical assistants must obtain certification by the National Board of Surgical Technology and Surgical Assisting.

## EDUCATIONAL PROGRAMS:

Kapi`olani Community College, Surgical Technology:  
Medical Assisting

American Intercontinental University: Medical Assisting

Remington College: Medical Assisting

## PROFESSIONAL ASSOCIATIONS:

American Board of Surgical Assistants  
[www.absa.net](http://www.absa.net)

Association of Surgical Technologists  
[www.ast.org](http://www.ast.org)

National Surgical Assistant Association  
[www.nsaa.net](http://www.nsaa.net)

Surgical technologists, also known as surgical technicians, operation room technicians, or scrubs have a vital role in sterilizing the operating room prior to procedures, draping and positioning the patient, as well as providing and setting up the necessary tools, equipment, and medicine needed for the operation. Therefore, surgical technologists must possess the mastery of aseptic and sterilization, as well as have knowledge of hundreds of surgical procedures. Under the supervision of a Registered Nurse and surgeon, surgical technologists ensure the efficiency and smoothness of the procedure, check consent forms, and update patient charts.

Surgical assistants are more hands-on with the surgical procedures. The surgical assistant assists the surgeon in sponging, suturing, suctioning, staunching any bleeding during the procedure, treating wounds, and holding retractors.

## AREAS OF SPECIALIZATION:

Some specialties include obstetrics, trauma, gynecology, urology, plastics, general, orthopedics, neurology, cardiovascular, and transplant surgeries.

## WORK ENVIRONMENT:

Surgical technologists and assistants mainly work in the operating room of hospitals and most likely spend some time on-call for emergency procedures. They can also be found in private physician practices, ambulatory surgery, and outpatient surgery centers.

# VETERINARIAN



Source: Kaka'ako Pet Hospital (2015)

Photo: A veterinarian in Kaka'ako performing surgery.

A veterinarian, also known as a Doctor of Veterinary Medicine (DVM), provides medical care to animals. They diagnose and treat animals with diseases, illnesses, and injuries. DVMs educate owners on proper care of their animals and give advice to owners of livestock. Some DVMs work in the food safety field by researching the types of feed, chemicals and other conditions that livestock are exposed to. Many DVMs are involved in ecological preservation and environmental advocacy efforts.

## WORK ENVIRONMENT:

DVMs often work in a private practice. Although many DVMs work in clinics/offices, some are required to travel to the animal in need of attention, especially if the animal is large or very sick. Government branches may hire DVMs to help control animal populations in an area. Pharmaceutical companies hire DVMs to conduct research on treatments for animals and humans. Some DVMs choose to teach or do research at a university. Many DVMs have assistants and technicians to assist with procedures.

## AREAS OF SPECIALIZATION:

DVMs can choose among about 500 sub-specializations. Some general specializations include large animals, small animals, exotic animals, or livestock.

## SALARY RANGE

\$43,370 - \$187,200+

## LENGTH OF TRAINING

8+ Years

## JOB GROWTH

7%

## LENGTH OF TRAINING/REQUIREMENTS:

A DVM degree is required, which includes a four-year bachelor's degree with at least two years of pre-veterinary study. Then, a four-year veterinary medicine program must be completed.

## LICENSURE/CERTIFICATION:

DVMs must pass the North American Veterinary Licensing Examination and obtain a Hawai'i Veterinary License.

## EDUCATIONAL PROGRAMS:

There are no programs currently available in Hawai'i, but you can receive training on the mainland and return to Hawai'i for your career!

## PROFESSIONAL ASSOCIATIONS:

American Veterinary Medical Association

[www.avma.org](http://www.avma.org)

Association of American Veterinary Medical Colleges (AAVMC)

[www.aavmc.org](http://www.aavmc.org)

Hawai'i Veterinary Medicine Association

[www.hawaiiivma.org](http://www.hawaiiivma.org)

# VETERINARY ASSISTANT



Source: U. S. Department of Agriculture (2009)

Photo: A veterinary assistant catalogs and prepares milk samples from a variety of animals.

Veterinary assistants assist veterinarians and veterinarian technicians in the medical care of animals. Veterinary assistants usually perform clerical or animal care duties (e.g. bathing and feeding).

## WORK ENVIRONMENT:

Most veterinary assistants work in veterinary offices or hospitals, but some work in biomedical research firms, zoos, or animal-oriented businesses.

## AREAS OF SPECIALIZATION:

Veterinarian assistants may become veterinary technicians with more training.

## LENGTH OF TRAINING/REQUIREMENTS:

A high school diploma is required, along with on-the-job training or a two-year associate's degree.

## SALARY RANGE

\$16,850 - \$34,060

## LENGTH OF TRAINING

Up to 2 Years

## JOB GROWTH

2%

## LICENSURE/CERTIFICATION:

Certification is not required, but can be obtained through the National Association of Veterinary Technicians. For Laboratory Animal Caretakers, the American Association for Laboratory Animal Science offers three levels of certification:

- Assistant Laboratory Animal Technician
- Laboratory Animal Technician
- Laboratory Animal Technologist

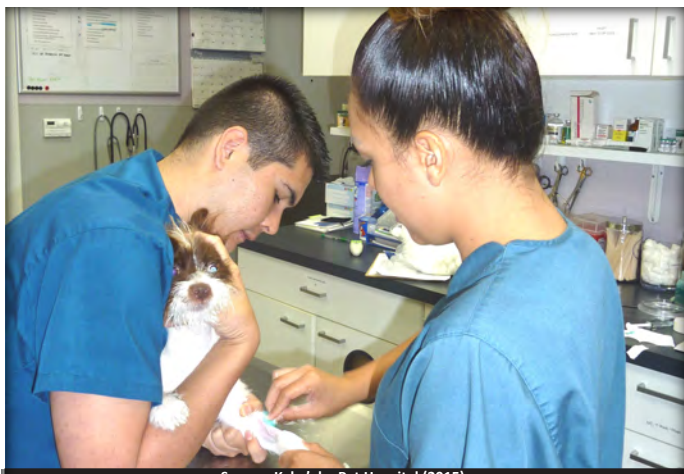
## EDUCATIONAL PROGRAMS:

Windward Community College  
Certificate in Veterinary Assisting

## PROFESSIONAL ASSOCIATIONS:

Hawai'i Veterinary Medicine Association  
[www.hawaiiivma.org](http://www.hawaiiivma.org)

# VETERINARY TECHNICIAN



Source: Kaka'ako Pet Hospital (2015)

Photo: Veterinary technicians in Kaka'ako clean and sterilize a cut on a dog's leg.

Veterinary technicians assist veterinarians in the medical and daily care of animals. Veterinary technicians usually have more training and are more 'hands-on' as compared to veterinary assistants. Veterinary technicians may prepare animals for treatment through shaving, restraining, performing laboratory tests, and preparing surgical equipment. Along with veterinarians, they educate clients about animal health.

## WORK ENVIRONMENT:

Most veterinary technicians work under the supervision of a veterinarian in offices or hospitals, zoos, or private companies.

## AREAS OF SPECIALIZATION:

Some veterinary technicians are qualified to teach or do research at universities or become managers in large veterinarian facilities.

## SALARY RANGE

\$25,210 - \$38,620

## LENGTH OF TRAINING

2+ Years

## JOB GROWTH

22%

## LENGTH OF TRAINING/REQUIREMENTS:

A two-year associate's degree program from an American Veterinarian Medical Association accredited program is required.

## LICENSURE/CERTIFICATION:

Veterinary technicians have the option to be registered in Hawai'i by passing the Veterinary Technician National Exam.

## EDUCATIONAL PROGRAMS:

Windward Community College  
Veterinary Technology: AS

## PROFESSIONAL ASSOCIATIONS:

Hawai'i Veterinary Medicine Association  
[www.hawaiivma.org](http://www.hawaiivma.org)



# VISION ASSISTANT



Source: FreeDigitalPhotos.net, Sira Anamwong (2013)

Photo: A vision assistant uses an optometer to determine eye refraction.

Vision assistants can either be considered an optometric assistant or an ophthalmic assistant. An optometric assistant works with an optometrist (Doctor of Optometry) and an ophthalmic assistant works with an ophthalmologist (Doctor of Medicine). Both assistant positions gather patient medical history information and aid in performing vision and diagnostic tests for eye function. Assistants help with preparing exam rooms and arranging necessary equipment. Additionally, assistants complete administrative tasks such as answering phone calls, coordinating patient scheduling, bookkeeping, insurance coding and billing, and supervising or training other assistants. Assistants should be able to multitask and possess strong organizational skills.

## AREAS OF SPECIALIZATION:

Vision assistants can specialize in optometry or ophthalmology.

## WORK ENVIRONMENT:

Vision assistants may work in hospitals, clinics, private practices, university research facilities, or with the military.

## SALARY RANGE

\$23,020 - \$45,820\*

## LENGTH OF TRAINING

1 to 2 Years

## JOB GROWTH

14%\*

\*For medical assistants

## LENGTH OF TRAINING/REQUIREMENTS:

Vision assistants have one to two years of training in a medical assisting program at a vocational school or community college. Some vision assistants are hired with minimal experience and receive on-the-job training.

## LICENSURE/CERTIFICATION:

Ophthalmology assistants must obtain certification through the Joint Commission on Allied Health Personnel in Ophthalmology.

## EDUCATIONAL PROGRAMS:

Kapi'olani Community College: Medical Assisting  
Remington College: Medical Assisting  
Hawai'i Medical College

## PROFESSIONAL ASSOCIATIONS:

American Academy of Ophthalmology  
[www.aao.org](http://www.aao.org)  
American Ophthalmological Society  
[www.aosonline.org](http://www.aosonline.org)  
American Optometric Association  
[www.aoa.org](http://www.aoa.org)  
Association of Technical Personnel in Ophthalmology  
[www.atpo.org](http://www.atpo.org)

# VISION TECHNICIAN/TECHNOLOGIST



Source: Centers for Disease Control, Eric Grafman (2014)

Photo: A vision technician works with a phoropter to test individual lenses on a patient's eyes.

Vision technicians work with either an optometrist (Doctor of Optometry) as an optometric technician or with an ophthalmologist (Doctor of Medicine) as an ophthalmic technician. In addition to the administrative work, technicians aid in vision measurements for glasses, assist patients with eye exercises, and educate patients on the prevention of blindness. They also test color vision, visual acuity, depth perception, pupil reflexes, and the amount of pressure inside the eye.

An ophthalmic technologist is considered more advanced than a technician and assists ophthalmologists in surgical procedures. Technologists perform clinical photography and fluorescence angiography.

## AREAS OF SPECIALIZATION:

Vision technicians and technologists specialize in either optometry or ophthalmology.

## WORK ENVIRONMENT:

Vision technicians and technologists can work in hospitals, clinics, private practices, university research facilities, or with the military.

## SALARY RANGE

\$39,970 - \$74,580\*

## LENGTH OF TRAINING

1-2+ Years

## JOB GROWTH

14%\*

\*For health technologists and technicians, all other

## LENGTH OF TRAINING/REQUIREMENTS:

Vision technicians spend one to two years at a vocational school or community college. Vision technologists require at least a two-year associate's degree from a community college.

## LICENSURE/CERTIFICATION:

Ophthalmology technicians and technologists must obtain certification through the Joint Commission on Allied Health Personnel in Ophthalmology.

## EDUCATIONAL PROGRAMS:

Kapi`olani Community College  
Medical Assisting  
Remington College  
Medical Assisting  
Hawai'i Medical College

## PROFESSIONAL ASSOCIATIONS:

American Academy of Ophthalmology  
[www.aaopt.org](http://www.aaopt.org)  
American Ophthalmological Society  
[www.aosonline.org](http://www.aosonline.org)  
American Optometric Association  
[www.aoa.org](http://www.aoa.org)  
Association of Technical Personal in Ophthalmology  
[www.atpo.org](http://www.atpo.org)

The Health Professions I'm most interested in are...	Education and Training Needed	Why I would like to be this healthcare professional

**Notes:**

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Corrections or suggestions to improve this book?

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