



The Career Pathway Handbook

SOMETHING FOR EVERYONE





Explore *Natural Resources*

Why flip burgers, when you can feed the world?

Examine *Health Services*

Why punch a clock, when you can keep the human body ticking?

Check out

Why answer to the chief executive officer, when you can be one?

Business

Discover the possibilities in *Public and Human Services*

Why follow the crowd, when you can lead it?

Build your future in *Industrial and Engineering Technology*

Why hang out at the mall, when you can design one?

Express yourself in *Arts and Communication*

Why sing in the shower, when all the world's a stage?

Pathways 101

Understanding the Basics

What Are Career Pathways?

Career Pathways are broad groupings of career specialties/occupations that have common skills and knowledge. Career Pathways provide a context for exploring career options at all levels of education and a framework for linking learning to the skills and knowledge needed for future success.

Where Should Career Pathways Be Used?

Career Pathways provide an ideal organizing tool at all educational levels—kindergarten through college—to guide career exploration and planning activities, to focus teaching and learning, and to link education with relevant real-world experiential activities.

How Many Career Pathways Are There?

Hawai'i has six Career Pathways:

- Arts and Communication
- Business
- Health Services
- Natural Resources
- Industrial and Engineering Technology
- Public and Human Services

How Are Career Pathways Developed?

Educators and representatives from business and industry collaborated to determine which occupations belong in each Career Pathway. Each Career Pathway moves from a core area that includes business/industry standards common to the occupations within the Career Pathway to more focused clusters of work-related functions or specific occupations.

How Can Career Pathways Be Used?

One use for Career Pathways is as a tool for career exploration. For younger children, the Career Pathways posters can be used as an aid for career exploration. Identifying various occupations within each Career Pathway is a good start to developing career exploration activities. Older children and adults may find that taking the interest inventory (RIASEC) in this booklet helps them explore Career Pathway options.

While career exploration is valuable for all students, special needs students such as second language learners or those with disabilities have limited role models and may face stereotyped expectations. Introducing students to broad career pathways, and the numerous career clusters and occupations within, expands the list of career possibilities for all students.

At the secondary and postsecondary levels, Career Pathways provide curriculum standards that meet business and industry requirements. Implementing these standards will ensure student attainment of a high level of academic and technical skills and a seamless transition from secondary to postsecondary education as well as a satisfying career. To obtain a copy of the core, cluster, and occupation area business and industry validated

standards that have been established for each Career Pathway, visit the Office of the State Director for Career and Technical Education website at www.hawaii.edu/cte.

Hawai'i's Career Pathway System

Something for Everyone

In a world of possibilities, explore...

Natural Resources

Why flip burgers, when you can feed the world?

Consider this!

Do you enjoy working outdoors?

Like hands-on activities?

Are you interested in plants and animals?

Do you like to be physically active?

Do you like to observe, learn, investigate or solve problems?

RIASEC Code for this Career Pathway: R



Careers That Need a High School Diploma + Training

- Groundskeeper
- Nursery Worker
- Animal Caretaker
- Fish and Wildlife Technician
- Harvester
- Miller

Careers That Need 2-3 Years Postsecondary Education + Training

- Plant Propagator
- Fish and Game Warden
- Air and Water Quality Technician
- Astronomical Equipment Mechanic
- Animal Breeder

Careers That Need a 4-Year or Graduate Degree

- Botanist
- Volcanologist
- Recycling Specialist
- Urban/Regional Planner
- Astronomer
- Zoologist

Core	Occupational Cluster	Occupational Concentration	Occupational Examples		
			High School Diploma + Training	2-3 years Post-secondary + Training	4-Year or Graduate Degree
			Entrepreneurship		
NATURAL RESOURCES	Agriculture	Plant Science	Agricultural Worker, Turfgrass Maintenance Worker	Plant Propagator, Lab Worker, Landscape Maintenance Entrepreneur	Botanist, Horticulturist, Entomologist, Plant Ecologist, Taxonomist, Plant Geneticist, Ethnobotanist
		Bio-Technology	Lab Technician	Lab Technician	Scientist, Agricultural Engineer, Science Teacher, Bioprocessing Technologist
		Animal Science	Animal Worker	Animal Breeder, Veterinary Technician	Geneticist, Veterinarian, Animal Quarantine
		Forest Industry, Agroforestry	Harvester, Miller	Wood Worker	Forester, Pomologist, Silviculturist
		Soil Science	Farm Manager, Ag Chemical Salesperson	Golf Course Worker, Ag Inspector	Geophysicist, Soil Conservationist, Extension Agent
		Aquaculture	Aquaculture Worker	Hatchery Manager, Aquaculture Technician	Aquacultural Engineer, Agricultural Engineer
	Earth, Ocean, and Space	Astronomy		Astronomical Equipment Mechanic	Astronomer
		Meteorology, Climatology			Climatologist, Meteorologist
		Geology			Geologist, Volcanologist
		Marine Science	Underwater Diver, Marine Animal Trainer	Aquarium worker, Wildlife Specialist, Marine Research Technician	Ichthyologist, Marine Biologist, Oceanographer
		Oceanography and Coastal Management		Field Technician	Oceanographer
	Environmental and Conservation	Ecosystem Management	Fish and Wildlife Technician	Fish and Game Warden	Conservation Biologist, Ecological Manager, Environmental Engineer, Environmental Inspector
		Air and Water Quality Management		Air and Water Quality Technician	Water Quality Engineer, Environmental Scientist
		Energy Conservation and Management			Petroleum Engineer Researcher
		Waste Management			Green Waste Manager, Recycling Specialist, Sewage Treatment Plant Manager
		Environmental Assessment, Urban/Regional Planning	Field Worker	Paralegal, Environmental Technician	Urban/Regional Planner, Environmental Advocate, Attorney, Environmental Policy Analyst

In a world of possibilities, explore...

Health Services

Why punch a clock, when you can keep the human body ticking?

Consider this!

Do you enjoy working with people?

Like to research and analyze statistics?

Find anatomy and biology intriguing?

Enjoy the study of dietetics and nutrition?

Enjoy a fast-paced environment?

RIASEC Codes for this Career Pathway:

R and S some C, I

Careers That Need a High School Diploma + Training

- Nurse's Aide
- Ward Clerk
- Dental Assistant
- Medical Transcriptionist
- Phlebotomist
- Pharmacy Technician
- Home Health Aide

Careers That Need 2-3 Years Postsecondary Education + Training

- Licensed Practical or Associate Degree Registered Nurse
- Medical Assistant
- Physical or Occupational Therapist Assistant
- Radiological Technologist
- Medical Laboratory Technician
- Respiratory Therapist

Careers That Need a 4-Year or Graduate Degree

- Physician
- Audiologist
- Speech Pathologist
- Athletic Trainer
- Bachelor of Science Registered Nurse
- Nutritionist
- Dental Hygienist
- Radiologist



Core	Occupational Cluster	Occupational Concentration	Occupational Examples		
			High School Diploma + Training	2-3 years Post-secondary + Training	4-Year or Graduate Degree
HEALTH SERVICES	Diagnostic	Imaging	Diagnostic Imaging Assistant	Diagnostic Medical Sonographer, EEG (Electroencephalography) Technician, Radiological Technologist	Radiologist
		Laboratory	Phlebotomist Laboratory Assistant	Medical Laboratory Technician	Pathologist Medical Technologist
	Therapeutic	Dental	Dental Assistant		Dentist, Dental Hygienist
		Nutrition/Food Services	Dietitian Aide	Dietitian Aide (Supervisory)	Registered Dietitian
		Direct Patient Care/Nursing	Respiratory Assistant, Home Care Aide, Hospital Aide, Nurse's Aide	Emergency Medical Technician, Mobile Intensive Care Technician, Respiratory Therapist, Medical Assistant, Licensed Practical Nurse, Registered Nurse (ADN)	Nutritionist, Chiropractor Naturopath, Speech/Language Pathologist, Athletic Trainer, Registered Nurse (BSN)
		Pharmacy	Pharmacy Technician, Pharmacy Support Services Clerk	Junior Pharmacy Analyst	Pharmacist, Research Pharmacist
		Physician			Medical Doctor, Physician Assistant
		Rehabilitation	Physical Therapist Aide, Massage Therapist	Physical Therapist Assistant, Occupational Therapy Assistant	Physical Therapist, Occupational Therapist, Speech Pathologist, Audiologist
	Health Informatics	Administrative	Lab Aide, Ward Clerk, Admitting Clerk, Medical Secretary	Health Information Coder, Medical Biller, Medical Transcriptionist	Group Health Administrator, Health Care Executive, Health Plan Administrator
	Support Services	Plant Operations	Transporter, Central Services Technician	Biomedical Technician, Industrial Hygienist, Hospital Maintenance Engineer, Environmental Health and Safety Officer	Biomedical Engineer, Central Services Director, Transport Services Supervisor, Materials Coordinator
	Biotechnology Research and Development	Molecular Biology	Research Assistant, Lab Assistant-Genetics	Quality Control Technician, Quality Assurance Technician	Biochemist, Biostatistician, Biomedical Chemist, Geneticist, Microbiologist, Molecular Biologist, Pharmaceutical, Scientist, Toxicologist

In a world of possibilities, explore...

Business

Why answer to the chief executive officer, when you can be one?

Consider this!

Do you enjoy working with numbers?

Like to talk with a variety of people?

Like to analyze and compare things?

Enjoy working with computers?

Like to manage and multi-task?

RIASEC Codes for this Career Pathway:

E and C some I



Careers That Need a High School Diploma + Training

- Car Rental Clerk
- Cashier
- Data Entry Clerk
- Bank Teller
- Retail Salesperson

Careers That Need 2-3 Years Postsecondary Education + Training

- Accounting/Statistical Clerk
- Administrative Assistant
- Computer Networking and Support
- Transportation Manager
- Records Manager

Careers That Need a 4-Year or Graduate Degree

- Public Administrator
- Construction Manager
- Financial Planner
- Marketing Manager
- Human Resources Director
- Accountant

Core	Occupational Cluster	Occupational Concentration	Occupational Examples		
			High School Diploma + Training	2-3 years Post-secondary + Training	4-Year or Graduate Degree
BUSINESS	Accounting	Accounting	Account Clerk	Bookkeeper	Corporate Accountant Auditor
		Taxes	Electronic Tax Filer	Tax Preparer	Tax Accountant
	Finance	Banking	Teller	Mortgage Broker	Bank Manager
		Corporate Financial Management			Chief Financial Officer
		Financial Planning			Financial Planner
		Securities/Investment		Underwriter	Investment Analyst
	Management	Event/Conference Planning		Event Coordinator	Convention Planner
		General Management		Operations Manager	General Manager
		Human Resource Management	Human Relations Clerk	Benefits Specialist	Personnel Director
		Travel Industry Management	Travel Agent		Hotel Manager
		Entrepreneurship	Entrepreneur		
	Management Information System	Hardware Administration			Hardware Administrator
		Network Administration	Network Technician	Network Architect	Chief Technology Officer
		System Administration			System Administrator
		Systems Analysis/ Programming	Website Designer	Application Developer	Software Engineer
	Marketing	Advertising	Telemarketer	Layout Specialist	Account Executive
		Distribution	Inventory Clerk	Distribution Manager	
		Marketing Research		International Marketing Specialist	Data Analyst/Statistician
		Product/Brand Management			Product Developer
		Public Relations			Public Relations Manager
		Retail Merchandising	Cashier	Buyer	Store Manager
		Sales	Sales Associate		Sales Manager
	Business Technology	Information Processing	Data Entry Clerk	Data Base Manager	Chief Information Officer
		Records and Information Management	Records Technician/ File Clerk	Administrative Assistant	Office Manager

In a world of possibilities, explore...

Public and Human Services

Why follow the crowd, when you can lead it?



Consider this!

Do you enjoy working with children?

Speaking in front of groups?

Enjoy working as part of a team?

Do you like to cook?

Do you enjoy helping people?

RIASEC Codes for this Career Pathway:

S and E, some A, I

Careers That Need a High School Diploma + Training

- Police Officer
- Firefighter
- Prep Cook
- Event Planner
- Politician
- Administrative Assistant

Careers That Need 2-3 Years Postsecondary Education + Training

- Pre-School Teacher
- Paralegal
- Educational Assistant
- Sous Chef
- Hotel Assistant Manager
- Paramedic

Careers That Need a 4-Year or Graduate Degree

- Principal
- Lawyer
- Anthropologist
- Executive Chef
- Speech Therapist
- Hotel General Manager



Core	Occupational Cluster	Occupational Concentration	Occupational Examples		
			High School Diploma + Training	2-3 years Post-secondary + Training	4-Year or Graduate Degree
PUBLIC AND HUMAN SERVICES	Human Services	Clergy		Pastoral Assistant	Pastor
		Psychology		Research Aide	Psychologist
		Social Work	Social Service Assistant	Research Aide	Caseworker
	Education	Administration	Administrative Assistant		Principal
		Curriculum and Instruction	Curriculum Aide	Educational Assistant	Educational Specialist
		Comprehensive Student Support	Counselor's Aide	Career Guidance Technician	Speech Therapist
			Teacher Aide	Preschool Teacher	Preschool Director
		Early Childhood Education			
	Legal and Protective Services	Law Enforcement	Police Officer	Federal Park Police	Federal Agent
		Courts	Legal Secretary	Paralegal	Lawyer/Judge
		Corrections	Corrections Guard/Officer	Administrator	Warden
		Private Security	Security Guard		Investigator
		Fire and Environmental Emergency Services	Firefighter	Paramedic	Disaster Management Team Coordinator
	Social Sciences	Anthropology			Anthropologist
		Economics	Statistics Clerk		Economist
		Political Science	Politician		Political Scientist
		Sociology	Community Aide		Urban Planner
		Regional Planning	Survey Worker		Environmental Study Specialist
	Service and Hospitality	Culinary Arts	Prep Cook	Sous Chef	Executive Chef
		Hotel Operations	Guest Services/Concierge	Assistant Manager	General Manager
		Tourism	Event Planner	Ticketing Agent	Convention Manager

In a world of possibilities, explore...

Industrial and Engineering Technology



Why hang out at the mall, when you can design one?

Consider this!

Do you like working with objects and machines?

Like using tools and equipment?

Enjoy activities that require creativity?

Like to visualize objects in three dimensions?

Enjoy working with scientific and technical data?

RIASEC Codes for this Career Pathway:

R and I some C

Careers That Need a High School Diploma + Training

- Service Attendant
- Carpenter Assistant
- Cable Installer
- Drafting Aide
- Welding Apprentice

Careers That Need 2-3 Years Postsecondary Education + Training

- Electronic Technician
- Operations Manager
- Drafting Technician
- Electrician
- Automotive Mechanic
- Networking Technician

Careers That Need a 4-Year or Graduate Degree

- Civil Engineer
- Architect
- Electrical Engineer
- Atmospheric Scientist
- Software Engineer
- Systems Engineer



Core	Occupational Cluster	Occupational Concentration	Occupational Examples		
			High School Diploma + Training	2-3 years Post-secondary + Training	4-Year or Graduate Degree
INDUSTRIAL AND ENGINEERING TECHNOLOGY	Design and Engineering	Architecture	Drafting Aide	Drafting Technician	Architect
		Engineering	Civil Engineering Aide	Surveyor	Civil Engineer
	Transportation Systems	Automotive Technology	Service Attendant	Automotive Mechanic	Atmospheric Scientist
		Marine Technology	Installer/Finisher	Marine Technician/ Mechanic	
		Aeronautic/Space Technology	Component Installer	Airframe/Powerplant Mechanic	
		Operations (Mechanical) and Support	Operator	Operations Manager	
	Manufacturing	Machine Tool	Machine Operator	Machinist Mechanic	Production Engineer
		Synthetics	Installation/Repair Assistant	Fabricator Mechanic	
		Sheetmetal Fabrication	Installation Apprentice	Sheetmetal Technician	
		Welding	Welding Apprentice	Welder	
		Fine Woodworking/ Millwork	Assembler/Operator	Plant Supervisor	
	Building and Construction	Plumbing	Apprentice	Plumber	Electrical Engineer
		Carpentry	Carpenter Assistant	Carpenter	
		Masonry	Apprentice	Mason	
		Electrical	Electrical Apprentice	Electrician	
	Electronics and Computer Systems	Computer Technology	Inspector/Tester	Electronic Technician	Electrical Engineer
		Computer Networking	Cable Installer	Networking Technician	Systems Engineer
		Systems Analysis and Programming	Office Assistant	Programmer	Software Engineer
		Electronics	Installation/Repair Assistant	Electronic Technician	Electrical Engineer

In a world of possibilities, explore...

Arts and Communication



Why sing in the shower, when all the world's a stage?

Consider this!

Do you like to dance?

Enjoy performing before a group?

Like sharing ideas and information with others?

Enjoy expressing ideas in art?

Enjoy activities that require imagination?

RIASEC Codes for this Career Pathway:

A and E some R



Careers That Need a High School Diploma + Training

- Framer
- Graphic Assistant
- Production Assistant
- Singer/Dancer
- Illustrator
- Slidemaker

Careers That Need 2-3 Years Postsecondary Education + Training

- Visual Effects Artist
- Hair Stylist
- Radio Announcer
- Art Restorer
- Exhibit Curator
- Videographer/Camera Person

Careers That Need a 4-Year or Graduate Degree

- Gallery Administrator
- Fine Arts Teacher
- Master Animator
- Museum Director
- Publisher
- Producer

Core	Occupational Cluster	Occupational Concentration	Occupational Examples		
			High School Diploma + Training	2-3 years Post-secondary + Training	4-Year or Graduate Degree
ARTS AND COMMUNICATION	Visual Arts	3-Dimensional Art	Sculptor, Ceramicist, Glassblower, Jeweler, Furniture Designer, Carver, Arts Educator		
		2-Dimensional Art	Painter, Photographer, Illustrator, Cartoonist, Weaver, Muralist, Collagist, Print Maker, Arts Educator		
		Museum Studies	Framer, Exhibit Constructor, Docent, Guide	Museum Educator, Exhibit Curator, Arts Educator	Gallery Administrator, Museum Director/Curator, Arts Organizer
		Historic Preservation/ Restoration	Art Maintenance	Art Restorer, Preserver	Art Preservation Administrator
		Art History	Slidemaker	Researcher	Art Critic, Appraiser, Research Director, Researcher
	Performing Arts	Stage/Theatre/TV/Film	Actor, Stand Up Comic, Lighting Designer, Set Designer/Construction		
		Music	Conductor, Music Arranger, Composer		
		Dance	Choreographic, Dancer		
	Written Arts	Audio and Visual (Broadcasting)		Radio Announcer	News Reporter
		Writers/Editing	Proofreaders	Writer-Technical, Script, Creative, Copywriter, Editor	Producer
		Publication		Grant Writer, Novelist, Essayist	Publisher
	Fashion Arts and Technologies	Cosmetology		Make up Artist, Hair Stylist	
		Fashion Design		Fashion Designer	
	Media Arts and Technologies	Audio/Video/Film/ Motion Graphics	Technician, Production Assistant Grip	Video/Film/Audio/ Sound Editor, Videographer/Camera Person	Director, Producer, Art/Creative Director, Project Manager, Director of Photography
		Design	Web Designer, Graphic Artist, Illustrator	Graphic Designer/ Artist, Illustrator	Graphic Designer, Creative/Art Director, Project Manager, Illustrator
		Animation	Production Assistant, Illustrator	Visual Effects Artist, Modeling and Textual Artist, Digital Matte Painter	Master Animator, Creative/Art Director, Producer, Project Manager

THE RIASEC TEST

1 Read each statement. If you agree with the statement, fill in the circle. There are no wrong answers!

	1	2	3	4	5	6
22. I like putting things together or assembling things						○
23. I am a creative person					○	
24. I pay attention to details						○
25. I like to do filing or typing						○
26. I like to analyze things (problems/situations)			○			
27. I like to play instruments or sing				○		
28. I enjoy learning about other cultures					○	
29. I would like to start my own business						○
30. I like to cook			○			
31. I like acting in plays				○		
32. I am a practical person			○			
33. I like working with numbers or charts				○		
34. I like to get into discussions about issues					○	
35. I am good at keeping records of my work						○
36. I like to lead						○
37. I like working outdoors			○			
38. I would like to work in an office						○
39. I'm good at math				○		
40. I like helping people					○	
41. I like to draw				○		
42. I like to give speeches						○
Total						
Grand Total						
	R	I	A	S	E	C

5 Turn the page to see what this means!

MY INTEREST CODE

Which Career Pathway is right for you?

RESULTS OF THE RIASEC TEST

R = Realistic

These people are often good at mechanical or athletic jobs. Good college majors for Realistic people are...

- Agriculture
- Health Assistant
- Computers
- Construction
- Mechanic/Machinist
- Engineering
- Food and Hospitality

Related Pathways

Natural Resources

Health Services

Industrial and Engineering Technology

Arts and Communication

I = Investigative

These people like to watch, learn, analyze and solve problems. Good college majors for Investigative people are...

- Marine Biology
- Engineering
- Chemistry
- Zoology
- Medicine/Surgery
- Consumer Economics
- Psychology

Related Pathways

Health Services

Business

Public and Human Services

Industrial and Engineering Technology

A = Artistic

These people like to work in unstructured situations where they can use their creativity. Good majors for Artistic people are...

- Communications
- Cosmetology
- Fine and Performing Arts
- Photography
- Radio and TV
- Interior Design
- Architecture

Related Pathways

Public and Human Services

Arts and Communication

S = Social

These people like to work with other people, rather than things. Good college majors for Social people are...

- Counseling
- Nursing
- Physical Therapy
- Travel
- Advertising
- Public Relations
- Education

Related Pathways

Health Services

Public and Human Services

E = Enterprising

These people like to work with others and enjoy persuading and and performing. Good college majors for Enterprising people are:

- Fashion Merchandising
- Real Estate
- Marketing/Sales
- Law
- Political Science
- International Trade
- Banking/Finance

Related Pathways

Business

Public and Human Services

Arts and Communication

C = Conventional

These people are very detail oriented,organized and like to work with data. Good college majors for Conventional people are...

- Accounting
- Court Reporting
- Insurance
- Administration
- Medical Records
- Banking
- Data Processing

Related Pathways

Health Services

Business

Industrial and Engineering Technology

Glossary

Career Pathway System:

A framework of six career pathways which can be applied to all levels of education allowing educators and students to view education as a continuum. The Career Pathway System encompasses Career Guidance, Curriculum Development, Educational Planning, and Articulation.

Career Pathway Framework:

An organization chart of the clusters, concentrations, and examples of specific occupations included in each career pathway.

Career Pathway:

Broad groupings of career specialties/occupations that have common skills and knowledge. Career Pathways move from a core area of business and industry validated standards common to the occupations within the Career Pathway to more focused clusters and concentrations of work-related functions to specific occupational requirements.

Career Pathway Core:

The Career Pathway Core provides an overview of the skills and knowledge required for occupations included in the particular Career Pathway. Pathway Core standards are broad, general business and industry validated content and performance standards that are common to all clusters within the Career Pathway.

Career Pathway Cluster:

Sub-groupings within a Career Pathway that begin to focus on more specific occupational requirements. Each Cluster is composed of business and industry validated content and performance standards that are common to all of the concentrations included in a Career Pathway Cluster.

Career Pathway Concentration:

Sub-groupings within a Career Pathway Cluster that focus on more specific occupational requirements. Each Concentration is composed of business and industry validated content and performance standards that are common to all or most of the occupations included in a Career Pathway Concentration.

Course of Study:

A Course of Study spans a minimum of two years at the secondary level and extends to postsecondary education; integrates State academic standards, career and workplace skills, and specific business and industry validated standards; incorporates work-based learning where feasible and appropriate; prepares students for further education and/or employment; and occurs in career fields that require less than a four-year degree as a prerequisite for entry. Students completing a Course of Study would have mastered all specific Career Pathway Core, Cluster, and Concentration standards.



Content Standards:

Clear, broad statements of important ideas, concepts, and skills to be taught and learned in a content area. Content Standards provide fixed goals for learning and describe what students should know and be able to do—the knowledge and skills essential to a discipline that students are expected to learn.

Performance Standards:

Statements that describe the levels of performance and acceptable evidence that the content standards have been met. Performance Standards tell what a student product should look like if it meets the standards. Performance Standards must include three elements:

- (1) Performance indicators (clear description of quality products or performance);
- (2) Concrete examples such as student work; and
- (3) Commentary on how well student work demonstrates the achievement of the content—how good is “good enough.”

Something for Everyone!

Hawaii's Career Pathway System

- **Arts and Communication**
- **Business**
- **Health Services**
- **Industrial and Engineering Technology**
- **Natural Resources**
- **Public and Human Services**



CTE

CAREER AND TECHNICAL EDUCATION CENTER

Office of the State Director for
Career and Technical Education
www.hawaii.edu/cte