

# DACUM Competency Profile for Certified Industrial Hygienist

**Produced For**

**American River College  
Regional Health Occupations Resource Center Northern  
Region**

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\* An asterisk indicates the task and reflects the role of the Certified Industrial Hygienist in lead related construction.

# DACUM Competency Profile for Certified Industrial Hygienist

The Certified Industrial Hygienist (CIH) is certified by the American Board of Industrial Hygiene in the art and science of the recognition, evaluation and control of chemical, physical, and biological hazards in the work place and the community, to protect the health and safety of workers and the general public.

<b>Duties</b>		<b>Tasks</b>			
<b>A</b>	Recognize hazards in the workplace and community	A-1 Conduct walk-through survey*	A-2 Interview affected individuals*	A-3 Collect data regarding the personnel (past, present & future)*	A-4 Collect data regarding the facility (past, present & future)*
		A-5 Collect data regarding the process/operation (past, present & future)*	A-6 Conduct literature review*	A-7 Conduct initial hazard assessment*	A-8 Record data
<b>B</b>	Evaluate and document hazards in the workplace and community	B-1 Analyze hazards*	B-2 Evaluate existing control measures*	B-3 Design sampling strategies*	B-4 Select sampling/analytical methodologies*
		B-5 Calibrate instruments*	B-6 Perform sampling of substance/hazards*	B-7 Conduct exposure monitoring*	B-8 Conduct data reduction and analysis*
		B-9 Perform risk assessment*	B-10 Maintain documentation		
<b>C</b>	Control hazards in the workplace and community	C-1 Develop Environmental Health & Safety policies	C-2 Develop Environmental Health & Safety programs*	C-3 Develop Environmental Health & Safety procedures*	C-4 Design & implement engineering controls*
		C-5 Design and implement administrative controls*	C-6 Recommend personal protective equipment*	C-7 Conduct Environmental Health & Safety training of employees*	C-8 Educate the public regarding Environmental Health & Safety issues*
		C-9 Manage hazardous waste*	C-10 Re-evaluate control measures*	C-11 Ensure regulatory compliance*	
<b>D</b>	Perform administrative managerial duties	D-1 Develop business	D-2 Manage budget	D-3 Manage projects*	D-4 Schedule staff
		D-5 Evaluate employees	D-6 Complete expense reports, time sheets & billing	D-7 Participate in peer review	D-8 Write technical reports*
		D-9 Implement & maintain quality assurance/quality control*	D-10 Maintain records*		

**E**

Provide technical consultation

E-1 Apprise management and/or employees of significant Environmental Health & Safety issues*	E-2 Interpret Environmental Health & Safety regulations*	E-3 Respond to environmental, health & safety citations/ audits*	E-4 Liaison with regulatory agencies*
E-5 Convey technical information to the medical community*	E-6 Assist in emergency response*	E-7 Assist on legal and liability issues*	E-8 Participate in public relation activities*
E-9 Influence legislative & regulatory decision making*	E-10 Perform as expert witness*		

**F**

Advance the science and practice of Industrial Hygiene

F-1 Plan, conduct or participate in analytical research	F-2 Plan, conduct or participate in engineering research	F-3 Plan, conduct or participate in human factors research	F-4 Plan, conduct or participate in toxicological research
F-5 Plan, conduct or participate in epidemiological research	F-6 Document & disseminate research findings	F-7 Participate in professional organizations	F-8 Maintain technical currency/competency
F-9 Adhere to code of ethics for industrial hygienists			

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## **Furture Trends & Issues**

- "Instant experts"
- Business concepts
- Cost/benefit analysis
- Emerging health issues
- Emerging technologies
- Increased public awareness of specific issues
- Increasing responsibilities
- Increasing specialization
- Job security
- Laboratory accreditation
- Lintied resources
- Political climate
- Practice limiting legislation
- Regulatory reform
- Shift to service-oriented industries

## **General Knowledge and Skills**

- Analytical chemistry
- Anatomy/physiology
- Biochemistry
- Biology
- Business management
- Communication skills
- Computers
- Conflict management
- Decision making
- Engineering/mechanical
- Epidemiology
- Ergonomics
- General chemistry
- Group Dynamics
- Hazardous waste
- IAQ - Indoor Air Quality
- Interpersonal processes
- Ionizing radiation
- Leadership
- Noise/vibration
- Non-ionizing radiation
- Physical hazards quality - heat, cold, noise/vibration, etc.
- PPE
- Problem solving
- QA/QC/TQM
- Regulations/laws
- Safety
- Statistics/Math
- Technical writing
- Time management
- Toxicology
- Unit processes
- Ventilation

## **Tools, Equipment, Supplies and Materials**

- Access to Internet
- ACGIH Publications
- Aerosol monitoring instruments
- AIHA Publications
- ANSI standards

- ASHRAE Publications
- ASTM Publications
- Bioaerosol/monitor
- Calculator
- Calibration equipment
- Calibration standards
- Camera/film
- Carrying case
- Cascade impactor
- Chemical monitoring instruments
- Clip board
- Computers
- Databases
- Detector tubes
- Eye protection
- Filters
- Flashlight (intrinsic)
- Foot protection
- Gas detection equipment
- Gloves
- Head protection
- Hearing protection
- Heat stress monitoring instruments
- Ice chest/ice
- Impingers
- Journals
- Life safety code
- Light monitoring instruments
- Measuring tape
- NFPA standards
- NIOSH Publications
- Noise monitoring instruments
- NSC Publication
- Passicve dosimeters
- Plastic bags
- Protective clothing
- Radiation monitoring instruments
- Regulations/laws
- Respirators
- Rofameters/pneumatic test kit
- Sample bags
- Sampling documentation forms
- Sampling media
- Sampling pumps-high volume
- Sampling pumps-low volume
- Sampling train
- Software programs
- Sorbent sample tubs
- Tape
- Tape Recorder
- Technical references
- Transportation
- Tube breaker
- Ventilation monitoring instruments
- Video Camera
- Watch
- XRF instrument

## **Worker Characteristics**

- Adaptable
- Analytical

- Committed
- Communicative
- Compassionate
- Competent
- Decisive
- Detail-oriented
- Ethical
- Good listener
- Honest
- Independent
- Inspirational
- Knowledgeable
- Leadership
- Nurturing
- Open-minded
- Organized
- Patient
- Problem solver
- Professional
- Responsible
- Self-disciplined
- Team player
- Thorough
- Thoughtful

