

Human and Animal Food Laboratory Professionals Curriculum Framework

A team of Subject Matter Experts (SMEs) are building a competency-based curriculum framework for human and animal food laboratory professionals. The goal of the framework is a competent laboratory workforce doing comparable work as part of the Integrated Food Safety System.

ifpti		Human and Animal Food Laboratory Professionals Curriculum Framework - August, 2019															FDA U.S. FOOD & DRUG ADMINISTRATION									
Senior Administration	Accreditation / Certification	Advocacy	Budget	Change Management	Continuity of Operations	Facility Management	Human Resource Management	ISO (Section 4)	Legislative Affairs	Leadership / Executive Program	Organizational Culture	Policy Making	Program / Grant Management	Public Relations	Risk Analysis (Management & Communication)	Stakeholder Support	Systems Analysis	Instructor Development	Project Management							
Supervisor / Manager (Program Specific)	Advanced Chemistry					Advanced Microbiology					Laboratory Evaluation Officer		Coaching	Nano-technology	Animal Health	Animal Food	Human Food			Shellfish						
Supervisor / Manager	Conflict Resolution and Mediation			Incident Command System (ICS)		Negotiation		Risk Communication Introduction			Instrument Repair		Hazardous Material Shipping		Infectious Agent Shipping		Waste Management			Animal Food Safety	Animal Health	Food Safety	Environmental Conditions	Milk and Dairy Product Safety	Shellfish	
Expert (Program Specific)	Animal Food		Human Food			Shellfish		Evidence-Based Decision Making		Grant Writing	Internal Audit	Labeling	Measurement Uncertainty	Method Modification / Development	Risk Analysis	Validation Methods				Chemistry	Microbiology					
Expert	Acidified Foods	Advanced Leadership	Allergens	Evidence-Based Decision Making			Grant Writing	Internal Audit	Labeling	Measurement Uncertainty	Method Modification / Development	Risk Analysis	Validation Methods			Chemistry	Microbiology									
Mid (Program Specific)	Certificates & Certifications																									
	Animal Food	Animal Health	Dairy	Environmental	Human Food	Shellfish	Audit	Hazardous Material Shipping	Infectious Agent Shipping	Waste Management	Animal Food Safety	Animal Health	Food Safety	Environmental Conditions	Milk and Dairy Product Safety	Shellfish										
	Gas Chromatography - Mass Spectrometry (GCMS)			Inductively Coupled Plasma Mass Spectrometry (ICPMS)			Liquid Chromatography - Mass Spectrometry (LCMS)		National Laboratory Networks Methods		Radiological		Advanced Technologies			National Laboratory Networks Methods										
	Advanced Communication Skills		Advanced Quality Techniques		Basic Leadership Skills		Critical Thinking		Evidentiary Integrity		Human and Animal Food Incident Response		Laboratory Networks and Partnerships		Legal Proceedings		Method Evaluation and Selection		Root Cause Analysis							
Mid	M1		M2		M3		M4		M5		M6		M7		M8		M9		M10							
Entry (Program Specific)	Certificates & Certifications																									
	Animal Food				Biosafety Level 3				Dairy Regulatory Programs				Select Agents				Shellfish Regulatory Programs									
	Basic Chromatography		Basic Separation / Extraction Techniques		Basic Mass Spectrometry		Basic Spectroscopy		Environmental Monitoring and Investigations		Aseptic Techniques		Basic Foodborne Pathogens		Environmental Conditions		Microbiological Testing									
	EP1	EP2	EP3	EP4	EP5	EP6	EP7	EP8	EP9																	
Entry	Accreditation/ Certification	Basic Communication Skills	Basic Laboratory Math	Basic Laboratory Statistics	Basic Laboratory Techniques	Chain of Custody	Ethics	Incident Command System (ICS)	Integrated Food Safety System (IFSS)	Laboratory Information Management System (LIMS)	Laboratory Sampling	Method Resources	Public Health (One Health) Approach	Quality Management Systems	Regulatory Programs	Regulatory Sampling	Safety	Waste Management								
Entry	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18								
© 2017 Last updated Aug. 2019		The Laboratory Framework is being built out through a Cooperative Agreement with FDA, AFDO, AAFCO, and APHL.																	APHL							

The curriculum framework is a career-spanning, visual schematic of the human and animal food laboratory profession.

The framework spans five professional levels (Entry, Mid, Expert, Supervisor/Manager, and Senior Administration), and depicts the *content areas* in which laboratory professionals must possess *competencies* (i.e., *knowledge, skills, abilities, behaviors, and attributes*) in order to successfully perform their job functions. Content areas are either *core* (applying to all laboratory professionals) or *program-specific* (applying to laboratory professionals specializing in either Chemistry, Microbiology, or Specialized Laboratories).

The curriculum framework is being used for: 1) training development (courses and other learning events), 2) cataloging existing training, and 3) competency assessment.

Framework development workshops are held approximately twice a year at the APHL headquarters in Silver Spring, MD. The SMEs participating in these workshops represent a range of stakeholders including but not limited to APHL, AFDO, AAFCO, FDA, and state laboratories.

The curriculum framework project is supported by the FDA Office of Training Education and Development (OTED).