



**INTERNATIONAL
FOOD PROTECTION
TRAINING INSTITUTE**

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Competency-based Approaches to
Capacity Building from Farm to Fork
– Creating Efficiency, Sustainability
and Scalability
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**INTERNATIONAL
FOOD PROTECTION
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Agenda

- IFPTI Overview
- Capacity Building Approach
- Competency
 - Defined
 - Examples
- Competency-based Training
- Train the Trainer Approach
- Conclusion

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Mission and Focus

Mission: Improving public health by building competency-based training and certification systems and cultivating leadership for the food protection community worldwide.

Non-profit organization based in Battle Creek, Michigan, United States, we collaborate internationally with the US Food and Drug Administration (FDA), the Canadian Food Inspection Agency (CFIA), the World Health Organization (WHO); the World Bank, the Global Food Safety Partnership (GFSP), and the Inter-American Institute for Cooperation on Agriculture (IICA),

Our Focus:

- Training Systems
- Competency Identification and Definition
- Curriculum Development and Delivery
- Instructor Development
- Needs Analyses
- Capacity-Building
- Evaluation
- Personnel Certification
- Training Quality

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Agri-Food Sector Capacity Building

Private Sector

- Private Standards
 - GlobalGAP
 - BRC
 - FSSC 22000
 - IFS



Capacity building

- GlobalGAP Toolkit
- IFC Food Safety Toolkit
- Training

Public Sector

- Regulation
 - CODEX
 - EFSA
 - US FDA



Capacity building

- Training System for Regulatory Personnel
- IFPTI, SFCTP

Education

- Undergraduate
- Graduate Degrees
 - Online and traditional classroom programs to increase food sector knowledge base across the country and region



Capacity building

- Science degree programs
- Certificates

▪ Enables safe domestic food supply

▪ Enables exportation of Agri-food

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Root Causes of Food Recalls



Source: 2008-2009 FDA Survey, Root Causes of Recalls

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Assessing Training Effectiveness

Kirkpatrick's 4 Levels

Results - What are the tangible results of the learning process in terms of reduced cost, improved quality, increased production, efficiency, etc.?

Transfer (Behavior) - (What changes in job performance resulted from the learning process? (capability to transfer behavior and perform the newly learned skills while on the job)

Learning - What did they learn? (the extent to which the learners gain knowledge and skills)

Reaction - How well did the learners like the learning process?

GOAL: High Value Training



Most Training

Source: Kirkpatrick, D. L. & James D. Kirkpatrick. (2006). Evaluating training programs: The four levels, 3rd ed. San Francisco: Berrett-Koehler Publishers.

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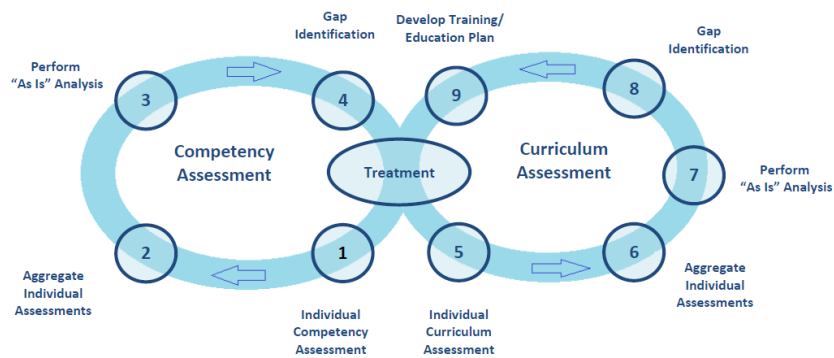




Competencies: the knowledge, skills, and abilities required for success in a given role in the workplace as well as measurement criteria for assessing competency attainment. Evaluation of an employee using a set of established competency statements helps identify competency gaps and training needs.



Competency and Curriculum Assessment Process



Continuous Process of Assessment, Gap Identification, Training





Global Food Regulatory Competencies for Low and Middle Income Countries

Basic Competency Food (farm-to-fork) (BF)

- BF 1. Identify the indicators of out-of-control conditions (hazards and risks) in food facilities.
- BF 2. Explain the importance of good practices along the food chain e.g., GAPs and GMPs, sanitation controls, and prerequisite programs.
- BF 3. Interpret scientific data within the framework of a risk-based approach and regulatory requirements.
- BF 4. Describe the biological and chemical hazards commonly associated with food and their public health impacts.
- BF 5. Describe the potential sources of biological and chemical hazards and how the sources affect food.
- BF 6. Articulate the importance of inspections carried out under food safety regulatory authority.
 - BF 6.1 Facilities (sanitation, design, equipment, etc.)
 - BF 6.2 Primary production
 - BF 6.3 Import
- BF 7. Discuss transmission of foodborne illnesses.
- BF 8. Describe controls developed from a hazard analysis.
- BF 9. Explain the seven principles of HACCP.
- BF 10. Describe how to construct, implement, and reevaluate HACCP-based systems.
- BF 11. Describe processes or procedures necessary for food safety for unprocessed or minimally processed foods.
- BF 12. Discuss preventive control measures that can be utilized to minimize allergen hazards.
- BF 13. Describe food allergens and related regulatory provisions.
- BF 14. Explain jurisdictional responsibilities of agencies connected with food protection.
- BF 15. Explain vulnerabilities inherent in the food supply that could result in intentional adulteration.
- BF 16. Discuss tools that prevent and/or mitigate intentional adulteration of food.
- BF 17. Explain the tools used by public health agencies to address foodborne illness outbreaks.
- BF 18. Describe the importance of personal hygiene, health, and behaviors as related to food safety.
- BF 19. Describe how the national food safety regulatory system is consistent with international standards and guidelines.
- BF 20. Describe equivalence and the relationship between domestic policies and import/export regulations.
- BF 21. Explain the importance of sampling, chain of custody, and obtaining a legally defensible sample.
- BF 22. Describe a risk-based inspection process.
- BF 23. Describe product traceability systems.
- BF 24. Evaluate corrective action options in the context of noncompliance.
- BF 25. Describe the major parts of a food label consistent with applicable regulations.
- BF 26. Describe emerging issues in the context of food safety and regulatory framework.

BF 7. Discuss transmission of foodborne illnesses.
 BF 9. Explain the seven principles of HACCP.
 BF 22. Describe a risk-based inspection process.




Global Food Regulatory Competencies, contd.

General (BG)	Technical (BT)
BG 1 Describe the agency regulatory role and authority, including statutes, regulations, and guidelines. BG 1.1 Describe the range of enforcement measures.	BT 1 Describe the relationship between regulations, inspections, compliance and public health. BT 1.1 Describe inspection results.
BG 2 Use the agency's organizational structure and internal functions to accomplish day-to-day activities.	BT 2 Recognize the role of international standards and standard setting organizations with regard to regulations, inspections, compliance and public health.
BG 3 Explain threats and risks to the supply chain as a result of globalization (international trade).	BT 3 Explain how regulatory decisions are made using principles of risk analysis (risk assessment, risk management, and risk communication). BT 3.1 Historical context BT 3.2 Science-based BT 3.3 Risk-based BT 3.4 International context BT 3.5 Describe biological, chemical, physical, and radiological hazards.
BG 4 Describe the importance of product labeling requirements (including claims, advertising, and promotional items).	Explain the application of basic scientific knowledge to assess compliance with regulations and guidance.
BG 5 Utilize confidentiality, protection standards and processes to control access to confidential and proprietary information.	Explain general agency actions in response to an adverse public health event.
BG 6 Communicate with internal and external stakeholders in an effective and timely manner.	Describe risk-based regulatory surveillance systems.
BG 6.1 Discuss thoughts, ideas, concepts, and other information through oral, written, and interpersonal methods.	Describe the role of laboratory analysis in a regulatory system.
BG 6.2 Articulate the importance of networking and stakeholder interaction.	Describe (describe) import/export requirements in accordance with domestic regulations and international standards.
BG 6.3 Discuss current and proposed legislation, regulations and/or guidelines with internal and external stakeholders.	Describe the relationship with other regulatory authorities.
BG 6.4 Discuss agency policies developed as a result of impact assessments.	Describe how to recommend updates to regulatory documents and practices e.g., Standard Operating Procedures (SOPs).

BG 1. Describe the agency regulatory role and authority, including statutes, regulations, and guidelines.
 BG 4. Describe the importance of product labeling requirements (including claims, advertising, and promotional items).
 BT 6. Describe risk-based regulatory surveillance systems.



INTERNATIONAL FOOD PROTECTION TRAINING INSTITUTE  **Sanitation Operator Curriculum Framework**

Entry Level	Specialized	CIP Practicum	COP Practicum	Confined Spaces Practicum	Yards & Grounds Practicum	Janitorial Practicum	PIC Practicum	PEC Practicum						
		Clean-in-place equipment (CIP)	Clean-out-of-place (COP)	Confined Spaces (Silos, etc.) (Provided by a certified third-party)	Yards & Grounds	Janitorial (common areas - non-production environment)	Production Infrastructure Cleaning (PIC)	Periodic Equipment Cleaning (PEC)						
	Foundation	Practicum												
		Communication & Documentation	Hygienic zones	Workplace Organization	Basic Food Safety Hazards	Harborages	Allergens	Pest Control	SOPs/SSOPs	Cleaning Techniques	Chemicals (Cleaning and Sanitizing)	Basic Food Manufacturing Mechanical	Inspection & Verification Techniques	Sanitizing
		Introduction to Sanitation												

Examples of Training Modules:
 Hygienic zones, Basic Food Safety Hazards, Cleaning Techniques, Clean-in-place Equipment, Sanitizing, Yards and Grounds, Janitorial (non-production environment)

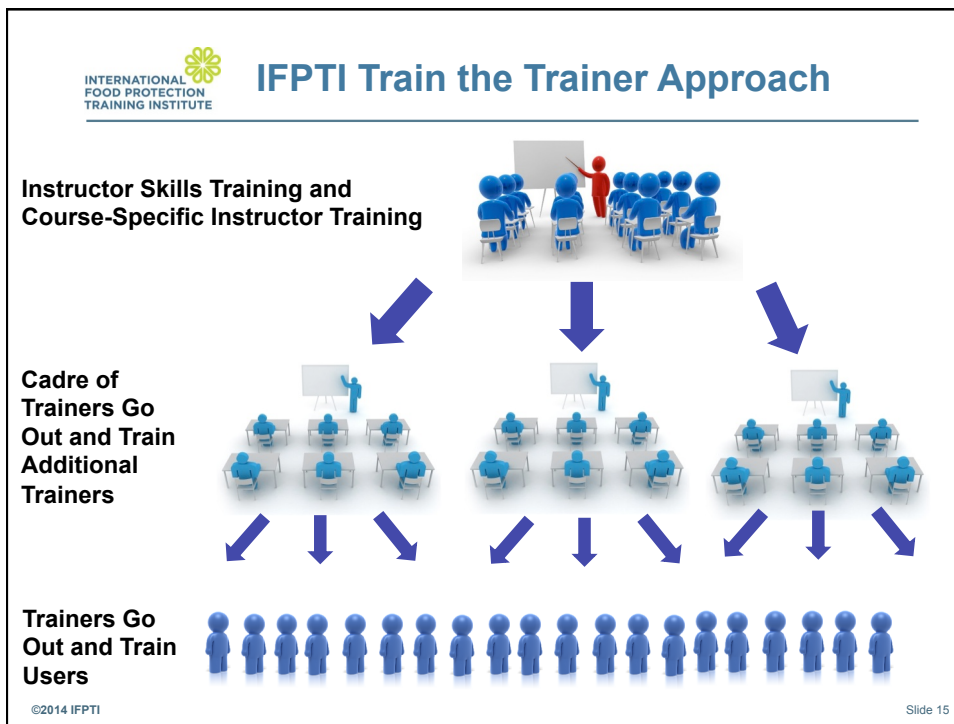
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INTERNATIONAL FOOD PROTECTION TRAINING INSTITUTE  **Competency-Based Training**

- Underlying instructional systems design process
- Based on standards of performance
- Integration of theoretical and practical skills
- Supporting training materials
- Satisfactory completion of training is based on the achievement (demonstration) of specified competencies
- Ability to focus on specific training needs
- Easily translates to human resources activities
 - Competency-based hiring
 - Competency-based performance appraisal and promotion
- Creates opportunities for credentialing of personnel

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 **Conclusions**

- Training is critical component to capacity building
- Competency-based approach to training results in
 - Effective training
 - Efficient use of training resources
 - Enables sustainable approaches to training
 - Facilitates the ability to “scale up” your training through train-the-trainer
 - Standardized/uniform approach to training

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