

## Overview of Risk Analysis

This short course pulls together the basic principles of risk assessment, risk management, and risk communication. The target audience is newer members of the risk analysis community, and risk professionals who have a high level of specialization and desire a broader perspective of risk analysis.

It is generic overview with some focus on food safety from an international perspective, and serves as a contextual primer for anyone interested in or involved with a broad range of risk analysis activities, regardless of application.

The course:

- Provides an introduction to the terminology, concepts, tools and techniques used in food safety risk analysis
- Acquaints students with the predominant risk analysis models
- Provides an overview of the tasks and issues associated with risk management and risk communication
- Introduces some of the tools of risk assessment

Prerequisite: None

It is strongly recommended that this course be taken before others in the JIFSAN series.

## Overview of topics

<p>Introduction</p> <ul style="list-style-type: none"> <li>● Risk is Everywhere</li> <li>● Why Do Risk Analysis?</li> <li>● A Risk Analysis Model</li> <li>● Risk Analysis Tasks Intuitively Defined</li> <li>● Formal Definitions</li> <li>● Alternatives to Risk Analysis</li> <li>● Internet Resources</li> <li>● Starting a Risk Analysis Library?</li> </ul>	<p>Risk Management</p> <ul style="list-style-type: none"> <li>● We Manage Risks All the Time</li> <li>● Risk Management Defined</li> <li>● Risk Management Is Where Values Enter The Process</li> <li>● Risk Management Models</li> <li>● Risk Management Options</li> <li>● Risk Management Decision-Making Principles</li> </ul>
<p>Risk Assessment</p> <ul style="list-style-type: none"> <li>● It's a Risky World</li> <li>● The Risk Managers' Role in Assessment</li> <li>● Risk Assessment Defined</li> <li>● Risk Assessment Questions</li> <li>● Risk Assessment Answers</li> <li>● Risk Assessors' Toolbox</li> <li>● Criteria Based Ranking Tools</li> <li>● Probabilistic Scenario Analysis</li> <li>● Sensitivity Analysis</li> <li>● What Makes A Good Risk Assessment?</li> </ul>	<p>Risk Communication</p> <ul style="list-style-type: none"> <li>● A Starting Point</li> <li>● What we worry about</li> <li>● What Drives Risk Communication?</li> <li>● Factors Affecting Outrage</li> <li>● Misunderstanding Risk</li> <li>● A Brief History of Risk Communication</li> <li>● Risk Communication Tasks</li> <li>● Internal Risk Communication</li> <li>● External Risk Communication</li> <li>● Subtleties of Language</li> </ul>

## Learning Objectives

1. Describe the reasons for doing a risk analysis.
2. Describe the elements of consensus risk models.
3. Discuss the intuitive definitions of the three risk analysis tasks.
4. List the tasks in the risk manager's role in risk assessment.
5. Explain the role of questions in a risk assessment.
6. List several tools appropriate for quantitative risk assessment.
7. Describe five uses of risk assessment models.
8. Describe a risk management model.
9. Identify five decision criteria used in risk management.
10. Explain the significance of the divergence between risk and the perception of risk.
11. Identify several factors about a hazard that influence the perception of risk.
12. Describe some of the lessons learned from past risk communication experiences.

***This course meets a requirement of the JIFSAN Core Certificate In Food Safety Risk Analysis.***