

	Biorisk Management - Session 1 10:00 - 10:50	Time
Objectives	The purpose of the session is to: <ul style="list-style-type: none"> • Discuss biorisk management as a concept • Identify the key components of biorisk management 	
Group Exercises	Divide the room into groups of about five people each. Try to get at least one good English speaker in each group.	
Group Exercise 1 Question for the groups	In groups, address the following question (10 minutes): <ul style="list-style-type: none"> • What are the risks of working in a laboratory with biological materials? Each group reports its ideas to the whole class (5 minutes) Each unique idea is captured on the flip chart.	15 minutes Slide 2
Expected Responses	<ul style="list-style-type: none"> • Accidental infection • Accidental release • Intentional theft and/or misuse • Others (e.g. rad/chem/phys safety) 	
10:15 Instructor led slides	How do we define laboratory biosafety and laboratory biosecurity? (WHO LBM 2004) <ul style="list-style-type: none"> • Laboratory biosafety: containment principles, technologies, and practices implemented to prevent unintentional exposure to pathogens and toxins, or their unintentional release • Laboratory biosecurity: institutional and personal security measures designed to prevent the loss, theft, misuse, diversion, or intentional release of pathogens and toxins 	5 minutes Slide 3
	How do we define laboratory biorisk management? (CWA 15793:2008) <ul style="list-style-type: none"> • System or process to control safety and security risks associated with the handling or storage and disposal of biological agents and toxins in laboratories and facilities 	Slides 4-5
10:20 Group Exercise 2	In groups, address the following questions (10 minutes):	15 Minutes

<p>Questions for the groups</p> <p>Step 1</p>	<ul style="list-style-type: none"> • How do you identify these risks? • What are some things you can do to manage these risks? • How do you know that your risk management is working, and will continue to work? <p>Each group uses post-it notes to identify at least three different items for each question, one idea per post-it note. Facilitator should be checking in with each table periodically to ensure that they are addressing all three questions and are putting them down one idea per post it.</p>	<p>Slide 6</p>
<p>Expected Responses</p>	<ul style="list-style-type: none"> • Risk assessment • Hazard identification • PPE, BSC, SOPs • Audits, less accidents 	
<p>10:35</p> <p>Group Exercise 2</p> <p>Step 2</p>	<p><i>Present the key components of Biorisk Management and briefly define AMP.</i></p> <p><i>How can we organize these ideas/items?</i></p> <ul style="list-style-type: none"> • Draw three columns: Assessment, Mitigation, and Performance <p>Have students each pick a post-it note, and place it in one of the three columns:</p> <p><i>Assessment, Mitigation, Performance</i></p>	<p>10 minutes</p> <p>Slide 7 - 11</p>
<p>10:45</p> <p>Key messages</p>	<p>The risk associated with biological materials in the laboratory has a safety and a security component</p> <p>Biorisk encompasses both biosafety and biosecurity</p> <p>The AMP model</p> <ul style="list-style-type: none"> • Understand that the components of biorisk management are: <ul style="list-style-type: none"> ○ Biorisk management = Assessment, Mitigation, Performance <p>Make sure that students do not assume a straight additive or multiplicative relationship here. The relationship is not a clear mathematical relationship.</p>	<p>5 minutes</p> <p>Slides 11-12</p>
<p>Debrief</p>	<p>Use summary slides to reinforce this discussion and ensure that both biosafety and biosecurity are addressed</p>	<p>Slide 12</p>
<p>10:50</p>	<p>BREAK</p>	

Introduction to Biorisk Management

	Biorisk Assessment - Session 2 10:35 - 14:00	Time
11:05 Objectives	The purpose of this session is for participants to: <ul style="list-style-type: none"> • Understand what is risk • Understand the components of a suitable risk assessment methodology, and the critical resources required • Understand the difference between a technical risk assessment and "acceptable risk," or a concern assessment. 	Slide 1
	Opening slide: Risk management = Risk assessment , Risk mitigation, Performance. <i>Risk assessment is highlighted.</i>	
Group Exercise 3, Step 1	<p>In groups (10-minute activity)</p> <p>Consider this scenario: a young child is left alone in a kitchen while there is boiling water on the stove.</p> <p>Use post-it notes and flip charts.</p> <ol style="list-style-type: none"> 1. What could go wrong? List all the possibilities. 2. Choose the single most important risk for this scenario 3. Identify the hazard for that risk <p>Allow 10 minutes of discussion.</p> <p>Start with first table and ask them to report some of their possibilities. Write them on a flip chart. Query additional tables to add to the list of possibilities (risks). Have the whole class vote through plenary session which is the single most important risk and discuss what the hazard for the risk is (this should be accomplished in an additional 10 minutes)</p> <p><i>Ideally they will conclude that the most important risk is "Child being burned by the boiling water" and the hazard is the boiling water. However, if they come up with something else, that is OK the purpose of this discussion is to get the group</i></p>	20 minutes Slide 2

	<i>thinking about what a hazard is and what is a risk.</i>	
	<p>Expected responses:</p> <ul style="list-style-type: none"> • The water boils over and splashes the child • The child reaches the hot stove and burns fingers • The child climbs on a chair and pulls over the hot water and is scalded • If a gas stove the child could turn on the gas burner and cause an explosion 	
<p>11:25 Plenary Discussion</p>	<p>ASK:</p> <p>What is a hazard?</p> <ul style="list-style-type: none"> • Hazard is a source that has a potential for causing harm • Hazard is not a risk without a specific environment or situation <p>ASK:</p> <p>What is risk?</p> <ul style="list-style-type: none"> • Risk is the likelihood of an undesirable event, involving a specific hazard, that has consequences 	<p>10 minutes</p> <p>Slides 3-6</p>
<p>11:35 Group Exercise 3, Step 2</p>	<p>In groups (15-minute activity)</p> <p>Consider again the two-year-old in the kitchen scenario.</p> <p>Risk: child being burned by the boiling water</p> <p>Hazard: pot of boiling water on the stove</p> <ul style="list-style-type: none"> • Identify the factors that influence the likelihood and consequences of the risk • Evaluate the risk (low, moderate, high) • Report your results to the class (additional 10 minutes) <p>Have them put down one factor per post-it note. Ideally you should have three colors of post-it notes and have them put down factors that affect likelihood on one color, consequences on another color and factors that affect both could be put on a third color of post-it note. It would be nice if each group had their own wall or chart to be able to post their notes, select a speaker for the group and report back to the class their factors and whether they consider the risk low or high.</p>	<p>25minutes</p> <p>Slide 7</p>
	<p>Expected Responses likelihood</p> <ul style="list-style-type: none"> • The location of the pan on the stove • The ability of the child to reach the pan 	

	<ul style="list-style-type: none"> • Whether or not the child is restrained • The temperament of the child • The availability of something for the child to climb up on • How high/large the stove is <p>Expected responses consequences</p> <ul style="list-style-type: none"> • The amount of water in the pan • The temperature of the water in the pan • How much water spills • The type of clothing the child is wearing • Where the burn occurs/extent of the burn • How quickly first aid is administered <p>Expected responses that affect both</p> <ul style="list-style-type: none"> • How long the child is left alone • The age/size of the child 	
<p>12:00 Debrief</p>	<p>Need to differentiate the risks Need to assess each risk separately Need to have clear questions about likelihood and consequences</p> <p>Need to have access to information about the situation</p> <p>Need for a structured process for assessing risk</p> <p>Point out how these factors can be grouped, e.g. the pot, the child, and the environment.</p>	<p>5 minutes</p>
<p>12:05 Plenary Discussion</p>	<p>ASK in general to the group:</p> <p>What would be different if the risk were the child being injured by an older brother, whose toy had just been broken by the two-year-old?</p> <p>Capture answers on a flip chart</p> <ul style="list-style-type: none"> • The child being unattended • The size, age of the older brother • Whether the older brother is carrying something that could be used as a weapon • The general demeanor of the older brother <p>ASK:</p> <p>What is the hazard (threat) now?</p> <ul style="list-style-type: none"> • The older brother <p>ASK:</p> <p>What is the difference between a hazard and</p>	<p>15 minutes Slide 8-10</p>

	<p>a threat?</p> <ul style="list-style-type: none"> • A hazard is an inanimate object that can cause harm • A threat is a person who has intent and/or ability to cause harm to other people, animals, or the institution • A risk can be based on either a hazard and/or a hazard and a threat 	
<p>12:20 Key Learning Messages</p>	<p>ASK:</p> <p>How do we define risk, likelihood, and consequences?</p> <ul style="list-style-type: none"> • Risk is the likelihood of an undesirable event, involving a specific hazard (or a hazard and a threat), that has consequences • Likelihood is the probability of an event occurring • Consequences is the severity of an event <p>Show:</p> <p>Demonstrate how to use the risk graph with the two-year-old in the kitchen scenario</p>	<p>Slide 11-17 15 minutes</p>
<p>12:35 Individual Reflection</p>	<ul style="list-style-type: none"> • How do you assess risk in your own labs? • Write down your own answers and then share with others at your table • If you wish, share with the class 	<p>15 minutes Slide 18</p>
<p>12:50</p>	<p>Break</p>	
<p>Note to Facilitator</p>	<p>Distribute first biological scenario (WIV) in paper to each group</p>	
<p>13:05</p>	<p>Yemeni presentation or Yemeni-led discussion of biorisk priorities in Yemen</p>	<p>55 minutes</p>
<p>14:00</p>	<p>Adjourn</p>	
<p>DAY 2 – 9:00</p>	<p>Review of Day 1</p>	<p>20 minutes</p>
<p>09:20 Group Exercise 4, Step 1</p>	<p>In groups</p> <p>Consider the Hairy Infectious Virus (WIV) scenario</p> <ul style="list-style-type: none"> • Define the risks in this scenario <p>After 10-15 minutes, allow a minute or two for each group to report their findings. As each group presents, write down or identify all the possible risks. The more unique risks such as those listed below they identify the better step 2 will be.</p>	<p>20 minutes Slide 19</p>
	<p>Possible Responses:</p> <ul style="list-style-type: none"> • Accidental auto-inoculation to the 	

	<p>researcher</p> <ul style="list-style-type: none"> • Accidental needlestick to the technician • Animal bite from the mouse • Splash or contact exposure to viral culture • Loss of research data • Improper data collection/poor results • Theft of research material by the technician or researcher • Infected mouse escaping from the facility • Theft of research material by an outsider 	
<p>9:40 Plenary Discussion</p>	<p>ASK: What aspect of biorisk did you focus on?</p> <p>Expected responses:</p> <ul style="list-style-type: none"> • Most will likely focus on safety, and not security <p>Engage group in a discussion about risk assessors generally assessing the risks that they are most comfortable with.</p> <p>Key Learning Message</p> <ul style="list-style-type: none"> • "We assess what we know," and this can bias our assessment and/or lead to a limited assessment 	<p>5 minutes Slide 20</p>
<p>9:45 Group Exercise 4, Step 2</p>	<p>In groups Return to the WIV scenario.</p> <ol style="list-style-type: none"> 1. Choose one risk to assess 2. Define the hazard and/or threat 3. Can you evaluate the risk of this scenario? If so, what is it? (low/moderate/high) <p>Ideally each group will have a separate risk to evaluate. However, with many groups, some groups will have duplicates. You may need to assign risks to assess to each group selected from the list of risks identified in step 1.</p> <p>Prepare a graph at the front of the room with likelihood and consequence axis. Have each group place a labeled post-it note (or star) on the graph where they believe the risk lies.</p>	<p>20 minutes Slide 21</p>
<p>10:05 Group Exercise 4, Step 3</p>	<p>In groups Return to the WIV scenario.</p> <ul style="list-style-type: none"> • What different type of information do you need to do a risk assessment? Put this information into four or five general categories. • Use post-it notes, one per category, and 	<p>20 minutes Slide 26</p>

	place your post-it notes on a flip chart.	
Notes to Facilitator	<p>By reminding the class of the categories from the earlier scenario (pot, child, environment), elicit specific categories, such as</p> <ul style="list-style-type: none"> • Agent properties (Morbidity, mortality, treatment and prevention, routes of transmission, communicability, agent stability) • Laboratory itself (infrastructure, such as floors, walls, cabinets, benches, and other existing elements that contribute to risk, such as animals) • People; Human factors; Level of training, experience • Mitigation measures (four categories) • Environment (including the community) <p>Key Learning message: whenever you do a RA, you need to ask specific questions that cover all of these categories</p>	
10:25 Plenary Discussion	<p>ASK:</p> <p>What are the benefits of a robust risk assessment?</p> <ul style="list-style-type: none"> • Facilitates risk assessment process; repeatable/reproducible, transparent • Facilitates risk mitigation decisions • Allows for comparison of risks; can see if risk changes over time • Helps to communicate risk • Helps in determining risk acceptability • Provides quality control documentation 	10 minutes Slide 23-25
Plenary Discussion	<p>ASK: What might be missing from this technical risk assessment?</p> <p>Expected response:</p> <ul style="list-style-type: none"> • Perceived social, cultural, political concerns <p>ASK: What is “acceptable risk”?</p> <p>Expected response:</p> <ul style="list-style-type: none"> • Will depend on the “owner” of the risk: risk averse or risk tolerant 	10 minutes Slides 26-32
Individual Reflection	<p>ASK:</p> <ul style="list-style-type: none"> • What was new today? • What insights have you had? What implications are there for you? • What will you change when you return to your home institute? 	15 minutes Slide 33

	If you wish, share your thoughts with the class.	
Recap of Key Messages	<p>Key Learning Messages</p> <ul style="list-style-type: none"> ● Hazard (threat) is a source that has a potential for causing harm ● Risk is the combination of the likelihood and consequences of an undesirable event related to a specific hazard (or threat) ● Risk can be expressed as an equation $R = f(L,C)$ where <ul style="list-style-type: none"> ✓ Likelihood is the probability of an event occurring ✓ Consequences is the severity of an event ● Benefits of a robust risk assessment <ul style="list-style-type: none"> ✓ Facilitates risk assessment process; repeatable/reproducible ✓ Facilitates risk mitigation decisions ✓ Provides quality control documentation ● Technical risk assessments generally do not include perceived social, cultural, political concerns ● Risk acceptance will depend on the "owner" of the risk: risk averse or risk tolerant 	5 minutes Slides 34-36
10:35	BREAK	

Introduction to Biorisk Management

	Biorisk Mitigation - Session 3 10:50-14:00	Time
Objectives	<p>The purpose of this session is for participants to:</p> <ul style="list-style-type: none"> • Understand how biorisk mitigation fits into the AMP model • Understand the principal categories of control measures for biorisk management • Understand some key advantages and disadvantages of each principal category of control measures 	
10:50 Introduction to Risk Mitigation	<p>Opening slide: Risk management = Risk assessment, Risk mitigation, Performance. <i>Risk mitigation is highlighted.</i></p> <p>Review the AMP model.</p> <p>ASK: What is mitigation?</p> <p>Elicit from the class a definition for mitigation.</p>	10 minutes Slide 1
11:00 Group Exercise 1, Step 1	<p>In the groups:</p> <p>Using the WIV risk assessment scenario (15 minutes),</p> <ul style="list-style-type: none"> • Identify at least 6 different risk mitigation measures <ul style="list-style-type: none"> ○ four for safety, ○ two for security • Use a post-it note for each mitigation measure <p>Report to the class (15 minutes)</p>	30 minutes Slide 2
11:30 Instructor led	<ul style="list-style-type: none"> • Engineering Controls: <p><i>Physical changes to work stations, equipment, materials, production facilities, or any other relevant aspect of the work environment that reduce or prevent exposure to hazards or threats</i></p> • Administrative Controls: <p><i>Policies, standards and guidelines used to control risks</i></p> 	10 minutes Slides 3-7

	<ul style="list-style-type: none"> Practices and Procedures: <i>Processes and activities that have been shown in practice to be effective in reducing risks</i> Personal Protective Equipment: <i>Devices worn by the worker to protect against hazards in the laboratory</i> 	
Note to Facilitator	Prepare four flip charts with a header for each of the controls	
11:40 Group Exercise 1, Step 2	<p>In your groups:</p> <p>Place your post-it notes in the appropriate columns on the flip charts (10 minutes)</p> <ul style="list-style-type: none"> Engineering controls Administrative controls Practices and procedures PPE <p>Report your results to the class (10 minutes)</p>	20 minutes Slide 8
12:00 Group Exercise 1, Step 3	<p>In the groups:</p> <p>Considering these mitigation control measures (15 minutes)</p> <ul style="list-style-type: none"> Identify their advantages and disadvantages <p>Report your answers to the class (10 minutes)</p>	25 minutes Slide 9
12:25 Instructor led	Present the advantages and disadvantages for each control measure. Provide several examples using their supplied list of mitigation. Present the industrially accepted standard "hierarchy of controls" as what is generally considered the most effective to the least. Discuss the top of the list "Elimination or substitution". Tie it back to the WIV scenario and some of the mitigation controls they have already come up with to prioritize.	15 minutes Slide 10
12:40 Debrief	<p>Use the analogy of the car versus the motorcycle to illustrate the decision-making challenge and that you have to work with what you've got.</p> <p>Key Message:</p> <ul style="list-style-type: none"> Industrially accepted standard "hierarchy of controls" 	5 minutes Slides 11
12:45	Break	
13:00	<p>Play the incident response video clip.</p> <p>ASK: Which category of mitigation controls appears in this video clip?</p>	20 minutes Slide 12

	<p>Have them write down as many mitigation controls that they see. As a group try to identify as many as possible:</p> <p>Hard hats (PPE)</p> <p>2319 code, drill, training (admin/Practices and procedures)</p> <p>Red emergency button (engineering controls)</p> <p>Flashing lights (engineering controls)</p> <p>Cameras (engineering controls)</p> <p>Duck and cover drill (practices and procedures)</p> <p>Hazmat suits (PPE)</p> <p>Barriers, doors, pull down separation (engineering controls)</p> <p>Tongs (engineering controls/practices procedures)</p> <p>Decon chamber/incineration (Engineering)</p> <p>Decon Shower (engineering)</p> <p>Accident counter (admin, engineering)</p> <p>Separation of the coffee/food area from the work zone (admin)</p> <p>Management buy in (admin)</p> <p>Training and supervision (admin)</p> <p>Play the video a second time, and point out mitigation measures that they identified.</p>	
<p>13:20 Plenary Discussion</p>	<p>Implementing mitigation measures</p> <ul style="list-style-type: none"> ● Ideally, you should first consider elimination or substitution ● A combination of control measures should be used based on their effectiveness and your ability to implement them <ul style="list-style-type: none"> – ‘acceptable risk’ 	<p>10 minutes Slides 13</p>
<p>13:30 Session 3 Summary</p>	<p>Key Message –</p> <p>A robust methodological approach to risk mitigation gives you the ability</p> <ul style="list-style-type: none"> ● to justify decisions ● to evaluate the impact of certain risk mitigation decisions ● to compare the cost effectiveness of various risk mitigation decisions 	<p>5 minutes Slides 14</p>

	Show the updated AMP model and flow chart	
13:35 Recap of Key Messages – Session 3	<p>Four categories of mitigation control measures</p> <ul style="list-style-type: none"> • Engineering Controls • Administrative Controls • Practices and Procedures • Personal Protective Equipment <p>Implementing mitigation controls</p> <ul style="list-style-type: none"> • Should first consider elimination or substitution • A combination of control measures should be used based on their effectiveness and your ability to implement them • Should be based on the results of the risk assessment, and should give a “wow” effect 	5 minutes Slides 15-16
13:40	Adjourn	

Introduction to Biorisk Management

	Performance - Session 4 9:00 – 14:00	Time
Objectives	<p>The purpose of this session is for participants to:</p> <ul style="list-style-type: none"> • Understand the role of Performance in biorisk management • Identify key elements of Performance • Apply Performance concepts to biorisk scenarios • Consider Performance issues that will improve biorisk management 	
9:00	<p>Review of Days 1 and 2 “Game show” format for review</p> <p>Have each group come up with a list of five questions based on the material from days 1 and 2. Group 1 asks Group 2 a question, Group 2 asks Group 3 a question, etc. Award points.</p>	30 minutes
9:30 Introduction	<p>Introduce the Access Control Performance video.</p> <p>Tell participants they are going to see a video. Set the background for the story: At a secure and secret research lab a risk assessment was done and it was determined that there was a high likelihood that an intruder would try to break into the lab to steal secrets. Based on the risk assessment, the management for the facility has implemented a number of risk mitigation steps.</p> <p>As Individuals. Write down as many risk mitigation steps that you can see</p> <p>After the video.</p> <p>Have each group discuss the video and identify as many risk mitigation steps that they can.</p> <p>Query the group to identify (and write down on flip chart) the various mitigation efforts</p> <p>Expected answers:</p> <ul style="list-style-type: none"> • Palm check • Belly button check • Nasal check • Foot check 	15 minutes Slide 1-2

	<ul style="list-style-type: none"> • Mom check • Security guard and “pass” check <p>Repeat video if necessary/desired.</p> <p>ASK: Did the mitigation work?</p> <p>Obvious answer: No</p> <p>ASK: Why not?</p> <p>ASK: Considering the AMP model, what is missing from this risk management scenario?</p> <p>Expected answer:</p> <p>Performance</p>	
<p>9:45 Introduction</p> <p>Key Questions to Address</p>	<p>ASK: What is performance?</p> <p>Expected answer:</p> <ul style="list-style-type: none"> • the way in which someone or something functions • the ultimate result of all the efforts of a company or organization <p>ASK: In what way does performance improve biorisk management?</p> <p>Expected answer:</p> <ul style="list-style-type: none"> • You know that your system works and is sustainable, and that the risk is acceptable 	<p>10 minutes</p> <p>Slides 3-4</p>
<p>Note to Trainer</p>	<ul style="list-style-type: none"> • Hand out the “performance” scenario • Have each group identify the performance issues/problems in the scenario • Remind them to write each issue on a big, separate card using a felt tip marker 	
<p>9:55 Group Exercise 1, Step 1</p> <p>Identifying Performance: Control, Assurance, Improvement</p>	<p>In Groups. You have 15 minutes.</p> <ol style="list-style-type: none"> 1. Read the scenario (5 minutes) 2. Identify the performance issues/problems in the scenario (10 minutes) 3. Write each issue on a post-it note, and place on a flip chart (5 minutes) <p>Report your results to the class (10 minutes)</p>	<p>30 minutes</p> <p>Slide 5</p>
	<p>Answers could include:</p> <ul style="list-style-type: none"> • Internal audits 	

	<ul style="list-style-type: none"> • Autoclave records • Medical surveillance • Lack of training (lab workers, transport company) • Contractual language • Incident reporting • Transfer of accountability 	
10:25	Break	15 minutes
10:40	Show the slide that shows the definitions of: <ul style="list-style-type: none"> • Application • Assurance • Advancement 	5 minutes Slide 7
Group Exercise 1, Step 2	<p>In your groups:</p> <p>Organize the performance issues that you identified into either</p> <ul style="list-style-type: none"> • Application • Assurance • Advancement <p>Present your results to the class</p>	30 minutes Slide 8
	<ul style="list-style-type: none"> • Have the groups cluster the performance issues they identified into either Application, Assurance, or Advancement • You can choose to do this one group at a time, or one concept at a time <p>During the debrief, probe the groups' responses, and drill for full understanding</p> <p>Note: any of the problems could fall into any of the three categories depending on the where in the process the issues fall. For example: autoclave records could fall under "Application" if the organization is not keeping any records. It could fall under "Assurance" if they are keeping records but no one is checking the records to ensure accuracy and completeness and they could fall under "Advancement" if the organization is not working on ways to improve record keeping or if the information in the records are inadequate.</p> <p>Expected Answers:</p> <p>Application</p>	

	<ul style="list-style-type: none"> • Autoclave records • Records storage • Staff on leave/transfer of responsibilities • Incident reporting • Contractual language <p>Assurance</p> <ul style="list-style-type: none"> • Internal and external audits • Maintenance of equipment • Health surveillance <p>Advancement</p> <ul style="list-style-type: none"> • Training of staff • Training of transport company • Establishing goals • Soliciting internal and external feedback 	
<p>10:45 Plenary Discussion</p>	<p>ASK: How does performance affect mitigated risks over time?</p> <p>Group discussion should be guided to the following conclusions:</p> <ul style="list-style-type: none"> • Performance is the doing or implementing the mitigation (Application) • Performance includes checking to make sure the mitigation is working the way it is supposed to. (Assurance) • Without performance your risk may be much higher than what you think it is • Application and Assurance help you keep mitigated risks at the same level over time, but it is the third category Advancement, that helps lower risk over time. 	<p>10 Minutes Slide 9</p>
<p>10:55 Group Exercise 3, Step 1</p> <p>Cataract University Scenario</p> <p>Applying the AMP Model</p>	<p>Hand out Cataract University scenario. Divide into groups. (40 minutes)</p> <ul style="list-style-type: none"> • Have 1/3 of the groups identify problems in Assessment, 1/3 focus on Mitigation, and 1/3 focus on Performance • Use post-it notes, one for each problem • Place post-it notes on “university board” on section titled either Assessment, Mitigation, or Performance <p>Report out results to full group, and discuss</p>	<p>45 minutes Slide 11</p>

	together (20 minutes)	
	<p>Assessment</p> <ul style="list-style-type: none"> Inadequate risk assessment <p>Mitigation</p> <ul style="list-style-type: none"> Procedures for cleaning biosafety cabinets Inadequate material accountability system <p>Performance</p> <ul style="list-style-type: none"> Clear procedures for reporting, investigating, and monitoring lab accidents Training for reporting, investigating, and monitoring lab accidents Clear responsibilities for reporting, investigating, and monitoring lab accidents Timely inspections of lab accidents Responsibilities for acting on inspection reports President unaware of safety/security incidents 	
<p>11:40 Plenary Discussion</p> <p>Introduction to the CWA 15793</p>	<p>Laboratory Biorisk Management Standard: CWA15793</p> <p>Hand out the standard</p> <p>Explain that the CWA is based on plan, do, check, act, which is common for management systems.</p> <p>Short powerpoint presentation describing CWA.</p> <p>ASK: How does PDCA map to AMP?</p> <p>Expected response:</p> <p>A=P, D, C, A</p> <p>M=P, D, C, A</p> <p>P=P, D, C, A</p>	<p>30 minutes</p> <p>Slides 12-18</p>
12:10	Break	15 minutes
<p>12:25 Group Exercise 3, Step 2</p> <p>Return to Cataract</p>	<p>In the same groups</p> <p>Use the table of contents of the CWA to develop recommendations for change at Cataract</p> <ul style="list-style-type: none"> Identify solutions for Assessment, Mitigation, and Performance Agree on the benefits and challenges of making these changes at Cataract 	<p>40 minutes</p> <p>Slide 19</p>

	<ul style="list-style-type: none"> Identify the specific paragraphs in CWA 15793 that apply to your selected solutions <p>Record your conclusions on a flip chart</p> <p>Report out results to class</p>	
13:05 Individual reflection	<p>Individually reflect on the following questions. Write your responses on a piece of paper. You do not have to share these, so don't worry about confidentiality.</p> <ol style="list-style-type: none"> How does AMP apply to your own lab? How could you improve biorisk management at your own lab, short-term and long-term? What would be the challenges of implementing AMP? What would be the benefits of implementing AMP? 	10 minutes Slide 20
Debrief	<p>Ask if anyone wants to share their reflections with the full group</p> <p>Reinforce appropriate insights and learnings</p>	
13:25 Session Summary	Course content recap	5 minutes Slides 21-24
13:30	Course Evaluation	25 minutes
13:55	Closing remarks and Adjourn	