



WSEE

Training Catalogue 2024

SAFETY & SECURITY

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WSEE TRAINING

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Worldwide training

Our increased focus on worldwide training, including basic and advanced user courses, and the high level of expertise of our team of instructors, benefit users in all regions. Our training catalogue lists our many and varied technical courses and workshops spread across all brands. In addition we run customer specific courses.

Want to know more
Contact WSEE Support and Training
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Awareness Level

Course Code	Title	Duration	Page
CBRN 101	CBRN Awareness	10 hours	16
RSA 101	Radiation Safety Awareness	8 hours	17
BSA 101	Biological Safety Awareness	8 hours	18
CSA 101	Chemical Safety Awareness	8 hours	19
CBRN 102	CBRN Related Equipment - Initial Familiarization	6 hours	20
HAZMT101	Emergency Decontamination	8 hours	21

Basic Level

Course Code	Title	Duration	Page
CBRN 201	CBRN General Knowledge Training	20 hours	22
RSB 201	Radiation Safety Basic	24 hours	23
BSB 201	Biological Safety Basic	24 hours	24
CSB 201	Chemical Safety Basic	24 hours	25
CBRN 201	CBRN Related Equipment Familiarization and Operation	18 hours	26



CBRN 202	CBRNE Detection & Identification	40 hours	27
CBRN 203	CBRN Decontamination	30 hours	28
CBRN 204	CBRN First Aid	24 hours	29
CBRN 205	CBRN for Freight and Mail Receivers	24 hours	30
CBRN 206	CBRN Physical Protection	16 hours	31

Advanced Level

Course Code	Title	Duration	Page
CWLA 301	Live Agent CWA Individual Level	40 hours	32
BWLA 301	Live Agent Biological Individual Level	40 hours	33
RWLA 301	Live Agent Radiological Individual Level	40 hours	34
CWMED 301	Live Agent CBRN Medical Responder	40 hours	35
NDE 301	Non-Destructive Evaluation Techniques for CBRN EOD Operators	40 hours	36
CBRN 301	CBRN Forensics	24 hours	37
CBRN 302	Analytical Chemistry of CWA and precursors. Introduction	30 hours	38
CBRN 303	Sampling and identification of CBRN agents/materials	80-160 hours	39
CBRN 304	Workload heat stress in PPE	8 hours	40
CWLA 302	Live Agent CW Munitions Leak Seal Pack Procedures	40 hours	41
CBRN 305	Sampling and Identification of CBR Agents (SIBCRA)	240 hours	42
CWLA 303	Live Agent Sampling and Identification of CBR Agents (SIBCRA)	40 hours	43
CWLA 304	Live Agent CBR Device Investigation	40 hours	44



CBRN 306	CBRN Environment Sampling	80 hours	45
CBRN 307	CBRN Analysis of Environmental Samples	80 hours	46
CBRN 308	Handling of CBRN Improvised devices	4 hours	47
CWLA 305	Live Agent CBR Response Team Member and scenario training	80 hours	48
NET 301	Nuclear Emergency Training (NET)	40 hours	49
CBRN 309	Methodologies for monitoring, triggering, detection, and identification of biological threats	8 hours	50
CBRN 310	Scenario training TL	40 hours	51
CWLA 306	Live Agent Training CBR response TL	40 hours	52
CBRN 311	CBRNE Incident Commander	64 hours	53
CBRN 312	Planning a Response to a CBRN EOD Incident	40 hours	54
CBRN 313	CBRNE Threats and Vulnerability Assessment	40 hours	55
CBRN 314	Biodefense Strategies	8 hours	56
CBRN 315	CBRNE Borders Crossing Security	40 hours	57
COM 301	Command and Control Lessons		58

Specialized (Management Level Advanced)

CBRN 401	CBRN and Terrorism - Evolving Threats and Strategic Responses	42 hours	59
WMD 401	WMD - International Norms that Focus on WMD Threats	42 hours	60
CBRN 402	Dual-use Chemicals and Equipment	42 hours	61
CBRN 403	CBRN Defense Strategy	8 hours	62



CBRN 404	Bio-defense, -resilience and -consequence management	80 hours	63
HZG 401	Transportation of Hazardous Goods	16 Hours	64
BIO 401	Epidemiology of new emerging diseases	16 hours	65
MAN 401	Crisis Management	20 hours	66
MAN 402	Change Management	24 hours	66
MAN 403	Decision Making	8 hours	66
CWC 401	CW History and Use	24 hours	66
WND 402	Nuclear Weapons and Energy	24 hours	67
CYS 401	Cyber Security	8 hours	67
CBRN 405	CBRN-resilient infrastructure Lessons	16 hours	67
CBRN 406	CBRNE special event planning and management	40 hours	67



INTRODUCTION

WSEE mission is to share its decades of accumulated knowledge and experience through offering general and bespoke training for the purposes of capacity building. It also carries out turnkey projects which include training, implementation, and acquisition of the right equipment to implement what is learned; as well as to conduct field tests and exercises of newly acquired knowledge. WSEE stands for Waste management, Safety & Security, Environment protection, and Energy transition management. WSEE is a source to reach out for consultancy and guidance to address challenging topics such as energy and environment management as well as health, safety, and security of high-risk industries with particular emphasis on chemical, biological, radiological and nuclear safeguards & protection (CBRN/HazMat). WSEE's regional scope of coverage focuses on the Middle East and North Africa (MENA), Central Asia, and Sub-Saharan Africa regions. From its base in the Netherlands, WSEE is conveniently located to reach out to all the regions it intends to provide support to and hence to act as a bridge between Europe in general, and the Netherlands in particular with the intended regions.

WHAT WE OFFER IN SAFETY & SECURITY

At WSEE, we consider that appropriate and comprehensive professional training is crucial to securing the right level of preparedness against any incident resulting from a CBRN/HazMat event being in industry, civilian or military fields.

To this end, WSEE offers comprehensive training programs designed to help organizations, safety and security specialists and individual responders to prevent, prepare for, respond to, and mitigate the effects of a CBRN/HazMat emergency and to enhance individual and unit



competence and confidence. We ensure that our training materials are based on the most current information and practices available. Our experts monitor current trends and are up to date to the latest knowledge and know-how available in their respective areas of expertise. This allows us to adapt our training programs to reflect the latest real-world scenarios and what could be expected in the future. As a part of our services, WSEE can also advise on how to make your organization more resilient to CBRN/HazMat threats.

WSEE maintains a robust and compelling catalogue of CBRNE/HazMat related training courses and programs for various target groups ranging from basic to advance levels which meet different goals and learning requirements and enable responders achieve operational excellence. These courses are available immediately.

Furthermore, WSEE offers client-focused, made-to-order training and consulting packages. We support our clients in identifying their own needs in terms of training and capacity building. As such, we work together in a bid to customize our off-the-shelf courses with a view to maximizing their relevance to your own educational and training needs.

Equally, we are fully prepared to assist our clients in the development of training strategies, specialized skill sets and equipment operator programs to qualitatively enhance the in-country value.

WSEE also offers CBRN/HazMat train-the-trainer courses, providing participants with the necessary knowledge, skills, practical tools, and concepts to help educate others in their organizations from compliance to competency.

At WSEE, we believe that mentoring provides intensive, personalized guidance to develop knowledge and skills. By learning from those with expertise and experience, individuals can gain the necessary confidence to meet the needs of their organization.

Let us know your needs, and we will provide you with tailored solutions. We offer you the skills, knowledge, and advice to make your organization resilient and your communities and country safer.



WHO WE ARE

WSEE has a highly qualified team of specialists and globally well recognized experts of high calibre in certain specific disciplines including safety and security in such areas as:

- public health and biodefense
- international security, arms control, and disarmament
- risk management
- crime scene forensics
- preparedness for and consequence management of incidents involving CBRN/HazMat materials
- safe handling and management of dangerous goods in transportation, processing, and plant operations
- management of mass casualties
- prohibition of chemical and biological weapons,
- detection and identification of CBRN/HazMat materials,
- sampling of CBRN/HazMat devices and materials
- physical protection technologies and means
- decontamination technologies and means
- first aid for contaminated victims
- investigation of CBRN/HazMat incidents and events.

Our experts were the pioneers of the establishment of the Organization for the Prohibition of Chemical Weapons (OPCW) located in The Hague, the Netherlands, to oversee the implementation of the Chemical Weapons Convention (CWC) which is the first disarmament treaty banning fully a class of weapons of mass destruction. They are individuals who made their valuable contribution all the way from the negotiations of the Chemical Weapons Convention (CWC) in Geneva through its preparatory phase and finally to actual implementation of the treaty. The OPCW received one of the highest honors in the international community when it was awarded in 2013 the Nobel Peace Prize.

In addition, WSEE has a wide network of prestigious individual specialists and on-call experts which enable it to expand the range of necessary skills to develop specific solutions for its clients.



LEARNING METHODOLOGY

WSEE courses are structured to achieve the learning objectives through a series of methodically sequenced lectures and presentations, followed by question-and-answer periods, with class discussions. Classroom lectures are complemented with table-top exercises, case studies and realistic scenario-based training and field exercises, which serve to reinforce and apply the concepts learned in the classroom. In addition, field training exercises allow students to integrate and apply new knowledge and skills. Lessons learned here translate to improved performance, fewer issues, and lives saved in the field.

Finally, live-agent training provides invaluable experience and prepares individuals for real life emergencies, whereby making mistakes is not an option. The training is dynamic and interactive and incorporates lessons-learned and best practices from actual incidents. Group size can vary depending on the nature of the course, the venue and the objectives pursued.

Achievements are reviewed at the end of each training day, knowledge gaps are identified, and students are provided individual mentorship to address any identified gaps. There is a continual assessment of the participants' progress throughout each individual course by means of knowledge checks and formative assessments (e.g., quiz, oral and written tests to verify achievement of the learning objectives and mastering practical skills). A final assessment at the completion of the training course will be undertaken to confirm the degree students have learned the materials covered in the course, as outlined in the learning objectives.

Depending on the type of the course and its certification process, the successful attendees are issued with acquired certificates issued by WSEE or its partners. Certification usually depends on completion of the approved training course, as well as an assessment of the theoretical knowledge and practical competency.



TRAINING PORTFOLIO

Our training portfolio is designed to ensure that crisis emergency personnel such as first responders from fire services, law enforcement, emergency medical service, consequence management, and first receivers such as health care facilities personnel including safety and security staff, civil servants and hazardous material disposal services will be able effectively organize response operations and safely operate in contaminated environment for swift saving lives of affected victims and mitigate consequences of CBRN/HAZMAT accidents and incidents.

We encourage participants to train with their own equipment. We do, however, understand that the use of your own equipment may not always be possible, in which case we make available CBRN equipment that can be used during modules which take place elsewhere other than the location of the Client.

Most courses take place on-site, at the Client's location. Upon agreement with the Client some training modules may be arranged within WSEE premises, in the Netherlands or other locations. The Client can opt for different service levels ranging from basic to full, where WSEE arranges for the course, facilities, travelling, accommodation, lunch and dinner. Certain training modules however can only be accommodated at specialized and certified CBRN training centers in Europe.



STANDARD TRAINING COURSES

Each of the standard courses listed in this catalogue consists of several modules that can be used in various combinations. The courses can be run as specified or conversely be tailored to meet the needs of tactical, operational, and command level staff.

Our standard training programs are structured to cater to different levels of competence from Individual (*Awareness*) Level to Individual (*Advanced*) Level, and to *Collective Levels*, as needed. They can further be adapted to specific requirements and the attendees' profession/job description with a view to enabling participants to prevent, prepare for, respond to, and recover from the full spectrum of CBRNE/HazMat threats.

The *Command Level* courses are intended for those in or likely to be in command level positions. The course objectives are developed to:

- A. enable a commander/manager to make informed decisions to control and mitigate the consequences of a CBRN/HazMat incident, and
- B. manage preparedness programs for CBRN/HazMat response; plan for major public events; and improve civilian and civilian-military cooperation during incidents, etc.

WSEE organizes Live Agent Training¹ (LAT) which can be conducted on either individual or collective basis, following WSEE standard course objectives, or tailored to meet the client's own strategic and tactical objectives. LAT is subject to stringent rules and regulations and is organized exclusively at specialized and certified CBRN training facilities in Europe, which have special permission to work with toxic chemicals and operate only within accepted Occupational Exposure Limits (OELs).

¹ Top-level rated training with real military grade toxic chemicals.
WSEE Training



SPECIALIZED COURSES

WSEE offers enhanced specialized courses such as CBRN/HazMat protection and detection, CBRN decontamination, sampling and identification of CBRN agents/materials, and CBRN medical management to provide first responders with the required competencies to select and apply proper protection, detection and decontamination procedures and equipment, to investigate and collect environmental samples in order to allow laboratories to conduct highly reliable scientific analysis of the samples collected, and to identify the correct interventions for a patient exposed to CBRN threats or use based on the signs and symptoms of known agent.

Other specialized courses include CBRN/HazMat threat assessment and risk management; Non-Destructive Evaluation for CBRN explosive ordnance disposal (EOD) operators; CBRN for freight and mail receivers; CBRN forensics; design of a CBRN-resilient environment; biodefense, resilience, and consequence management courses; weapons of mass destruction - international norms; dual use chemicals and equipment; CBRN and terrorism. For policy makers WSEE provides courses to build proper preparedness for CBRN-response and to create an environment with suitable CBRN resilience to prevent CBRN incidents.



TAILORED TRAINING AND CONSULTING

Each of the standard courses listed in this catalogue consists of several modules that can be used in various combinations. The courses can be run as specified or can be adjusted or modified to meet the client's needs or complement a national training course already in place. To this end, WSEE designs and runs courses that are exclusively tailored to meet the requirements of client and as such highly effective and applicable to achieve the expected outcomes.

Typically, a tailored course is developed in close consultation with the client starting with needs assessment whereby WSEE reviews, in close coordination with the client, the client's current activities, objectives, challenges faced, and specific skills required. WSEE then designs a training course most appropriate and relevant to the needs and objectives of the client. The client will be fully involved in the development process of the training and will decide the objective, content, level of difficulty, course length and format that better suits its target group.



CBRN/HazMat COURSE LEVEL AND STRUCTURE

1. **Awareness:** to provide training for a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties but are not acting for direct response.
2. **Basic:** to provide training for first response personnel who may need to recognize and respond to a CBRN situation, but who are not responsible for intervention. These may include military personnel, law enforcement, emergency first responders, medical personnel, safety and security officers, civil servants working in relevant organizations, diplomats and all other specialists interested in learning the basics of CBRN.
3. **Advanced:** to provide advanced training for first responders who may be required to intervene in a CBRN situation and hands-on and live agent training for intervening during a CBRN incident. These may include military personnel, law enforcement, emergency first responders, medical personnel, safety and security officers, fire department and HAZMAT responders, civil servants working in relevant organizations, and all other specialists interested in receiving the advance of CBRN training. This group also includes emergency medical service (EMS) responders and healthcare clinicians that may respond to a chemical, biological, radiological, or nuclear, emergency. The course is open to non-destructive evaluation (NDE) operators who are expected to operate in a hazardous environment.
4. **Specialized:** to provide specific knowledge and training for different categories of specialists, operational teams, commanders, and management.

At each level, there is a variety of courses to suit the needs of participants enabling them to operate effectively. See below.



CBRN Awareness

Course code:

CBRN 101

Type: Awareness

Duration: 10 hours

Prerequisite: None

Delivery: Classroom only

Instructors: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties but are not acting for direct response.

Objectives:

Enhance the level of knowledge and preparedness of CBRN/HazMat professionals

Description:

This course is to familiarize participants with CBRN issue materials, their properties, and the measures to mitigate the effects of CBRN materials on humans and the environment

Content:

- History of CBRN matters.
- Properties of CBRN materials and their effects on humans and the environment
- Signs and symptoms of
- exposure to CBRN materials
- Detection of CBRN materials
- CBRN materials effects mitigation, protective measures, and equipment
- Decontamination methods and techniques



RADIATION Safety Awareness

Course code:

RSA 101

Type: Awareness

Duration: 8 hours

Prerequisite: None

Delivery: Classroom only

Instructors: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties but are not acting for direct response.

Objectives:

Enhance the level of knowledge and preparedness of CBRN/HazMat professionals

Description:

This course is to provide participants with knowledge of the radiation nature, its different types, detection, effects mitigation, and protective measures.

Content:

- Nature of radioactivity and a short history of nuclear science and weapons.
- Types of radioactivity
- Detection and protective measures
- Personal and collective protection equipment
- Medical measures
- Deactivation principles



BIOLOGICAL Safety Awareness

Course code:

BSA101

Type: Awareness

Duration: 8 hours

Prerequisite: None

Delivery: Classroom only

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties but are not acting for direct response

Objectives:

Enhance the level of knowledge and preparedness of CBRN/HazMat professionals

Description:

This course is to provide participants with an awareness of the different types of biological agents, detection principles, and protective measures

Content:

- Biological materials definition, Biological, and toxin weapons. History, development, and use.
- Types of biological agents (humans, animal, plant, environment).
- Signs and symptoms.
- Detect to protect/detect to treat (medical care)
- Bio detection and analysis technologies.
- Protective measures and equipment.
- Disinfection principles, methods, and technologies



CHEMICAL Safety Awareness

Course code:

CSA 101

Type: Awareness

Duration: 8 hours

Prerequisite: None

Delivery: Classroom only

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties but are not acting for direct response

Objectives:

Enhance the level of knowledge and preparedness of CBRN/HazMat professionals

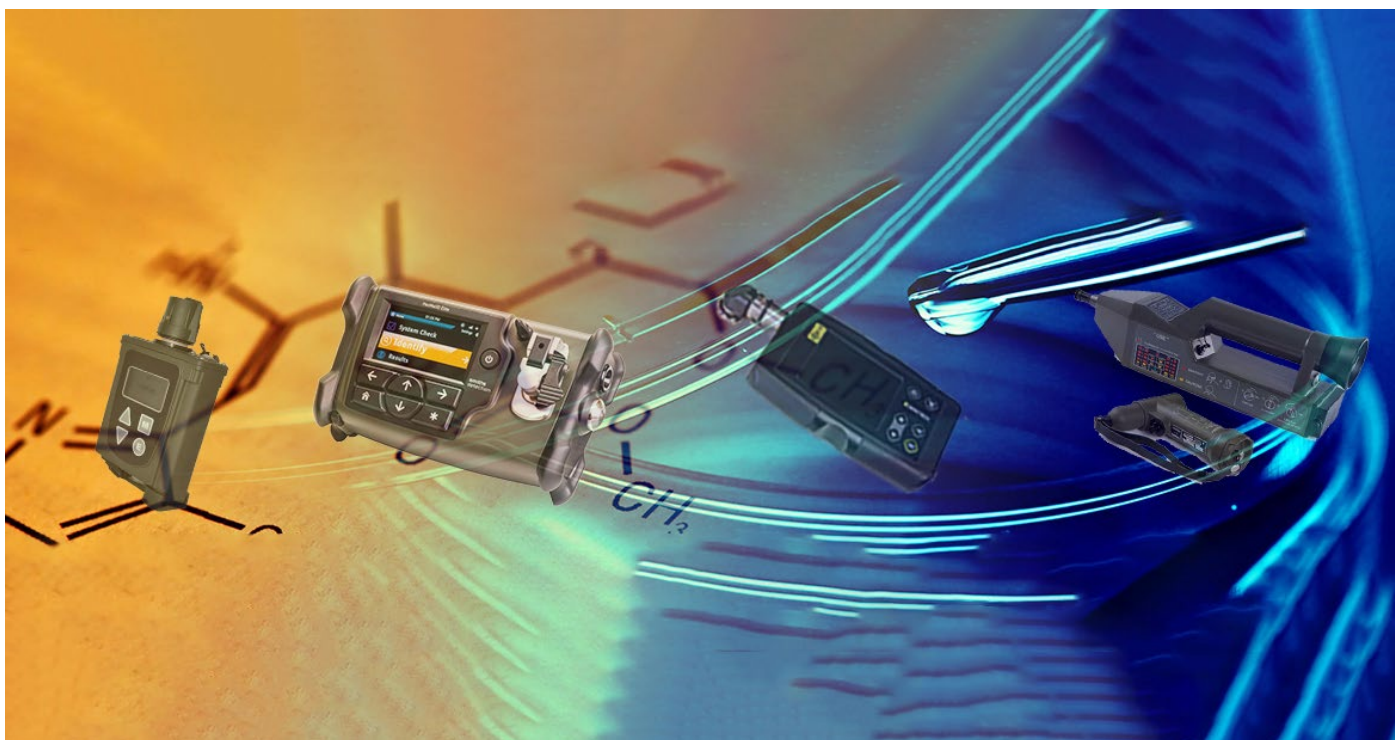
Description:

This course is to provide participants with knowledge on different types of toxic industrial chemicals, chemical warfare agents and their precursors, and highly potent drugs, their chemical and toxic properties, detection technique, mitigation of accident consequences, and protective measures.

Content:

- Toxic Industrial Chemicals and chemical warfare agents. Types of chemical warfare agents, properties, and toxicity
- A short history of CW development and use
- Medical signs and symptoms
- Detection and analysis technologies
- Protective measures and protective equipment
- Workload heats-stress elimination in PPE

- Decontamination principles, methods, and equipment



CBRN Related Equipment – Initial Familiarization

Course code:

CBRN 102

Type: Awareness

Duration: 6 hours

Prerequisite: None

Delivery: Classroom only

Instructors: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

Familiarize with the types and uses of CBRN related equipment.

Description:

This course is to provide brief familiarization with CBRN-related technology and equipment and its demonstration. (Personal Protection Equipment (PPE) – respirators, gloves, aprons, fall protection, full body suits, as well as head, eye, and foot protection. Detection and decontamination equipment).

Content:

- PPE familiarization and dressing/undressing.
- Familiarization with and test of CBRN detection equipment
- Medical equipment and antidotes familiarization

- Decontamination equipment familiarization



Emergency Decontamination

Course code:

HZMT 101

Type: Awareness

Duration: 8 hours

Prerequisite: None

Delivery: Classroom and outdoor

Instructors: 2

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

Enhance the level of knowledge and preparedness of CBRN/HazMat professionals

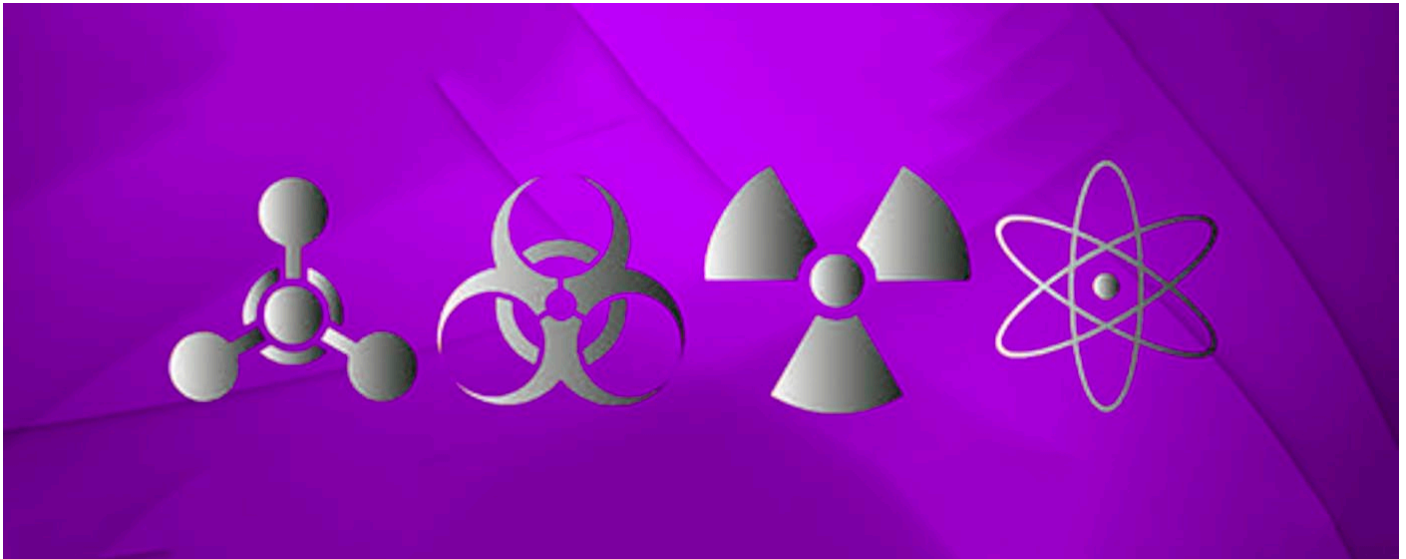
Description:

The course is to get an overview on CBRN individual, operational and through decontamination.

The course will provide hands-on skills in emergency individual decontamination of responders and the victims.

Content:

- Decontamination principles and technologies (L)
- Individual, operational, thorough and mass casualty decontamination (L)
- Decontamination equipment (L)
- Practice of individual emergency decontamination (P)



CBRN General Knowledge Training

Course code:

CBRN 201

Type: Basic

Duration: 20 hours

Prerequisite: Awareness

Delivery: Classroom only

Instructors: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

Acquire a deeper understanding of the techniques and procedures to properly handle CBRN threats, emergencies and or disasters

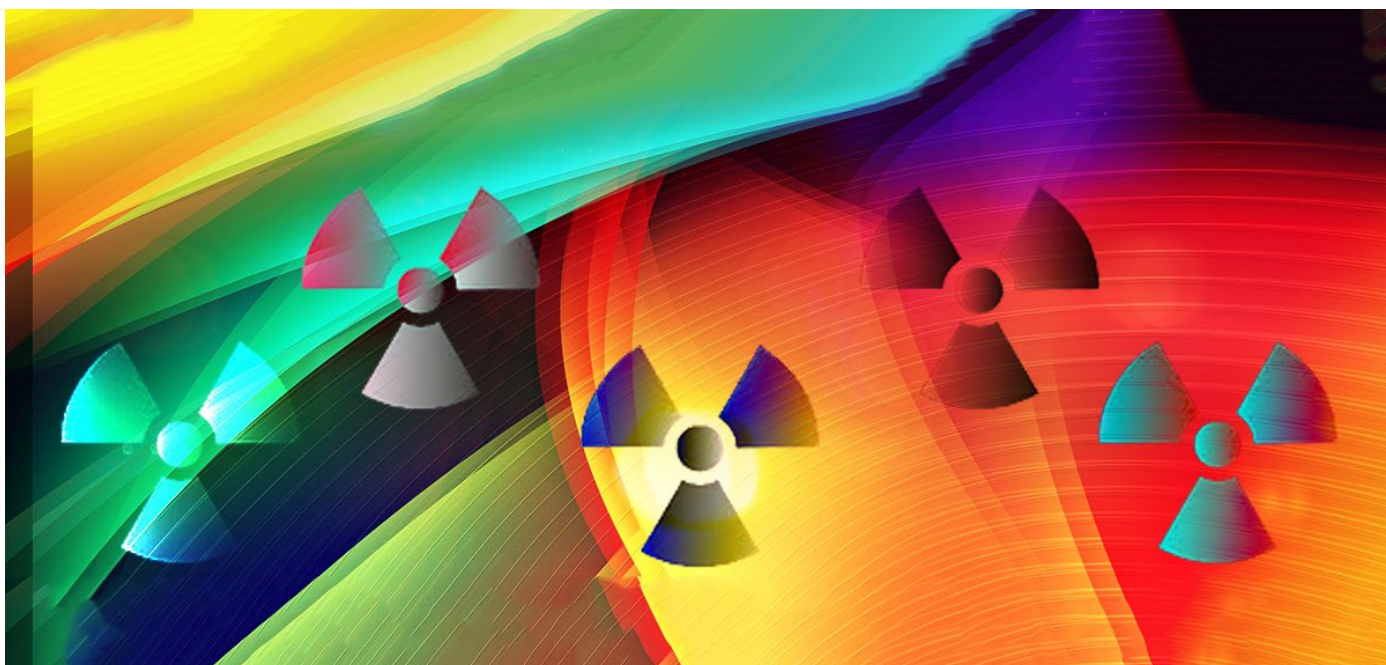
Description:

This course is to provide participants with CBRN materials properties, incidents consequences mitigation of the effects of CBRN materials on humans and the environment. Examples of Law and regulations, international treaties, and national regulations

Content:

- History of CBRN matters.
- Properties of CBRN materials and their effects on humans and the environment
- Signs and symptoms of
- exposure to CBRN materials
- Detection and identification of CBRN materials
- CBRN materials effects mitigation, protective measures, and equipment
- Decontamination methods and techniques.

- Laws and regulations, international treaties, and national regulations



Radiation Safety Basic

Course code: RSB 201

Type: Basic

Duration: 24 hours

Prerequisite: Radiation Safety Awareness

Delivery: Classroom only

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties, as Operations Commander or First Responders

Objectives:

Acquire a theoretical and practical knowledge how to deal with radioactive source materials and devices. How to identify radiation exposures, measures to control and mitigation procedures.

Description:

This course is to provide participants with basic knowledge of radiation nature, its different types, and a brief history of nuclear science and nuclear weapons. Medical aspects and protection, detection, effects mitigation, and clean-up operations and its logistics

Content:

- Nature of radioactivity and a short history of nuclear science and weapons. Types of NPPs and nuclear weapons.
- Types of radioactivity
- Detection, spectrometry, searching technique, and protective measures
- Personal and collective protective equipment
- Medical measures
- Deactivation principles
- Operations at contaminated territories and facilities and logistics



Biological Safety Basic

Course code: BSB 201

Type: Basic

Duration: 24 hours

Prerequisite: Biological Safety Awareness

Delivery: Classroom only

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties, as Operations Commander or First Responders

Objectives:

Acquire a theoretical and practical knowledge how to deal with biological threats. How to identify biological risks, contamination routes and exposures, measures to control and mitigation procedures

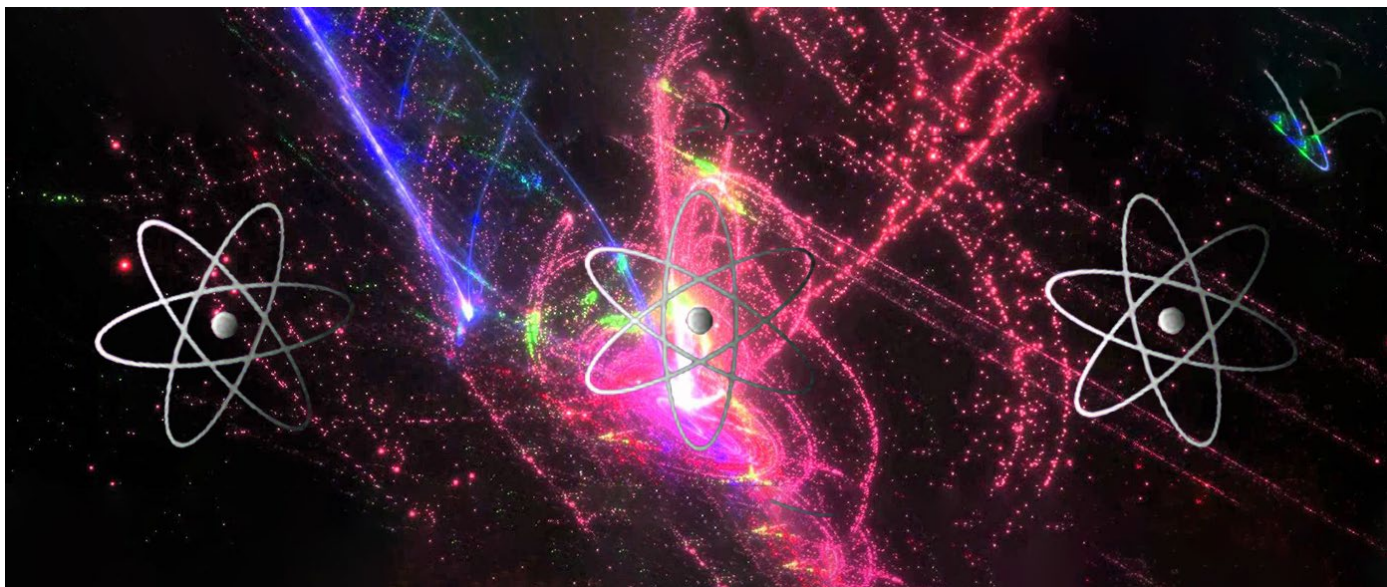
Description:

This course is to provide participants with basic knowledge of the different types of biological threads and agents, history of development, and use detection/analysis principles, and techniques. Protective measures. Operations and logistics

Content:

- Biological materials definition, Biological, and toxin weapons. History and development and use.
- Type of biological agents (humans, animal, plants, environment)
- Signs and symptoms
- Medical care
- Bio detection and analysis technologies.
- Protective measures and equipment.
- Disinfection principles, methods, and technologies.

- Operations at contaminated territories and facilities and logistics



Chemical Safety Basic

Course code:

CSB 201

Type: Basic

Duration: 24 hours

Prerequisite: Chemical Safety Awareness

Delivery: Classroom only

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties, as Operations Commander or First Responders

Objectives:

Acquire a theoretical and practical knowledge how to deal with hazardous chemicals. How to identify hazardous chemicals, exposure risks, contamination routes, measures to control, respective protective equipment, and mitigation procedures for chemical releases

Description:

This course is to provide participants with basic knowledge on different types of toxic industrial chemicals, chemical warfare agents and their precursors, their chemical and toxic properties, history of development and use, detection technique, mitigation of accident consequences, and protective measures.

Content:

- Toxic Industrial Chemicals and chemical warfare agents
- A short history of CW development and use
- Types of chemical warfare agents, properties, and toxicity
- Medical signs and symptoms
- Detection and analysis technologies
- Protective measures and protective equipment
- Decontamination principles, methods, and equipment.
- Operations at contaminated fields and facilities and logistics



CBRN Related Equipment Familiarization and Operations

Course code:

CBRN 201

Type: Basic

Duration: 18 hours

Prerequisite: None

Delivery: Classroom only

Instructors: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

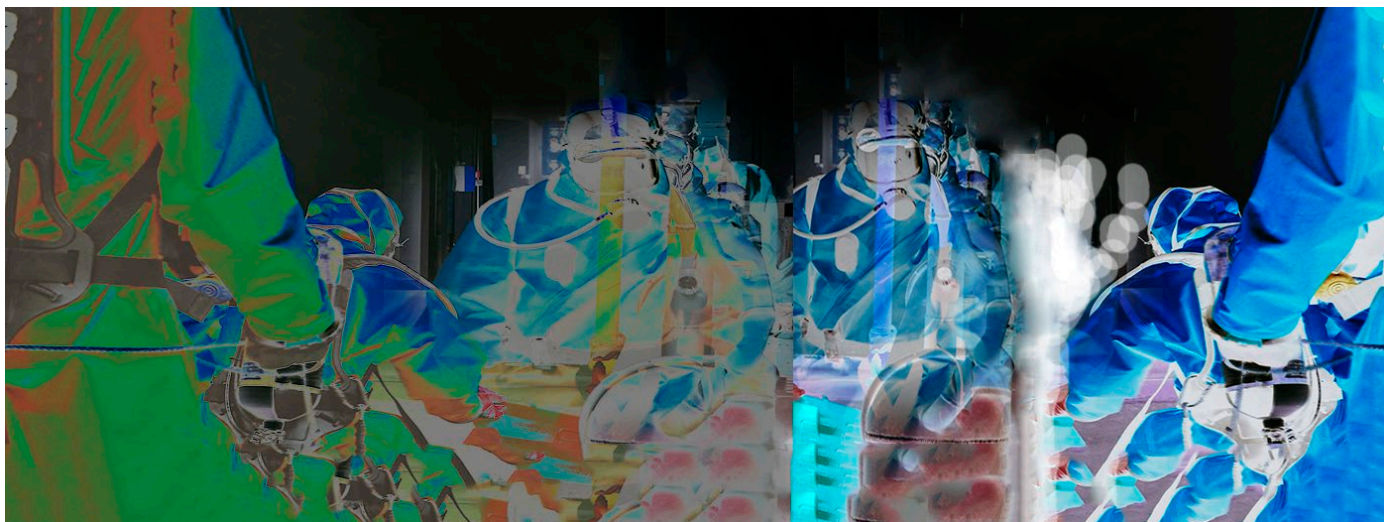
Acquire a deeper knowledge of the types, uses and handling of CBRN related equipment.

Description:

This course is to provide brief familiarization with CBRN-related technology and equipment and its demonstration. (Personal Protection Equipment (PPE) – respirators, gloves, aprons, fall protection, full body suits, as well as head, eye, and foot protection. Detection and decontamination equipment). Operations and logistics

Content:

- PPE familiarization and dressing/undressing training
- Familiarization with and testing of CBRN detection equipment.
- Sampling and Identification
- Medical equipment and antidotes familiarization
- Decontamination equipment familiarization
- Selection of equipment for operations at contaminated territories and facilities and logistics.
- Operation and service with CBRN equipment



CBRNE Detection & Identification

Course code:

CBRN 202

Type: Basic

Duration: 40 hours

Prerequisite: CBRN Awareness

Delivery: Classroom only

Instructors: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

Acquire a deeper knowledge and proficiency in the detection and identification of the full spectrum of CBRNE threats.

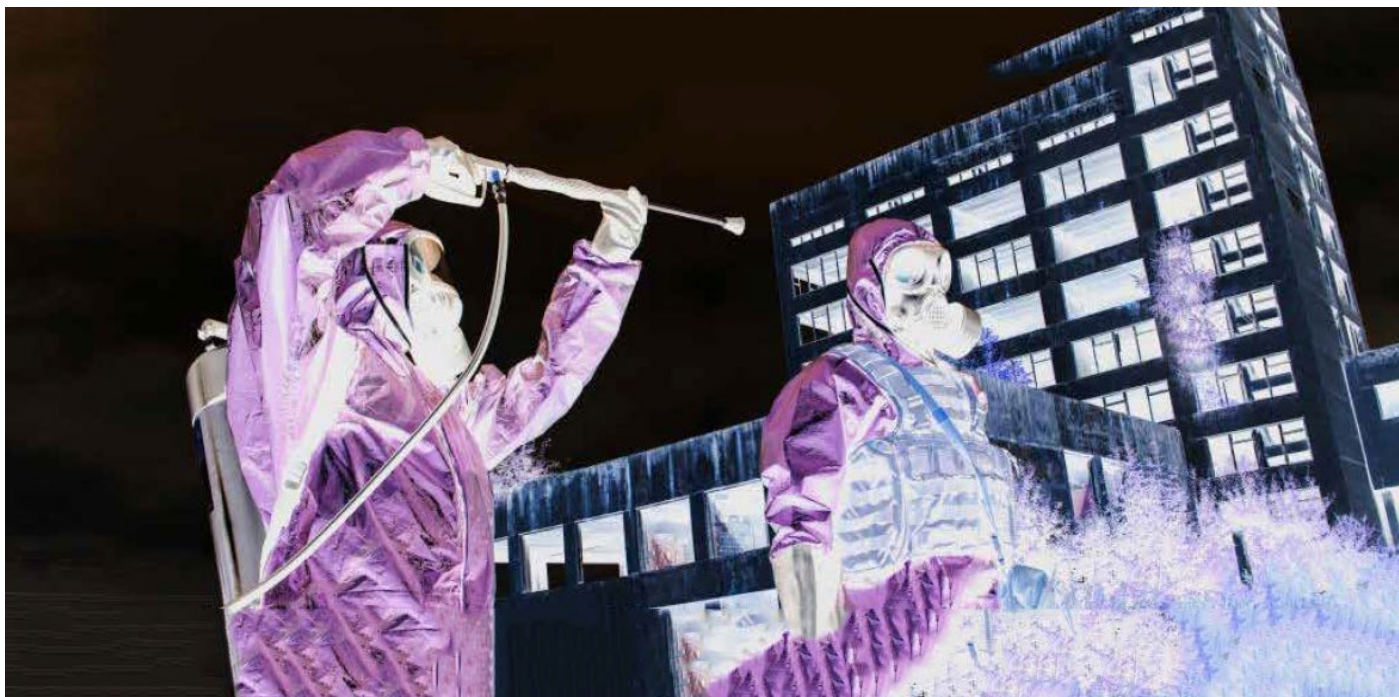
Description:

CBRN personnel can demonstrate proficiency in the detection and identification of the full spectrum of threats, from volatile organic compounds and toxic industrial chemicals (TICs) to chemical warfare agents (CWAs), biological warfare agents and combustible gases. This course covers detection technologies and equipment associated with chemical, biological, radiological, nuclear, and explosive agents, allows participants to comprehend detection requirements in relation to CBRN response and ensures that operators develop proficiency in using their operational equipment

Content:

The course covers the following activities:

- Current detection capabilities and limitations
- Types of chemical agent detection instruments
- Biological agent detection instruments and processes
- Radiological agent detection instruments
- Explosive detection instruments and processes Factors that can impact the effectiveness of CBRN detection.
- Emerging detection technologies
- Detection exercises with simulants



CBRN Decontamination

Course code:

CBRN 203

Type: Basic

Duration: 30 hours

Prerequisite: CBRN Awareness

Delivery: Classroom only

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

Acquire a deeper knowledge and proficiency in the deactivation, disinfection and decontamination methods and techniques covering the full spectrum of CBRNE threats

Description:

This course covers deactivation, disinfection, and decontamination methods, technologies, and equipment associated with radiological, biological, and chemical agents

Content:

- Theory of decontamination methodology
- Current decontamination capabilities
- Chemical agent decontamination technologies and limitations
- Biological agent disinfection technologies and processes
- Radiological agent deactivation technologies, process, residual contamination control
- Emerging technologies
- Equipment, personal, and terrain/buildings decontamination



CBRN First Aid

Course code:
CBRN 204
Type: Basic

Duration: 24 hours

Prerequisite: CBRN Awareness

Delivery: Classroom and practical training

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response.

Objectives:

Provide EMS responders a practical approach and efficient management tools to respond to CBRN casualties

Description:

EMS responders play a crucial role in the early identification and effective management of incidents involving CBRN agents. This course provides participants with knowledge on how to operate in a CBRNE compromised environment and basic skills for the identification of and response in case of exposure to CBRN materials

Content:

- Toxicology of CBRN materials
- Recognizing a CBRN event based on visible signs and symptoms.
- Safety within the hot zone, working in a hot zone (selection and use of protective equipment)
- Dealing with CBRN casualties inside and outside the hot zone
- Emergency decontamination (materials and procedures)
- Medical support from point of exposure through to hospital, triage, and treatment
- Environmental complications
- Antidotes



CBRN for Freight and Mail Receivers

Course code:

CBRN 205

Type: Basic

Duration: 24 hours

Prerequisite: CBRN Awareness

Delivery: Classroom and practical training

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders in the safety and security sectors who may encounter a CBRN situation within the course of their duties

Objectives:

To develop the skills and provide practical knowledge to those personnel responsible to handle mails and freights that may pose CBRN risks

Description:

This training course provides participants with the knowledge and skills necessary to implement safety procedures and develop response protocols in case of suspicious packages and mail, including “white powder” letters

Content:

- Subjects and facilities
- Improvised explosive device recognition.
- Suspicious package/ letter response procedures
- Overview of anthrax as an attack agent
- Anthrax exposure and treatment/ prophylaxis
- Personal protection and protective equipment
- Receiving area/mail room equipment
- Safety equipment
- Field detection equipment
- Case studies



CBRN Physical Protection

Course code:

CBRN 206

Type: Basic

Duration: 16 hours

Prerequisite: CBRN Awareness

Delivery: Classroom and practical training

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

To provide hands-on skills on CBRN personal protective equipment.

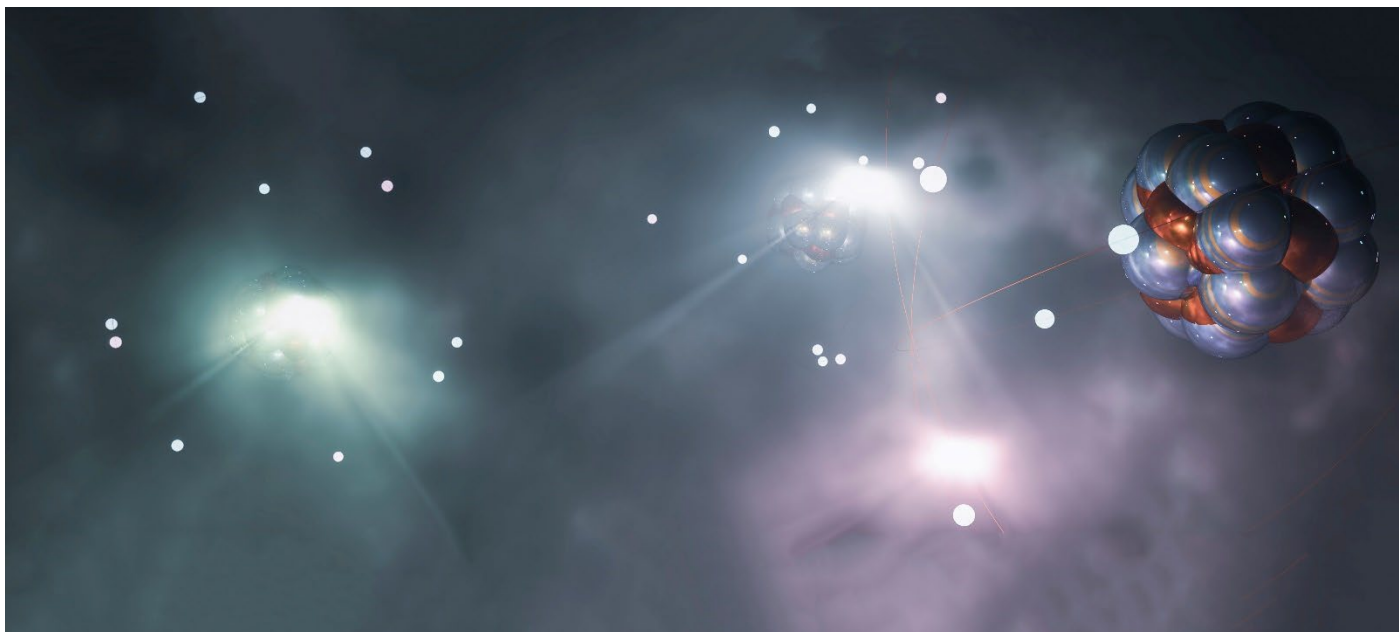
Description:

The course is to get an overview on principles and means for respiratory and body protection.

The course will provide hands-on skills in selection and donning/doffing of PPE

Content:

- Principles of protection against CBRNe /HAZMAT (L)
- Respiratory protection (L)
- Skin protection (L)
- Testing of PPE (L)
- Mask Fit Test (P)
- Donning and doffing of PPE (P)



Live Agent CWA Individual Level

Course code:

CWLA 301

Type: Advanced

Duration: 40 hours

Prerequisite: CSB 201 Chemical Safety Basic

Delivery: Classroom and practical training in a real-hazard environment

Equipment: Will be provided by the LAT training facility

Instructors: 3

Safety Officers: 2

Number of Participants: 20

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

Trainees must be physically fit and has a medical clearance from employer to work in personal protective equipment

Objectives:

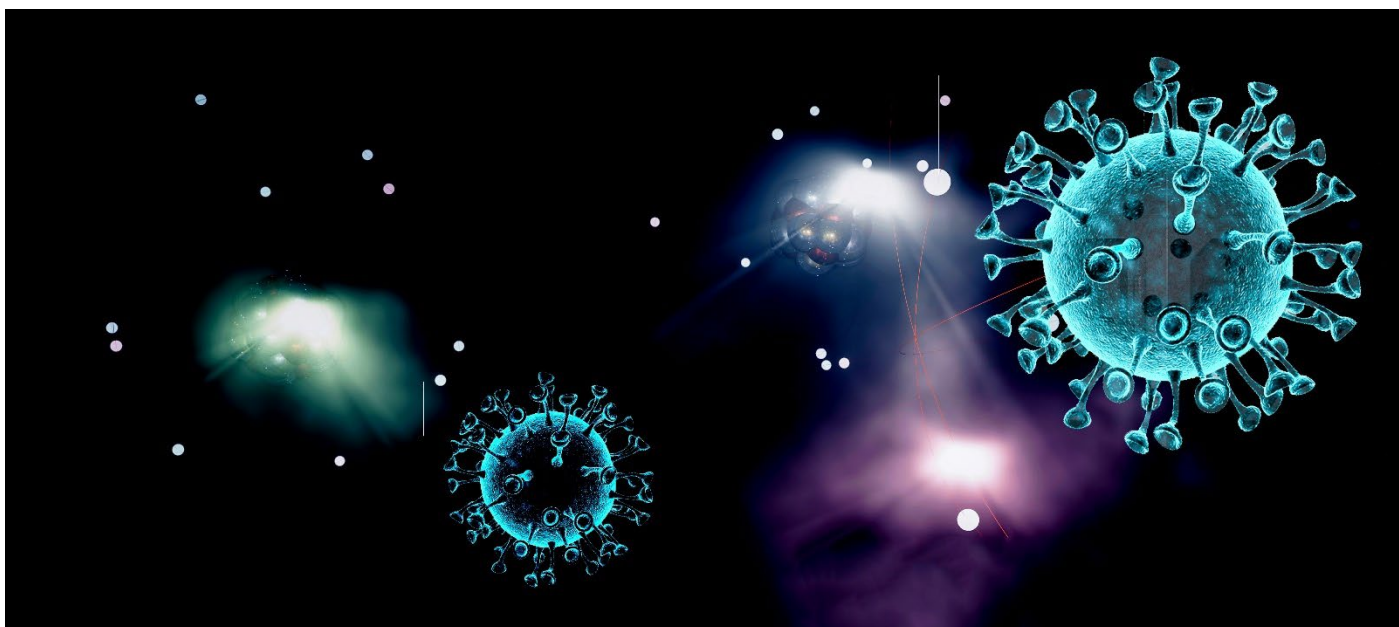
To have a practical experience with CWA simulants and actual CWA agents.

Description:

The course is designed to provide attendees with knowledge, skills, and abilities to work confidently in protective clothing in a toxic environment containing Chemical Warfare Agents and/or Toxic Industrial Chemicals. The attendees will execute a variety of mission scenarios in a live agent environment under the strict supervision of experienced trainers

Content:

- Plan and implement an adequate response (personal protective equipment, detection, decontamination)
- Understand the health and safety risks of hot zone entries and the necessity of control zones
- Detection of chemical warfare agents; hands-on experience using various types of chemical detectors under field conditions
- Donning and doffing of chemical protective clothing
- Preparation of samples for transport
- Decontamination operations/products



Live Agent Biological Individual Level

Course code:

BWLA 301

Type: Advanced

Duration: 40 hours

Prerequisite: BSB 201 Chemical Safety Basic

Delivery: Classroom and practical training in a real-hazard environment

Equipment: Will be provided by the LAT training facility

Instructors: 3

Safety Officers: 2

Number of Participants: 20

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

Trainees must be physically fit and has a medical clearance from employer to work in personal protective equipment

Objectives:

To have a practical experience with live biological agents.

Description:

The course is designed to provide attendees with the knowledge, skills, and abilities to work confidently in protective clothing in a toxic environment containing Biological Warfare Agents and/or Toxins (or simulants). The attendees will execute a variety of mission scenarios in a live agent environment under the strict supervision of experienced trainers

Content:

- Plan and implement an adequate response (personal protective equipment, detection, disinfection)
- Understand the health and safety risks of hot zone entries and the necessity of control zones
- Detection of biological agents (simulants); hands-on experience using various types of bio detectors under field conditions
- Sampling (where, which sample)
- Sample administration.
- Donning and doffing of bio-protective clothing
- Preparation of samples for transport
- Disinfection operations/products



Live Agent Radiological Individual Level

Course code:

RWLA 301

Type: Advanced

Duration: 40 hours

Prerequisite: RSB 201 Chemical Safety Basic

Delivery: Classroom and practical training in a real-hazard environment

Equipment: Will be provided by the LAT training facility

Instructors: 3

Safety Officers: 2

Number of Participants: 20

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

Trainees must be physically fit and has a medical clearance from employer to work in personal protective equipment

Objectives:

To have a practical experience dealing with closed/open source radioactive materials.

Description:

The course is designed to provide attendees with knowledge, skills, and abilities to work confidently in protective clothing in an environment containing closed and/or open radioactive sources. The attendees will execute a variety of mission scenarios in a radioactive source's environment under the strict supervision of experienced trainers

Content:

- Plan and implement an adequate response (personal protective equipment, detection, deactivation)
- Understand the health and safety risks of hot zone entries and the necessity of control zones.
- Searching, detection of radioactive materials; hands-on experience using various types of RN detectors and dosimeters under field conditions
- Donning and doffing protective clothing
- Preparation of samples for transport
- Deactivation operations/products



Live Agent CBRN Medical Responder

Course code:

CWMED 301

Type: Advanced

Duration: 40 hours

Prerequisite: CSB 201 Chemical Safety Basic

Delivery: Classroom and practical training in a real-hazard environment

Equipment: Will be provided by the LAT training facility

Instructors: 3

Safety Officers: 2

Number of Participants: 20

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

Trainees must be physically fit and has a medical clearance from employer to work in personal protective equipment

Objectives:

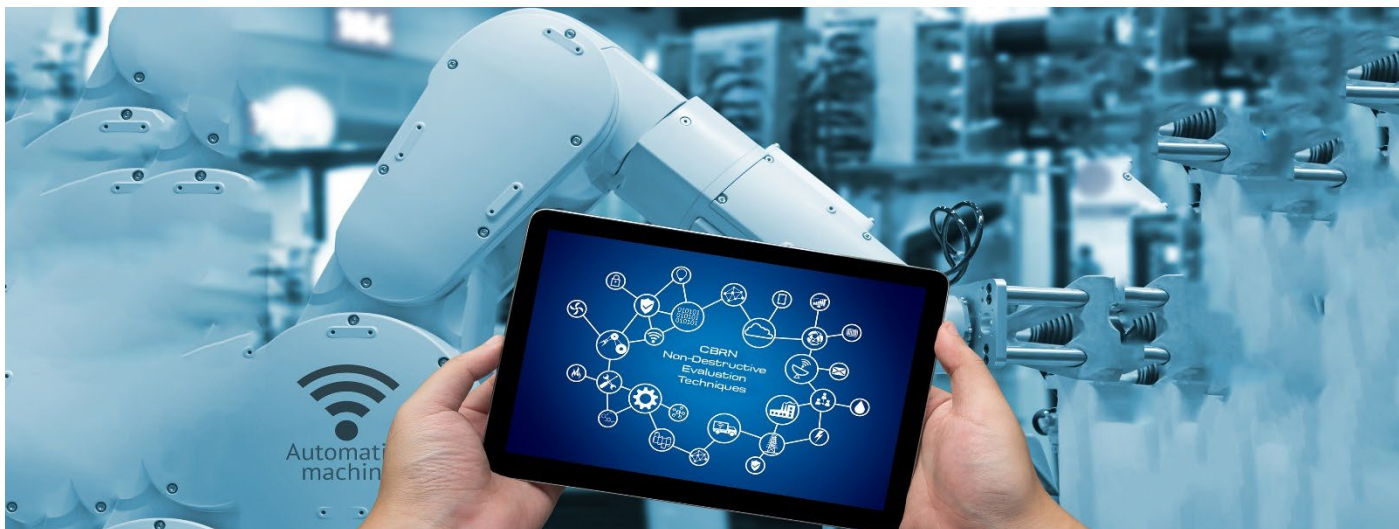
To have a practical experience in dealing with CBRN victims and patients.

Description:

The course is designed to provide attendees with knowledge, skills, and abilities to work confidently in protective clothing in an environment containing CBRN materials. The attendees will execute a variety of mission scenarios in a CBRN-contaminated environment under the strict supervision of experienced trainers.

Content:

- Plan and implement an adequate response (personal protective equipment, detection, decontamination of victims/patients)
- Understand the health and safety risks of hot zone entries and the necessity of control zones
- Detection of CBRN threats; hands-on experience using various types of CBRN detectors under field conditions
- Donning and doffing of protective clothing
- Preparation of victims/patients for transportation
- Decontamination operations/products



Non-Destructive Evaluation Techniques for CBRN EOD Operators

Course code:
NDE 301
Type: Advanced

Duration: 40 hours

Prerequisite: CSB 201 Chemical Safety
Basic and medical clearance from employer to work in personal protective equipment and be registered as a radiation worker

Delivery: Classroom and practical training in a real-hazard environment

Equipment: Client's own equipment or as agreed with the Client

Instructors: 2

Safety Officers: 1

Number of Participants: 20

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

NDT operators

Objectives:

To enable NDT operators to properly use NDT equipment.

Description:

The course enables NDT operators to set up and calibrate equipment, conduct tests, and to interpret, evaluate and document results of NDT in a hazardous environment

Content:

- Pros and cons of the different types of measuring techniques and instruments
- Safe use of the detection instruments in the field, while using full personal protective equipment (e.g., marking a contaminated area, locating a source, checking a possibly contaminated person, etc.)
- Effect environmental conditions (such as temperature, wind, and humidity) may have on the behaviour of the chemicals and the reading of the instruments.
- Translate the reading of the instrument into a health and safety hazard and take appropriate actions.
- Using NDE equipment in a potentially contaminated environment
- Pulsed X-ray characteristics and radiation safety
- Health and Safety hazards and risks associated with radiation emitting equipment.
- Avoiding contamination of NDE equipment
- Setting up equipment in a potentially contaminated area



CBRN Forensics

Course code:

CBRN 301

Type: Advanced

Duration: 24 hours

Prerequisite: CBRN 101 CBRN Awareness

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 1 – 2

Number of Participants: 20

Award/Certification: CBRN International Live Chemical

Warfare Agent Training Certificate

Who should attend:

CBRN operators and first responders that may have to deal with clandestine manufacturing of weapons of mass destruction

Objectives:

To provide CBRN operators a practical knowledge and skills to deal with clandestine manufacturing of weapons of mass destruction.

Description:

This course provides the knowledge and skills necessary to detect the clandestine manufacture of chemical, biological, radiological, nuclear, and explosive weapons of mass destruction. (Note: This course can also be conducted as Live Agent Training, with a prerequisite of CBRN General Awareness Training)

Content:

- Plan and implement an adequate response (personal protective equipment, detection, decontamination)
- Understand the health and safety risks of hot zone entries and the necessity of control zones
- Detection of chemical warfare agents; hands-on experience using various types of chemical detectors under field conditions
- Donning and doffing of chemical protective clothing
- Preparation of samples for transport
- Decontamination operations/products



Analytical Chemistry of CWA and Precursors - Introduction

Course code:
CBRN 302
Type: Advanced

Duration: 30 hours

Prerequisite: CBRN Awareness and analytical chemistry background

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 3

Safety Officers: 2

Number of Participants: 20

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

CBRN/HazMat first responders and operators

Objectives:

Introduce to CBRN/HazMat operators the analytical chemistry methods and techniques used to identify chemical agents and their precursors.

Description:

This course is to provide participants with knowledge of the different types of Analytical Chemistry methods and techniques for CWAs, precursors, and products of degradation

Content:

- Analytical Methods and technique
- Gas chromatography with ECD and FID
- Mass spectrometry
- HPLC and ion chromatography
- Infrared spectroscopy
- Atomic absorption spectroscopy: graphite tube, flame, hydride, and cold steam technique
- ICP-OS
- Samples preparation, concentration, and derivatization.



Sampling and Identification of CBRN Agents & Materials

Course code:

CBRN 303

Type: Advanced

Duration: 80-160 hours

Prerequisite: CBRN Awareness

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 2

Safety Officers: 2

Number of Participants: 20

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

CBRN/HazMat first responders and operators

Objectives:

Introduce to CBRN/HazMat operators the sampling methods and techniques used to collect samples of possible CBRN materials.

Description:

The scope of this course is to provide first responders with the required competencies to investigate and collect samples of possible CBRN contamination to allow laboratories to conduct highly reliable scientific analysis of samples. This course is run in-line with the NATO standards. This course can be split into individual modules

Content:

- Sampling and Identification of Biological and Chemical Agents - The SIBCA and SIRA sampling kits
- Sampling techniques to avoid cross-contamination.
- Properties of radiological, biological and chemical agents; Signs and symptoms of exposure
- Principles of respiratory protection against biological, radiological and chemical agents
- Principles of reconnaissance, detection, and decontamination
- Limitations of personnel working in personal protective equipment (heat and cold stress)
- Packaging techniques/transport of samples/chain of custody
- Methods of analysis and interpretation of results
- Practical scenario-based exercises
- Sampling and Identification of Radiological Agents
- Decision processes for the team leader and the roles within the team
- Search of radioactive sources, determining, and fencing off a contaminated area



Workload Heat Stress in PPE

Course code:
CBRN 304
Type: Advanced

Duration: 8 hours

Prerequisite: None

Delivery: Classroom and practical training

Instructors: 1

Number of Participants: 20

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

Operators that may need to wear CBRN PPE in hot temperature conditions

Objectives:

To have an overview of current techniques for monitoring core body temperature

Description:

The course is to get an overview on heat stress risk and prevention measures for individuals wearing PPE.

The course will provide hands-on skills in application of non-invasive monitoring device for heart rate and core body temperature

Content:

- Metabolic heat energy, risks, and symptom (L)
- Impact of PPE on heat-stress (L)
- Heat-stress management (L)
- Practice of non-invasive heart rate and core body temperature (P)



Live Agent CW Munitions Leak Seal Pack Procedures

Course code:

CWLA 302

Type: Advanced

Duration: 40 hours

Prerequisite: CBRN 101 Awareness

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 3

Safety Officers: 2

Number of Participants: 20

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties but are not acting for direct response

Objectives:

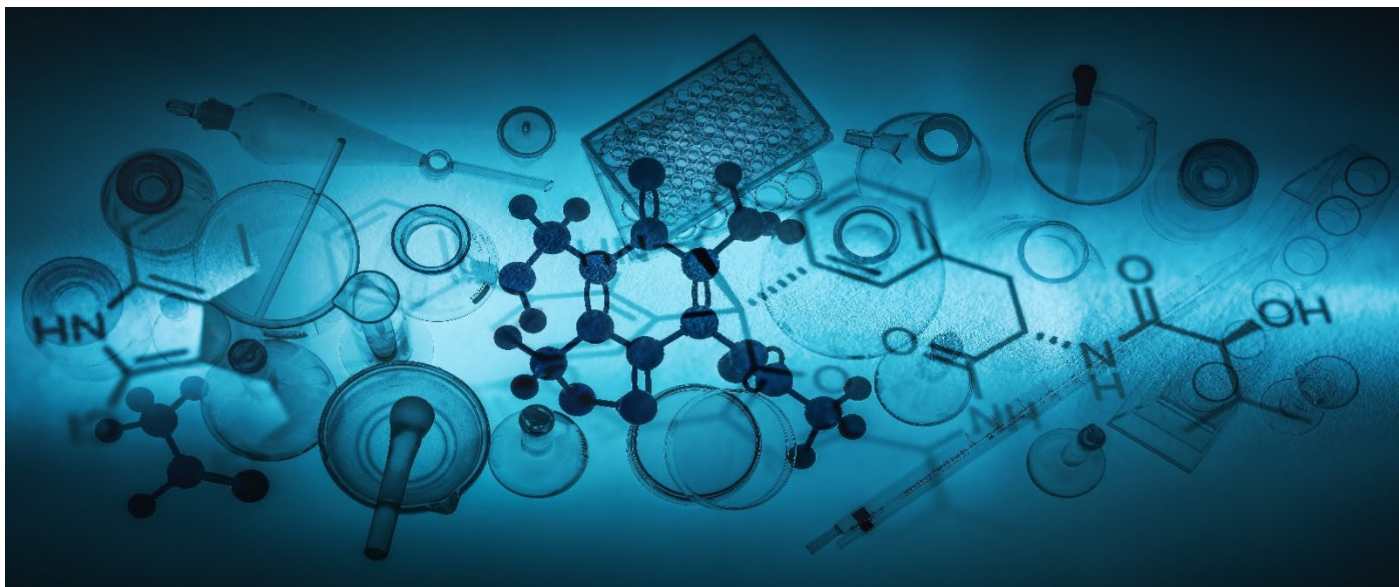
To enable operators and first responders to deal safely with CW leaking munitions.

Description:

The scope of this course is to provide EOD/IED personnel with the required competencies to carry out CW munitions leak, seal, and pack procedures

Content:

- Risk assessment
- Knowledge of sealants to be used
- Needed equipment.
- Simulants –base leak, seals, packing exercise.
- Live agent leak seal pack exercises



Sampling and Identification of CBR Agents (SIBCRA)

Course code:

CBRN 305

Type: Advanced

Duration: 240 hours

Prerequisite: CBRN 101 Awareness

Delivery: Classroom and practical training in a specialized facility

Instructors: 4

Number of Participants: 15

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

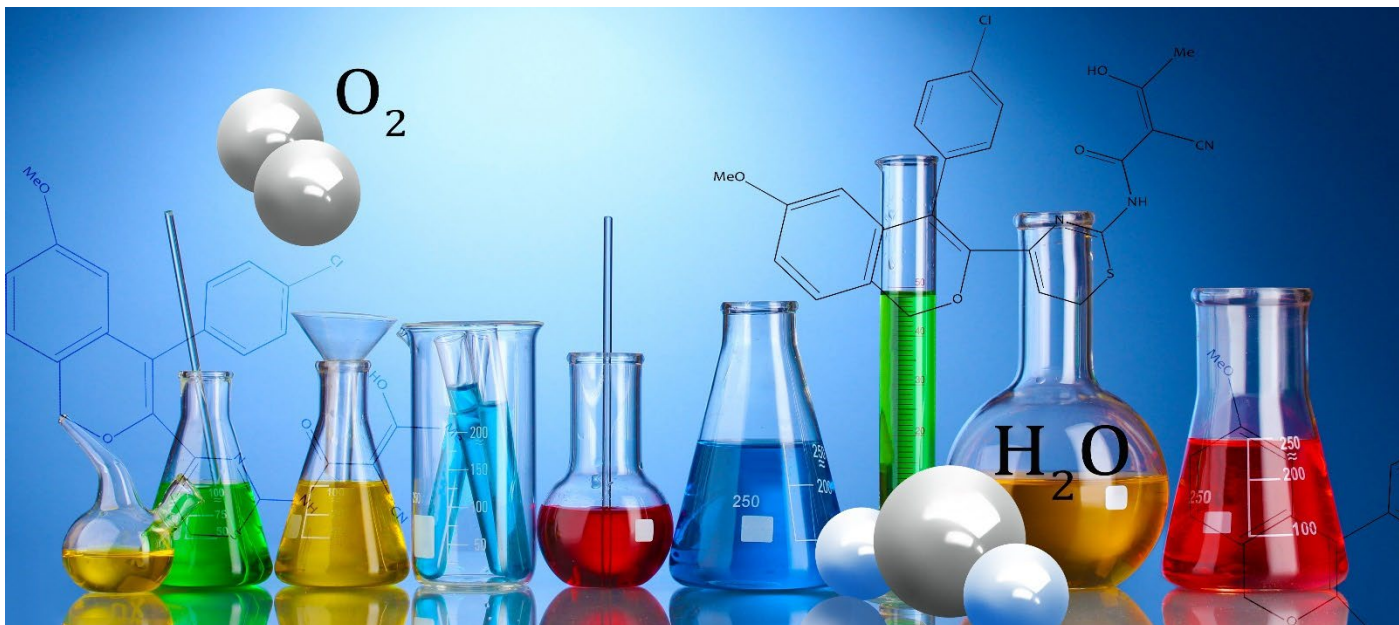
First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

The scope of this course is to provide first responders with the required competencies to investigate and collect samples of possible CBRN contamination to allow laboratories to conduct highly reliable scientific analysis of samples. This course is running line with the NATO SIBCRA standards. This course can be split into individual modules.

Description & Content:

- Theory SIBCA (Sampling and Identification of Chemical, Biological and Radiological Agents)
- Signs and symptoms of exposure to CBR agents
- Principles of respiratory protection against biological and chemical agents
- Principles of reconnaissance, detection, and decontamination
- Decision processes for the team leader and the roles within the team
- The SIBCA sampling kit. Sampling techniques and cross-contamination
- Limitations of personnel working in PPE (heat and cold stress)
- Packaging techniques/transport of samples/chain of custody
- Methods of analysis and interpretation of results
- Practical scenario-based exercises



Live Agent Sampling and Identification of CBR Agents (SIBCRA)

Course code:

CWLA 303

Type: Advanced

Duration: 40 hours

Prerequisite: CBRN 101 Awareness

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 2

Safety Officers: 2

Number of Participants: 20

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

To enable the operator to safely collect samples under hazardous conditions, including the ability to identify and accurately record the collection of samples and maintain the chain of custody.

Description & Content:

- Analyse observations and records of the reconnaissance team, photographs, witness statements and video recordings, etc. to identify the evidence available and the types of samples to be collected.
- Develop a plan for the collection of samples.
- Prepare and organize equipment for the samples collection.
- Conduct a sampling operation to safely collect CBR samples.
- Select PPE for use in a “hot zone”
- Decontaminate and seal a sample for transportation.
- The chain of custody planning



Live Agent CBR Device Investigation

Course code:
CWLA 304
Type: Advanced

Duration: 40 hours

Prerequisite: NDE 301

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 3

Safety Officers: 1

Number of Participants: 15

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

The scope of this course is to provide EOD/IED qualified first responders who may be involved in a response to a possible criminal or terrorist activity involving CBRN devices with the skill to analyse, plan and implement an investigation of those IEDs in a potential hot zone.

Description & Content:

- Analyse a CBR/IED incident to determine the magnitude of the problem in terms of outcomes.
- Properties of chemical agents
- Identification of the signs and symptoms of exposure to chemical agent
- Prediction models and methods for determining the dispersion of CBR Agents
- Plan a response by the identification and preparation of the relevant equipment for use within the hot zone
- Implement a planned response by using the relevant equipment to perform an investigation using pulsed X-rays inside the hot zone



CBRN Environmental Sampling

Course code:
CBRN 306
Type: Advanced

Duration: 80 hours

Prerequisite: CSA 101 Chemical Safety Awareness, CBRN 101 Awareness, Analytical Chemistry Background and medical clearance from employer to work in personal protective equipment

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 2 -4

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

Environmental operators and CBRN/HazMat First responders

Objectives:

The scope of this course is to provide how a sample is taken from the environment is key in identifying its composition and as such is tied to the analytical method employed to identify it. There are many sampling methodologies, based on statistical processing, equipment and as well as ensuring the chain of custody if required

Description:

The course covers the key factors to determine a good sample. These factors include:

- An understanding of the sample to be taken
- Concentrations and the effect of sampling equipment.
- Sorption of the substance in relation to sample media.
- Analytical interferences.

Sampling practice will be done first with non-harmful substances and then with controlled quantities of harmful substances commonly found in the environment using a selection of different matrixes

Content:

The course is divided into 3 parts:

- Sampling Theory
- Demonstrations
- On Site Sampling



CBRN Analysis of Environmental Samples

Course code:
CBRN 307
Type: Advanced

Duration: 80 hours

Prerequisite: CBRN 306, Professional Analytical Chemistry

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 2 -4

Number of Participants: 10

Award/Certification: Certificate of Attendance

Who should attend:

Environmental operators and CBRN/HazMat First responders

Objectives:

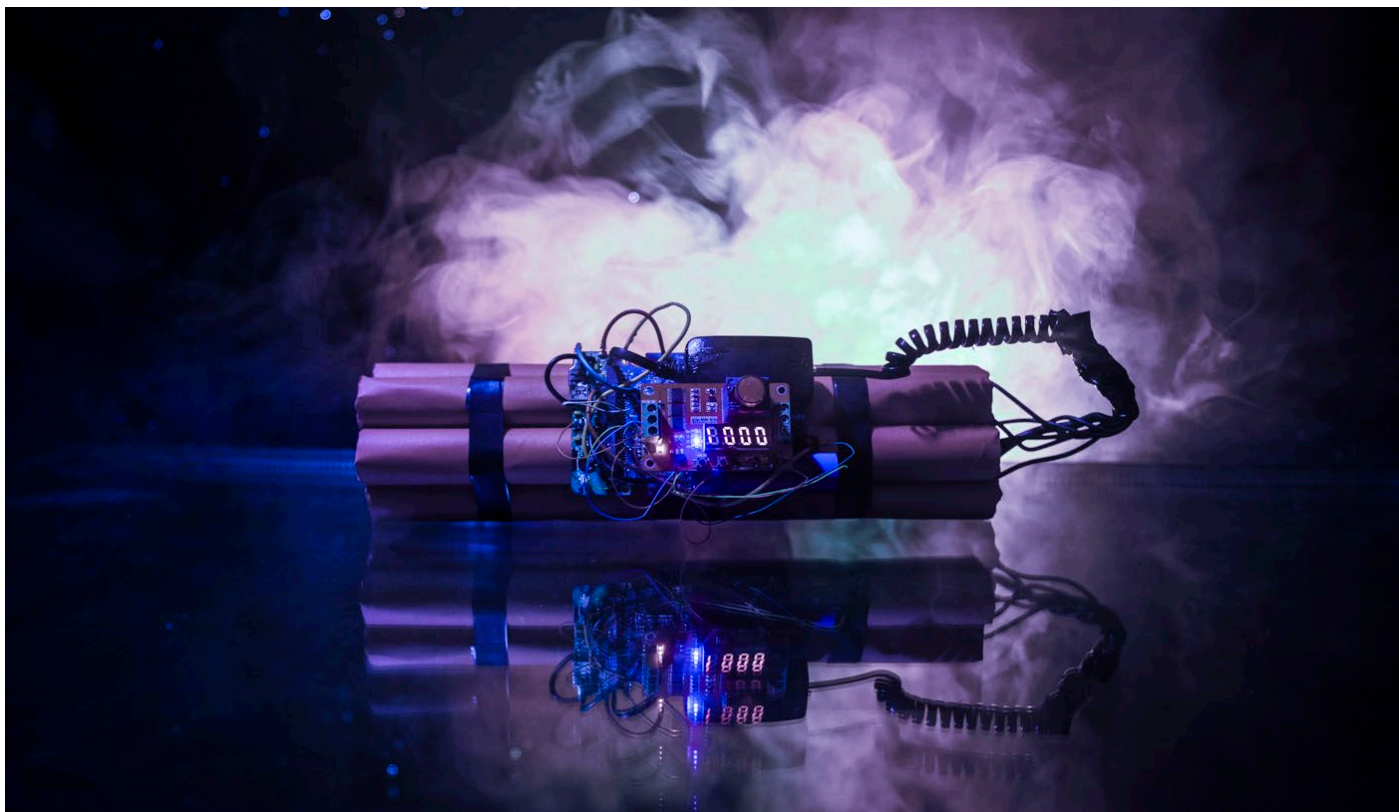
The scope of this course is to transfer knowledge in how to perform analysis of environmental samples

Description:

Analytical procedures for determining of pollutants in the environment are known and recognized as standard analytical procedures, however, determining individual compounds in natural samples can represent challenges and difficulties even for experienced analysts. Samples from the environment demand preparation and an in-depth knowledge of the analyst's instrumentation

Content:

- Analytical theory
- Demonstrations of analytical equipment (Gas Chromatography with ECD and FID, Mass Spectrometry, HPLC and Ion Chromatography, Infrared Spectrometry, Atomic Absorption, ICP-OS)
- Onsite Sampling/Analysis



Handling of CBRN Improvised Devices

Course code:
CBRN 308
Type: Advanced

Duration: 4 hours

Prerequisite: CBRN 101 Awareness

Delivery: Classroom only

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

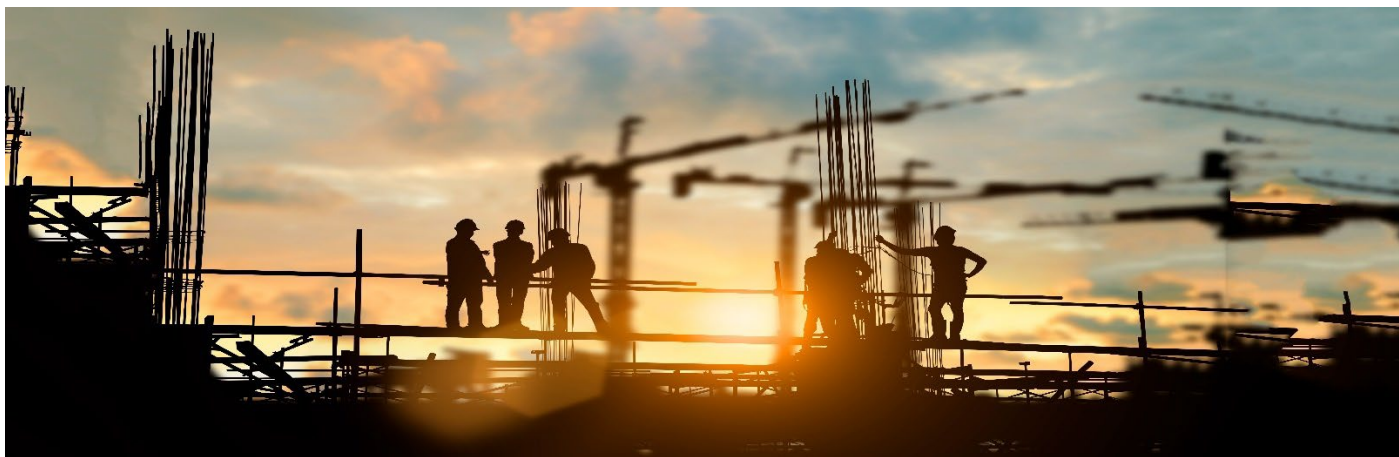
First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

The course is to provide an overview on properties of CBRN improvised devices, risks, and mitigation principles.

Content:

- Design of CBRN improvised devices (L)
- Spread pattern of CBRN materials (L)
- Mitigation principles of CBRN improvised devices (L)



Live Agent CBR Response Team Member & Scenario Training

Course code:
CWLA 305
Type: Advanced

Duration: 80 hours

Prerequisite: CBRN 101 Awareness and medical clearance from employer to work in personal protective equipment

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 2

Safety Officers: 3

Number of Participants: 20

Award/Certification: CBRN International Live Chemical Warfare Agent Training Certificate

Who should attend:

First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

To have a practical experience with CWA simulants and actual CWA agents in a scenario training program.

Description:

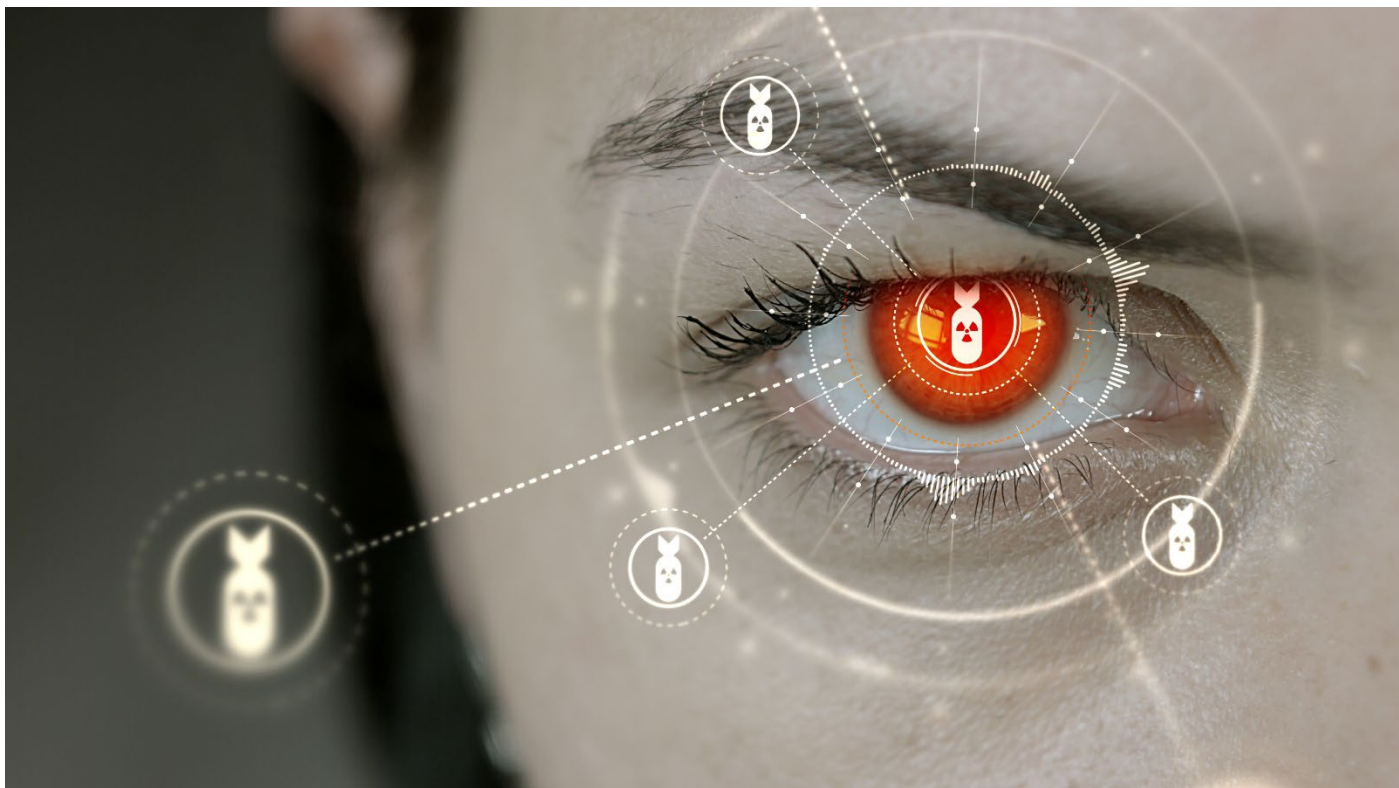
Team level scenario training for response team members is focused principally on group-based training whereby advanced training scenarios are developed specifically with the clients' needs in mind. It is also expected for scenario work that the participants have sufficient experience and training to be able to safely operate within a CWA live environment (if applicable) and that the structure of the group can work a scenario, in which their commanders are present. Training can be conducted with chemical agents (live or simulants)

Content:

There is a large variety of options which can be used in scenario training, WSEE will work with the Client to ensure the scenarios meet its needs, if it fits within safety criteria.

Scenario training can be organized at a location made available by the Client or at specialized CBRNE centres, where on-site training can be further enhanced using unique CWA simulants, in a variety of settings, such as:

- Search, identification, and sampling tasks.
- Operational sampling
- EOD/IED incident response and countermeasures
- Decontamination tasking
- Border control or crossing tasks
- Medical and evacuation scenarios
- Non-destructive testing/evaluation operations
- Testing/confirming your procedures



Nuclear Emergency Training (NET)

Course code:
NET 301
Type: Advanced

Duration: 40 hours

Prerequisite: Medical clearance from employer to work in personal protective equipment and be registered as a radiation worker

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 2

Safety Officers: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

Targeted towards first responders, military personnel, scientists, nuclear industry, international organizations, NGOs, and governmental organizations

Objectives:

This course provides participants with an awareness of emergency measures after a nuclear accident.

Description & Contents:

- Radiation safety
- Consequences of a nuclear accident
- Consequence management after a nuclear accident
- Chernobyl1986: causes and effects
- Comparison of the Chernobyl/Fukushima incidents
- Working in a radiologically contaminated area
- Protection against open radioactive sources
- Detection of radioactive sources in a contaminated environment
- Sampling procedures
- Decontamination procedures



Methodologies for Monitoring, Triggering, Detecting, and Identification of Biological Threats

Course code:
CBRN 309
Type: Advanced

Duration: 8 hours

Prerequisite:

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

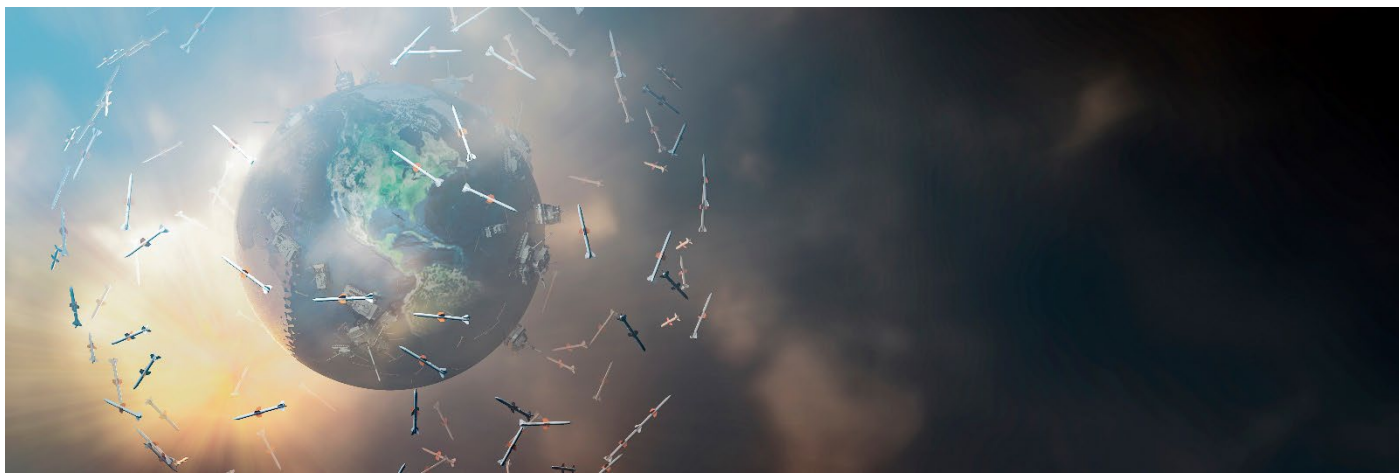
First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

Get an overview of the different methodologies, principles and instruments available for biological threat monitoring, triggering, detection, identification in the environment and in the victims, including the proposed therapies.

Description & Content:

- Strengths/weaknesses tables of all COTS/MOTS available equipment Overview of new promising technologies and therapies, which are in research phase
- Different COTS/MOTS available equipment
- What to measure? Sampling
- Monitoring techniques/statistics
- Value of measured data



CBRN Scenario Training Team Leader

Course code:
CBRN 310
Type: Advanced

Duration: 40 hours

Prerequisite: CBRN 101 Awareness

Delivery: Classroom and practical training in a specialized facility

Instructors: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

To have a practical experience with CWA simulants and actual CWA agents in a scenario training program.

Description:

Collective level scenario training for response team leaders is focused principally on group-based leadership whereby advanced training scenarios are developed specifically with the clients' needs in mind. It is also expected for scenario work that the participants have sufficient experience and training to be able to safely operate within a CBRN live environment and that the structure of the scenario is focused on the team leader. This training can also be combined with team member scenario training where the team leader runs his or her team through the scenario. Training can be conducted with chemical agents (live or simulants), radiation sources, biological simulants/agents or combinations of all three.

Content:

Such training can include, but is not limited to:

- Reconnaissance tasks
- Search, identification and sampling tasks
- Operational sampling
- EOD/IED incident response and countermeasures
- Decontamination tasking
- Border control or crossing tasks
- Medical and evacuation scenarios
- Non-destructive testing/evaluation operations
- Testing/confirming your procedures

There is a large variety of options which can be used in scenario training, so please contact us with your requirements as long as it fits within our safety criteria, we will endeavor to make it



Live Agent Training CBR Response Team Leader

Course code:
CWLA 306
Type: Advanced

Duration: 40 hours

Prerequisite: CBRN trained, Live Agent Training CWA Individual Level. Medical clearance from employer to work in personal protective equipment and a registered radiation worker

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 2

Safety Officers: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

This course is to provide Response Team Leaders with advanced skills to analyse, plan and implement response to a possible criminal or terrorist activity involving CBR materials.

Description & Content:

- The properties and effects of CWA, Toxic Industrial Materials (TIMs), biological and radiological agents
- Methods of dissemination of CBR materials
- Toxicology and first effects of CBR materials
- Terrorist actions using CBR materials
- Team protection procedures (personal protective equipment, donning/doffing, avoidance of contamination)
- Theory of decontamination and application of selected decontamination procedures and the setup of an Emergency Personal Decontamination Station (EPDS)
- Management of contaminated personnel (casualties and responders)
- Definition and marking of an initial hazardous CBR area
- CBR hazard assessment techniques, pre and post blast, including X-rays
- CBR detection employing available equipment as user, pre and post blast
- Potential outcomes of a CBRN incident



CBRNE Incident Commander

Course code:
CBRN 311
Type: Advanced

Duration: 64 hours

Prerequisite: Employed as or likely to be employed as an incident commander, medical clearance from employer to work in personal protective equipment, CBRN General Awareness Training (40 hours)

Delivery: Classroom and practical training

Instructors: 2

Safety Officers: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

This advanced level training is appropriate for command level responders with the responsibility of directing response efforts at a natural disaster or deliberate CBRNE incident

Objectives:

To provide command level operators a practical updated knowledge to respond to CBRN incidents.

Description & Content:

- CW history, synthesis and production technologies
- 4th generation of CW, properties, and use
- CBRNE agent overview. Chemical agents of opportunity for terrorism
- Personal protection equipment overview
- Incident Command Systems (ICS)
- Pre-Incident plans and procedures. Incident management software programs
- Stand-by/recall of emergency response personnel
- Expedient chemical/biological release mitigation methods
- Procedures for prolonged SCBA/PPE operations
- Manpower rehabilitation and replacement logistics for sustained operations
- Stress management for emergency personnel. An overview of human behaviour during a CBRN crisis
- Mass decontamination
- Use of aviation assets/airspace management
- Stockpile and distribution plans
- Security of critical facilities
- Medical emergency operations plan
- Multiple agency communication
- Criminal investigation of deliberate CBRNE events
- Long-term response and recovery
- Environmental concerns
- Emerging/next generation response technologies case studies



Planning a Response to a CBRN EOD Incident

Course code:
CBRN 312
Type: Advanced

Duration: 40 hours

Prerequisite: CBRN 101 General Awareness

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 3

Safety Officers: 2

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

This course provides participants with the knowledge, skills, and abilities to analyse the risks at a CBRN incident; and to plan and implement safety procedures of responders during hot and warm zone operations.

Description & Content:

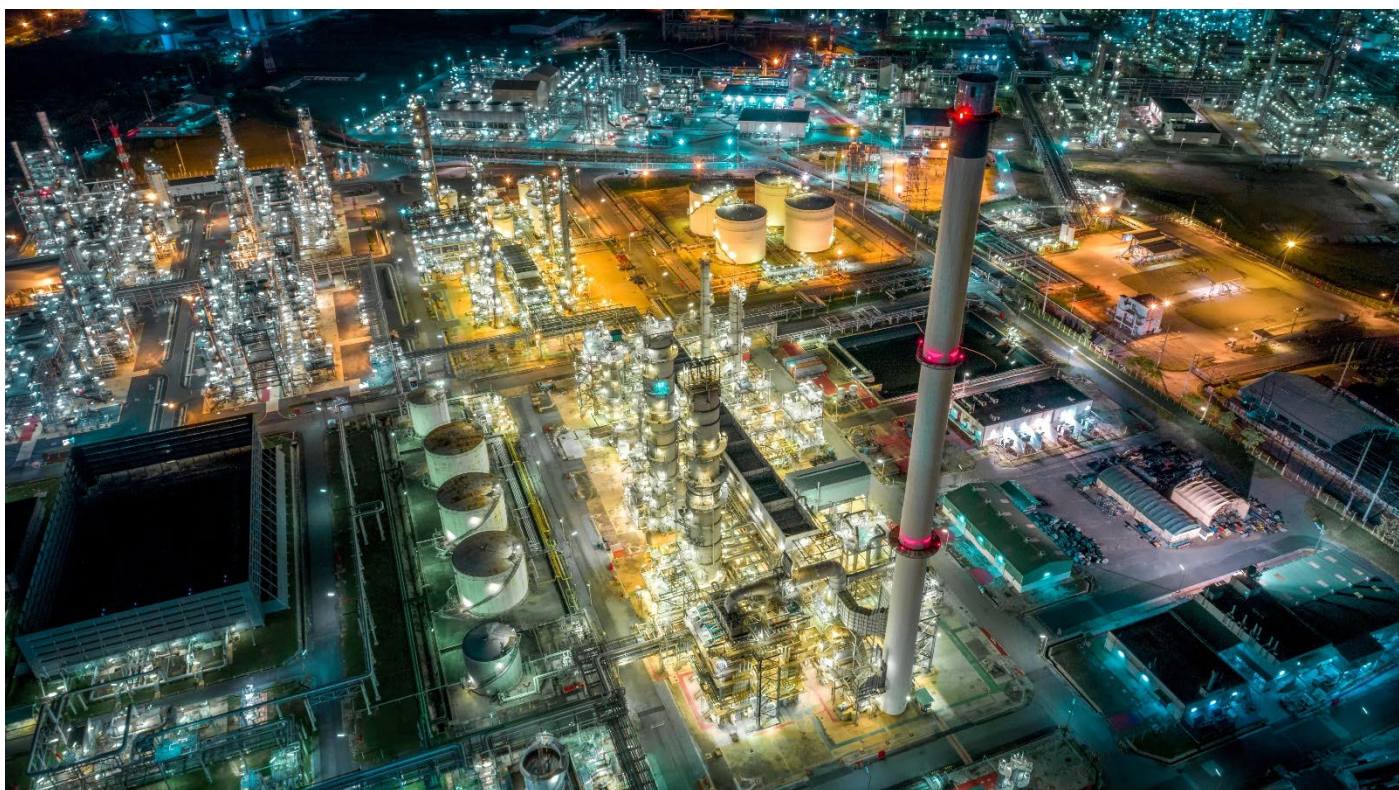
- Properties of CBRN improvised devices
- Design of CBRN improvised devices
- Spread pattern of CBRN materials
- Mitigation principles of CBRN improvised devices
- Analyse a CBRNE incident
- Determine the complexity of the scene for safety
- Evaluate hazard and response information

Plan a safe response within the capabilities of:

- available response personnel
- personal protective equipment, and
- control equipment

Implement a safe response:

- Assess an incident action plan, emergency response plan, and/or standard operating procedures
- Evaluate the progress of the planned response
- Terminating an incident response



CBRNE Threats and Vulnerability Assessment

Course code:
CBRN 313
Type: Advanced

Duration: 40 hours

Prerequisite: CBRN 101 General Awareness

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 2

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

This course provides participants with the knowledge, skills, and abilities to conduct a threat analysis and to assess the vulnerability of their organization, enabling security and emergency managers to better understand the current readiness posture of their organization.

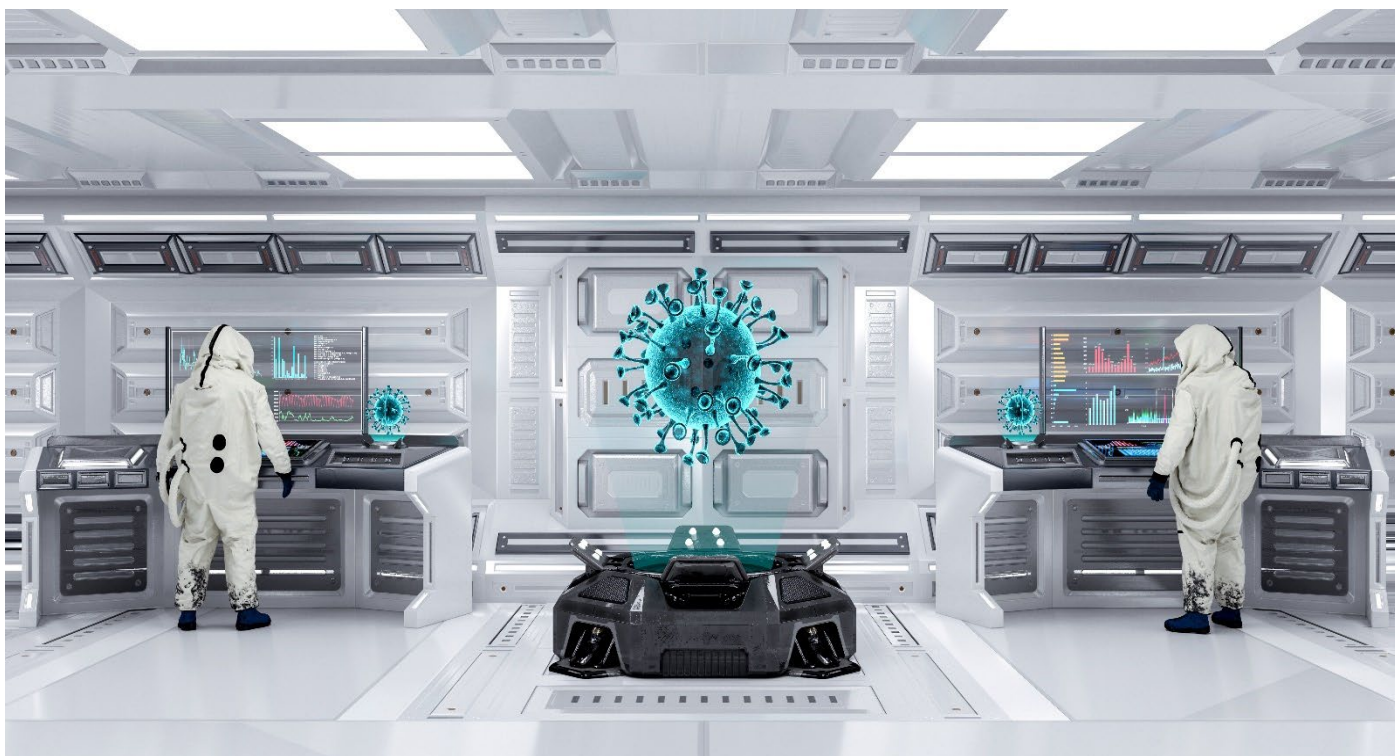
Description & Content:

Threat analysis:

- Possible attack threat scenarios (identify, categorize, and prioritize)
- Essential functions critical to business continuity and eventual recovery
- Organization's internal and external environments
- Operational factors that could possibly lead to a terrorist attack

Vulnerability:

- Areas of vulnerability
- Evaluation of vulnerabilities against potential attack threat scenarios
- Effectiveness of countermeasures
- Additional control measures



Biodefense Strategies

Course code:
CBRN 314
Type: Advanced

Duration: 8 hours

Prerequisite: BSA 101 Awareness

Delivery: Classroom only

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

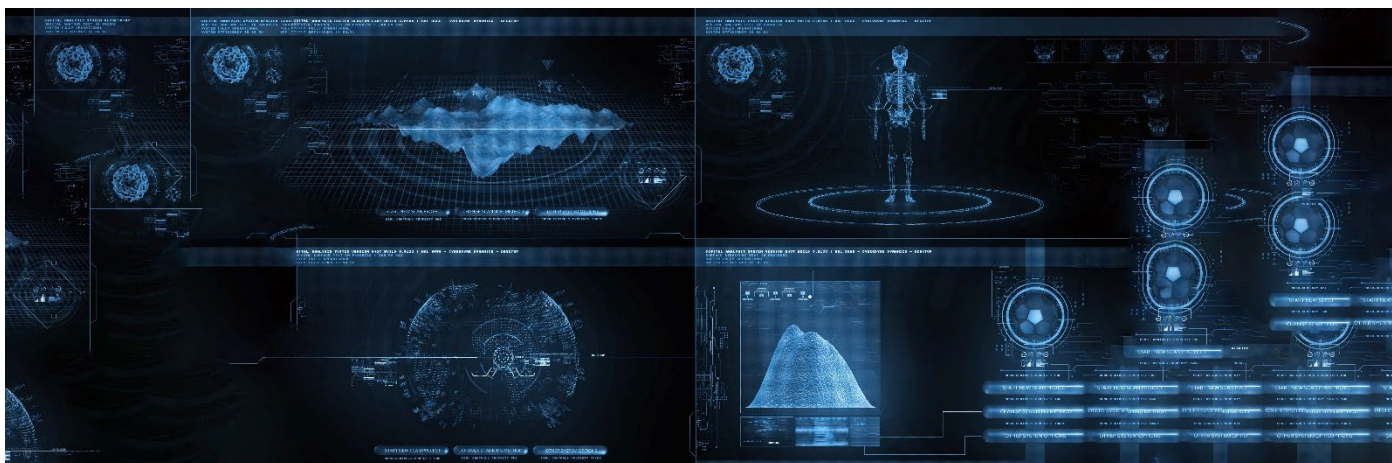
First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

This course is to provide participants insight in the biological threats and how to cope with these threats in the most effective manner to have as less as possible effects from the biological incident.

Description & Content:

- Different bio-defense systems
- Effects of bio-defense systems
- Timelines in biodefense
- PPE and equipment essential in the preparation for bio-defense systems
- Communication during a bio-threat incident.
- Consequence management and continuity after and during a biological incident



CBRNE Borders Crossing Security

Course code:
CBRN 315
Type: Advanced

Duration: 40 hours

Prerequisite: CBRN 101 General Awareness

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 2 - 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

This advanced level training is appropriate for command level responders with the responsibility of directing response efforts at a natural disaster or deliberate CBRNE incident

Objectives:

A command level course for supervisors at border crossings, airports, shipping ports for CBRN related devices, containers and luggage.

Description & Content:

- The properties and effects of CWA, TIMs, biological and radiological agents
- Categories of CBRNE devices (CBRN IED's, CBRN DD's and CBRN SD's)
- The handling of dangerous materials
- The different classes of CBRNE materials and identify differences in their properties
- Recognition of the first effects of exposure to CBRNE materials through physical signs and symptoms
- The typical behaviour of people who may be carrying CBRNE material or potential CBRNE devices
- The basis of detection and screening of CBRNE materials and the identification using both fixed and portable detection and screening systems
- Self-protection and the protection of those in the immediate vicinity of a CBRNE device
- The basis of personal protective equipment, decontamination, and individual protection procedures
- Theory of decontamination and application of selected decontamination procedures
- Definition and marking of an hazardous CBR area
- CBR hazard area, pre and post blast
- CBR detection employing available equipment as user, pre and post blast

- National and international rules and regulations



Command and Control Lessons

Course code:
COM 301
Type: Advanced

Duration: 16 hours

Prerequisite: None

Delivery: Classroom only

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

This advanced level training is appropriate for command level responders with the responsibility of directing response efforts at a natural disaster or deliberate CBRNE incident

Objectives:

The command post set up, running, tasks and duties, together with the briefing and debriefing of teams

Description & Content:

- The Command Post
- CAC 1 Overview and considerations
- CAC 2 Command post operations/manning
- CAC 3 Communications
- CAC 4 The NATO phonetic Alphabet
- CAC 5 How to speak on the radio
- CAC 6 Logistics
- CAC 7 Protection and site management
- CAC 8 Your goals
- The orders process
- CAC 9 Overview of do's, do not's, factors, and considerations
- CAC 10 Orders prelims and reconnaissance appreciation
- CAC 11 Orders, subjects to cover
- CAC 12 Briefing and Debriefing
- CAC 13 Command decision Making
- CAC 14 Convoy Drills



CBRN and Terrorism-Evolving Threats and Strategic Responses

Course code:

CBRN 401

Type: Specialized

Duration: 42 hours

Prerequisite: None

Delivery: Classroom only environment

Instructors: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

First responders, including military personnel, who may encounter a CBRN/HazMat situation within the course of their duties

Objectives:

Provide an overview of CBRN terrorism-evolving threats and possible strategic responses

Description & Content:

It is generally accepted that attacks using CBRN materials continue to be a realistic prospect. To what extent does terrorist use of nuclear, chemical, and biological weapons pose a tangible threat to international security? How easy is for terrorists to acquire or produce CBRN materials for delivery against targets?

- Terrorist use of CBRN weapons – barriers and facilitators
- WMD vs. CBRN. Crude vs. sophisticated
- Who pursues CBRN? Motivations for acquiring unconventional weapons
- Threats of CBRN use. Capabilities and Effects
- Radiological and Nuclear Terrorism
- Chemical Terrorism. Characteristics. Specifics of a response to a chemical incident
- Biological Terrorism. Characteristics. Specifics of a response to a biological incident
- CBRN Terrorism Case Studies: Failures and Successes
- Preventing CNRN use
- International legal instruments against CBRN terrorism
- Response to CBRN use. Challenges. International versus National.
- Tackling Chemical, Biological, Radiological and Nuclear Terrorism.



WMD International Norms that Focus on WMD Threats

Course code:
WMD 401
Type: Specialized

Duration: 42 hours

Prerequisite: None

Delivery: Classroom only

Instructors: 3

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

The course aims at promoting awareness and understanding of key topics related to weapons of mass destruction, and the several multilateral treaties developed to outlaw WMD

Description & Content:

- Introduction to Weapons of Mass Destruction (WMD)
- Chemical Weapons - Definition, effects, types, past programs, dual use, current challenges
- Biological Weapons - Definition, types, past programs, bioterrorism, emerging research areas with high misuse potential
- Nuclear Weapons - Definition, types, effects of radiation, nuclear arsenals
- Overview of treaties governing WMD - Core concepts: arms control, disarmament, non-proliferation; challenges of control
- Multilateral treaties to outlaw WMD
- Multilateral treaties targeting the proliferation, testing, and achieving progress on the disarmament of WMD
- Treaties to prevent the proliferation of missiles and related technologies, which can be used as a vehicle to deliver WMD payloads
- Compliance and enforcement in WMD-related treaties - Mechanisms for compliance and enforcement; Responses to non-compliance
- The future of WMD. Geopolitical and technological developments bearing on the future of WMD & implications for WMD regimes
- CWC and OPCW



Dual-Use Chemicals and Equipment

Course code:
CBRN 402
Type: Specialized

Duration: 4 hours

Prerequisite:

Delivery: Classroom only

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

Dual-use goods, equipment and technologies pose several dilemmas and challenges for policymakers, export licensing authorities and frontline customs officers.

Description & Content:

- What are dual-use items?
- Internationally binding disarmament and non-proliferation treaties
- Treaty on the Non-Proliferation of nuclear weapons
- Biological & Toxin Weapons Convention
- Chemical Weapons Convention
- Export Control Regimes
- Nuclear Suppliers Group
- Australia Group
- Missile Technology Control Regime
- Wassenaar Arrangement
- Regional and national regulations
- Sanctions
- Challenges for national implementation
- Education, information, and support



CBRN Defense Strategy

Course code:

CBRN 403

Type: Specialized

Duration: 8 hours

Prerequisite: None

Delivery: Classroom only

Instructors: 1

Number of Participants: 20

Award/Certification Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

This course is to provide knowledge on the CBRN Strategy and guidance for all activities related to CBRN matters including policies, funding and follow-up on operational plans to meet the CBRN Strategy's aim.

Description:

The CBRN Strategy consists of strategic objectives to enhance ability to mitigate and prevent CBRN incidents from occurring and also allow to prepare for, respond to, and recover from, CBRN incidents.

Four strategic objectives are necessary to review and study:

- prevention and mitigation
- preparedness
- response and
- recovery,

As well as arrangement of:

- risk assessment; planning.
- finance.
- education.
- equipment needs.
- logistic and.
- PPRR implementation



Bio-Defense Resilience and Consequence Management

Course code:

CBRN 404

Type: Specialized

Duration: 80 hours total

General Bio-Awareness: 16 hours

Building & Construction: 8 hours

Identification of hazardous micro-organisms: 8 hours

Detectors Training: 8 hours

Donning & doffing: 8 hours

Decon of equipment: 16 hours

Behavioural dynamics: 8 hours

Communications: 8 horas

Prerequisite: Awareness/Basic

Delivery: Classroom and practical training in a real-hazard environment

Instructors: 1

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

The courses will include both state-of-the-art and practical bio-detection, monitoring, identification, diagnosis procedures and discuss the available equipment on the market with special attention to the limitations we still have in bio-detection, identification, and diagnosis.

Description:

The courses will discuss monitoring of the microbiome, so one is aware of abnormalities in the presence of micro-organisms in the environment and understand the potential threat. Forensic aspects in the bio-detection will be included as it is to be expected that the users of bioweapon are terrorist actors or criminal organizations. Bio-threat resilience and consequence management will be also covered as well as the action of the public health first responders. Communication and behavioural dynamics as very important aspects to inform the population during bio-threat situations.

Content:

- General bio-threat and Strategic bio-resilience Awareness, with possible scenarios
- Building and construction to prevent bio-attacks and monitoring of the environment. Knowledge of the normal and abnormal microbiome.
- Identification of hazardous micro-organisms and the use of different equipment to detect biological threats. Training on some detectors: 60% theoretical and 40% practical.
- Training on donning and doffing: 20% theoretical and 80% practical. Training with decontamination: 50% theoretical and 50% practical.
- Training on bio-threat, communication, and behavioural dynamics: 50% theoretical and 50% practical.



Transportation, Handling and Storage of Dangerous Goods

Course code:
HZG 401

Duration: 16 hours

Prerequisite: Some experience in storage of chemicals and on industry activities would be beneficial

Delivery: Classroom only

Instructors: 1 – 2

Number of Participants: 20

Award/Certification: Certificate of Attendance

Who should attend:

Managers and personnel who have responsibility for the storage of dangerous substances, regardless of the size of storage facility, as well as inspectors responsible for enforcing health and safety legislation within them and other staff involved with the store's activities.

Objectives:

Help assess and reduce the risks associated with the transport, handling and storage of packaged dangerous substances. Advise on safe management procedures and precautions to reduce injuries and damage caused by incidents involving the handling of packaged dangerous substances

Description:

Over the course of 12 presentations, we learn how we can eliminate or reduce risks to people involved in this type of work activity, also advice for operators of storage sites for packaged dangerous substances, this applies to transit or distribution warehouses, open-air storage compounds and facilities associated with a chemical production site or chemical warehousing

Content - Overview of program elements:

- Who is responsible - Legal responsibilities
- Hazard identification and risk assessment.
- Hazard Classification: CLP Regulation/UK REACH
- Dangerous goods classification.
- Hazard v Risk.
- Receipt of goods and storage.
- Handling and Storage.
- Handling and Transport.
- Security.
- Maintenance and Modifications.
- Storage of Hazardous waste.
- Spillage Control.
- Hazardous area classification.
- Emergency Arrangements.
- Emergency Procedures



Epidemiology of New Emerging Diseases

Course code:

BIO 401

Type: Specialized

Duration: 16 hours

Prerequisite: None

Delivery: Classroom only

Instructors: 1

Number of Participants: 30

Award/Certification: Certificate of Attendance

Who should attend:

For a broad range of stakeholders who may encounter a CBRN/HazMat situation within the course of their duties and may act for direct response

Objectives:

The course covers the understanding of infectious diseases in general and the zoonoses specifically. The WHO One-Health principle and the WHO (2005) International Health Regulations are presented. The course covers also the principles in outbreak management and the medical care which can be given.

Description:

The importance of biosafety and biosecurity is presented.

The care given by International Organizations (IO; Red Cross, UN) and Non-Governmental Organizations (NGO; MSF-Doctors without Borders; Cordaid etc.) is discussed and how these organizations cooperate with the local public health systems. International finance of humanitarian aid in public health is discussed and the management of infrastructure during an outbreak of infectious diseases.

Content:

- Infectious and non-infectious diseases
- Basic microbiology
- Pathogens
- Parasitology
- Possible medical treatments
- Public health system worldwide
- One-health principle
- Prevention
- Vaccine development
- Medical IO and NGO organizations
- Mode of operandi in outbreak management



Other Courses (Courses descriptions and content under request)

Course code:

Courses

MAN 401

Type: Specialized

Duration: 20 hours

Crises Management

MAN 402/403

Type: Specialized

Duration: 8 hours

Change Management and Decision Making

CW 401

Type: Specialized

Duration: 24 hours

CW History and Use



WMD 402
Type: Specialized
Duration: 24 hours

Nuclear Weapons and Energy

CYS 401
Type: Specialized
Duration: 8 hours

Cyber Security

CBRN 405
Type: Specialized
Duration: 16 hours

CBRN Resilient Infrastructure

CBRN 406
Type: Specialized
Duration: 8 hours

CBRNE Special Event Planning and Management

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