



NORTH CAROLINA COMMUNITY COLLEGE SYSTEM
H. Martin Lancaster, President

February 8, 2005

MEMORANDUM

TO: Presidents
Continuing Education Deans/Vice Presidents
Blackboard System Administrators
Chief Academic Officers
Distance Learning Administrators

FROM: Chuck Barham, Associate VP, Occupational and Continuing Education
Darryl McGraw, Associate VP, Instructional Development and Technology

SUBJECT: Continuing Education Bioterrorism Modules through the Virtual Learning Community

We are delighted to release nine new Bioterrorism modules developed through a Continuing Education (Cont. Ed) Virtual Learning Community (VLC) grant at Davidson County Community College (DCCC). The project, under the direction of Bryan Scyphers at DCCC, involves participation by individuals from across the country that are experts in specific Bioterrorism topics. Distance Learning technologies enabled the developers to contribute their expertise without the limits of geographical boundaries, travel costs, or scheduling conflicts.

The following modules are available for download from the VLC server by contacting the Distance Learning Coordinator at your college. Because of the sensitive nature of these modules, guest access and preview options are not available.

- ? ? Biological Agents of Bioterrorism
- ? ? Bioterrorism Awareness for EMS
- ? ? Chemical Agents of Bioterrorism
- ? ? Decontamination & Transport of Exposed Patients
- ? ? Introduction to Bioterrorism for Firefighters
- ? ? Law Enforcement: Explosives, Dirty Bombs, & Radiation Response
- ? ? Law Enforcement: Weapons of Mass Destruction
- ? ? Legal Aspects of Bioterrorism for Law Enforcement
- ? ? Radiological Emergencies for EMS

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Chief Academic Officers
Distance Learning Administrators

If you have any questions about the content of the modules, please contact Bryan Scyphers at 336/249-9053 or bscyphers@davidsonccc.edu. If you encounter any difficulties downloading the modules, please contact Paula Berardinelli at 919/807-7123 or berardinellip@ncccs.cc.nc.us.

CB/DM/pb

Attachments

c: Dr. Delores A. Parker
Dr. Larry Keen
Dr. Paula Berardinelli
Ms. Barbara Boyce
Ms. Jalaine Gross
Mr. Ray Harrington
Mr. Bryan Scyphers

**North Carolina Community College System
Occupational Continuing Education Bioterrorism Courses
Available from the Virtual Learning Community (VLC)**

There are nine Continuing Education Bioterrorism modules now available from the VLC. The modules were designed under the leadership of Mr. Bryan Scyphers at Davidson County Community College and national experts on Bioterrorism. The modules are designed to be four hours in length. Due to the nature of the material in these courses they are not available for preview or guest access. Each Community College Distance Learning Coordinator can download these modules from the VLC Blackboard server and make them available to college faculty. Please contact Dr. Paula Berardinelli, Distance Learning Coordinator with the Virtual Learning Community at 919-807-7123 or berardinellip@ncccs.cc.nc.us if you have other questions.

LAW ENFORCEMENT

CJC 3100 - Law Enforcement: Explosives, Dirty Bombs, and Radiation Responses CJC-BT-EXP

This course is designed to present material to meet the challenge of preparing for a response to an incident involving explosive materials and devices.

CJC 3100 - Legal Aspects of Bioterrorism for Law Enforcement CJC-BT-LEGAL

This course is designed to aid officers and law enforcement commanders in planning for various legal contingencies, specifically with respect to quarantine enforcement, in the event of a bioterrorist attack

CJC 3100 - Law Enforcement: Weapons of Mass Destruction CJC-BT-WMD

This course is designed to present material to the law enforcement officer regarding terrorist use of weapons of mass destruction—nuclear, biological, and chemical.

EMERGENCY MANAGEMENT SERVICES

EMS 3200 - Bioterrorism Awareness for EMS EMS-BT-AWARE

This course is designed to familiarize EMS personnel with the threat of bioterrorism, methods of attack, and strategies to mitigate the incident.

EMS 3200 - Biological Agents EMS-BT-BIO

Emergency medical services may have the first opportunity to recognize and initiate a response to a bioterrorism-related outbreak. This educational module will serve as a reference document and is intended to serve as an educational tool in preparation for a real or suspected bioterrorism attack.

EMS 3200 - Chemical Agents of Bioterrorism EMS-BT-CHM

Emergency medical services may have the first opportunity to recognize and initiate a response to a bioterrorism-related outbreak. This educational module will serve as a reference document and is intended to serve as an educational tool in preparation for a real or suspected bioterrorism attack utilizing chemical agents.

EMS 3200 - Radiological Emergencies for EMS EMS-BT-RAD

This course is designed to present material to meet the challenge of preparing for a response to an incident involving radioactive material.

EMS 3200 - Decontamination and Transport of Exposed Patients EMS-BT-TRAN

This course is designed to present material to the EMS responder about decontamination and transport of contaminated patients, dealing with contaminated equipment, personal decontamination and safety.

FIRE PROTECTION

FIP 4728 - Introduction to Bioterrorism for Firefighters FIP-BT-AWARE

This course is designed to address the issue of bioterrorism and make the fire service members aware of the potential risks related to bioterrorist attacks, various threat agents, and the elements of a comprehensive response to bioterrorism attack.

**North Carolina Community College System
Occupational Continuing Education Bioterrorism Courses
Available from the Virtual Learning Community (VLC)**

There are 9 Continuing Education Bioterrorism modules now available from the VLC. The modules were designed under the leadership of Mr. Bryan Scyphers at Davidson County Community College and national experts on bioterrorism. The modules are designed to be 4 hours in length. Here is a description of the course, learning objectives, and content outline. Due to the nature of the material in these courses they are not available for preview or guest access.

Each Community College Distance Learning Coordinator can download these modules from the VLC Blackboard server and make them available to college faculty. Please contact Dr. Paula Berardinelli, Distance Learning Coordinator with the Virtual Learning Community at 919-807-7123 or berardinellip@ncccs.cc.nc.us if you have other questions.

LAW ENFORCEMENT

CJC 3100 - Law Enforcement: Explosives, Dirty Bombs, and Radiation Responses CJC-BT-EXP

Course Description:

This course is designed to present material to meet the challenge of preparing for a response to an incident involving explosive materials and devices.

Course Learning Objectives:

1. Upon completion of this block of instruction, the student should be able to:
2. Describe the history of explosives.
3. Explain the differences between explosions and an explosive.
4. Describe the effects of explosives.
5. Identify commercial incendiary and improvised incendiary explosive devices.
6. Describe various power sources.
7. Identify safety precautions.

Outline:

- Introduction
- History of explosives
- Explosions and explosives
- Explosion effects
- Commercial, incendiary, and improvised explosives
- Power sources
- Devices of terrorism
- Safety and evacuation considerations
- Law enforcement roles

CJC 3100 - Legal Aspects of Bioterrorism for Law Enforcement CJC-BT-LEGAL

Course Description:

This course is designed to aid officers and law enforcement commanders in planning for various legal contingencies, specifically with respect to quarantine enforcement, in the event of a bioterrorist attack

Course Learning Objectives:

Upon completion of this block of instruction, the student should be able to:

1. Implement an appropriate legal “response level” to effect a temporary protective quarantine.
2. Discuss the advantages of curfew statutes and “police urgent necessity” laws.
3. Discuss the law enforcement provisions and limitations of House Bill 1503 and the role of the Health Director in implementing Bioterrorism quarantine control measures.
4. Discuss the importance of effective local law enforcement decision-making.
5. Discuss the application of conventional use-of-force legal principles.

Outline:

Introduction
Disease transmission rates
The use of quarantine
Vaccination issues
Police response levels
Legal authority
Quarantine considerations
North Carolina laws
Use of force considerations
Legal considerations

CJC 3100 - Law Enforcement: Weapons of Mass Destruction CJC-BT-WMD

Course Description:

This course is designed to present material to the law enforcement officer regarding terrorist use of weapons of mass destruction—nuclear, biological, and chemical.

Course Learning Objectives:

Upon completion of this block of instruction, the student should be able to:

1. Define and identify types of Biological, Nuclear, Incendiary, Chemical, and Explosives threats.
2. Identify the outcomes of the use of these threats in a terrorist event.
3. Identify safety considerations and personal protection utilized by law enforcement officers during a response to a possible terrorist event.
4. Discuss the roles of law enforcement during a terrorism incident.
5. Identify scene information obtained to indicate a possible terrorist event.
6. Discuss crime scene preservation.

Outline:

Introduction
WMD threats
Biological agents
Chemical agents
Nuclear devices
Personal protective equipment
Roles of law enforcement
Personal safety
External resources

EMERGENCY MANAGEMENT SERVICES

EMS 3200 - Bioterrorism Awareness for EMS EMS-BT-AWARE

Course Description:

This course is designed to familiarize EMS personnel with the threat of bioterrorism, methods of attack, and strategies to mitigate the incident.

Course Objectives:

Upon completion of this block of instruction the student should be able to:

1. Define terrorism, to include:
 - A. Acts of terrorism
 - B. High risk targets of terrorism
2. List the levels of the National Threat Advisory System and the measures to be taken at each level.
3. List the different Federal, State, and local agencies that might respond to a terrorist act.
4. Define the need for a Unified Incident Command and define the areas in which EMS personnel might serve, to include non-traditional locations.
5. Define Biological Agents and the three basic groups of biological agents.
6. List the methods of dissemination of biological agents.
7. List the trends favoring Biological weapons.
8. State the risks of the various groups of biological agents.
9. List the biological agents of primary concern and the following for each:
 - A. Incubation
 - B. Duration
 - C. Untreated Mortality
 - D. Person-to-Person Transmission
10. Define Chemical Agents.
11. List the 6 types of chemical agents and give examples of each.
12. List the characteristics of chemical agents to include onset, and exposure routes.
13. List the elements of a nuclear blast that cause deadly effects.
14. Define Dirty Bomb, and why they appeal to terrorist.
15. Identify possible targets for a nuclear attack.
16. List 3 protective factors of a fallout shelter and describe their effects.
17. List the steps in management of a chemical/biological/Radiologic al event.
18. Identify elements of the Domestic Preparedness Checklist.

Outline:

Introduction to Terrorism
Threat Advisory System
Responding Agencies
Biological Agents
Chemical Agents
Nuclear Agents
Preparedness and Mitigation

EMS 3200 - Biological Agents EMS-BT-BIO

Course Description:

Emergency medical services may have the first opportunity to recognize and initiate a response to a bioterrorism-related outbreak. This educational module will serve as a reference document and is intended to serve as an educational tool in preparation for a real or suspected bioterrorism attack.

Course Learning Objectives:

Upon completion of this block of instruction the student should be able to:

1. State the definition of bioterrorism.
2. Discuss the detection of outbreaks caused by agents of bioterrorism.
3. State the features that should alert EMS providers to the possibility of a bioterrorism-related outbreak.
4. Explain bioterrorism infection control practices for patient management.
5. Discuss the psychological aspects of bioterrorism.
6. Explain the description of agent/syndrome and etiology for anthrax, botulism, plague, and smallpox.
7. State the clinical features of anthrax, botulism, plague, and smallpox.
8. Review the modes of transmission for anthrax, botulism, plague, and smallpox.
9. Explain infection control practices for patient management for anthrax, botulism, plague, and smallpox.
10. Discuss post exposure management for anthrax, botulism, plague, and smallpox.
11. State the incubation periods for anthrax, botulism, plague, and smallpox.
12. Discuss the method of decontamination of patients/environment exposed to anthrax, botulism, plague, and smallpox.
13. Explain the period of communicability for patients exposed to the plague.
14. Discuss patient transport concerns relating to patients exposed to anthrax, botulism, plague, and smallpox.
15. State the cleaning, disaffection, and sterilization of equipment and the environment when there are concerns of anthrax, botulism, plague, and smallpox.

Outline:

Introduction to BioTerrorism
Detection of Outbreaks Caused by Agents of Bioterrorism
Infection Control Practices for Patient Management
Cleaning, disinfection, and sterilization of equipment and environment
Post Exposure Management
Decontamination of Patients and Environment
Psychological aspects of bioterrorism
Potential Agents and Agent-Specific Recommendations

EMS 3200 - Chemical Agents of Bioterrorism EMS-BT-CHM

Course Description:

Emergency medical services may have the first opportunity to recognize and initiate a response to a bioterrorism-related outbreak. This educational module will serve as a reference document and is intended to serve as an educational tool in preparation for a real or suspected bioterrorism attack utilizing chemical agents.

Course Learning Objectives:

Upon completion of this block of instruction the student should be able to:

1. Describe the routes of exposure for phosgene (CG), Chlorine (CL), Nerve Agents, Blister Agents, and Riot Agents
2. Describe the health effects for Phosgene (CG), Chlorine (CL), Nerve Agents, Blister Agents, and Riot Agents
3. List the pre-hospital management for these agents
4. Describe the different types of personal protective equipment (PPE) utilized by first responders in a chemical agent/product environment

Outline:

Introduction to BioTerrorism
Detection of Events Caused by Chemical Agents of BioTerrorism
Potential Chemical Agents and Agent-Specific Recommendations
Signs and Symptoms
Personal Protective Measures for Patient Management
Decontamination of Patients

EMS 3200 - Radiological Emergencies for EMS EMS-BT-RAD

Course Description:

This course is designed to present material to meet the challenge of preparing for a response to an incident involving radioactive material.

Course Learning Objectives:

Upon completion of this block of instruction, the student should be able to:

1. Describe how ionizing radiation affects the human body.
2. Identify the initial steps that should be taken when arriving at a scene of a radioactive material incident.
3. Identify the potential risks in handling contaminated patients at a radioactive material incident.
4. Identify the importance of donning the proper personal protective equipment, controlling contamination, and maintaining crowd control in the event of a radioactive incident.
5. Discuss some basic tactics and strategies that can be used at the scene of an incident involving radioactive material.
6. Identify some radiological survey instruments and how they can be used to survey for radiation exposure and contamination.
7. Describe some methods used to decontaminate personnel and equipment.
8. Identify the steps used in pre-hospital patient care during a radioactive material incident.
9. Identify the actions that should be considered during the response phase of an incident involving radioactive material.
10. Identify the information needed to successfully transition from the response phase to the recovery phase of a radiological incident
11. Understand terrorists' use of radiological material.

Outline:

Introduction
Radiation Basics
Radiation Injury
Radiation Measurement
Detection Methods
Incident Management
Personal Protection
Patient Decontamination & Treatment
Terrorist Usage of Radiological Devices

EMS 3200 - Decontamination and Transport of Exposed Patients EMS-BT-TRAN

Course Description:

This course is designed to present material to the EMS responder about decontamination and transport of contaminated patients, dealing with contaminated equipment, and personal decontamination and safety.

Course Learning Objectives:

Upon completion of this block of instruction, the student should be able to achieve the following objectives in accordance with the information received during the instructional period:

1. Explain the role of the EMS responder.
2. Determine scene hazards.
3. Explain contamination risks.
4. Explain how the substance and route of contamination alters triage and decontamination methods.
5. Discuss the limitations of field decontamination procedures.
6. Identify the use and limitations of PPE in Hazmat incidents.
7. Explain what protective measures / PPE to use when dealing with patients contaminated by various agents.
8. Given a contaminated patient, determine the level of decontamination necessary.
9. Given a specific hazardous material, be able to determine risk of secondary contamination.
10. Explain decontamination procedures when faced with both critical and non-critical patients.
11. Explain specific procedures for dealing with equipment contaminated by chemical, biological or radiological contaminants.
12. Identify the four most common decontamination solutions.
13. Identify the areas of the body most difficult to decontaminate.
14. Explain the medical monitoring procedures of Hazmat team members to be used both pre and post-entry.
15. Explain the factors that influence the heat stress of Hazmat personnel.
16. Explain the documentation necessary for Hazmat medical monitoring and rehabilitation operations.

Outline:

Introduction
Role of the first responder
NFPA response levels
Types of contamination
Methods of decontamination
Critical decision-making
Equipment decontamination
Personal protective equipment
Monitoring and responder rehabilitation

FIRE PROTECTION

FIP 4728 - Introduction to BioTerrorism for Firefighters FIP-BT-AWARE

Course Description:

This course is designed address the issue of bio-terrorism and make the fire service members aware of the potential risks related to bio-terrorist attacks, various threat agents, and the elements of a comprehensive response to bio-terrorism attack.

Course Learning Objectives:

Upon completion of this block of instruction, the student will be able to:

1. Define terrorism
2. Identify high-risk potential targets in local area.

3. Develop a risk hazard evaluation system and methodology.
4. List and identify the National Threat Advisory System and levels.
5. List and identify the Federal, State and local agencies that could respond to a terrorist act.
6. Define the use of the Unified Incident Command System during an emergency response to a terrorist incident.
7. Describe the National Incident Management System.
8. Define and explain Biological Agents and their risks.
9. Define and explain Chemical Agents and their risks.
10. Describe the history and current knowledge of the application of biological and chemical agents by terrorists in modern times.
11. List the steps in a chemical/biological/radiological event.

Outline:

Introduction to terrorism
Potential targets
Target risk evaluation
National Threat Advisory System
Federal, state, local, and private response agencies
Unified command
National Incident Management System
Biological and chemical agents
Signs and symptoms of exposure
Emergency response