

WEAPONS OF MASS DESTRUCTION

CHEMICAL AND BIOLOGICAL WEAPONS

**NPS 580 Workshop (4-5 March 2000, Main Morse B104)
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This course will provide students with an understanding of the technologies underlying chemical and biological weapons (CBW) and their delivery systems. Students will acquire knowledge of type, lethality, and utility of CBW agents. Students will examine in detail production processes associated with CBW programs, including weaponization techniques. Students will review the history of CBW use as well as efforts to prohibit CBW and to limit the proliferation of CBW technologies. In this context, state-level CBW programs as well as significant cases of CBW terrorism will be reviewed and analyzed. The two-day, weekend workshop will be taught by several experts from the CNS.

SATURDAY, 4 MARCH 2000

09:00-09:30 ADMINISTRATIVE ISSUES AND COURSE OVERVIEW (JP)

09:30-11:30 BIOLOGICAL AND TOXIN WEAPONS [RZ]

- Definitions
- Types of agents and their characteristics
- Military and terrorist utility
- Routes of infection
- Development and production processes
- Production technologies and raw materials
- Weaponization and delivery systems

11:30-13:30 CHEMICAL WEAPONS [JP & EC]

- Definitions (JP)
- Types of agents and their characteristics (JP)
- Modes of action and comparative lethality (JP)
- Factors affecting persistency (JP)
- Development and production processes (EC)
- Production technologies and raw materials (EC)
- Weaponization and delivery systems (EC)

13:30-14:00 LUNCH

14:00-15:00 VIDEO PRESENTATION: *THE GERM GENIE*

15:00-16:00 HISTORY OF CBW USE [EC & JP]

- Antiquity to 1914 (EC)
- 1914-1918: World War I (EC)

- 1918-1939: The Interwar Period (EC)
- 1939-1945: World War II (EC)
- 1980-1988: The Iran-Iraq War (JP)
- 1984: The Rajneesh (JP)
- 1995: Aum Shinrikyo (JP)

16:00-17:00 COUNTRIES OF CONCERN; MOTIVATIONS FOR CBW ACQUISITION [JP]

SUNDAY, 5 MARCH 2000

09:00-09:15 ADMINISTRATIVE ISSUES, STUDENT CONCERNS [JP]

09:15-13:15 REVIEW; CASE STUDIES

- Iraq (Video Presentation: *Secrets in the Sand*)

13:15-13:45 LUNCH

13:45-14:45 CASE STUDIES

- United States (EC)
- Russia, biological and chemical weapons (EC))

14:45-15:45 MILITARY RESPONSES TO CBW PROLIFERATION

- Detection (EC)
- Active and passive defenses (JP)
- Counterproliferation, Al Shifa, etc. (JP)

15:45-15:45 INTERNATIONAL CBW NONPROLIFERATION EFFORTS

- Australia Group (JP)
- Chemical Weapons Convention (CWC) and Organization for the Prohibition of Chemical Weapons (OPCW) (EC)
- Biological Weapons Convention (BWC) and Ad Hoc Group of States Parties (JP)

15:45-16:45 CURRENT ISSUES

- Controversy over Russian BW Program (EC)

16:45-17:00 QUESTIONS AND ANSWERS