Biodefense Qualifying Exam Reading List

For students entering 2013 or after
General Information

PhD students must take two qualifying exams, one in the core biodefense field and one in an elective field of their choosing. The following reading lists provide recommended materials for preparing for those exams.
Core Biodefense Reading List

Table of Contents

1. Science
   a. Bacteriology
   b. Toxins
   c. Virology
2. Strategy, History, and Theory
   a. USG Biodefense Policy and Organization
   b. History of Biological Warfare Programs
   c. Biological Terrorism
   d. BW Proliferation, Intelligence and Threat Assessment
   e. International Regime
   f. Health and Security
3. Topics
   a. Biosurveillance
   b. Dual use policy
   c. Ethics
   d. Labs and lab security
   e. Medical countermeasure policy
   f. Microbial Forensics
   g. Public health and medical preparedness and response
   h. Synthetic biology
SCIENCE


**Bacteriology**


**Toxins**


James G. Caya, MD; Rashmi Agni, MD; Joan E. Miller, BA, “Clostridium botulinum and the Clinical Laboratorian: A Detailed Review of Botulism, Including Biological Warfare Ramifications of Botulinum Toxin,” *Arch Pathol Lab Med*—Vol 128, June 2004


**Virology**


Katja Sliva and Barbara Schnierle, “From actually toxic to highly specific – novel drugs against poxviruses,” *Virology Journal* 2007, 4:8


**STRATEGY, HISTORY, THEORY**

**US Biodefense Policy and Organization**


**Biological Warfare Programs and History**


Erhard Geissler and John Ellis van Courtland Moon, eds., *Biological and Toxin Weapons: Research, Development and Use From the Middle Ages to 1945*, SIPRI
Chemical and Biological Warfare Study No. 18 (Oxford: Oxford University Press, 1999)


Avner Cohen, “Israel and Chemical and Biological Weapons: History Deterrence and Arms Control,” *The Nonproliferation Review*, vol. 8, no. 3 (Fall-Winter 2001)


**Biological Terrorism**


**BW Proliferation, Intelligence and Threat Assessment**


**International Regime**

Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, 1972.


**Health and Security**


**TOPICS**
**Biosurveillance**


**Dual Use Policy**


**Ethics**


**Labs and Lab Security**


**Medical Countermeasure Policy**


**Microbial Forensics**


**Public health and medical preparedness and response**


**Synthetic Biology**


Víctor de Lorenzo, ‘Not Really New’, Lab Times (March 2009), pp. 20–24


Terrorism and Homeland Security Reading List

Table of Contents

1. Terrorism Theories and Strategy
   a. Causes of terrorism and its use
   b. Terrorism Strategy and Tactics
   c. Terrorism and WMD

2. Terrorist Groups and History of Terrorism

3. Counterterrorism & Homeland Security Policy
TERRORISM THEORIES & STRATEGY

Causes of Terrorism


Terrorism Strategy, Tactics, and Organization


Seth G. Jones and Martin C. Libicki, *How Terrorist Groups End: Lessons for Countering Al Qa’ida* (Santa Monica: The RAND Corp., 2008),


Daniel Byman et. al. Trends in Outside Support to Insurgent Movements (Santa Monica: The RAND corp, 2001).

**Suicide Terrorism**

Mia Bloom, *Dying to Kill: The Allure of Suicide Terror* (Columbia, 2005).


Ami Pedahzur, *Suicide Terrorism* (Polity, 2005).

**Terrorism and WMD (not BW)**


Gary Ackerman and Jeremy Tamsett, eds. *Jihadists and Weapons of Mass Destruction* (New York: Taylor and Francis, 2009)


Alan Cullison, ‘Inside Al-Qaeda’s Hard Drive’, *The Atlantic*, September 1, 2004,

Andrew Higgins and Alan Cullison, ‘Saga of Dr. Zawahiri Sheds Light on the Roots of al Qaeda Terror,’ *Wall Street Journal*, July 2, 2002,

Alan Cullison and Andrew Higgins, ‘Forgotten Computer Reveals Thinking Behind Four Years of al Qaeda Doings’, *Wall Street Journal*, December 31, 2001,


Charles Ferguson et al., *The Four Faces of Nuclear Terrorism* (London: Routledge, 2005)

**TERRORIST GROUPS AND HISTORY OF TERRORISM**


Gregory D. Johnsen, *The Last Refuge: Yemen, Al-Qaeda, and America’s War in Arabia* (New York: W. W. Norton and Company, 2012).\(^2\)


**COUNTERTERRORISM AND HOMELAND SECURITY POLICY**


Gregory Treverton, *Intelligence for an Age of Terror* (NY: Cambridge University Press 2009)


\(^1\) The definitive book on Hezbollah’s overseas operations and capabilities – and thus the component that is less insurgent and more “terrorist”).

\(^2\) The only book focused on AQ in Yemen, and thus the definitive take on AQAP.

Brian Jenkins and John Godges, eds., *The Long Shadow of 9/11: America’s Response to Terrorism* (Santa Monica: RAND 2011)


John P. Sullivan and Alain Bauer, eds., *Terrorism Early Warning: 10 Years of Achievement in Fighting Terrorism and Crime* (Los Angeles: Los Angeles County Sheriff’s Department, 2008).

Technology and WMD Reading List

Table of Contents

1. Science Technology Studies Theory
2. The Science and Technology of CBRN Weapons
3. CBRN Proliferation, Nonproliferation, Arms Control Policies
**Science & Technology Studies Theory**


**Science & Technology of CBRN Weapons**


OTA, *The Effects of Nuclear Weapons* (Washington: GPO)


Robert E. Kelley, “The Iraqi and South African Nuclear Weapon Programs: The


Laura McNamara, PhD Dissertation, *Ways of Knowing about Weapons: The Cold War’s End at the Los Alamos National Laboratory* (Albuquerque: University of New Mexico, 2001)


**CBRN Proliferation, Nonproliferation, Arms Control Policies, and Intelligence**

**Note:** You should read at least one book or article on the history and development of nuclear weapons by the following states: united states, soviet union, united kingdom, france, china, india, pakistan, north korea, israel


Tanya Ogilvie-White and David Santoro, *Slaying the Nuclear Dragon* (University of Georgia Press, 2012).


International Security Reading List

Table of Contents

1. International Relations Theory
   a. Realism
   b. Liberalism
   c. Constructivism
   d. Other Important Stuff
2. International Security Theory
   a. Causes of War
   b. The Use of Force
   c. Foreign Policy Analysis
   a. US Grand Strategy
   b. US National Security Policy
   c. Politics of National and International Security
**INTERNATIONAL RELATIONS THEORY**

**Realism**  
Kenneth N. Waltz, *Theory of International Politics*


**Liberalism**  


**Constructivism**  
Alexander Wendt, *Social Theory of International Politics* (NY: Cambridge University Press)


**Other Important Stuff**


**INTERNATIONAL SECURITY THEORY**

**Causes of War**

Kenneth N. Waltz, *Man, the State and War*


Robert Jervis, “Cooperation under the Security Dilemma,”


**The Use of Force**


**Foreign Policy Analysis**


Graham Allison, *Essence of Decision: Explaining the Cuban Missile Crisis*


Martha Finnemore, *The Purpose of Intervention: Changing Beliefs About the Use of Force* (Cornell 2003).


**US GRAND STRATEGY AND NATIONAL SECURITY POLICY**


Ethics of International Security


Evans, Gareth. "The responsibility to protect: ending mass atrocity crimes once and for all." *Irish Studies in International Affairs* 20.1 (2009): 7-13. [pick one or the other]


Civil-Military Relations


Morris Janowitz, *The Professional Soldier* (Free Press 1964)


**Politics of National Security**


