

# **X2594: Nuclear War**

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## **A. Course Description.**

This is a course on the nature and use of nuclear weapons. We will begin by looking at how different kinds of nuclear weapons are made and what each type of weapon can be used for. Then we will discuss how nuclear weapons can be delivered to their target, and how these methods interact to create a state of “mutually assured destruction”. We will then discuss the use of nuclear weapons for strategic warfare, tactical warfare, blackmail, and deterrence. Finally, we will look at a number of nuclear weapons related crises from the cold war and the modern era, and use our knowledge of nuclear strategy to explain and evaluate them.

## **B. Course Outline.**

### **I. Types of Nuclear Weapons.**

- A. Uranium, Plutonium, and Critical Mass
- B. Gun-type atomic bomb
- C. Implosion-type atomic bomb
- D. Hydrogen bomb
- E. Cobalt bomb (aka “salted nuclear bomb”)
- F. Neutron bomb

### **II. Delivering Nuclear Weapons.**

- A. Airplanes
- B. Missiles
- C. Submarines
- D. The Nuclear Triad and Mutually-Assured Destruction

### **III. Nuclear Strategy**

- A. Strategic nuclear bombing
- B. Tactical nuclear bombing
- C. Nuclear blackmail
- D. Nuclear deterrence
- E. Nuclear escalation

### **IV. Looking at Nuclear Crises**

- A. Short-Range Missile crises (Cuban Missile Crisis, 1980’s crisis)
- B. ABM/Missile Shield crises (1970’s, 2000’s)
- C. Space-based weapons

### **V. Non-Conventional Nuclear Warfare**

- A. “Suitcase Nukes”
- B. “Dirty Bombs”
- C. Nuclear Terrorism