

Technology and Military Organization

INTA 4011/6015

Professor Salomone

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office hours: immediately after class or by appointment

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Course Description and Objectives

This course is organized around the concept of the Revolution in Military Affairs (RMA). RMA involve significant changes in technology applied to military purpose and corresponding changes in military organization and operational art leading to new conceptions of the way warfare is conducted. Since the time of Napoleon, it is widely believed that there have been several such RMA (including the development of nuclear weapons which is outside of the purview of this course) and that another is underway at the present time. The nature of these revolutions will be explored with special emphasis on the evolution of military technology, its impact on military organization, and the nature and role of innovation in these processes.

Course Requirements

You are expected to attend ALL classes. You are expected to read the assignments in advance of class. This is your “homework”. You are expected to participate in class discussions. Readings outside the texts will be available on T-2. There will be film to assist in the understanding of the case studies. If you think that film is a waste of time for learning, then you certainly will not want to take this course.

There will be three examinations during the course and a final examination as required and scheduled by the registrar. The examinations will be multiple-choice. Class participation will be a factor in your grade in that I will reward a class in which attendance and participation are high with extra credit points at the end of the course.

Texts

Martin Van Creveld: Command in War

J.F.C. Fuller: The Conduct of War, 1789-1961

John Keegan: The Face of Battle

Elliot Cohen and John Gooch: Military Misfortunes: The Anatomy of Failure in War

TEXTS ARE AT ENGINEERS' BOOKSTORE at the corner of Marietta and Means Streets, or online.

Learning Outcomes:

After completion of this course, the successful student will have a working understanding of the manner in which military organizations organize their human capital in response to or in support of technological or organizational innovation, external threats or opportunities, and budgetary feasts or famines.

Students will have demonstrated the ability to:

1. Use historical examples of military innovation to understand the outcomes of major wars and battles;
2. Identify key instances of ‘military revolution’ and their perceived effects on the manner and prosecution of ‘war’; and
3. Understand the connection between politics, conflict, and war from the perspective of key military practitioners and writers of Western military thought, including but not limited to Clausewitz, Moltke, Schlieffen, Fuller, Keegan, and Van Creveld.

The Course:

Introduction: Topic: Where we are now. Film: Iraq: Battle Plan Under Fire and “The Revolution in Military Affairs” (RMA) briefing.

- 1.0) Warfare in the “Ancient” World. Read Fuller, "The Limited Wars of the Absolute Kings" and "The Rebirth of Unlimited War"; Keegan, "Agincourt 25 October 1415"; Van Creveld, "Introduction" and "The Stone Age of Command"; Films: Selections from “300”, “Brave Heart” and “Henry V”.
- 2.0) Between the Napoleonic Wars and the American Civil War. Read Keegan, "Waterloo, 18 June 1815"; Fuller, "Napoleonic Warfare", “The Theories of Clausewitz”, Film: Selections from “Waterloo”.
- 2.1) Influence of the Industrial Revolution and the American Civil War. Van Creveld, "The Revolution in Strategy" and "Railroads, Rifles, and Wires"; Fuller, “The Influences of the Industrial Revolution”, “The American Civil War 1861-1865”; Film: Selections from “Gettysburg”.

Exam #1

- 3.0) The Early Twentieth Century. Read Fuller, "Moltke, Foch, and Bloch", "The Roots of Armageddon" part 2 (Military Developments 1870-1903) only, and "The Conduct of World War I"; Van Creveld, "The Timetable War"; Keegan, "The Somme, 1 July 1916”; Films: Selections from “All Quiet on the Western Front”; “The First World War”; and “Visions of War”.

Exam #2

- 4.0) Military Innovation Between the World Wars. Read Fuller, "The Twenty Years Armistice" and "The Conduct of World War II"; Cohen and Gooch: "Why Misfortune" and "Understanding Disaster". Film: Selections from "Visions of War" and "Tanks".
- 5.0) Inter-war Case Studies. Read Stulberg and Salomone, "The German Blitzkrieg Transformation: Rebuilding Preeminence from Catastrophe" and Cohen and Gooch, "Catastrophic Failure: The French Army and Air Force, May-June 1940"; Tami Davis Biddle, "Dresden 1945: Rhetoric and Reality"; Film: "The Bombing of Germany".

Exam #3

- 6.0) The Current RMA and the Gulf Wars. Read James R. Fitzsimonds & Jan M. Van Tol, "Revolution in Military Affairs", Joint Force Quarterly, Spring 1994; Cohen and Gooch "Afterword"; P. Bracken, "The Military After Next"; Salomone and Crecine, "Information Rich Environments", T.P.M. Barnett, "The Seven Deadly Sins of Network-Centric Warfare", Stulberg and Salomone, "Six Maxims" on T-2. Films: "Inside the Kill Box", General Schwartzkopf's "Briefing" at the conclusion of ground combat in the Gulf War, February 28, 1991.

Exam #4 during finals week. Time and place to be determined by the Registrar.