# **HIE474: Military Technology: Machines and War**

**Instructor**: Professor Michael A. Hennessy, PhD

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Class: Tuesday 10-1250 Location: G 425

#### **Textbooks:**

Barton C. Hacker, *American Military Technology*. Johns Hopkins University Press, Baltimore, 2006 & 2007.

Alex Roland, War and Technology. A Very Short History. Oxford University Press, 2016.

### **Course Description:**

Technology, however defined, plays a significant role in the preparation for and a conduct of war. This course examines the impact of technology on war, decision making regarding technology and the role of society as a whole. In addition to identifying the key technological advances in weapon development and defence-related fields from 1600, this course will look at the effect of technology on tactics, strategy, and society itself, from the pre-gunpowder period to the nuclear age. The course entails a series of thematic lectures and student led seminars.

**Expectations of you**: I expect everyone to do the weekly readings and be ready to speak to them. You need to attend every class and complete all assignments in a timely manner. This is a hard course to fail but not an easy course to excel in if you don't apply yourself.

**Readings**: Students are expected to generate their own bibliography for their seminars and paper but please ask me for assistance. I will supplement readings when I think appropriate. Sections of the course text ay be consulted but it is chosen largely for background for those with little knowledge of modern military history.

Course Requirements: You mark will be determined as follows

Presentation 1 10 % (time management; clear; visual support; identified technological problems and human management of the issues will be weighed in your mark)

Presentation 2 10 %

Formal critiques: 10 %

Source annotated bibliography Presentation 1 (draft presented at presentation) 10%

Sources annotated bibliography Presentation 2 (draft presented at presentation) 10 %

Final paper: 50 %

## **Seminar Presentations & Participation:**

The course will consist primarily of seminars with the instructor filling in some of the areas from time to time. Each student is expected to choose two of the seminar topics listed below and to lead a seminar on each subject.

The student delivering the seminar is expected to supply the class with an outline of the topic, consisting of the main ideas in the readings as well as a bibliography. The bibliography should be comprehensive and assessments will be made on the thoroughness of the research. Students are encouraged to distribute readings to the class that will enhance the seminar discussion. Such readings should be distributed one week prior to the corresponding seminar presentation.

A critic for each seminar will be assigned. The function of the critic is to start the questioning and explore the nature of the presenter's analysis and research.

If you need help with sources, ask me, but one of the main purposes of this course is to see how well you do research. I have a short list of good sources for each topic that I'll distribute once the topics are chosen.

Each Seminar presentation is worth 10 % of your final mark.

N.B. too many slides will ruin your presentation. Aim for between 4 and 6.

Source annotated bibliographies x 2 (10% ea).

#### **Term Paper**

Students will select **one** of their seminar presentation topics and produce a scholarly essay of 20 + pages in length (worth 50% of the final grade). The paper will employ either endnotes or footnotes, and will exploit to its fullest potential the latest literature in the field. This means you must plan ahead in order to obtain the sources you need. **Internet sources WILL NOT be acceptable**. Wikipedia is **NOT** a scholarly source. To achieve an acceptable mark for the papers, the student must demonstrate:

- 1. Exceptional organizational skills for the paper.
- 2. The use of a wide variety of sources.
- 3. Appropriate grammar and usage.

Term papers will be submitted at the beginning of the final class for this course.

### **Participation:**

Each student is expected to join in the discussion and to ensure they have read the assigned material.

Term Exam: None—Unless you all ask for one.

#### Plagiarism & Academic Integrity

Students are reminded that plagiarism is intellectual dishonesty. It is completely unacceptable and contrary to the ethics of your profession. Plagiarism is usually the result of an inability to plan effectively and thus the antithesis of being a good leader.

The college calendar reads:

#### **Academic Integrity**

23.1 Integrity –When you do the right thing even though no one is watching. Integrity is essential to the academic enterprise and its foundations in the open, independent, and free exchange of ideas. The core values of integrity, both academic and otherwise include: honesty, fairness, respect, responsibility, and trust. Academic Integrity demands that all members of RMC act in accordance with these values in the conduct of their academic work, and that they shall follow the rules and regulations concerning the legitimate and accepted conduct, practices and procedures of academic research and writing. Academic Integrity violations are defined as Cheating, Plagiarism or other violations of academic ethics.

Academic misconduct, including plagiarism, cheating, and other violations of academic ethics, is a serious academic infraction for which penalties may range from a recorded caution to expulsion from the College. This includes failure to appropriate acknowledge a source, misrepresentation of cited work, and misuse of quotation marks or attribution." It also includes "the failure to acknowledge that work has been submitted for credit elsewhere—if in doubt take the time to talk to me.

#### **Class Schedule:**

Week One:

Introduction to the course

Discussion on historiography and methodology

Week Two:

Overview and discussion of the relationship between war, technology, and society

Week Three: Dimensions of analysis & seminar preparation. Remaining schedule to be developed once seminars are chosen.

### **Seminar topics:**

Students are encouraged to select two of the following topics as there are good resources within our library to support your seminar presentation.

- 1. The "military revolution" building the sinews of the modern war system
- 2. The Logistics of the Napoleonic.
- 3. Dreadnoughts as a revolution in naval affairs
- 4. Canada's first weapons production programme: that damned Ross Rifle
- 5. Solving the Riddle of the Trenches: Tactics vs technology in the First World War
- 6. Unrestricted Submarine Warfare: Technology vs morality and law (campaign in WWI)
- 7. From novelty to necessity: Air Power in the First World War (case study building a new domain)
- 8. Battleships vs Bombers: Interwar debates on decisive arms
- 9. What to do with Tanks? (interwar, wartime to post war debates)
- 10. Measure for Measure: ASW vs Uboats in the Second World War
- 11. The Wizard War and the bombing campaigns of the Second World War
- 12. Morality and Technology: Using the BOMB
- 13. Considerations involved in fielding new weapons (case studies)
- 14. The Human Cog: People confront Modern Firepower
- 15. The Logic of Mutually Assured Destruction (MAD)—designing thermonuclear war
- 16. Doctrine and Technology—Thought before the act or learning by doing? (case studies)