

HIST 294A: History of Science, Technology, and Medicine*3 credits, 3 hours*

Broad survey of topics in the history of science, technology, and medicine.

Instructor:

Dr. Hugh Gordon

S213A

780-791-4981

Hugh.gordon@keyano.ca**Office Hours**

Monday	13:00 – 13:50
Tuesday	13:00 – 14:50
Wednesday	13:00 – 13:50
Thursday	13:00 – 13:50

Hours of Instruction

Tuesday	9:00 – 10:20	S218
Friday	9:00 – 10:20	S218

Required Resources

McClellan, James E., and Harold Dorn. *Science and Technology in World History: An Introduction*. Baltimore: Johns Hopkins University Press, 2015.

Course Outcomes

Upon successful completion of this course, the student shall be able to:

- Identify, analyze and compare major themes and events in the History of Sciences, Technology, and Medicine
- Write an essay in Chicago style that has a coherent argument on one of the topics in the subject area
- Analyze ongoing trends in the historiography of the History of Sciences, Technology, and Medicine

Evaluation

Clearly outline what the students must do in order to pass or complete the course.

Attendance and Participation	5%	
“Bad” Science/Technology Short Essay	15%	Oct. 4
Research Paper Proposal	5%	Nov. 1
Disaster Research Paper	25%	Nov. 29
Midterm Exam	20%	Oct. 15

Final Exam	30%
Total	100%

A grade of C- is required for progression or transfer.

“Bad” Science/Technology Short Essay

In history, science, technology and medicine have been misused, either for profit or unethical ends. Pick an advance in science or technology and explain how it can be misused or the reverse, how a weapon or other destructive concept can be turned into something that can benefit society. This can be a product, a concept, or scientific belief that had a major effect on world history. The assignment should be four pages in length, double-spaced, 12 pt. font and use Chicago Style for citation formatting. This assignment is due **Oct. 4.**

Disaster Research Paper Proposal and Research Paper

Students will pick a topic based on a major disaster in world history that was caused by either faulty science or technology. The essay will require students to use primary and secondary sources to analyze their chosen topic. The essay will be minimum 10 pages, double-spaced, 12 pt. font and use Chicago Style for bibliography and footnotes. Three primary sources and two secondary sources will be required. Essays are due at the beginning of class on **Nov. 29.** Students will create an essay proposal and bibliography for the essay. The essay proposal is due **Nov. 1.**

LATE POLICY:

Late assignments will have 10% deducted from the final mark for the first day and will not be accepted afterwards. All written assignments must be submitted on Moodle as Microsoft Word .docx files. ALL ASSIGNMENTS ARE MANDATORY. IF ASSIGNMENTS ARE NOT HANDED IN A STUDENT MAY RECEIVE A FAILING GRADE. Extensions may be granted if the student discusses the issue with the instructor before the assignment is due. If the student fails to ask for an extension, they will not receive any leeway regarding the final mark. Extensions will be granted on **LIMITED CASE-BY-CASE BASIS** and **MUST** be granted via email. No extensions will be allowed on the day the essay is due or the day before.

Grading System

Descriptor	Alpha Grade	4.0 Scale	Percent	Rubric for Letter Grades
Excellent	A+	4.0	> 92.9	Work shows in-depth and critical analysis, well developed ideas, creativity, excellent writing, clarity and proper format.
	A	4.0	85 – 92.9	
	A-	3.7	80 – 84.9	
Good	B+	3.3	77 – 79.9	Work is generally of high quality, well developed, well written, has clarity, and uses proper format.
	B	3.0	74 – 76.9	
	B-	2.7	70 – 73.9	
Satisfactory Progression	C+	2.3	67 – 69.9	Work has some developed ideas but needs more attention to clarity, style and formatting.
	C	2.0	64 – 66.9	
	C-	1.7	60 – 63.9	
Poor Minimum Pass	D+	1.3	55 – 59.9	Work is completed in a general way with minimal support, or is poorly written or did not use proper format.
	D	1.0	50 – 54.9	
Failure	F	0.0	< 50	Responses fail to demonstrate appropriate understanding or are fundamentally incomplete.

Proposed Schedule of Topics

WEEK:	TOPIC:	READINGS:
Week One: Sept. 6	Introduction	
Week Two: Sept. 10, 13	Early Humans, the Babylonians and Egyptians	McClellan and Dorn, Chapters 1-3
Week Three: Sept. 17, 20	Ancient Greek Science in the Hellenic and Hellenistic Periods Ancient Technology	McClellan and Dorn, Chapters 4-5
Week Four: Sept. 24, 27	Medieval Technology	McClellan and Dorn, Chapter 10
Week Five: Oct. 1, 4	Heliocentrism and the Birth of Modern Science	McClellan and Dorn, Chapters 11,12
Week Six: Oct. 8, 11	The Scientific Revolution	McClellan and Dorn, Chapter 13
Week Seven: Oct. 15, 18	MIDTERM Early Modern Military Technology and Warfare	
Week Eight: Oct. 22, 25	The Industrial Revolution	McClellan and Dorn, Chapter 14
Week Nine: Oct. 29, Nov. 1	Einstein's Revolution: Science and Technology in the Early 20 th Century	McClellan and Dorn, Chapter 15
Week Ten: Nov. 5	The Birth of Modern Medicine and Germ Theory Guest Lecturer: Dr. Blaine Legaree	McClellan and Dorn, Chapter 16
Week Eleven: Nov. 12, 15	The Atomic Era and Wacky Weapons	McClellan and Dorn, Chapters 17-19
Week Twelve: Nov. 19, 22	The Green Revolution and Modern Medical Science Guest Lecturer: Dr. Blaine Legaree	
Week Thirteen: Nov. 26, 29	The Telecommunications Revolution, Artificial Intelligence	McClellan and Dorn, Chapter 20
Week Fourteen: Nov. 3	The History of the Future	

Please Note:

Date and time allotted to each topic is subject to change.

Performance Requirements**Student Responsibilities**

It is your responsibility as a student to contact the Office of the Registrar to complete the forms for Withdrawal or Change of Registration, and any other forms. Please refer to the list of important dates as noted in the Academic Schedule in the Keyano College credit calendar.

More specific details are found in the Student Rights and Student Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Student Code of Conduct Policies.

Student Attendance

Class attendance is useful for two reasons. First, class attendance maximizes a students' learning experience. Second, attending class is a good way to keep informed of matters relating to the administration of the course (e.g., the timing of assignments and exams). Ultimately, you are responsible for your own learning and performance in this course.

It is the responsibility of each student to be prepared for all classes. Students who miss classes are responsible for the material covered in those classes and for ensuring that they are prepared for the next class, including the completion of any assignments and / or notes that may be due.

Academic Misconduct

Students are considered to be responsible adults and should adhere to principles of intellectual integrity. Intellectual dishonesty may take many forms, such as:

- Plagiarism or the submission of another person's work as one's own
- The use of unauthorized aids in assignments or examinations (cheating)
- Collusion or the unauthorized collaboration with others in preparing work
- The deliberate misrepresentation of qualifications
- The willful distortion of results or data
- Substitution in an examination by another person
- Handing in the same unchanged work as submitted for another assignment
- Breach of confidentiality.

The consequences for academic misconduct range from a verbal reprimand to expulsion from the College. More specific descriptions and details are found in the Student Rights and Student Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Student Code of Conduct Policies.

In order to ensure your understanding of the concept of plagiarism, you must successfully complete the online tutorial found on ilearn.keyano.ca. Then print the certificate, sign it, and show it to each of your instructors. Your course work will not be graded until you show this signed certificate.

Specialized Supports

The Student Academic Support Services (SASS) department: Accessibility Services, Skill Centre, Wellness Services and Student Life Department work together to support student success at Keyano College.

Accessibility Services (CC167) supports student success through group and individualized instruction of learning, study and test taking strategies, and adaptive technologies. Students with documented disabilities, or who suspect a disability, can meet with the Learning Strategists to discuss accommodation of the learning barriers that they may be experiencing. Students who have accessed accommodations in the past are encouraged to visit our office at their earliest opportunity to discuss the availability of accommodations in their current courses. Individual appointments can be made by calling 780-791-8934.

Skill Centre (CC119) provides a learning space where students can gather to share ideas, collaborate on projects and get new perspectives on learning from our tutorial staff. Students visiting the centre have access to one-to-one or group tutoring, facilitated study groups, and assistance in academic writing. The Skill Centre's Peer Tutor program provides paid employment opportunities for students who have demonstrated academic success and want to share what they have learned. Tutoring is available free to any students registered at Keyano College on a drop in basis, from 8:30 am to 5:00 pm Monday through Friday. Additional evening hours are subject to tutor availability and are posted in the Skill Centre.

Wellness Services (CC260) offers a caring, inclusive, and respectful environment where students can access free group and individual support to meet academic and life challenges. Mental Health Coordinators offer a safe and confidential environment to seek help with personal concerns. The Mindfulness Room in CC260 is available as a quiet space for students to relax during regular office hours. Wellness Service welcomes students to participate in any of the group sessions offered throughout the academic year addressing such topics as Mindfulness and Test Anxiety. Individual appointments can be made by calling 780-791-8934.

Student Life Department (CC210) is a place for students to go when they don't know who else can answer their questions. The staff will help students navigate barriers to success and if they don't know the answer, they will find it out. Student success is directly affected by how connected a student feels to their college. The student life department is there to help students get connected.

Please watch your Keyano email for workshop announcements from our Student Academic Support Services team.