

**NEW YORK CITY COLLEGE OF TECHNOLOGY**  
**The City University of New York**  
**School of Arts & Sciences**  
**Department of Social Science Course Outline**

**Course code: HIS 3209ID**

**Course title: History of Technology (Interdisciplinary)**

**Class hours/credits: 3 class hours, 3 credits**

**Prerequisite: ENG 1101 or ENG 1101CO or ENG 1101ML, and (HIS XXXX or AFR 146X or LATS 146X or ENG 1121), or departmental permission.**

**Pathways: US Experience in its Diversity**

**Catalog Description:** An examination of technology in North America from Native American inhabitation to the present. Focusing on the relationship between technology and cultural value systems, this course addresses the historical development of our current technological society. Topics include the relationship of technological change to class, gender and racial divisions, the creation of large-scale technological systems, and ethical debates regarding the appropriate use of technology.

<b>Learning outcomes</b>	<b>Assessment Methods*</b>
Demonstrate connections between technology and society.	Formal essays, informal in-class writing, and in-class exams comprising questions based in part on thematic questions which will ask students to question the links how technology has impacted society.
Describe the concepts of “the social construction of technology” and “technological determinism” through a discussion of technological developments.	Formal essays and essay exams that asks students to discuss these concepts.
Use primary sources and other cultural artifacts (i.e. literature and art forms), to study the History of Technology.	Formal essay based on the study of primary source documents, informal in-class writing, and in-class short essay exams based in part on the study of these historical artifacts.
Demonstrate the ability to assess the social impact of the technical careers that they have chosen to pursue at New York City College of Technology.	Formal essay based on the study of a particular technological development, informal in-class writing, and in-class exams.

**Course Specific Learning Outcomes and Assessment Methods**

### **Pathways U.S. Experience in its Diversity Learning Outcomes**

1. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the U.S. experience in its diversity, including, but not limited to, anthropology, communications, cultural studies, economics, history, political science, psychology, public affairs, sociology, and U.S. literature.
2. Analyze and explain one or more major themes of U.S. history from more than one informed perspective.
3. Evaluate how indigenous populations, slavery, or immigration have shaped the development of the United States.
5. Analyze and discuss common institutions or patterns of life in contemporary U.S. society and how they influence, or are influenced by, race, ethnicity, class, gender, sexual orientation, belief, or other forms of social differentiation.

<b>Learning outcomes</b>	<b>Assessment Methods</b>
<b><u>KNOWLEDGE:</u></b> Engage in historical inquiry, research, and analysis.	Students will demonstrate the ability to evaluate a variety of historical sources for their credibility, position, and perspective, as well as contextualize materials from the past with appropriate precision and detail. Students will demonstrate this competency complete written exams, quizzes, assignments, in-class discussion and presentations.
<b><u>Skills:</u></b> Understand the complex nature of the historical record and generate significant, open-ended questions about the past and devise research strategies to answer them.	Students will demonstrate the ability to 1) Distinguish between primary and secondary source materials and decide when to use each, 2) Choose among multiple tools, methods, and perspectives to investigate and interpret materials from the past, and 3) Recognize the value of conflicting narratives and evidence, 4) Generate significant, open-ended questions about the past and devise research strategies to answer them, 5) Seek a variety of sources that provide evidence to support an argument about the past, 6) Develop a methodological practice of gathering, sifting, analyzing, ordering, synthesizing, and interpreting evidence, and 7) Identify and summarize other scholars' historical arguments. Students will demonstrate this competency complete written exams, quizzes, assignments, in-class discussion and presentations.

<p><b>Integration:</b> Craft historical narrative and argument.</p>	<p>Students will demonstrate the ability to 1) Generate a historical argument that is reasoned and based on historical evidence selected, arranged, and analyzed, 2) Write effective narrative that describes and analyzes the past for its use in the present, 3) Understand that the ethics and practice of history mean recognizing and building on other scholars' work, peer review, and citation, and 4) Defend a position publicly and revise this position when new evidence requires it. Students will demonstrate this competency complete written exams, quizzes, assignments, in-class discussion and presentations.</p>
<p><b>Values, Ethics, and Relationships:</b> Practice historical thinking as central to engaged citizenship.</p>	<p>Students will demonstrate the ability to 1) Engage a diversity of viewpoints in a civil and constructive fashion, 2) Work cooperatively with others to develop positions that reflect deliberation and differing perspectives, and 3) Apply historical knowledge and analysis to contribute to contemporary social dialogue. Students will be assessed through written exams, quizzes, assignments, in-class discussion and group presentations.</p>

### **General Education Objectives and Assessment Methods**

**Capstone Course Statement:**

*This course fulfills the LAA/LAS Associate Capstone requirement, though it can also be taken for other requirements and electives. The City Tech LAA/LAS Associate Capstone is designed for students entering their second year in the program. LAA/LAS Associate Capstone courses are meant to prepare students to continue their studies in a bachelor's degree, third-year, or junior, level. In addition, Associate Capstone courses are meant to help students develop an awareness of the importance of knowledge, values and skills developed in general education courses; and to integrate this knowledge, these values and these skills into their advanced academic study and professional careers. Please ask the instructor if you have any questions about what the LAA/LAS Associate Capstone requirement entails.*

**Suggested Texts\*:**

Carroll Pursell. *The Machine in America: A Social History of Technology* (Baltimore: Johns Hopkins UP, 1995). Ruth Schwartz Cowan. *A Social History of American Technology* (Oxford: Oxford UP, 1997).

*\*Instructor Choice*

**Assignments\*:**

- Three quizzes worth a total of 5% each: Quizzes will be comprised of multiple choice and true/false questions.
- Three in-class exams worth 20% each. The exams will be comprised of short answer and essay questions.
- A 5-10 page research paper which will count for 20% of the course grade.
- Participation 5%.

*\*Suggested allocation; instructors may modify these at their discretion.*

## **GRADING**

<u>Letter Grade</u>	<u>Number Grade</u>
A	100-93
A-	92.9-90
B+	89.9-87
B	86.9-83
B-	82.9-80
C+	79.9-77
C	76.9-70
D	69.9-60
F	59.9-0

## **ATTENDANCE POLICY**

It is the conviction of the Department of Social Science that a student who is not in a class for any reason is not receiving the benefit of the education being provided. Missed class time includes not just absences but also latenesses, early departures, and time outside the classroom taken by students during class meeting periods. Missed time impacts any portion of the final grade overtly allocated to participation and/or any grades awarded for activities that relate to presence in class.

Instructors may including a reasonable “Participation” grade into their final grade calculations for this course.

## **STUDENT ACCESSIBILITY**

City Tech is committed to supporting the educational goals of enrolled students with disabilities in the areas of enrollment, academic advisement, tutoring, assistive technologies, and testing accommodations. If you have or think you may have a disability, you may be eligible for reasonable accommodations or academic adjustments as provided under applicable federal, state, and/or city laws. You may also request services for temporary conditions or medical issues under certain circumstances. If you have questions about your eligibility and/or would like to seek accommodation services and/or academic adjustments, please email the [Student Accessibility Center](#).

## **COMMITMENT TO STUDENT DIVERSITY**

The Department of Social Science complies with the college wide nondiscrimination policy and seek to foster a safe and inclusive learning environment that celebrates diversity in its many forms and enhances our students' ability to be informed, global citizens. Through our example, we demonstrate an appreciation of the rich diversity of world cultures and the unique forms of expression that make us human.

### **ACADEMIC INTEGRITY STATEMENT**

Students and others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion.

### **Suggested Course Schedule \***

#### **Week One: What is the History of Technology and When Does it Begin?**

Students will be introduced to the basic definition of technology, and will be asked to consider how technology has been a force in the evolution of human society.

#### **Week Two: Technology and the Birth of Civilization**

Technology and the Birth of Civilization in the Fertile Crescent of the Tigris and Euphrates River Valleys

#### **Week Three: The Pharaohs' Engineers**

**Topic:** Discussion of the building of the Great Pyramid at Giza, with a selective focus on the engineering and construction technology needed to construct this Wonder of the World. This discussion will be set in the context of ancient Egyptian spiritual beliefs, especially those concerning death and the afterlife.

#### **Week Four: Technology in Ancient Greece Week Five: Technology in the Roman Empire**

**Topic:** Discussion of selected technological contributions of the Romans, mainly architecture and construction.

#### **Week Six: Technology in the Middle Ages and Renaissance**

**Topic:** Discussion of selected highlights of major technological shifts during the Middle Ages, Any one of the following technologies may be highlighted in this class session: new agricultural practices, new energy production technologies, or new military technologies. This discussion will be placed within the context of a new philosophy toward technology and the natural world, one shaped by the growing Christianization of the West.

**Week Seven: The Scientific and Industrial Revolutions in Europe**

**Topic:** Selected highlights of the work of Galileo Galilei will be emphasized, as well as his trial at the hands of the Catholic Inquisition.

**Week Eight: The Industrial Revolution in the West**

**Topic:** Selected technological inventions of the Industrial Revolution in the West will be highlighted to explore of the dramatic social, political, cultural and economic changes wrought by the Industrial Revolution

**Week Nine: The Industrial Revolution in New York City**

**Topic:** Selected technological developments of the Industrial Revolution in the United State from the mid-19th century to the early 20th century will be highlighted to explore the foundation of New York City's rapid growth between the 1880s and 1920s.

**Week Ten: America Takes to the Road**

**Topic:** Discussion of the invention of the automobile in the United States. The automobile will be discussed within the context of its social, cultural and economic impact on life in the 20th century United States.

**Week Eleven: America Takes to the Sky**

**Topic:** Discussion of the invention of aircraft in the United States. Aviation will be discussed within the context of its social, cultural and economic impact on life in the 20th century United States.

**Week Twelve: The Communications Revolution in America**

**Topic:** Selected thematic discussion of one major communication technology invented between the mid-19th century to the mid-20th century. Any one of the following communication technologies may be discussed in this week: the telegraph, telephone, radio or television. The communication technology selected will be discussed within the context of its social, cultural and economic impact on modern life in the United States.

**Week Thirteen: The Internet Age**

**Topic:** Discussion of the invention and evolution of computer technology from the first digital machines in the immediate post-WWII era to the Internet. The discussion of the evolution of computer technology will be placed within the context of the social, political, economic and cultural ramifications that the computer age has had on American society.

**Week Fourteen: Weapons of Mass Destruction and the War on Terror**

**Topic:** Discussion of the very timely subject of Weapons of Mass Destruction. This discussion will selectively highlight a specific issue related to either biotechnology or chemical technology.

**Week Fifteen: The History of Technology in Retrospect**

**Topic:** Brief discussion of the course material in total with an eye to creating some overarching

conclusions.

*\*guidelines from which instructors may select or adapt*

**Reviewed/revise by: Stephanie Boyle, Ph.D., Spring 2016**

**Revised by Peter Parides in Spring 2021**

**Revised by Peter Parides in Fall 2025**