

Machines, Codes, Cultures

Instructor: Professor Marc Böhlen (marcbohlen@acm.org)

Registration #23633

Mon/Wed 09:00 – 10:50; Office hours: M/W: 11:00 : 12:00 or by appointment

Course description:

This course will follow the history of machines and coding systems from the monastery bell to the latest humanoid robot; from the origins of numeric notation to protocols of cloud computing in select episodes. This is not a history course, but an overview of concepts related to information technologies that substantially impact daily life. Consequently, the course will focus on cultural aspects of technologies and the myriad ways in which they are woven into the fabric of human activities, both in personal and public domains. Topics will include numbering systems, information and encoding, autonomous robots, interaction design, household smart appliances, the Internet of Things, software systems, social media and cloud computing. Students will introduced to these concepts through texts and guided through them in weekly discussions. Materials will be gathered from diverse authors and a variety of sources. Grades will be based on a mid-semester position paper, a multiple choice final exam as well as participation in class discussions. We will watch videos!

Course materials:

All materials are available on the course website

www.realtechsupport.org/RESEARCH!/courses/mcc.html

Requirements:

Curiosity

Deliverables:

- a) active participation in class discussions and readings.
- b) midterm (short essay).
- c) final exam (multiple choice).
- d) extra credit (short essay).

Grading:

- a) 15%, b) 35%, c) 40%, d) 10%

Learning objectives:

- 1) ability to summarize core themes from a text.
- 2) ability to formulate an argument to support a viewpoint.
- 3) understanding the role of technology in the production of culture.

Assessment:

- 1) this skill will be tested in the writing assignment #a and #d.
- 2) this skill will be tested in class discussions.
- 3) this knowledge will be tested in the final exam through a multiple choice test.

Course schedule (subject to minor changes):

W1	August 26	introduction
	August 28	overview
W2	September 2	<i>No class (Labor Day)</i>
	September 4	Speculative Beginnings: Numbering Systems (Ifrah)
W3	September 9	Speculative Beginnings: Numbering Systems (Ifrah)
	September 11	Speculative Beginnings: Technics+Civilization (Mumford)
W4	September 16	Machines + Cities: The Industrial Revolution (various)
	September 18	Machines + Cities: The Industrial Revolution (various)
W5	September 23	Machines + Cities: Gramophone, Film, Typewriter (Kitler)
	September 25	Machines + Cities: When Old Technologies Were New (Marvin)
W6	September 30	Cybernetics: Digital Culture (Gere)
	October 2	Cybernetics: Digital Culture (Gere)
W7	October 7	Cybernetics: Computation, Machinery and Intelligence (Turing)
	October 9	Cybernetics: Men and Machines (Wiener)
W8	October 14	Robots: Anthropomorphic Systems (various)
	October 16	Robots: Autonomous Systems (various)
W9	October 21	Robots: Speculative Systems (Moravec) - MIDTERM ESSAY DUE
	October 23	Interaction: Sketchpad (Sutherland)
W10	October 28	Interaction: Responsive Environments (Krueger)
	October 30	Interaction: Computer for the 21st Century (Weiser)
W11	November 4	Software Studies: Code (Kittler)
	November 6	Software Studies: Algorithms (Wirth / Goffey)
W12	November 11	Software Studies: Weird Languages (Mateas)
	November 13	Culture of Informatics: Qualculation (Thrift)
W13	November 18	Culture Informatics: Qualculation (Thrift)
	November 20	Culture Informatics: Hertzian Tales (Dunne / Raby)
W14	November 25	Culture Informatics: Hertzian Tales (Dunne / Raby)
	November 27	<i>No class (Fall Recess)</i>
W15	December 2	Networks: Social Media (TBA)
	December 4	Networks: Social Media + Cloud Computing (TBA)
W16	December 9	Preparation for the Final Exam
	December 11	FINAL EXAM + EXTRA CREDIT ESSAY DUE

DMS Policies:

- Students are entitled to a course syllabus with course content, meeting times, course requirements, grading criteria, statements on academic integrity, disabilities, sexual harassment
- Criteria for grading of projects and papers should be made explicit before the work is due; formats for examinations should be made explicit prior to their administration.
- All students must meet the academic requirements stated in the course syllabus. This includes papers, projects, class participation, and laboratory assignments that count toward the final grade.

- Late work is accepted only at the discretion of the instructor.
- Students who fail to adhere to punctuality or miss classes will see their grade impacted accordingly.
- Incomplete grades can be requested but remain at the discretion of the instructor. If request is approved, faculty member and student must complete and sign the "Departmental Request for Grade of Incomplete" form <http://src.buffalo.edu/pdf/RequestforIncompleteGrade.pdf>
- Students must adhere to DMS equipment access and usage rules as outlined in the Equipment Room Policy - <http://mediastudy.buffalo.edu/equipmentpolicy.php>
- Weapons are not allowed on campus. If students are planning a production that involves using anything which could be interpreted as a weapon they must obtain written permission from the University Police or the equivalent authority beforehand.
- No student can be required to view or respond to materials he/she deems offensive. Substitute materials will be made available, where possible.
- Collaboration is encouraged where appropriate and in accordance with the instructor's consent. However, plagiarism is never acceptable. Students must understand that they may under no circumstances knowingly represent as their own any idea or expression of an idea or work of another in any academic examination or term test, or in connection with any other form of academic work. If in doubt, the student should err on the side of caution and consult the instructor for guidance.
- If a student has a disability (physical or learning) the student may contact the Office of Disability Services <http://www.student-affairs.buffalo.edu/ods/> during the first two weeks of class. ODS will provide information on arrangements for reasonable accommodations.
- Sexual harassment of employees and students, as defined at <http://undergraduate-catalog.buffalo.edu/policies/conduct/nondiscrimination.shtml>, is contrary to university policy.
- Classes are to meet at the time and location listed in the schedule, unless changed with the consent of the entire class, and approved by the Department Chair.
- Instructors are to be available for consultation during office hours and, at the discretion of the instructor, by appointment.
- Instructors are required to justify a grade, if a student asks for this information. Instructors should retain academic records for one year after the end of the course.