



**ROCHESTER INSTITUTE OF TECHNOLOGY
COURSE OUTLINE FORM**

COLLEGE OF IMAGING ARTS AND SCIENCES

Art History

REVISED COURSE: CIAS-ARTH-568-Art and Technology: from the machine aesthetic to the Cyborg Age

10/15 prerequisite chg ARTH-135 and ARTH-136 corrected course title

1.0 Course Designations and Approvals

Required course approvals:	Approval request date:	Approval granted date:
Academic Unit Curriculum Committee	December 1, 2010	December 1, 2010
College Curriculum Committee	February 11, 2011	February 11, 2011

Optional designations:	Is designation desired?		*Approval request date:	**Approval granted date:
General Education:	Yes			
Writing Intensive:		No		
Honors		No		

2.0 Course information:

Course title:	Art and Technology: from the Machine Aesthetic to the Cyborg Age
Credit hours:	3
Prerequisite(s):	ARTH-135 History of Western Art:-Ancient to Medieval and ARTH-136 History of Western Art: Renaissance to Modern
Co-requisite(s):	None
Course proposed by:	Clarence Burton Sheffield, Jr.
Effective date:	Fall 2013

	Contact hours	Maximum students/section
Classroom	3	20
Lab		
Studio		
Other (specify)		

2.a Course Conversion Designation

√	Semester Equivalent (SE) Please indicate which quarter course it is equivalent to: 2039-443 Art and Technology: from the Machine Aesthetic to the Cyborg Age
	Semester Replacement (SR) Please indicate the quarter course(s) this course is replacing:
	New

2.b Semester(s) offered

Fall √	Spring √	Summer	Other
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2.c Student Requirements

Students required to take this course: (by program and year, as appropriate)

None

Students who might elect to take the course:

This course is open to all undergraduate students who have fulfilled the necessary prerequisites or by permission of instructor.

3.0 Goals of the course (including rationale for the course, when appropriate):

To provide students with an in-depth knowledge of the relationship between art and technology in the modern era, the key critical issues that ground this topic, as well as the main theorists and artists whose work examines this idea.

4.0 Course description

Course number: ARTH-568

Long Course title: Art and Technology: from the Machine Aesthetic to the Cyborg Age

Short Course title: ArtTech:MachAesthToCyborgAge

Prerequisites: ARTH-135 History of Western Art:-Ancient to Medieval and ARTH-136 History of Western Art:Renaissance to Modern

Class 3, Credit 3 (F or S)

This course explores the link between art and technology in the 20th century with special focus on the historical, theoretical, and ideological implications. Topics include the body in the industrial revolution, utopian, dystopian, and fascist appropriations of the machine, engendering the mechanical body and machine-eroticism, humanism, the principles of scientific management, the paranoiac and bachelor machine, multiples, mass production, and the art factory, industrial design and machines for living, the technological sublime, cyborgs, cyberpunk and the posthuman. Key theorists to be discussed include: Karl Marx, Norbert Weiner, Reyner Banham, Siegfried Gideon, Marshall McLuhan, Michel Foucault, Deleuze and Guattari, Donna Haraway, and Martin Heidegger, as well as examples from film (Modern Times, Metropolis, Man with the Movie Camera and Blade Runner) and literature (Shelley's Frankenstein, and Zamyatin's We). Artists covered include: Tatlin, Rodchenko, Malevich, Moholy-Nagy, Legér, Sheeler, Picabia, Duchamp, Calder, Ernst, Le Corbusier, Klee, Tinguely, Oldenburg, Rauschenberg, Warhol, Beuys, Kiefer, Lewitt, Fischli and Weiss, Acconci, Nam June Paik, Survival Research Laboratories, Bureau of Inverse Technology, Stelarc, Orlan, Dara Birnbaum, Roxy Paine, Marina Abramovic, Kac and Bill Viola.

5.0 Possible resources (texts, references, computer packages, etc.)

Required Texts:

5.1 Pierre Francastel, Art and Technology in the Nineteenth and Twentieth Centuries (New York: Zone Books, 2000).

5.2 Mary Shelley, Frankenstein or The Modern Prometheus [originally 1818] (NY: Penguin, 1992).

- 5.3 Robert C. Scharff and Val Dusek, eds., Philosophy of Technology: The Technological Condition, An Anthology (New York: Routledge, 2003).
- 5.4 Kristine Stiles and Peter H. Selz, eds., Theories and Documents of Contemporary Art: A Sourcebook of Artists Writings (Berkeley: University of California Press, 1995).
- 5.5 Marshall McLuhan, War and Peace in the Global Village (Corte Madera, CA: Ginko Press, 2001).
- 5.6 Yevgeny Zamyatin, We (NY: Penguin, 1993).
- 5.7 Ray Kurzweil, The Age of Spiritual Machines: When Computers Exceed Human Intelligence (NY: Penguin, 2000).

Possible Optional Texts:

- 5.8 D. Bell and B. Kennedy, eds., The Cybercultures Reader (London: Routledge, 2000).
- 5.9 C. Gray, ed., The Cyborg Handbook (London: Routledge, 1995).
- 5.10 R.L. Rutsky, High Techne: Art and Technology from the Machine Aesthetic to the Posthuman (Minneapolis: University of Minnesota Press, 1999).
- 5.11 Marie O'Mahony Cyborg-Man-Machine (NY: Thames and Hudson, 2002).
- 5.12 Thomas P. Hughes, Human-Built World: How to Think about Technology and Culture (Chicago: University of Chicago Press, 2004).
- 5.13 Thomas P. Hughes, American Genesis: A Century of Invention and Technological Enthusiasm (NY: Viking, 1989).
- 5.14 Caroline A. Jones, The Machine in the Studio: Constructing the Postwar American Artist (Chicago: University of Chicago Press, 1996).

These will be supplemented by a course reserve and extensive bibliography.

6.0 Topics (outline):

- 6.1 Historical Conceptions of Technology and its Relationship to Art (Leonardo, Dürer, Bruegel, Rube Goldberg, Fischli and Weiss)
- 6.2 Martin Heidegger and "The Question Concerning Technology."
- 6.3 Energy and Work-The Human Machine: (Shelley's Frankenstein, and Karl Marx's Capital).
- 6.4 Principles of Scientific Management (F. W. Taylor and Henry Ford)
- 6.5 Precisionism and the Modern Industrial Landscape
- 6.6 Utopian Dreams and Visions: Suprematism, Constructivism and Purism.
- 6.7 Fascist Conceptions of the Machine and Speed: Italian Futurism and the Blast Group
- 6.8 Streamlined Industrial Design and Precisionism (Henry Dreyfus, Gerald Murphy)
- 6.9 Machines for Living (de Stijl, Le Corbusier, Legér and the Bauhaus)
- 6.10 Duchamp and the Bachelor Machine
- 6.11 Dada and Surrealist Conceptions of the Machine and Technology (Picabia)
- 6.12 The Technological Sublime (Smithson, Gursky, Höfer, Kiefer, the Bechers)
- 6.13 The Machine in the Studio: Warhol's Factory, and Stella's Production Line.
- 6.14 Jean Tinguely, Robert Rauschenberg, Billy Klüver and E.A.T. (Experiments in Art & Technology)
- 6.15 Technology and the Self (Foucault, Stelarc, Orlan and Nam June Paik)
- 6.16 Make Way for Cyborgs: Cybernetics, Cyberpunk, and the Posthuman
- 6.17 Contemporary Developments: Critical Art Ensemble, Eduardo Kac, Christine Borland, Roxy Paine, and Sarah Sze.

7.0 Intended course learning outcomes and associated assessment methods of those outcomes

Course Learning Outcome	Assessment Method
7.1 Identify and critically evaluate key artists of the modern era who work has been informed by technology or what have sought to critique technology.	Brief critical response papers and exams
7.2 Identify and cogently discuss the key critical issues that ground the study of art and technology in the 20 th century.	Brief critical response papers and exams
7.3 Critically analyze a central problem related to art and technology and its broader historical context.	Written exams
7.4 Correlate the theoretical, philosophical and historical contexts of the study of art and technology with the major artists, designers and architects who have discussed these issues.	Brief critical response papers and written exams

8.0 Program outcomes and/or goals supported by this course

8.1	Enable students to obtain an understanding of the forms, functions and meanings of works of art and architecture in their historical context.
8.2	Enable students to develop critical thinking and reading, writing and speaking skills that may be applied to the contextual analysis of works of art and architecture, and, in fact, an entire world of objects and images. These skills will be of capital importance in whatever field the student chooses to work.

9.0

	General Education Learning Outcome Supported by the Course, if appropriate	Assessment Method
Communication		
√	Express themselves effectively in common college-level written forms using standard American English	Critical response papers
√	Revise and improve written and visual content	Critical response papers
√	Express themselves effectively in presentations, either in spoken standard American English or sign language (American Sign Language or English-based Signing)	Brief individual and group presentations
√	Comprehend information accessed through reading and discussion	Critical response papers and written exams
Intellectual Inquiry		
√	Review, assess, and draw conclusions about hypotheses and theories	Critical response papers and written exams
√	Analyze arguments, in relation to their premises, assumptions, contexts, and conclusions	Critical response papers and written exams
√	Construct logical and reasonable arguments that include anticipation of counterarguments	Critical response papers

		and written exams
√	Use relevant evidence gathered through accepted scholarly methods and properly acknowledge sources of information	Critical response papers and written exams
<i>Ethical, Social and Global Awareness</i>		
	Analyze similarities and differences in human experiences and consequent perspectives	
	Examine connections among the world's populations	
	Identify contemporary ethical questions and relevant stakeholder positions	
<i>Scientific, Mathematical and Technological Literacy</i>		
	Explain basic principles and concepts of one of the natural sciences	
	Apply methods of scientific inquiry and problem solving to contemporary issues	
	Comprehend and evaluate mathematical and statistical information	
	Perform college-level mathematical operations on quantitative data	
	Describe the potential and the limitations of technology	
	Use appropriate technology to achieve desired outcomes	
<i>Creativity, Innovation and Artistic Literacy</i>		
√	Demonstrate creative/innovative approaches to course-based assignments or projects	Critical response papers and written exams
√	Interpret and evaluate artistic expression considering the cultural context in which it was created	Critical response papers, written exams, brief in-class quizzes

10.0 Other relevant information

10.1 Classroom with DVD, VCR, and equipped for Powerpoint projection via laptop.