

Media Arts and Sciences

AN INTERDEPARTMENTAL MAJOR

Co-Directors: *Metaxas (Computer Science)*, *Black^A (Studio Art)*

The Departments of Art and Computer Science offer an interdepartmental major in media arts and sciences that explores the artistic, cultural, and scientific applications of new media technologies. The program focuses on media production that balances artistic sensibility with analytical reasoning within the rich tradition of the liberal arts environment. Areas of study include: digital imaging and design; Web-connected database architectures; three-dimensional visualization and modeling; digital composition in audio/video; analog and digital print and photographic processes; computer graphics and animation; human-computer interaction; and programming for networked environments.

Goals for the Major

The Media Arts and Sciences major provides a well-rounded understanding in both areas supporting it: art and computer science. Graduates of the program are expected to be able to analyze and produce multimedia applications that are both visually and functionally competent. They are also expected to be aware of the historical and contemporary trends that drive the creative application of digital media in our society. Importantly, they are expected to be critical thinkers of the use of digital media and their influence on the society. In the process, they are expected to have achieved competence in art theory, multimedia design and use of technological tools.

MAS 250 Research or Individual Study

Prerequisite: Open to all students by permission.

Distribution: None

Semester: Fall, Spring

Unit: 1.0

MAS 250H Research or Individual Study

Prerequisite: Open to all students by permission.

Distribution: None

Semester: Fall, Spring

Unit: 0.5

MAS 350 Research or Individual Study

Prerequisites: Open to juniors and seniors by permission

Distribution: None

Semester: Fall, Spring

Unit: 1.0

MAS 350H Research or Individual Study

Prerequisites: Open to juniors and seniors by permission

Distribution: None

Semester: Fall, Spring

Unit: 0.5

MAS 360 Senior Thesis Research

Prerequisites: By permission of department. See Academic Distinctions

Distribution: None

Semester: Fall, Spring

Unit: 1.0

MAS 370 Senior Thesis

Prerequisites: 360

Distribution: None

Semester: Fall, Spring

Unit: 1.0

Approved Courses

Students majoring in Media Arts and Sciences are required to take at least 12 courses. Three of them are introductory and at least six are core. At least two of them must be at the 300 level. The following sections have specific information about courses that can count towards the major.

Introductory Required Courses

Students majoring in Media Arts and Sciences are required to take three introductory courses, one in art history, one in computer science and one in studio art. The approved courses are listed below.

ARTH 101 Introduction to the History of Art Part II: Renaissance to the Present

ARTS 105 Drawing I

ARTS 108/CAMS 138 Photography I

ARTS 109/CAMS 139 Basic Two-Dimensional Design

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ARTS 165/CAMS 135 Introduction to Video Production
CAMS 138/ARTS 108 Photography I
CAMS 139/ARTS 109 Basic Two-Dimensional Design
CAMS 135/ARTS 165 Introduction to Video Production
CS 110 Computer Science and the Internet

Core Courses Required for the Major

Students majoring in Media Arts and Sciences are required to take at least three art/music core courses and at least three computer science core courses from the following core courses. There is flexibility for a student to declare a concentration in **Media Arts** by adding two more art/music core courses, or in **Media Sciences** by adding two more computer science core courses. The approved core courses are listed below.

ARTS 208/CAMS 238 Photography II
ARTS 219 or **ARTS 220** Printmaking (with permission of the program directors)
ARTS 221/CAMS 239 Digital Imaging
ARTS 255 Dynamic Interface Design
ARTS 260/CAMS 230 Moving Image Studio
ARTS 265/CAMS 235 Intermediate Video Production/The Documentary Form
ARTS 308/CAMS 338 Photography III
ARTS 313 Virtual Form
ARTS 317 Seminar. Topics in the Visual Arts (with permission of the program directors)
ARTS 322 Advanced Print Concepts (with permission of the program directors)
ARTS 365/CAMS 335 Advanced Video Production
CAMS 230/ARTS 260 Moving Image Studio
CAMS 235/ARTS 265 Intermediate Video Production/The Documentary Form
CAMS 238/ARTS 208 Photography II
CAMS 239/ARTS 221 Digital Imaging
CAMS 335/ARTS 365 Advanced Video Production
CAMS 338/ARTS 308 Photography III
CS 111 Computer Programming and Problem Solving
CS 215 Multimedia Design and Programming
CS 220 Human-Computer Interaction
CS 230 Data Structures
CS 231 Fundamental Algorithms
CS 242 Computer Networks
CS 304 Databases with Web Interfaces
CS 307 Computer Graphics
CS 315 Web Search and Mining
CS 349 Tangible User Interfaces
MUS 275 Computer Music: Synthesis Techniques and Compositional Practice

Media Culture Courses Recommended for the Major

It is recommended that students majoring in Media Arts and Sciences take least one media culture course from the ones listed below.

ARTH 225 Modern Art Since 1945
ARTH 226/CAMS 207 History of Photography: From Invention to Media Age
ARTH 364/CAMS 328 Women Filmmakers: History and Theory of Subversion
ARTH 391/CAMS 341 Persuasive Images
CAMS 101 Introduction to Cinema and Media Studies
CAMS 207/ARTH 226 History of Photography: From Invention to Media Age
CAMS 328/ARTH 364 Women Filmmakers: History and Theory of Subversion
CAMS 341/ARTH 391 Persuasive Images

As of 8/10/09

For Credit Toward the Major

The courses listed below are representative of other Wellesley and MIT courses that emphasize topics related to the Media Arts and Sciences major. Students may include courses not listed below in their major with permission of the program directors.

ANTH 232 Anthropology of the Media

CAMS 221 Cinema: Art and Theory

CAMS 234/ENG 204 The Art of Screenwriting

CS 115/PHYS 115 Robotic Design Studio

CS 342 Computer Security

ENG 204/CAMS 234 The Art of Screenwriting

PHIL 203 Philosophy of Art

PHYS 115/CS 115 Robotic Design Studio

NEUR 320 Vision and Art: Physics, Physiology, Perception, and Practice with Laboratory

POL1 316 Mass Media in American Democracy

SOC 231 The Sociology of Art, Media, and Culture—Comparative Perspectives

MIT Courses

The MIT Media Lab and the MIT Comparative Media Studies Program offer a large variety of courses that may be appropriate for a media arts and sciences major. These offerings vary per semester; please consult the MIT catalog at student.mit.edu/catalog/mMASa.html and student.mit.edu/catalog/mCMSa.html.

Olin Courses

The Olin College of Engineering offers the following courses that may be appropriate for a media arts and sciences major.

ENGR 2250 User-Oriented Collaborative Design

ENGR 3220 Human Factors and Interaction Design

Requirements for the Major

A major in Media Arts and Sciences requires 12 units of course work, at least eight of which must be above the 100 level and at least two of which must be at the 300 level. No more than one can be 350 or 360. In particular, to major in Media Arts and Sciences a student must take three required *introductory* courses, one each from studio art, art history and computer science and at least three required *art/music core* courses and at least three required *computer science core* courses. The approved courses are listed in the labeled sections above.

Flexibility has been built into the major to allow students to adapt their course of study to their interests, choosing an optional concentration either in **Media Arts** by adding two more art/music core courses, or in **Media Sciences** by adding two more computer science core courses.

Majors are also encouraged to take at least one approved *media culture* course and an advanced media production course (e.g., a MAS individual study). In addition to other courses at Wellesley, students can take approved courses at the MIT's Media Lab and Comparative Media Studies program or at Olin College of Engineering. A Frequently Asked Questions (FAQ) section can be found at the program's Web site: www.wellesley.edu/MAS/ along with a spreadsheet to help students plan their major. For more information students should contact the program directors.

Honors

The Media Arts and Sciences thesis offers a year-long opportunity to develop independent research and production with honors. Students interested in proposing a thesis must have a minimum 3.5 GPA in the major, and the support of a faculty advisor in the art or computer science departments. Normally, the honors process needs to obey the guidelines of the corresponding department (art or computer science). An interdepartmental review will occur at the end of the fall semester, to determine whether the student should continue her project as a 370 in the spring and convey its decision to the student by December 18. In a case where it is recommended that the senior thesis not be continued into the second semester, a student would receive credit for 360 work on the completion of a schedule of work previously agreed to between the thesis advisor and the student.

The thesis proposal should be discussed with the primary faculty advisor during the spring prior to senior year. Proposals for thesis projects must be submitted in writing, detailing the scope for the project, research methodology, project timeline, and must be accompanied by an electronic portfolio of at least four Media Arts and Sciences/Studio Art projects. Proposals are due on August 25 before the beginning of the student's senior year. (For students wanting to graduate in the fall, contact the program directors for adjusted dates.)

Advanced Placement Policy

Students may receive a maximum of one unit of college credit for a score of 5 on the Computer Science A or AB AP Exam. This unit can count towards the Media Arts and Sciences major.