The Interdisciplinary Computing and the Arts major in the Music and Visual Arts Departments draws upon and aims to bring together ideas and paradigms from computer science, art, and cultural theory. It takes for granted that the computer has become a metamedium and that artists working with computers are expected to combine different media forms in their works. All of this makes the program unique among currently existing computer art or design programs which, on the one hand, usually focus on the use of computers for a particular media (for instance, specializing in computer animation, or computer music, or computer design for print) and, on the other hand, do not enter into a serious dialogue with current research in computer science, only teaching the students “off-the-shelf” software. The goals of the program are to prepare the next generation of artists who will be functioning in a computer-mediated culture; to give students necessary technical, theoretical and historical backgrounds so they can contribute to the development of new aesthetics for computer media; to prepare students to mediate between the worlds of computer science and technology, the arts, and the culture at large by being equally proficient with computing and cultural concepts; and to give students sufficient understanding of the trajectories of development in computing so they can anticipate and work with the emerging trends, rather than being locked in particular software currently available on the market.

**FOUNDATIONAL LEVEL** (8-10 Courses/34-42 units)

MUS 4  Introduction to Western Music  
VIS 10  Computing in the Arts Lecture Series  
VIS 22  Formations of Modern Art  
VIS 41  Design Communication  
VIS 70N  Introduction to Media  

**Choose one Computer Science sequence:**  
CSE 11  Intro to Computer Science and Object-Oriented Programming: JAVA  
OR  
CSE 8A+8B  Intro to Computer Science: JAVA  

**Choose one Mathematics sequence:**  
MATH 15A/CSE 20  Discrete Mathematics  
OR  
MATH 20A+20B  Calculus for Science and Engineering  
OR  
MATH 10A+10B+10C  Calculus  

**Choose one Art Making course:**  
VIS 1  Introduction to Art-Making: 2D  
VIS 2  Introduction to Art-Making: Motion  
VIS 3  Introduction to Art-Making: 3D  
VIS 60  Introduction to Digital Photography  
VIS 80  Introduction to the Studio Major  

**UPPER DIVISION**  

**8 courses / 34-46 units**  

**INTERMEDIATE LEVEL** (6 Courses/24 units)

VIS 142•  Practices in Computing Arts  
VIS 145A•  Digital Media I: Time, Movement, Sound  
MUS 171•  Computer Music I  

**Choose two Art Making courses:**  
VIS 141A•  Computer Programming for the Arts I  
VIS 147A•  Electronic Technologies for Art I  
VIS 143•  Virtual Environments  
MUS 170•  Musical Acoustics  
MUS 172•  Computer Music II  
MUS 173•  Electronic Music Production and Composition  
MUS 174 A-B-C•  Recording/MIDI Studio Techniques  

**Choose one Interdisciplinary course:**  
VIS 100•  Introduction to Public Culture  
VIS 102•  Cross-Border Urbanization  
VIS 105A•  Drawing: Representing the Subject  
VIS 105D•  Aesthetics of Chinese Calligraphy  
VIS 106A•  Painting: Image Making  
VIS 107A•  Sculpture: Making the Object  
VIS 164•  Photographic Strategies  
VIS 165•  Camera Techniques: Analog Futures  

**HISTORY AND THEORY** (2 Courses/8 units)

VIS 159  History of Art and Technology  

**Choose one from:**  
Any Upper Division Art History Course VIS 120-129  
Any Upper Division Film Studies Course VIS 150-158, 194S

*Indicates Production Course, enrollment in production courses is limited to two per quarter*
**ADVANCED LEVEL** (4 Courses/16 units)

*Choose one Art Making course:*

VIS 141B• Computer Programming for the Arts II  
VIS 145B• Time and Process Based Digital Media II  
VIS 147B• Electronic Technologies for Art II

*Required two courses:*

VIS/MUS 160A• Senior Project in Computer Arts I  
VIS/MUS 160B• Senior Project in Computer Arts I

*Choose one Interdisciplinary course:*

VIS 108• Advanced Projects in Art  
VIS 109• Advanced Projects in Media  
VIS 110A-J Advanced Various Topics  
VIS 130• Special Projects in Media  
VIS 131• Special Projects in Media  
VIS 132• Installation Productions and Studio  
VIS 141A• Computer Programming for the Arts I  
VIS 143• Virtual Environments  
VIS 147A• Electronic Technologies for Art I  
VIS 148• Visualizing Art Practice  
VIS 149• Seminar in Contemporary Computer Topics  
VIS 167• Social Engagement & Photography  
VIS 168• Pictorialism and Constructed Reality  
VIS 198• Directed Group Study  
VIS 199• Special Studies in Visual Arts  
AIP 197• Academic Internship Program

*NOTE:* VIS 141A, 147A, and VIS 143 may be taken for the Intermediate or Advanced level but not both.