Digital Arts Minor

The Digital Arts Minor is designed to help undergraduate students grasp the knowledge to build, engineer and design innovative custom systems to impact our understanding of how technology can be used in the arts. A student who completes the Digital Arts Minor has demonstrated aptitude in computer programming, web design, video editing, digital fabrication, digital sound production, and knowledge of the historical context of digital arts. This interdisciplinary program mobilizes expertise from every program in the Institute, combining skills from music, theater, dance, film and art and critical studies for students.

Digital Arts Minor Learning Goals

By graduation, students should have developed the following competencies, as demonstrated by the successful completion of a capstone digital portfolio:

- A conceptual and practical knowledge of basic programming and interactive design.
- The ability to adapt digital technology to the development and promotion of their art-making practice.
- A conceptual and practical knowledge to build a digital web portfolio including images, sound, and video.
- A conceptual knowledge of the historical contexts of digital media and art forms.

Pre-Requisites for Enrollment and Continuation in the Minor

Students are not required to have specialized knowledge to declare a Digital Arts Minor. Students officially declare a Digital Arts Minor by registering with the Registrar's Office.

However, students on "Métier Warning" are suspended from taking courses that apply to the Digital Arts Minor. Good standing in the major program is required for continued enrollment. Students may be permanently removed from the minor after more than one semester on Métier Warning, at the recommendation of their Dean and the Provost.

Technology Requirements

Students are expected to have a high-functioning laptop computer, preferably an apple laptop.

Digital Arts Minor Curriculum Requirements

Students are required to complete 18 units in classes approved for credit towards the minor, including 11 units of core, foundation requirements:

Required Courses

- ICOM201 Introduction to Programming - 2 units
- ICOM101 Digital Media and Web Development - 2 units
- ICOM301 Introduction to Digital Fabrication - 2 units
- ICOM111 Introduction to Sound Production - 2 units
- IDAR 201 Videomaking for Digital Artists - 1 unit
- IDAR 202 Demystifying Design - 1 unit
- IDAR490, Digital Portfolio - 1 unit
- Electives - 7 units

Total 18 units

Elective Courses

Enrollment to elective courses may be restricted to students within their own program.

- Art:
  - AAIC-275/276 Historical Survey of Graphical Design [open to Institute]
  - AAIC-442 History of Motion Graphics [open to Institute]
  - AART-214 Print & Digital Media [Art Program students only]
  - AART-215 Video [Art Program students only]
  - ACOM-111 Digital Design Lab [Graphic Design students only]
  - ACOM-112 Digital Design Lab II [Graphic Design students only]
  - ACOM-118/218 Digital Skills for Artists [Art Program students only]
  - AGRA-121 Introduction to Digital Photo and Video for Designers [open to Institute]
  - AGRA-430 Beginning Web [Graphic Design students only]
  - AGRA-460 Motion Graphics I [open to Institute, by permission of instructor]
  - AGRA-465 Animating with Cinema 4D [open to Institute]
  - AGRA-470/471 Advanced Web Design [Graphic Design students only]
AGRA-475/476 Digital Type Design [Graphic Design students only]
AGRA-480 Motion Graphics II [open to Institute, by permission of instructor]
AGRA-498 Motion Graphics III [open to Institute, by permission of instructor]
APHM-007 HD Video Post-Production and Sound [Photography and Media Program only]
APHM-009 Lightroom/Photoshop [Photography and Media Program only]
APHM-011 Scanning and Photoshop [School of Art students only]
APHM-015 Advanced Digital Exhibition—Scan, Edit, Print [open to Institute]
APHM-017 Sound Recording [open to Institute]
APHM-026 HD Video Output, Formats, Compression and Codecs [open to Institute]
APHM-030 Shooting Video w/DSLRs: Image and Sound Acquisition [open to Institute]
APHM-031 Digital Bookmaking/InDesign [open to Institute]

Critical Studies:
- CSCM347 Finding Signals from the Noise: Data, Statistics, Information, Representation [open to Institute]

Dance:
- DPRD-111/112 Production Technology for Dance [School of Dance students only]
- DPRD-120 Music for Dancers I [School of Dance students only]
- DPRD-291 Concepts in Lighting [open to Institute]
- DPRD-360/361 Dance Film [School of Dance students only]
- DPRD-460 Digital Portfolio [School of Dance students only]

Film/Video:
- FAIC-370 Survey of CG Art and Animation [open to Institute]
- FAIC-430 History of Video Art [instructor consent required]
- FCOM-364-01 Flash [open to Institute]
- FCV-391 CG Mini-Course: Introduction to Maya [open to Institute]
- FFPV-410A-01 Fieldwork in the Virtual Field [instructor consent required]
- FVCA-160/161 Digital Methods I [Character Animation Students only]
- FVCA-180/181 CG Foundation I [Character Animation Students only]
- FVCA-260 Digital Methods II: Sound [Character Animation Students only]
- FVCA-270/271 CG Character Animation II [Character Animation Students only]
- FVCA-322-323 CG Film Workshop [open to Institute]
- FVCA-326 Asset Creation for Real-Time Engines [open to Institute]
- FVCA-340 Visual Development [Character and Experimental Animation students only]
- FVCA-383 CG Look Development [instructor consent required]
- FVCA-384 Introduction to ZBrush [open to Institute]
- FVCA-388 Integrating CG Techniques for Live-Action [School of Film/Video students only]
- FVCA-393 CG Mini-Course: Toon Shading [Open to Institute]
- FVCA-394 CG Mini-Course: Mapping Techniques [open to Institute]
- FVCA-395 CG Mini-Course: Camera Projections [open to Institute]
- FVCA-396 Creating VR Worlds for Animators [School of Film/Video students only]
- FVCA-436 CG Character Modeling [open to Institute]
- FVCA-446 CG Character Rigging [open to Institute]
- FVCA-486 CG Special Effects [open to Institute]
- FVEA-241 Post Production Sound for Experimental Animators (spring only) [Experimental Animation students only]
- FVEA-255 Hybrid Imaging: Photoshop/Premiere/After Effects [Experimental Animation students only]
- FVEA-338 Introduction to Cinema 4D [open to Institute]
- FVEA-342 Advanced Cinema 4D Workshop [instructor consent required]
- FVEA-422 Gaming to Web [open to Institute]
- FVEA-427 Intermed Interactive [instructor consent required]
- FVEA-427-01 Unity Fundamentals [instructor consent required]
- FVEA-432 AR + Metadata [open to Institute]

Music:
- ICOM-202 Intro to Programming II [open to Institute]
- MCMP-404 Field Recording Workshop [open to Institute]
- MCMP-466 Composing with Max/MSP [School of Music students only]
- MPRF-330 Trigger: Electronic Percussion [School of Music students only]
- MTEC-101 Intro to Concert Production [open to Institute]
- MTEC-150 Sound Synthesis [open to Institute]
- MTEC-155 Advanced Sound Synthesis [open to Institute]
- MTEC-207 Mobile Music Computing [open to Institute]
- MTEC-270 Composing with Technology [open to Institute]
- MTEC-330/331 Interface Design I/II [open to Institute]
- MTEC-340 Programming for the Raspberry Pi [open to Institute]
- MTEC-360 Audio Signal Processing [open to Institute]
- MTEC-365-01 Digital Recording Studio [School of Music students only]
- MTEC-415 Visual Programming [open to Institute]
- METC-418 Data Driven Art and Sound [open to Institute]
- MTEC-419 Immersive Experience Design [open to Institute]
- MTEC-420 Grids, Beats and Groups [open to Institute]
- MTEC-421 C++ for Electronic Music [open to Institute]
- MTEC-441 Composition for Robots [open to Institute]
- MTEC-450 Robotic Design from Music and Media Applications [open to Institute]
- MTEC-450 Mechatronic Art and Music [open to Institute]
- MTEC-480 MIR and Machine Learning for Art [open to Institute]
- MTEC-498 Algorithmic Sound [open to Institute]

- Theater:
  - TIMM-165A Management Technologies [open to Institute]
  - TIMM-315 AutoCAD I [open to Institute]
  - TIMM-360 Vectorworks I [open to Institute]
  - TIMM-375 Vectorworks II [open to Institute]
  - TLTG-100 Lighting Techniques [open to Institute]
  - TLTG-150 Light Lab [open to Institute]
  - TLTG-210 Lighting Design 1-Plotmaking [open to Institute]
  - TSND-101 Sound Lab [open to Institute]
  - TSND-201 Sound Design 1 [Pre-requisite TSND-101]
  - TSND-430 Max Audio Programming [open to Institute]
  - TTDI-330 AutoCAD II [Technical Direction Program students only]
  - TVID-405 Video Programming: Isadora [open to Institute]
  - TVID-415 Motion Graphics: After Effects [open to Institute]
  - TVID-400/401 Integrating Video and Live Performance [open to Institute]

- Project:
  - IDAR 399 Undergraduate Project in Digital Arts

- Winter Session:
  - AGRA-008 Experience Design [open to Institute]
  - AGRA-012 User Experience Design [open to Institute]
  - AGRA-013 Typography in Title Design [Graphic Design students only]
  - AGRA-015 Digital Sketching [Graphic Design students only]
  - AGRA-017 Intro to Unity for Designers [open to Institute]
  - AGRA-018 360 Live Design, Graphic Action [open to Institute]
  - APHM-029 Performance and the Camera [open to Institute]
  - FVEA-342 Intro to Cinema 4D [open to Institute]
  - FWNT-101 360 Cinematography [open to Institute]
  - FWNT-104 Arts Integration in Realtime Performance [open to Institute]
  - FWNT-111 Projection Mapping [open to Institute]
  - IDAR-202W Demystifying Design [open to Institute]
  - IDAR-203W Intro to Sound Editing Using Logic Pro X [open to Institute]
  - IDAR-204W Intro to Touch Designer [open to Institute]
  - IDAR-205W Intro to Javascript With P5.js [open to Institute]
  - IDAR-206W Intro to Practical Electronics [open to Institute]
  - IDAR-207W Mechatronic Art & Music [open to Institute]
  - IDAR-208W Body Space Light [open to Institute]
  - IDAR-242W Immersive Media in Movement & Music [open to Institute]
  - IWNT-318 Body Space Light [open to Institute]
  - MITM473 Digital Signal Processing [open to Institute]