

List of Multimedia Computing Major Requirements (60-63 credits)

1) Either CISC 1115 or CISC 1170

- **CISC 1115: Introduction to Computing Using Java**

Prerequisite: None

Notes: Not open to students who are enrolled in or have completed CISC 1110

- **CISC 1170: Java for Programmers**

Prerequisite: an introductory programming course in a language other than Java, and permission of the chair

Notes: Not open to students who are in enrolled in or have completed CIS 1115 or 3115

2) Either CISC 4900 or 5001

- **CISC 4900: Independent and Group Project I**

Prerequisite: CISC 3110 or 3115 and permission of the chairperson

- **CISC 5001: Independent Study and Research I, II, III, IV**

Prerequisite: CISC 3130, a minimum GPA of 3.0 overall and in CIS courses, and permission of the chairperson

3) All of the following:

- **CISC 1600: Introduction to Multimedia Computing**

Prerequisite: None

- **CISC 2210: Introduction to Discrete Structures**

Prerequisite: CIS 1.10 or 1.20 or 1110 or 1115; and MATH 1011 or 2.92 or assignment to MATH 3.20 or 1201 or 4.10 by the Department of Mathematics

- **CISC 2820W: Computers and Ethics**

- **Prerequisite:** CORC 1312 or Core Studies 5.1 or CIS 1000 or 1110 or 1115, and ENGL 1012

- **CISC 3115: Introduction to Modern Programming Techniques**
Prerequisite: CISC 1115 or 1170
- **CISC 3130: Data Structures**
Prerequisite: CISC 3115; or CISC 3110 and 1170
- **CISC 3220: Analysis of Algorithms**
Prerequisite: CISC 2210; CIS 21 or CISC 3130; MATH 3.20 or 1201 or 4.10
- **CISC 3620: Computer Graphics**
Prerequisite: CISC 3130 and MATH 1011 or 1026 or assignment to MATH 1201
- **CISC 3630: Multimedia Computing**
Prerequisite: CISC 3130.
- **Math 1201: Calculus I**
Prerequisite: All students must have met one of the following conditions:
earned a grade of C- or higher in Mathematics 1011, 1012 or 1026;
achieved minimum scores on the COMPASS test of $s1 = 70$, $s2 = 70$, $s3 = 70$,
and $s5 = 70$; achieved a minimum score of 105 on the ACCUPLACER
College-Level Math test; or obtained departmental permission

4) Either **MATH 1711** or **MATH 1206**

- **MATH 1711: Mathematical Fundamentals of Computer Graphics**
Prerequisites: Computer and Information Science 3110 [15] and
Mathematics *1201 [3.3]
- **Math 1206: Calculus II**
Prerequisite: a grade of C- or higher in Mathematics 3.20 or 1201 [3.3]

5) Either **MATH 1716** or **MATH 2501**

- **MATH 1716: Mathematical Fundamentals of Computer Graphics**
Prerequisite: Mathematics 1711 [8.5].
- **MATH 2501: Elementary Probability and Statistics**
Prerequisite: Mathematics 4.20 with a grade of C- or higher; or permission
of the chairperson

6) Either CISC 3650, 3660 or 3665

- **CISC 3650: Human-Computer Interaction**
Prerequisite: CISC 3115 or 3120
- **CISC 3660: Game Programming**
Prerequisite: CISC 3130
- **CISC 3665: Game Design**
Prerequisite: CISC 3130, and MATH 1011 or 1201

7) Three additional courses chosen from the following:

CISC 3140, 3142, 3410, 3415, 3610, 3650, 3660, 3665, 3810, or 4610

- **CISC 3140: Design and Implementation of Large-Scale Web Applications**
Prerequisite: CISC 3130; and either 1115, 1117, or 11170.
- **CISC 3142: Programming Paradigms in C++**
Prerequisite: CISC 3115, 3130, and either 3310 or permission of the chair
- **CISC 3410: Artificial Intelligence**
Prerequisite: CIS 21 or CISC 3130
- **CISC 3415: Principles of Robotics**
Prerequisite: CISC 2210 and CISC 3130
- **CISC 3610: Introduction to Multimedia Programming**
Prerequisite: CISC 3110 or 3115
- **CISC 3650: Human-Computer Interaction**
Prerequisite: CISC 3115 or 3120
- **CISC 3660: Game Programming**
Prerequisite: CISC 3130
- **CISC 3665: Game Design**
Prerequisite: CISC 3130, and MATH 1011 or 1201
- **CISC 3810: Database Systems**
Prerequisite: CISC 3130
- **CISC 4610: Multimedia Databases**
Prerequisite: CISC 3810, CISC 3635 or 3630

8) Any two courses chosen from the following list:

- **ARTD 2811: Introduction to Digital Art**
Prerequisite: None
- **ARTD 2812: Multimedia and Two-Dimensional Animation**
Prerequisite: ARTD 2811
- **ARTD 2820: Digital Video**
Prerequisite: ARTD 2811
- **ARTD 2821: Three-Dimensional Graphics and Animation**
Prerequisite: ARTD 2811
- **ARTD 3812: Internet Art and Design**
Prerequisite: ARTD 2811
- **MUSC 3260: Introduction to Music Technology**
Prerequisite: Core Studies 2.2 or Core Curriculum 1130 [1.3] or MUSC 1300 or permission of instructor.
- **MUSC 3261: Electroacoustic Music I**
Prerequisite: MUSC 3260 or permission of the director.
- **MUSC 3262: MUSC 3262 Electroacoustic Music II**
Prerequisite: MUSC 3260 or permission of the director.
- **MUSC 3322: Techniques for Recording Music**
Prerequisite: permission of the director.
- **FILM 1201: Introduction to Production**
Prerequisite or corequisite: FILM *1101 and 1301 or permission of the chairperson.
- **FILM 2701: Film Editing**
Prerequisite: FILM 1101, 1201, 1301
- **TVRA 2420: Sight/Sound/Motion: Basic Production Theories and Techniques**
Prerequisite: Television, Radio and Emerging Media 1165
- **TVRA 3861: Multi-Camera Television Production**
Prerequisite: Television, Radio and Emerging Media 2265 and 2420. For Journalism and Media Studies majors: Television, Radio and Emerging Media 2032.
Prerequisite or corequisite: Television, Radio and Emerging Media 2616 or 2401.
- **TVRA 3871: Single Camera Television Production**

Prerequisite: Television, Radio and Emerging Media 2265 and 2420.

Prerequisite or corequisite: Television, Radio and Emerging Media 2616

- **TVRA 3951: Introduction to Radio Production**

Prerequisite: Television, Radio and Emerging Media 2265 and 2420. For Journalism and Media Studies majors: Television, Radio and Emerging Media 2032.

Prerequisite or corequisite: Television, Radio and Emerging Media 2616 or 2401.