

| Bachelor of Technology in Emerging Media Technologies | | |
|---|---|----------------|
| LIBERAL ARTS CORE (all of the following are part of the Liberal Arts Core) | | |
| Course Number | Course Name | Credits |
| (ENG) ENG1101 | English Composition I | 3 |
| (COM) LIB1201 | Research & Documentation in the Information Age | 3 |
| (BS-A) PS 101 | Introduction to Psychology [§] | 3 |
| (BS-A) PSY 3407 | Psychology of Visual Perception [§] | 3 |
| (LAP) PHIL 2106 | Philosophy of Technology [§] | 3 |
| (LIT) ENG2002 | Intro to Lit. II - Drama [§] | 3 |
| (LAP) THE1280 | History of Theater [§] | 3 |
| (COM) SPE1330 | Effective Speaking | 3 |
| (SS) HIS 3209 | History of Technology [§] | 3 |
| [§] These courses are recommended, but may be replaced by other courses in Behavioral and Social Sciences and Literature/Aesthetics/Philosophy that the College deems eligible Core courses. | | |
| SCIENCE & MATH REQUIRED for <u>ENTERTAINMENT FABTRONICS CONCENTRATION</u> | | |
| (SCI-A) PHYS1441 | Physics 1.3 | 4 |
| (SCI-B) PHYS1442 | Physics 2.3 | 4 |
| (MATH) MAT 1475 | Calculus I | 4 |
| (MATH) MAT 1575 | Calculus II | 4 |
| SCIENCE & MATH REQUIRED for <u>MEDIA COMPUTING CONCENTRATION</u> | | |
| (SCI-A) PHYS1433 | Physics 1.2 | 4 |
| (SCI-B) PHYS1434 | Physics 2.2 | 4 |
| (MATH) MAT 1375 | Pre-Calculus | 4 |
| (MATH) MAT 2440 | Discrete Structures and Algorithms I | 4 |
| SCIENCE & MATH REQUIRED for <u>MEDIA DESIGN CONCENTRATION</u> | | |
| (SCI-A) PHYS1111 | Principles of Science I with lab | 4 |
| (SCI-B) PHYS1112 | Principles of Science II with lab | 4 |
| (MATH) MAT 1180 | Math Concepts and Applications | 4 |
| (MATH) MAT 1280 | Quantitative Math | 4 |

| MAJOR COURSES | | | |
|--|--|--------------------------|----------------|
| | | | |
| CREATIVE MEDIA FOUNDATIONS: Required for ALL First and Second Year Students | | | |
| Course Number | Course Name | Old Course Number | Credits |
| IMT 1101 | Introduction to Media Design Process | | 3 |
| IMT 1102 | Introduction to Media Production Practices | | 3 |
| IMT 1100 | Media Technology Skills Labs I | | 1 |
| MTEC1002 | Media Technology Skills Labs II | | 1 |
| MTEC1210 | Media Design Foundation | MTEC1201 | 3 |
| MTEC1250 | Tangible Media Foundation | MTEC1203 | 3 |
| CST 1101 | Computer Programming and Problem-Solving | | 3 |
| IND 1112 | Engineering Drawing 1 | | 2 |
| ADVANCED COURSES: Required for ALL Third and Fourth Year Students | | | |
| Course Number | Course Name | Old Course Number | Credits |
| ENT3140 | Topics and Perspectives in Emerging Technologies | | 3 |
| ENT4498 | Portfolio Presentation | | 1 |
| ENT 4430 | Project Management | | 3 |
| ENT4900 | Internship (135 Field Hours) | | 3 |
| ENT3240 | Interdisciplinary Team Project I | | 3 |
| MTEC 4800 | Interdisciplinary Team Project II | | 3 |
| MTEC 4801 | Interdisciplinary Team Project III | | 3 |
| ELECTIVE COURSES: Required for ALL Students | | | |
| <p>Each Concentration (below) requires from 9 to 17 Elective Credits. When you select a Concentration and a Career Track you can locate the required Elective Credits.</p> <p>You may choose electives from the following courses:</p> <ol style="list-style-type: none"> Any course may be taken as an elective if (1) it is required for other MTEC Concentrations and Career Tracks, and (2) it is NOT required for your Concentration and Career Track. Select a course from the Table of Elective Courses at the end of this program listing. <p>To receive credit for an Elective course you MUST satisfy all prerequisites for enrolment in that course, or receive written departmental permission to enroll in the course.</p> | | | |

CONCENTRATIONS | CAREER TRACKS (choose 1 Concentration and 1 Track in the Concentration)

MEDIA DESIGN CONCENTRATION

Media Design Foundation (Required for All Students in this Concentration)

| Course Number | Course Name | Old Course Number | Credits |
|------------------------------------|---|-------------------|---------|
| ADV 2320 | Introduction to Film and Video | | 3 |
| ENT 1280 | Ins & Outs of Physical Computing | | 3 |
| ENT 3390 | Sound for Multimedia | | 3 |
| MTEC2120 | Interaction Design I | MTEC2101 | 3 |
| MTEC2001/ 2002 / 3001 / 3002 | Media Technology Skills Labs III / IV / V / VI (Select 2) | | 2 |

Media Design Career Tracks (Choose A or B or C or D)

(A) Performance Design

| | | | |
|----------|--|----------|---|
| MTEC2160 | Performance Design I | MTEC2103 | 3 |
| ENT 1101 | Introduction to Entertainment Technology | | 2 |
| ENT 1250 | Lighting Technology | | 3 |

(B) Interaction Design

| | | | |
|----------|------------------------------------|----------|---|
| MTEC2125 | Narrative Design | MTEC2105 | 3 |
| ADV 4850 | Advanced Web Strategies for Design | | 3 |
| ADV 4720 | Multimedia Design I | | 3 |

(C) EcoDesign

| | | | |
|-----------|-------------------------------------|----------|---|
| MTEC2175 | Ecological Design I | MTEC2102 | 3 |
| ARCH 2450 | Sustainability Through Architecture | | 3 |
| IND 2313 | Industrial Design I | | 2 |

(D) Cinematics

| | | | |
|----------|---------------------------|----------|---|
| MTEC2125 | Narrative Design | MTEC2105 | 3 |
| ADV 3620 | Digital Video Design I | | 3 |
| ADV 3540 | Two Dimensional Animation | | 3 |

Concentration Electives

| | | |
|---|--|-----------|
| Choose 16 or 17 Credits from recommended Career Track Electives (16 for Career Tracks B and D; 17 for Career Tracks A and C) | | 16 or 17 |
| Total Credits in Media Design Concentration | | 39 |

| ENTERTAINMENT FABTRONICS CONCENTRATION | | | |
|---|---|--------------------------|----------------|
| Entertainment Fabtronics Foundation (Required for All Students in this Concentration) | | | |
| Course Number | Course Name | Old Course Number | Credits |
| CST1201 | Programming Fundamentals (Java) | | 3 |
| MTEC2120 | Interaction Design I | MTEC 2101 | 3 |
| ENT1280 | Ins and Outs of Physical Computing | | 3 |
| Entertainment Fabtronics Career Tracks (Choose A or B) | | | |
| (A) Tangibles, Mobiles and Fabrication | | | |
| IND 2304 | Advanced Solids Modeling | | 2 |
| MECH1233 | Strength of Materials | | 3 |
| EMT 1150 + EMT 1250 | Electrical Circuits + Digital Control | | 5 + 4 |
| -or- ETN 1102 + ETN 1302 | -or- Principles of Electricity and Electronics + Principles of Electricity, Electronics and Computer Operation | | -or- 4 + 4 |
| (B) Performance Fabtronics | | | |
| ENT4480 | Show Control | | 3 |
| EMT 1250 -or- ETN 1302 | Digital Control -or- Principles of Electricity, Electronics and Computer Operation | | 4 |
| CET 3510 | Microcomputer Systems | | 4 |
| CST2403 | C++ Programming | | 3 |
| MAT 2580 | Introduction to Linear Algebra | | 3 |
| CET 4952 | Robotics Technology | | 4 |
| Concentration Electives | | | |
| Choose 9-17 Credits from recommended Career Track Electives (Choose 9 for Performance Fabtronics; Choose 16 or 17 for Tangibles, Mobiles and Fabrication) | | 9 or 17 | |
| Total Credits in Entertainment Fabtronics Concentration | | 39 | |

| MEDIA COMPUTING CONCENTRATION | | | |
|---|--|--------------------------|----------------|
| Media Computing Foundation (Required for All Students in Media Computing Concentration) | | | |
| Course Number | Course Name | Old Course Number | Credits |
| CST1201 | Programming Fundamentals (Java) | | 3 |
| MTEC2120 | Interaction Design I | MTEC 2101 | 3 |
| IND 2304 | Advanced Solids Modeling | | 3 |
| Media Computing Career Tracks (Choose A or B) | | | |
| (A) Media Cyberinfrastructure | | | |
| CST1204 | Database Systems Fundamentals | | 3 |
| CST2309 | Web Programming I | | 3 |
| CST1215 | Operating Systems Fundamentals | | 3 |
| CST2301 | Multimedia and Mobile Device Programming | | 3 |
| CST2403 | C++ Programming | | 3 |
| (B) Simulation and Game Technologies | | | |
| IND2313 | Industrial Design I | | 2 |
| IND2410 | Industrial Design II | | 3 |
| IND2420 | Engineering Animation and Presentation | | 2 |
| IND3550 | Simulation and Visualization | | 3 |
| IND4800 | Advanced 3D Animation | | 3 |
| ADV 3640 | 3-D Animation and Modeling I | | 3 |
| Concentration Electives | | | |
| Choose 14 or 15 Credits from recommended Career Track Electives (Choose 14 for Sim. and Games; 15 for Media Cyberinfrastructure) | | 14 or 15 | |
| Total Credits in Media Computing Concentration | | 39 | |
| TOTAL CREDITS IN THE MAJOR | | 77 | |
| TOTAL CREDITS IN THE CORE | | 43 | |
| TOTAL CREDITS FOR THE DEGREE | | 120 | |

LIST OF ADDITIONAL ELECTIVES COURSES

| Elective Number | Elective Course Name | Recommended Use in MTEC Curriculum |
|-----------------|-------------------------------------|---|
| CST2407 | Networking Fundamentals | Media Cyberinfrastructure Track Elective |
| CST2415 | Systems Admin. (UNIX/Linux) | Media Cyberinfrastructure Track Elective |
| CST3503 | C++ Programming II | Media Cyberinfrastructure Track Elective |
| CST2409 | Web Programming II | Media Cyberinfrastructure Track Elective |
| CET 3640 | Software for Computer Control | Performance Fabtronics Track Elective |
| CET 4960 | Applied Digital Technology | Performance Fabtronics Track Elective |
| CET 3510 | Microcomputer Systems | Tangibles, Mobiles and Fabrication Track Elective |
| MECH 1222 | Computer-Aided Engineering Graphics | Media Computing Track Elective |
| MECH 2322 | Engineering Materials | Tangibles, Mobiles and Fabrication Track Elective |
| IND2401 | Furniture Design | Tangibles, Mobiles and Fabrication Track Elective |
| CST1215 | Operating Systems Fundamentals | Tangibles, Mobiles and Fabrication Track Elective |
| CST2301 | Multimedia and Mobile Device Prg. | Tangibles, Mobiles and Fabrication Track Elective |
| ADV 3640 | 3-D Animation and Modeling I | Simulation and Game Track Elective |
| ADV 4740 | 3-D Animation and Modeling II | Simulation and Game Track Elective |
| ENT 1260 | Music Technology | Media Design Concentration Elective |
| MTEC 2001 | Media Technology Skills Labs III | MTEC General Elective |
| MTEC 2002 | Media Technology Skills Labs IV | MTEC General Elective |
| MTEC 3001 | Media Technology Skills Labs V | MTEC General Elective |
| MTEC 3002 | Media Technology Skills Labs VI | MTEC General Elective |