

<b>Bachelor of Technology in Emerging Media Technologies</b>		
<b>LIBERAL ARTS CORE</b> (all of the following are part of the Liberal Arts Core)		
<b>Course Number</b>	<b>Course Name</b>	<b>Credits</b>
(ENG) ENG1101	English Composition I	3
(COM) LIB1201	Research & Documentation in the Information Age	3
(BS-A) PS 101	Introduction to Psychology <sup>§</sup>	3
(BS-A) PSY 3407	Psychology of Visual Perception <sup>§</sup>	3
(LAP) PHIL 2106	Philosophy of Technology <sup>§</sup>	3
(LIT) ENG2002	Intro to Lit. II - Drama <sup>§</sup>	3
(LAP) THE1280	History of Theater <sup>§</sup>	3
(COM) SPE1330	Effective Speaking	3
(SS) HIS 3209	History of Technology <sup>§</sup>	3
<sup>§</sup> 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.		
<b>SCIENCE &amp; MATH REQUIRED for <u>ENTERTAINMENT FABTRONICS CONCENTRATION</u></b>		
(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
<b>SCIENCE &amp; MATH REQUIRED for <u>MEDIA COMPUTING CONCENTRATION</u></b>		
(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
<b>SCIENCE &amp; MATH REQUIRED for <u>MEDIA DESIGN CONCENTRATION</u></b>		
(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

<b>MAJOR COURSES</b>			
<b>CREATIVE MEDIA FOUNDATIONS: Required for ALL First and Second Year Students</b>			
<b>Course Number</b>	<b>Course Name</b>	<b>Old Course Number</b>	<b>Credits</b>
IMT 1101	Introduction to Media Design Process		3
IMT 1102	Introduction to Media Production Practices		3
MTEC1001	Media Technology Skills Labs I	IMT 1100	1
MTEC1002	Media Technology Skills Labs II	IMT 1200	1
MTEC1210	Media Design Foundation	MTEC1201	3
MTEC1250	Tangible Media Foundation	MTEC1203	3
CST 1101	Computer Programming and Problem-Solving		3
IND 1222	Engineering Drawing 1		2
<b>ADVANCED COURSES: Required for ALL Third and Fourth Year Students</b>			
<b>Course Number</b>	<b>Course Name</b>	<b>Old Course Number</b>	<b>Credits</b>
ENT3140	Topics and Perspectives in Emerging Technologies		3
ENT4498	Portfolio Presentation		1
ENT 4430	Project Management		3
ENT4900	Internship (135 Field Hours)		3
MTEC 3800	Interdisciplinary Team Project I Replaces	ENT3240	3
MTEC 4800	Interdisciplinary Team Project II Replaces	ENT3241	3
MTEC 4801	Interdisciplinary Team Project III Replaces	ENT4240	3
<b>ELECTIVE COURSES: Required for ALL Students</b>			
<p><b>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.</b></p> <p><b>You may choose electives from the following courses:</b></p> <ol style="list-style-type: none"> <li><b>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.</b></li> <li><b>Select a course from the Table of Elective Courses at the end of this program listing.</b></li> </ol> <p><b>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.</b></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
<b>Total Credits in Media Design Concentration</b>		<b>39</b>

<b>ENTERTAINMENT FABTRONICS CONCENTRATION</b>			
<b>Entertainment Fabtronics Foundation (Required for All Students in this Concentration)</b>			
<b>Course Number</b>	<b>Course Name</b>	<b>Old Course Number</b>	<b>Credits</b>
CST1201	Programming Fundamentals (Java)		3
MTEC2120	Interaction Design I	MTEC 2101	3
ENT1280	Ins and Outs of Physical Computing		3
<b>Entertainment Fabtronics Career Tracks (Choose A or B)</b>			
<b>(A) Tangibles, Mobiles and Fabrication</b>			
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>(B) Performance Fabtronics</b>			
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
<b>Concentration Electives</b>			
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	
<b>Total Credits in Entertainment Fabtronics Concentration</b>		<b>39</b>	

<b>MEDIA COMPUTING CONCENTRATION</b>			
<b>Media Computing Foundation</b> (Required for All Students in Media Computing Concentration)			
<b>Course Number</b>	<b>Course Name</b>	<b>Old Course Number</b>	<b>Credits</b>
CST1201	Programming Fundamentals (Java)		3
MTEC2120	Interaction Design I	MTEC 2101	3
IND 2304	Advanced Solids Modeling		3
<b>Media Computing Career Tracks</b> (Choose A or B)			
<b>(A) Media Cyberinfrastructure</b>			
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>(B) Simulation and Game Technologies</b>			
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
<b>Concentration Electives</b>			
Choose 14 or 15 Credits from recommended Career Track Electives (Choose 14 for Sim. and Games; 15 for Media Cyberinfrastructure)		14 or 15	
<b>Total Credits in Media Computing Concentration</b>		<b>39</b>	
<b>TOTAL CREDITS IN THE MAJOR</b>		<b>77</b>	
<b>TOTAL CREDITS IN THE CORE</b>		<b>43</b>	
<b>TOTAL CREDITS FOR THE DEGREE</b>		<b>120</b>	

## 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