# COMPUTER ANIMATION AND DESIGN TECHNOLOGY (CADT)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
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| CADT 12000 | 2D GRAPHICS TECHNOLOGY | 3 Credit Hours | Introductory course for creation of 2D graphics using vector and raster imaging for use in mapping and character development in animation and gaming.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter |
| CADT 12001 | 3D MODELING AND TEXTURING | 3 Credit Hours | Introduction to the basic concepts of 3D modeling and animation. Topics will include terminology, techniques of creating textures and imaging for mapping, 3D modeling, lighting, shading, and rendering.  
Prerequisite: CADT 12000.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter |
| CADT 21092 | ANIMATION AND GAME DESIGN PRACTICUM (ELR) | 1-3 Credit Hours | (Repeatable for a maximum of 6 credit hours) Supervised work experience. One credit hour for 50 work hours.  
Prerequisite: none.  
Schedule Type: Practicum or Internship  
Contact Hours: 3.33-10 other  
Grade Mode: Satisfactory/Unsatisfactory  
Attributes: Experiential Learning Requirement |
| CADT 22000 | ADVANCED CAD | 3 Credit Hours | Comprehensive training with 2D and 3D elements of computer-aided-design (CAD) from the foundation to advanced techniques applicable to design in the graphics, mechanical, industrial and electronics fields.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter |
| CADT 22001 | CAD: ARCHITECTURE | 3 Credit Hours | Introduction to building information modeling (BIM) fundamentals using an industry-standard architectural software application, including creation of full 3D architectural project into working drawings.  
Prerequisite: MERT 12000 or TECH 13580.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter |
| CADT 22002 | CAD: CIVIL APPLICATIONS | 2 Credit Hours | A course on the use of computer-aided drafting and design for civil engineering applications.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 2 lecture  
Grade Mode: Standard Letter |
| CADT 22003 | SOLID MODELING | 3 Credit Hours | Instruction given in the best usage approaches for parametric design philosophy through a hands-on, practice-intensive curriculum. Students acquire the knowledge needed to complete the process of designing models from conceptual sketching, through to solid modeling, assembly design and drawing production.  
Prerequisite: None.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter |
| CADT 22004 | COMPUTER ANIMATION AND GAMING | 3 Credit Hours | 3D modeling and computerized techniques. Introduction to the basic concepts, terminology and techniques of 3D modeling, lighting, shading, imaging and animation.  
Prerequisite: CADT 12001.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter |
| CADT 22005 | MULTIMEDIA AND GAME DESIGN | 3 Credit Hours | 2D and 3D game development which includes the creation of flowcharts, roughs and interactive navigation systems. Integration of images, animation, video, sound and custom code for the app or game for mobile device.  
Prerequisite: CADT 12000; and COMT 20001 or COMT 20011 or CS 10051.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter |
| CADT 22007 | 3-D MODELING PROJECT | 1 Credit Hour | A guided project course in 3-D modeling for computer animation and game design.  
Prerequisite: CADT 22005.  
Schedule Type: Lecture  
Contact Hours: 1 lecture  
Grade Mode: Standard Letter-IP |
| CADT 22008 | PROJECT IN TEXTURE AND MATERIAL CREATION | 1 Credit Hour | A guided project course in texture and material creation for computer animation and game design.  
Prerequisite: CADT 22007.  
Schedule Type: Lecture  
Contact Hours: 1 lecture  
Grade Mode: Standard Letter-IP |
| CADT 22009 | APPLIED ENGINEERING SOFTWARE | 3 Credit Hours | A course on the use of the computer as a problem solving tool for applications in engineering and manufacturing. Emphasis is on the use of productivity software training on the use of the software applicable to engineering problems using hands-on workshop formats.  
Prerequisite: none.  
Schedule Type: Combined Lecture and Lab  
Contact Hours: 2 lecture, 2 lab  
Grade Mode: Standard Letter |
| CADT 22010 | DIGITAL SCULPTING TECHNOLOGY | 3 Credit Hours | This course will explore interactive 3D sculpting to create highly-detailed and realistic models for use in games, film, animation and illustration.  
Prerequisite: CADT 12000  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter |
CADT 22095   SPECIAL TOPICS IN COMPUTER ANIMATION AND GAME DESIGN TECHNOLOGY   1-3 Credit Hours
(Repeatable for credit) Special topics in Computer Animation and game design. Repeated registration permitted.
Prerequisite: none.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter