ANIMATION GAME DESIGN - B.S.

College of Applied and Technical Studies
www.kent.edu/cats

Examples of Possible Careers*
Artists and related workers, all other
• -0.2% little or no change
• 13,100 number of jobs
• $65,800 potential earnings

Special effects artists and animators
• 4.1% about as fast as the average
• 67,500 number of jobs
• $77,700 potential earnings

Contact Information
• Program Coordinator: Chris Totten | ctotten@kent.edu | 330-308-7438
• Speak with an Advisor
  • Kent Campus
  • Stark Campus
  • Tuscarawas Campus

Fully Offered
• Delivery:
  • In person
• Location:
  • Kent Campus
  • Stark Campus
  • Tuscarawas Campus

*Note
Source of occupation titles and labor data is from the U.S. Bureau of Labor Statistics’ Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at which half of the workers in the occupation earned more than that amount and half earned less.

Description
The Bachelor of Science degree in Animation Game Design provides the key concepts, creative tools and principles of diverse skills in fundamental and advanced technical knowledge of modeling, animation and game design.

The degree program prepares students for careers by developing technical competency, creative/independent problem solving and conceptual understanding necessary for the challenges of a career in the creative industries. Upon graduation, students have created a professional-quality portfolio to enter the field of content creators and are prepared for jobs in technical illustration, two- and three-dimension modeling, game design, animation, artistic production and exhibition. Students are guided in selecting courses that support a given concentration. They can take courses in various aspects of art, design and film/video.

The Animation Game Design major comprises the following concentrations:

• The Animation concentration involves bringing motion to still objects or displaying a sequence of still images to create the illusion of motion or life. Animation involves more than just character motion; it includes motion graphics, video editing, special effects, cameras and video output. Students learn how to animate characters, elements of environments and graphics. Two- and three-dimension models are animated as necessary, via a combination of manual animation, procedural tools and physical simulation.

• The Game Design concentration provides the environment and content creation in two- and three-dimension models. The focus is on the design part of game environments to be used on platforms such as personal computers, smart phones and game consoles. Students learn the importance of two- and three-dimension model creation for specific games used for simulation, training, entertainment and measuring educational outcomes.

Accreditation
National Association of Schools of Art and Design (NASAD)

Admission Requirements
The university affirmatively strives to provide educational opportunities and access to students with varied backgrounds, those with special talents and adult students who graduated from high school three or more years ago.

First-Year Students on the Kent Campus: First-year admission policy on the Kent Campus is selective. Admission decisions are based upon cumulative grade point average, strength of high school college preparatory curriculum and grade trends. Students not admissible to the Kent Campus may be administratively referred to one of the seven regional campus to begin their college coursework. For more information, visit the admissions website for first-year students.

First-Year Students on the Regional Campuses: First-year admission to Kent State’s campuses at Ashtabula, East Liverpool, Geauga, Salem, Stark, Trumbull and Tuscarawas, as well as the Twinsburg Academic Center, is open to anyone with a high school diploma or its equivalent. Check with a regional campus admissions office to determine application requirements, as they may differ among campuses.

International Students: All international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning a minimum 525 TOEFL score (71 on the Internet-based version), minimum 75 MELAB score, minimum 6.0 IELTS score, minimum 48 PTE score or minimum 100 DET score; or by completing the ESL level 112 Intensive Program. For more information, visit the admissions website for international students.

Transfer Students: For more information, visit the admissions website for transfer students.

Former Students: Former Kent State students or graduates who have not attended another college or university since Kent State may complete the reenrollment or reinstatement form on the University Registrar’s website.
Program Learning Outcomes
Graduates of this program will be able to:

1. Demonstrate current skills in two- and three-dimension modeling, animation and game design.
2. Apply design thinking to technological problems, including demonstrating familiarity with design thinking applicable to their professional work.
3. Demonstrate an understanding of the ethics (and legal issues) closely associated with fields of modeling, animation and game design.
4. Demonstrate effective communication skills — both verbally and in written form — with technical, business and design professionals, including effective communication as individuals and as part of a project team.
5. Participate in and lead multidisciplinary project teams, demonstrating theoretical and practical understanding of team dynamics.
6. Demonstrate appreciation for diverse cultures and individual differences and reflect that appreciation in their work.
7. Engage in continuous learning, as well as research and assess new ideas and information to provide the capabilities for lifelong learning.

University Requirements
All students in a bachelor’s degree program at Kent State University must complete the following university requirements for graduation.

NOTE: University requirements may be fulfilled in this program by specific course requirements. Please see Program Requirements for details.

Destination Kent State: First Year Experience
1. Course is not required for students with 25 transfer credits, excluding College Credit Plus, or age 21+ at time of admission.

Diversity Domestic/Global (DIVD/DIVG)
2 courses
- Students must successfully complete one domestic and one global course, of which one must be from the Kent Core.

Experiential Learning Requirement (ELR)
varies
- Students must successfully complete one course or approved experience.

Kent Core (see table below)
36-37
- Students must earn a minimum C grade in the course.

Upper-Division Requirement
39
- Students must successfully complete 39 upper-division (numbered 30000 to 49999) credit hours to graduate.

Total Credit Hour Requirement
120

Kent Core Requirements
Kent Core Composition (KCMP)
6
Kent Core Mathematics and Critical Reasoning (KMCR)
3
Kent Core Humanities and Fine Arts (KHUM/KFA) (min one course each)
9
Kent Core Social Sciences (KSS) (must be from two disciplines)
6
Kent Core Basic Sciences (KBS/KLAB) (must include one laboratory)
6-7
Kent Core Additional (KADL)
6
Total Credit Hours:
36-37

Program Requirements
Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGD 12000</td>
<td>TWO DIMENSION GRAPHICS</td>
<td>3</td>
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<td>MODELING AND TEXTURING II</td>
<td>3</td>
</tr>
<tr>
<td>AGD 22010</td>
<td>DIGITAL SCULPTING</td>
<td>3</td>
</tr>
<tr>
<td>AGD 23020</td>
<td>GAMING AND CULTURE</td>
<td>3</td>
</tr>
<tr>
<td>AGD 34003</td>
<td>ANIMATION THEORY</td>
<td>3</td>
</tr>
<tr>
<td>AGD 43092</td>
<td>INTERNSHIP IN ANIMATION AND GAME DESIGN (ELR) (WIC)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or AGD 43096 INDIVIDUAL INVESTIGATION IN ANIMATION AND GAME DESIGN</td>
<td>3</td>
</tr>
<tr>
<td>AGD 49999</td>
<td>SENIOR CAPSTONE PROJECT (ELR) (WIC)</td>
<td>3</td>
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</table>

Major Electives, choose from the following:

- AGD 11003 SOLID MODELING
- AGD 21092 ANIMATION AND GAME DESIGN PRACTICUM (ELR)
- AGD 22000 TWO-DIMENSION COMMUNICATION
- AGD 22001 MODELING FOR ARCHITECTURE
- AGD 22005 MULTIMEDIA AND GAME DESIGN
- AGD 22095 SPECIAL TOPICS IN ANIMATION AND GAME DESIGN
- AGD 33010 COMPETITIVE GAMING
- AGD 33095 SPECIAL TOPICS ANIMATION AND GAME DESIGN
- AGD 34000 CHARACTER ANIMATION
- AGD 34001 ANIMATION PROJECT
- AGD 34005 ENVIRONMENTAL GAME DESIGN
- AGD 43000 INTERACTIVE GAME DESIGN
- AGD 43001 ANIMATION PRODUCTION AND VISUAL EFFECTS
- AGD 43025 REAL-TIME RENDERING FOR ANIMATION
- AGD 43092 INTERNSHIP IN ANIMATION AND GAME DESIGN (ELR) (WIC)
- AGD 43096 INDIVIDUAL INVESTIGATION IN ANIMATION AND GAME DESIGN
- ARCH 10011 GLOBAL ARCHITECTURAL HISTORY I (KFA)
- ARCH 10012 GLOBAL ARCHITECTURAL HISTORY II (KFA)
- ART 10022 2D COMPOSITION
- ART 10023 3D COMPOSITION
- CCI 12001 PHOTOGRAPHY
- CS 13001 COMPUTER SCIENCE I: PROGRAMMING AND PROBLEM SOLVING
- CS 13011 COMPUTER SCIENCE IA: PROCEDURAL PROGRAMMING
- CS 13012 COMPUTER SCIENCE IB: OBJECT ORIENTED PROGRAMMING
- DI 10010 SURVEY OF DESIGN INNOVATION NODES
- DI 20020 BE SMARTER THAN YOUR SMARTPHONE
- DI 20100 INTRODUCTION TO DESIGN INNOVATION
- EERT 32003 TECHNICAL COMPUTING
- ENG 20002 INTRODUCTION TO TECHNICAL WRITING
- ENG 20021 INTRODUCTION TO CREATIVE WRITING
- ENGT 33010 COMPUTER HARDWARE FOR ANIMATION
ENTR 27056  INTRODUCTION TO ENTREPRENEURSHIP
FDM 10023  FASHION VISUALS
FDM 10024  FASHION VISUALS LABORATORY
FDM 10140  FOUNDATIONS OF FASHION DRAWING
FDM 20013  HISTORY OF COSTUME
MDJ 10009  ELEMENTS OF FILM, TV AND ANIMATION
MDJ 20001  MEDIA, POWER AND CULTURE (DIVD) (KSS)
MDJ 20011  PRODUCTION FUNDAMENTALS
FDM 10024  FASHION VISUALS LABORATORY
FDM 10140  FOUNDATIONS OF FASHION DRAWING
MERT 12000  ENGINEERING DRAWING
MERT 12001  COMPUTER-AIDED DESIGN
MERT 34002  ADVANCED SOLID MODELING
MUS 21113  ENGINEERING DRAWING
MUS 21114  COMPUTER-AIDED DESIGN
MUS 21221  AUDIO RECORDING I
THEA 11303  THE ART OF ACTING

Additional Requirements (courses do not count in major GPA)

ARTH 22006  ART HISTORY: ANCIENT TO MEDIEVAL ART (KFA) 3
ARTH 22007  ART HISTORY: RENAISSANCE TO MODERN ART (KFA) 3
VCD 13000  VISUAL DESIGN THINKING 3
ARTS 14000  DRAWING I 3
ARTS 14001  DRAWING II 3
COMM 15000  INTRODUCTION TO HUMAN COMMUNICATION (KADL) 3
MATH 11010  ALGEBRA FOR CALCULUS (KMCR) 3
MATH 11022  TRIGONOMETRY (KMCR) 3
UC 10097  DESTINATION KENT STATE: FIRST YEAR EXPERIENCE 1

Kent Core Composition 6
Kent Core Humanities and Fine Arts (minimum one course from each) 9
Kent Core Social Sciences (must be from two disciplines) 6
Kent Core Basic Sciences (must include one laboratory) 6-7
General Electives (total credit hours depends on earning 120 credit hours, including 39 upper-division credit hours) 5

Concentrations
Choose from the following: 18

Animation
Game Design

Minimum Total Credit Hours: 120

1 A minimum C grade must be earned to fulfill the writing-intensive requirement.
2 Students should meet with an advisor when selecting electives.

Animation Concentration Requirements

Code Title Credit Hours

Concentration Requirements (courses count in major GPA)
AGD 11003  SOLID MODELING 3
AGD 34000  CHARACTER ANIMATION 3
AGD 34001  ANIMATION PROJECT 3
AGD 43001  ANIMATION PRODUCTION AND VISUAL EFFECTS 3
AGD 43025  REAL-TIME RENDERING FOR ANIMATION 3

Animation Game Design (AGD) Elective 3

Minimum Total Credit Hours: 18

Game Design Concentration Requirements

Code Title Credit Hours

Concentration Requirements (courses count in major GPA)
AGD 22001  MODELING FOR ARCHITECTURE 3
AGD 22005  MULTIMEDIA AND GAME DESIGN 3
AGD 33010  COMPETITIVE GAMING 3
AGD 33030  GAMES FOR EDUCATION 3
AGD 34005  ENVIRONMENTAL GAME DESIGN 3
AGD 43000  INTERACTIVE GAME DESIGN 3

Minimum Total Credit Hours: 18

Graduation Requirements

Minimum Major GPA 2.000
Minimum Overall GPA 2.000

Roadmaps

Animation Concentration

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (I) must be completed in the semester listed to ensure a timely graduation.

Semester One Credits
AGD 12000  TWO DIMENSION GRAPHICS 3
ARTS 14000  DRAWING I 3
COMM 15000  INTRODUCTION TO HUMAN COMMUNICATION (KADL) 3
MATH 11010  ALGEBRA FOR CALCULUS (KMCR) 3
UC 10097  DESTINATION KENT STATE: FIRST YEAR EXPERIENCE 1
Kent Core Requirement 3
Kent Core Requirement 3
Credit Hours 16

Semester Two Credits
AGD 11003  SOLID MODELING 3
ARTH 22006  ART HISTORY: ANCIENT TO MEDIEVAL ART (KFA) 3
ARTH 22007  ART HISTORY: RENAISSANCE TO MODERN ART (KFA) 3
VCD 13000  VISUAL DESIGN THINKING 3
ARTS 14001  DRAWING II 3
MATH 11010  ALGEBRA FOR CALCULUS (KMCR) 3
Kent Core Requirement 3
Credit Hours 15

Semester Three Credits
AGD 12001  MODELING AND TEXTURING I 3
AGD 21000  FUNDAMENTALS OF MIXED REALITY 3
Major Electives 6
Kent Core Requirement 3
Credit Hours 15

Semester Four Credits
AGD 22004  MODELING AND TEXTURING II 3
AGD 22010  DIGITAL SCULPTING 3
AGD 23020  GAMING AND CULTURE 3
Major Elective 3
Kent Core Requirement 3
Credit Hours 15
### Semester Five

- **AGD 34000** CHARACTER ANIMATION 3
- **AGD 34003** ANIMATION THEORY 3
- Major Elective 3
- Kent Core Requirement 3
- General Elective 3

**Credit Hours**: 15

### Semester Six

- **AGD 34003** ANIMATION THEORY 3
- **AGD 33001** ANIMATION PROJECT 3
- **MATH 11022** TRIGONOMETRY (KMCR) 3
- Animation Game Design (AGD) Elective 3
- Major Electives 6

**Credit Hours**: 15

### Semester Seven

- **AGD 43001** MODELING AND TEXTURING I 3
- **AGD 43003** MODELING FOR ARCHITECTURE 3
- Major Elective 3
- Kent Core Requirement 3

**Credit Hours**: 15

### Semester Eight

- **AGD 43005** ENVIRONMENTAL GAME DESIGN 3
- **MATH 11022** TRIGONOMETRY (KMCR) 3
- Major Electives 6

**Credit Hours**: 15

### Game Design Concentration

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Kent Core Requirement 3
Kent Core Requirement 3

**Credit Hours**: 16

#### Semester Two

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Kent Core Requirement 3

**Credit Hours**: 15

#### Semester Three

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<td>MODELING FOR ARCHITECTURE</td>
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Kent Core Requirement 3

**Credit Hours**: 15

#### Semester Four

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<td>GAMES FOR EDUCATION</td>
<td>3</td>
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<tr>
<td>AGD 34003</td>
<td>ANIMATION THEORY</td>
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Kent Core Requirement 3
Kent Core Requirement 3
Kent Core Requirement 3

**Credit Hours**: 15

Minimum Total Credit Hours: 120