

ANIMATION GAME DESIGN - B.S.

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

About This Program

Ready to turn your passion for games and animation into a profession? Kent State University's Animation and Game Design bachelor's degree program is the perfect place to start. With a cutting-edge curriculum and access to state-of-the-art technology, you'll be equipped with the skills you need to make your mark in the industry. Read more...

Contact Information

- Program Coordinator: **Chris Totten** | ctotten@kent.edu | 330-308-7567
- Speak with an Advisor
 - Kent Campus
 - Stark Campus
 - Tuscarawas Campus
- Chat with an Admissions Counselor: Kent Campus | Regional Campuses

Program Delivery

- **Delivery:**
 - In person
- **Location:**
 - Kent Campus
 - Stark Campus
 - Tuscarawas Campus

Examples of Possible Careers and Salaries*

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

Accreditation

National Association of Schools of Art and Design (NASAD)

* Source of occupation titles and labor data comes 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.

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 campuses 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. For more information on admissions, contact the Regional Campuses admissions offices.

International Students: All international students must provide proof of English language proficiency unless they meet specific exceptions. For more information, visit the admissions website for international students.

Transfer Students: Students who have attended any other educational institution after graduating from high school must apply as undergraduate 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.

Admission policies for undergraduate students may be found in the University Catalog.

Some programs may require that students meet certain requirements before progressing through the program. For programs with progression requirements, the information is shown on the Coursework tab.

Program Requirements

Major Requirements

| Code | Title | Credit Hours |
|----------------------------------------------------------|------------------------------------------------------------------|--------------|
| Major Requirements (courses count in major GPA) | | |
| AGD 12000 | TWO DIMENSION GRAPHICS | 3 |
| AGD 12001 | MODELING AND TEXTURING I | 3 |
| AGD 21000 | FUNDAMENTALS OF MIXED REALITY | 3 |
| AGD 22004 | MODELING AND TEXTURING II | 3 |
| AGD 22010 | DIGITAL SCULPTING | 3 |
| AGD 23020 | GAMING AND CULTURE | 3 |
| AGD 34003 | ANIMATION THEORY | 3 |
| AGD 43092 | INTERNSHIP IN ANIMATION AND GAME DESIGN (ELR) (WIC) ¹ | 3 |
| or AGD 43096 | INDIVIDUAL INVESTIGATION IN ANIMATION AND GAME DESIGN | |
| AGD 49999 | SENIOR CAPSTONE PROJECT (ELR) (WIC) ¹ | 3 |
| or TAS 47999 | TECHNICAL AND APPLIED STUDIES CAPSTONE (ELR) (WIC) | |
| Major Electives, choose from the following: ² | | 24 |
| AGD 11003 | SOLID MODELING | |

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|--------------------------------------------------------------------|------------------------------------------------------------------|
| 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 23030 | GAME PROTOTYPING |
| 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) ¹ |
| 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 |
| MDJ 23004 | STORY FOR PICTURE |
| MERT 12000 | ENGINEERING DRAWING |
| MERT 12001 | COMPUTER-AIDED DESIGN |
| MERT 34002 | ADVANCED SOLID MODELING |
| MUS 21113 | MUSIC PRODUCTION I |
| MUS 21114 | MUSIC PRODUCTION II |
| MUS 21221 | AUDIO RECORDING I |
| THEA 11303 | THE ART OF ACTING |
| Additional Requirements (courses do not count in major GPA) | |

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|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------|
| ARTH 22006 | ART HISTORY: ANCIENT TO MEDIEVAL ART (KFA) | 3 |
| or ARTH 22007 | ART HISTORY: RENAISSANCE TO MODERN ART (KFA) | |
| or VCD 13000 | VISUAL DESIGN THINKING | |
| 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 10001 | FLASHES 101 | 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 credits hour, 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 | Minimum Overall GPA |
|-------------------|---------------------|
| 2.000 | 2.000 |

Roadmaps

Animation Concentration

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

| Semester One | | Credits |
|--------------------------------------|-------------------------------------------------|-----------|
| AGD 12000 | TWO DIMENSION GRAPHICS | 3 |
| COMM 15000 | INTRODUCTION TO HUMAN COMMUNICATION (KADL) | 3 |
| UC 10001 | FLASHES 101 | 1 |
| Kent Core Requirement | | 3 |
| 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 |
| or | or ART HISTORY: RENAISSANCE TO MODERN ART (KFA) | |
| ARTH 22007 | ART (KFA) | |
| or | or VISUAL DESIGN THINKING | |
| VCD 13000 | | |
| ARTS 14000 | DRAWING I | 3 |
| MATH 11010 | ALGEBRA FOR CALCULUS (KMCR) | 3 |
| Kent Core Requirement | | 3 |
| Credit Hours | | 15 |
| Semester Three | | Credits |
| ARTS 14001 | DRAWING II | 3 |
| AGD 12001 | MODELING AND TEXTURING I | 3 |
| AGD 21000 | FUNDAMENTALS OF MIXED REALITY | 3 |
| Major Electives | | 6 |
| 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 | | Credits |
| 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 | | Credits |
| AGD 34001 | ANIMATION PROJECT | 3 |
| MATH 11022 | TRIGONOMETRY (KMCR) | 3 |
| Animation Game Design (AGD) Elective | | 3 |
| Major Electives | | 6 |
| Credit Hours | | 15 |
| Semester Seven | | Credits |
| AGD 43001 | ANIMATION PRODUCTION AND VISUAL EFFECTS | 3 |
| AGD 43025 | REAL-TIME RENDERING FOR ANIMATION | 3 |
| Major Elective | | 3 |
| Kent Core Requirement | | 3 |

| Kent Core Requirement | | 3 |
|------------------------------------|----------------------------------------------------------|------------|
| Credit Hours | | 15 |
| Semester Eight | | Credits |
| AGD 43092 | INTERNSHIP IN ANIMATION AND GAME DESIGN (ELR) (WIC) | 3 |
| or | or INDIVIDUAL INVESTIGATION IN ANIMATION AND GAME DESIGN | |
| AGD 43096 | | |
| AGD 49999 | SENIOR CAPSTONE PROJECT (ELR) (WIC) | 3 |
| or | or TECHNICAL AND APPLIED STUDIES CAPSTONE (ELR) (WIC) | |
| TAS 47999 | | |
| Major Elective | | 3 |
| Kent Core Requirement | | 3 |
| General Elective | | 2 |
| Credit Hours | | 14 |
| Minimum Total Credit Hours: | | 120 |

Game Design Concentration

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

| Semester One | | Credits |
|-----------------------|-------------------------------------------------|-----------|
| AGD 12000 | TWO DIMENSION GRAPHICS | 3 |
| COMM 15000 | INTRODUCTION TO HUMAN COMMUNICATION (KADL) | 3 |
| UC 10001 | FLASHES 101 | 1 |
| Kent Core Requirement | | 3 |
| Kent Core Requirement | | 3 |
| Kent Core Requirement | | 3 |
| Credit Hours | | 16 |
| Semester Two | | Credits |
| ARTH 22006 | ART HISTORY: ANCIENT TO MEDIEVAL ART (KFA) | 3 |
| or | or ART HISTORY: RENAISSANCE TO MODERN ART (KFA) | |
| ARTH 22007 | ART (KFA) | |
| or | or VISUAL DESIGN THINKING | |
| VCD 13000 | | |
| ARTS 14000 | DRAWING I | 3 |
| MATH 11010 | ALGEBRA FOR CALCULUS (KMCR) | 3 |
| Major Elective | | 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 |
| AGD 22001 | MODELING FOR ARCHITECTURE | 3 |
| ARTS 14001 | DRAWING II | 3 |
| Major Elective | | 3 |
| Credit Hours | | 15 |
| Semester Four | | Credits |
| AGD 22004 | MODELING AND TEXTURING II | 3 |
| AGD 22005 | MULTIMEDIA AND GAME DESIGN | 3 |
| AGD 22010 | DIGITAL SCULPTING | 3 |
| AGD 23020 | GAMING AND CULTURE | 3 |
| Kent Core Requirement | | 3 |
| Credit Hours | | 15 |
| Semester Five | | Credits |
| AGD 33030 | GAMES FOR EDUCATION | 3 |
| AGD 34003 | ANIMATION THEORY | 3 |

| | |
|-----------------------------------------------------------------------|------------|
| Major Elective | 3 |
| Kent Core Requirement | 3 |
| General Elective | 3 |
| Credit Hours | 15 |
| Semester Six | |
| AGD 33010 COMPETITIVE GAMING | 3 |
| AGD 34005 ENVIRONMENTAL GAME DESIGN | 3 |
| MATH 11022 TRIGONOMETRY (KMCR) | 3 |
| Major Electives | 6 |
| Credit Hours | 15 |
| Semester Seven | |
| AGD 43000 INTERACTIVE GAME DESIGN | 3 |
| Major Electives | 6 |
| Kent Core Requirement | 3 |
| Kent Core Requirement | 3 |
| Credit Hours | 15 |
| Semester Eight | |
| AGD 43092 INTERNSHIP IN ANIMATION AND GAME DESIGN (ELR) (WIC) | 3 |
| or AGD 43096 or INDIVIDUAL INVESTIGATION IN ANIMATION AND GAME DESIGN | |
| AGD 49999 SENIOR CAPSTONE PROJECT (ELR) (WIC) | |
| or TAS 47999 or TECHNICAL AND APPLIED STUDIES CAPSTONE (ELR) (WIC) | |
| Major Elective | 3 |
| Kent Core Requirements | 6 |
| General Elective | 2 |
| Credit Hours | 14 |
| Minimum Total Credit Hours: | 120 |

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.

| | |
|--------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Flashes 101 (UC 10001) | 1 credit hour |
| Course is not required for students with 30+ 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 credit hours |
| Writing-Intensive Course (WIC) | 1 course |
| Students must earn a minimum C grade in the course. | |
| Upper-Division Requirement | 39 credit hours |
| Students must successfully complete 39 upper-division (numbered 30000 to 49999) credit hours to graduate. | |
| Total Credit Hour Requirement | 120 credit hours |

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 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.

Full 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.