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

- **Chris Totten** | ctotten@kent.edu
- 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.

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 proficiency of the English language (unless they meet specific exceptions) through the submission of an English language proficiency test score or by completing English language classes at Kent State's English as a Second Language Center before entering their program. For more information, visit the admissions website for international students.

Former Students: Former Kent State students who have not attended another institution since Kent State and were not academically dismissed will complete the re-enrollment process through the Financial, Billing and Enrollment Center. Former students who attended another college or university since leaving Kent State must apply for admissions as a transfer or post-undergraduate student.

Transfer Students: Students who attended an educational institution after graduating from high school or earning their GED must apply as transfer students. For more information, visit the admissions website for transfer students.

Admission policies for undergraduate students may be found in the University Catalog's Academic Policies.

Students may be required to meet certain criteria to progress in their program. Any progression requirements will be listed on the program's 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	
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 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	
AGD 43099	GAME PROJECT (ELR)	
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 20013	HISTORY OF FASHION	
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)		
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 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 IMPACT	3
AGD 34005	ENVIRONMENTAL GAME DESIGN	3
AGD 43099	GAME PROJECT (ELR)	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 program. Students will work with their advisor to develop a sequence based on their academic goals and history. 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		
AGD 11003	SOLID MODELING	3
ARTH 22006 or ARTH 22007 or VCD 13000	ART HISTORY: ANCIENT TO MEDIEVAL ART (KFA) or ART HISTORY: RENAISSANCE TO MODERN ART (KFA) or VISUAL DESIGN THINKING	3
ARTS 14000	DRAWING I	3
MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	3
Kent Core Requirement		3
	Credit Hours	**15**
Semester Three		
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		
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 34001	ANIMATION PROJECT	3
MATH 11022	TRIGONOMETRY (KMCR)	3
Animation Game Design (AGD) Elective		3
Major Electives		6
	Credit Hours	**15**
Semester Seven		
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		
AGD 43092 or AGD 43096	INTERNSHIP IN ANIMATION AND GAME DESIGN (ELR) (WIC) or INDIVIDUAL INVESTIGATION IN ANIMATION AND GAME DESIGN	3
AGD 49999 or TAS 47999	SENIOR CAPSTONE PROJECT (ELR) (WIC) or TECHNICAL AND APPLIED STUDIES CAPSTONE (ELR) (WIC)	3
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 program. Students will work with their advisor to develop a sequence based on their academic goals and history. 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		
ARTH 22006 or ARTH 22007 or VCD 13000	ART HISTORY: ANCIENT TO MEDIEVAL ART (KFA) or ART HISTORY: RENAISSANCE TO MODERN ART (KFA) or VISUAL DESIGN THINKING	3
ARTS 14000	DRAWING I	3
MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	3
Major Elective		3
Kent Core Requirement		3
	Credit Hours	**15**
Semester Three		
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		
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		
AGD 33030	GAMES FOR IMPACT	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 43099	GAME PROJECT (ELR)	3
Major Electives		6
Kent Core Requirement		3
Kent Core Requirement		3
	Credit Hours	**15**
Semester Eight		
AGD 43092 or AGD 43096	INTERNSHIP IN ANIMATION AND GAME DESIGN (ELR) (WIC) or INDIVIDUAL INVESTIGATION IN ANIMATION AND GAME DESIGN	3
AGD 49999 or TAS 47999	SENIOR CAPSTONE PROJECT (ELR) (WIC) 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.