

## **GREAT PLAINS TECHNOLOGY CENTER COURSE OF STUDY**

**Career Cluster:** Information Technology (IT)

**Career Pathway:** Web & Digital Communications

**State Program:** Animation Technology Advanced (IT0036006)

**Local Program:** 3D Animator (IT0030027)

**Program Hours:** Secondary Students: 960 Hours  
Adult Students: 960 Hours

**Instructor:** Name: Stephen Alexander  
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**Academic Credit:** Secondary Students: 3 high school credits per year - \*OK Promise credit  
Adult Students: Transcript

**Prerequisites:** None

### **Program Description:**

This program prepares students to utilize animation skills to develop products for the Web, mobile devices, computer games, entertainment training simulations, and live video. They learn to create an animated sequence that conveys a story through the application of traditional film making principles in a 3D computer graphics environment. Students gain skills required for Adobe Certified Associate, and/or Autodesk Certified User industry certifications.

### **Program Goals:**

Students enrolled in this program will be given the opportunity to develop the skills and attitudes needed to successfully enter the field of game design, 3D modeling, and 3D animation according to their personal choice, ability, and resourcefulness.

Upon achieving the goals of this program, students will:

- Become competent in the fundamental skills of the occupation.
- Become qualified for further related education and/or entry into the job market.
- Participate as responsible citizens.
- Develop positive and realistic self-images.
- Develop the ability to work with limited or no supervision.
- Accept and abide by the rules and regulations established by the school and/or place of employment.

### **Related Career Opportunities:**

- Game Animator
- 3D Modeler
- 3D Animator
- Multimedia Artists and Animator

**Program Objectives:**

After successful completion of this program, the student will be able to:

- Understand the terminology and concepts used in game design, 3D modeling, animation and character development.
- Demonstrate basic to intermediate game planning and design theory.
- Create and modify 3ds Max models, animations, and characters.
- Develop leadership skills through the Career Tech Student Organization (CTSO).

**Program Course Sequence:**

- HS Student and Part-time Adult (Year One): Course Sequence I
- HS Student and Part-time Adult (Year Two): Course Sequence II
- Full-time Adult (Year One): Course Sequence I and II

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**DESCRIPTION OF COURSES**

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<b><u>Course #</u></b>	<b><u>Course Name</u></b>	<b><u>HST</u></b>	<b><u>HSL</u></b>	<b><u>ADT</u></b>	<b><u>ADL</u></b>
<b>BT00182</b>	<b>Fundamentals of Technology (8169*)</b>	<b>40</b>	<b>80</b>	<b>40</b>	<b>80</b>
This course will provide students with the fundamental concepts, principles, and ideas needed to understand how business is operated and managed in a rapidly changing global environment, which is needed for success in careers in business related fields. This course also provides job readiness skills and soft skills that are critical for success in any workplace setting. (This course can be substituted with Business and Computer Tech).					
<b>BT00015</b>	<b>Principles of Animation (8220)</b>	<b>40</b>	<b>80</b>	<b>40</b>	<b>80</b>
Students will utilize animation and storyboarding techniques to plan the production of an animation project. Students learn to design production steps from script and storyboard actions in the preproduction planning process. (This course can be substituted for Advanced Design Techniques in the Graphic Design Specialist, Animator, 3D Animator, 3D Modeler, Motion Graphics Artist, Web Producer, and Webmaster programs).					
<b>BT00128</b>	<b>Multimedia &amp; Image Management Technique (8150*)</b>	<b>40</b>	<b>80</b>	<b>40</b>	<b>80</b>
Students will acquire fundamental skills in image creation and management procedures and techniques as they create, revise, optimize, and export graphics for video, print, and web publishing.					
<b>BT00061</b>	<b>Fundamentals of 3D Motion Graphics (8207)</b>	<b>40</b>	<b>80</b>	<b>40</b>	<b>80</b>
Students will become familiar with 3D motion graphics as they create, animate, revise, optimize and export 3D graphics and animations.					
<b>BT00110</b>	<b>State Program Capstone (8106)</b>	<b>40</b>	<b>80</b>	<b>40</b>	<b>80</b>
Internships, project-based instruction and teamwork will be utilized to integrate the use of interactive media products across the whole Web design or digital media project life. Students will make final preparations for industry certifications as they master outlined competencies. Students will select from various project options to finalize CD and/or web-based portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands.					
<b>BT00001</b>	<b>2D Animation Techniques (8206)</b>	<b>40</b>	<b>80</b>	<b>40</b>	<b>80</b>
Students will utilize digital animation software to create finished animations, cartoons, and other short movies that utilize animated text, character movements that include walk cycles, turnarounds, voice (lip syncing), background sound, sound effects, camera movements, and include multiple scenes.					

**BT00098 3D Animation (8208)****40 80 40 80**

Students will utilize advanced 3D animation tools and techniques to produce professional motion graphics.

**BT00031 Design Tools & Electronic Marketing Strat. (8154\*)****40 80 40 80**

Students will become proficient in the use of premier, leading edge tools designed to create graphically rich and intuitive websites, productions, and/or publications. The primary focus of this course includes color and design theories, accessibility, and marketing strategies resulting in a digital portfolio. (Layout Design Techniques can substitute for this course. Fundamentals of Web Design can substitute for this course in the Animator, 3D Animator, 3D Modeler, Motion Graphics Artist, and Video Game Designer programs).

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<b>Program Total:</b>	<b>Theory</b>	<b>Lab</b>	<b>Total</b>
High School Student:*	320	640	960
Adult Student:	320	640	960

\* High school students may complete this program in an adult enrollment status if necessary. Please see your instructor or counselor for details.

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**Evaluation Policy:****Employability Grades (100 points per week; 25% of final grade)**

The employability skills grade is based on 20 points per day (which may include: attitude, attendance, safety, punctuality, cooperation, participation, clean-up, class preparation, school/classroom rules, and time management). Points will be deducted if these responsibilities are not met at the instructor's discretion. Students will be allowed to make up unearned employability points for **excused** absences only. Full credit will be given for assignments/tests that have been made up due to excused absences only (see Student Handbook).

**Performance Grades (50% of final grade)**

- Live projects
- Performance or skill tests
- Homework
- Written Assignments

**Test Grades (25% of final grade)**

- Test grades will be based on a 100-point scale.
- Test grades include written and/or skills tests.
- A test will be given for each unit of instruction.
- Tests are to be taken as a unit is completed.
- Tests must be completed within allotted time.

**Final Grade**

Semester grade will be calculated by averaging grades in each category and summing each category according to their assigned weight. Progress reports will be sent to home schools at six and twelve-week intervals each semester as required or requested. Grades are accessible on-line at <http://sonisweb.greatplains.edu/studsect.cfm>

**Grading Scale:**

The grading scale as adopted by the Board of Education is as follows:

A	=	90 – 100
B	=	80 – 89
C	=	70 – 79
D	=	60 – 69
S	=	Satisfactory
F	=	Below 60
W	=	Withdrawn
I	=	Incomplete
N	=	No Grade (Refer to Student Handbook)

**Make-Up Work Policy:**

**All Make-Up Work Is the Responsibility Of The Student.** Make-up work will be handled as specified in the Student Handbook. Please be sure to read and understand all student policies, especially make-up of assignments, tests and employability due to absences. Students should always arrange for any make-up work with the instructor as per the Student Handbook. Students should keep track of his or her progress and grades.

**Attendance Policy:**

For specific information related to attendance and tardiness refer to the Student Handbook. Students should keep a written record of their absences and tardiness.

**Course Requirements and Expectations:**

The general course requirements and expectations include:

- Student should show a willingness to receive instruction in both technical and employability training.
- Student should be willing to learn through diverse medium, such as but not limited to, instructor lead lecture and demonstration, video training, individual projects, group based projects, LAP (learning activity packet) based instruction and step-by-step tutorials.
- Career Tech Student Organizations (CTSOs) offer outstanding opportunities for development of leadership and social skills. CTSO membership is part of the curriculum. Therefore, all students are members of their CTSO and are expected to participate in CTSO activities.
- Student and equipment safety will be the number one priority.
- Monitors and power supplies will not be opened.
- Food or drinks will not be allowed in the classroom.
- Students needing assistance will request help from the instructor, not another student. When appropriate, the instructor may allow one student to help another.
- Any student who is approached by Great Plains Technology Center faculty, or staff, or other student with a computer problem or repair request will refer the person to the instructor.
- Each student will keep a daily log of projects completed and materials used.

**Student Behavior Includes:**

- Wear the student's name badge at all times
- Follow the proper procedure if you are to be absent, tardy or have a school activity
- Abide by the rules in the student handbook, as well as those established inside the classroom
- Be Prompt. Enter the classroom quickly and quietly ready to start the lesson for each day. Students who provide their own transportation must arrive at the start of class
- Be Prepared. Ensure that you have all materials needed for each day
- Be Respectful. Disrespect for others and authority will not be tolerated.
- Be Responsible. Take responsibility for all your actions academically as well as socially

- Perform proper shutdown procedures at the end of each class (turn off power to all workstation equipment or as directed, clean individual work area, return books/supplies, etc.)
- Complete homework assignments that may be given

**NOTE: For additional information or questions regarding the GPTC School policies and procedures, please refer to the Student Handbook and/or the instructor.**

### **Industry Alignments:**

- Autodesk Certified User
- Adobe Certified Associate

### **Certification Outcomes:**

**Tier 2** – Certifications Endorsed by Industry Organizations

- ODCTE: 3D Animator (0606)

**Tier 7** – Industry Aligned Portfolios

- Industry panel approved
  - 3D Animator
  - 3D Modeler

### **CIP Code and SOC Code Crosswalk:**

- CIP Code – 10.0304
- SOC Code – 27-1014.00

### **OCAS program codes:**

- 9526 – Animation Technology (first year)
- 9527 – Animation Technology (second year)

### **OCAS course codes:**

- 8150 – Multimedia & Image Management Techniques
- 8169 – Fundamentals of Technology
- 8154 – Design Tools & Electronic Marketing Strategies

### **Instructional Materials and Supplies:**

*Students are not required to purchase textbooks or supplemental materials.*

### **eLearning Curricula:**

### **Textbooks:**

Williams, Richard. The Animator's Survival Kit: A Manual of Methods, Principles and Formulas for Classical, Computer, Games, Stop Motion and Internet Animators. 4<sup>th</sup> ed. 978-086547-8978. New York: Farber & Farber, 2012.

### **\* Notes:**

*It is strongly recommended that all students own or have evening access to a computer that can connect to the Internet for web browsing and e-mail retrieval.*