

Intermediate 3D Animation

Syllabus 2014\_2015

Bethel High School

**Course Description**

Through a project-focused course, students will build on prior experiences and knowledge to explore and utilize advanced tools and techniques in Maya for 3D graphics and animation. This course will also introduce students to animation principles and how these principles are applied to create animations that are believable and entertaining. As students become familiar with Maya, more advanced tools and techniques will be introduced and the projects will become more challenging. Students will begin to experiment with Maya’s rigging system to bring inanimate objects to live. Students will utilize video-editing software to composite graphics and rendered animations into a digital portfolio/demo reel.

**Basic Information**

Instructor: Ai Choo Ashe – Room 405

E-mail: [aashe@hampton.k12.va.us](mailto:aashe@hampton.k12.va.us)

Phone: 757-825-4749

Course Website: <bruinsdigitalstudio.weebly.com>

**Course Objectives**

By the end of this course, students will be able to

• Recognize the role of 3D graphics in a global marketplace and develop career awareness related to working in the 3D graphics industry.

• Create and apply textures and proper lighting techniques in a virtual environment.

• Utilize a variety of creative strategies and design solutions to communicate ideas.

• Understand and apply basic animation principles in digital graphics.

* Create a digital portfolio/demo reel

**Supplies needed Every Day**

* Binder for notes, handouts, etc. There is no textbook for this course. Therefore information and handouts will need to be kept in an organized folder. This folder will be kept in class.
* Pen and pencil
* Flash Drive – preferably 32 Gigabytes
* Headsets for listening to instructor or professional created videos
* Sketchbook (provided by HCS: $5.00 to replace if lost)

**Course Outline**

*The pacing of the course and types of assignments are subject to change per instructor’s discretion.*

**UNIT 1: Course Introduction (First Nine Weeks)**

* Brief overview and discussion of course goals
* Review class rules and teacher/student expectations
* Review computer lab policies, class policies, and class materials
* Review work submission policies; resources, tutorials, extra help, etc.
* Setup Schoology account for access to class materials
* Setup Weebly/Wix account for digital portfolio and blog
* Review of Maya’s basic modeling tool set.
* Review of Maya’s basic animation tool set.

*Projects: 2 modeling assignments; 2 animation assignments: Rube Goldberg machine*

**UNIT 2: Hard Surface & Organic Modeling (Second Nine Weeks)**

* Understand the difference between Hard Surface and Organic Modeling
* Character Design
* Animation Pipeline
* Maya’s advanced material shading system

*Projects: Robots, machines, characters, etc.*

**Semester One Exam (20%)**

**UNIT 3: Animation Principles & Walk Cycle (Third Nine Weeks)**

* Review and apply Animation Principals
* Animating a simple bouncing ball
* Maya’s rigging system
* Animating a walk cycle
* Maya’s advanced lighting system (Physical Sun/Sky, Image-based lighting, Skydome)
* Introduction to Maya’s dynamics and particle systems.

*Projects: 2-3 projects (To be Announced)*

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**UNIT 4: Putting it all together (Fourth Nine Weeks)**

* Storyboarding & Animatics
* Portfolio development: Final Project
* Export to Video & post-compositing with iMovie/After Effects

# Final Exam (20%)

**Assessment of Student Learning**

Student achievement in this course will be measured using multiple assessment tools including but not limited to: (a grading scale and rubric is included)

* Classwork, Tutorials and Participation
* Projects
* Reviews/Quizzes

### How will my Grade be Calculated?

|  |  |  |
| --- | --- | --- |
| **CATEGORIES** |  |  |
|  | POINTS | % OF GRADE |
| Classwork | 100 | 10 |
|  |  |  |
| Tutorials | 100 | 15 |
|  |  |  |
| Reviews/Quiz | 100 | 20 |
|  |  |  |
| **Projects** | **100** | **55** |
|  |  |  |
| **Total** |  | **100** |

|  |  |  |
| --- | --- | --- |
| **Hampton City Schools Grading Scale** | | |
| **Total Points** | **Letter Grade** | **Percentage** |
| 93–100 | A | 93-100% |
| 90–92 | A– | 90–92% |
| 87–89 | B+ | 87–89% |
| 83–86 | B | 83–86% |
| 80–82 | B– | 80–82% |
| 77–79 | C+ | 77–79% |
| 73–76 | C | 73–76% |
| 70–72 | C– | 70–72% |
| 64–69 | D | 64–69% |
| Below 64 | F | Below 64 |

**How will Assignments be Graded?**

**Instructor’s Grading Criteria/Timetable:**

All course projects will be graded within one week of their due date. Late projects will be graded no later than one week following the date the student submits the project. Students submitting late projects may be subjected to a grade reduction. Assignments that are more than a week late may be subjected to an overall grade reduction.

You will have between 4 – 6 creative projects per year. Projects will be graded on the aesthetic quality, technical skills, creativity, and professionalism. Each project is broken down into components and each component is weighted separately. Some components are not accepted until the previous components have been turned in (for example, storyboards before animation). Below is a description of grading criteria. If you would like to see a sample rubric, please visit the class website.

* **Time In**: Is the project turned in by the due date? Late assignments will be subjected to a grade reduction.
* **Planning**: Is pre-planning (use of script/storyboard) evident in the student’s work? Did the students make use of journals to document learning?
* **Creativity**: How original is the student’s work?
* **Following Directions**: Did the student meet all assignment requirements as given?
* **Model**: Are the objects named and modeled correctly, efficiently, and cleanly?Are the models correctly placed, rotated, scaled proportionately? Are there enough details?
* **Surfacing**: Are materials and textures used and applied appropriately?
* **Scene Organization**: Does the layout of all elements look good? Are all object-relationships established correctly? Are scene files and objects named properly?
* **Camera**: Are the shots well composed? Is the scene aesthetically pleasing?
* **Lighting**: Is the Illumination of scene acceptable and aesthetically pleasing? Are shadows used appropriately? Does the lighting convey the appropriate mood?
* **Animation**: Is the animation of each object correct? Is the animation timing and spacing appropriate? Are keyframes properly set? Are movements and length of animation appropriate for the scene?
* **Rendering**: What is the overall aesthetic level of final rendering? Are additional included materials well done? Are additional materials distracting or helpful? At what level did final work accomplish the assignment goal?
* **Professionalism**: Did the students stay on task and worked from bell to bell, and performed to the best of their abilities? Professional conduct means good behavior and it is worth 10% of your grade! See ‘Behavior’ section below.

### Approximate Time Schedule and Sequence of Events

Class work is divided into several areas: Tutorials/Demonstrations, Assignments, Class Review/Quiz, and Presentations. The first part of each class will consist of a daily journal activity, brief review, or instructor demonstrations. The remaining time of each class will be hands-on time using the computers. Tutorials are meant to teach students an overall understanding of working in 3D space and technical skills related to the software. Assignments require students to employ specific software technical skills learnt via the tutorials. Presentations include oral or written explanations of completed work, as well as group presentations of assigned group work. Reviews are short quizzes to access student’s understanding of specific 3D tools. Students are expected to plan each project through a written description of their overall theme and a complete storyboard.

**How do I Make Up Incomplete or Missing Work?**

You are expected to keep up with tutorials and assignments in class. Keep track of course assignments and due dates as they are worth 55% of your overall grade. Late or incomplete work can be turned in after the due dates during the same semester for a reduced score. If the work is late due to an excused absence, you will have one extra school day per day of excused absence to complete it without a reduction in grade.

If your work is only partly complete by the due date, my advice is to turn in what you have so far. Then complete the remainder of the assignment. Please let me know as soon as you have submitted a late assignment. Otherwise the instructor will not know to look for it.

**Extenuating Circumstances**: If you have extenuating circumstances that prevent you from completing your work, or participating in the class, please contact the instructor to make alternative arrangements. The possibility of alternative arrangements is at the discretion of the instructor. Active communication is the key to overcoming any obstacles you may encounter during the term. If you are unable to contact your instructor, contact the school administrative staff.

**Class Rules and what do they mean day to day?**

1. **Don’t prevent the instructor from teaching.**

* Don’t speak while I am instructing the class
* Raise your hand if you wish to speak, and wait for me to call on you
* Don’t interrupt when I am giving personal attention to another student

1. **Don’t prevent others from learning.**

* Stay in your assigned seat until you are given permission to move about the room
* Don’t behave in a disruptive or distracting manner
* Don’t engage in lengthy off-topic conversations
* Keep the volume of your voice down (use inside voices)
* No disruptive noises that may prevent others from learning (singing/rapping out load)

1. **Be safe.**

* Don’t throw, toss, flick, or roll anything across the table, floor, or classroom
* Use all classroom materials in a safe manner
* Don’t behave in any way that threatens harm to anyone or our equipment

1. **Keep things clean.**

* Clean up after yourself so your station is ready for the next student
* Return all classroom materials to the proper storage place
* Don’t eat or drink at or near the computer tables
* No gum chewing
* Keep your language clean

**Consequences**

If you have forgotten one of the computer lab/class rules, the instructor will give you a gentle verbal reminder. Willful, severe or repetitive poor behavior is considered insubordination and will result in one or more of the following consequences:

* Student conference
* Parent contact
* Seat change
* Loss of privileges and/or use of materials
* Administrative detention
* Office referral

Keeping our classroom welcoming, and a safe place to learn cool skills depends on everyone. Please exercise your best judgment and exhibit good behavior. You will be treated like a responsible adult and I expect the same treatment and respect back from you.

**“Free Time” on the Computer**

Students may earn free time on the computers by maintaining a good grade and getting work done. You will be allowed free time on the computer only if you meet the following criteria:

* You have obtained permission from the instructor
* You have completed that day’s task
* You have an A in the class – OR – you have completed all assignments so far in the semester.

**Other Policies or Procedures**

**WORK SUBMISSION POLICY**

Naming Conventions: In order to facilitate the tracking of assignments please use the following naming convention when submitting files on the server:

* Drop box Folder: lastname\_first initial\_mm\_dd

All assignments (tutorials, reviews, bell-ringers, objects, and movies) must be submitted inside this folder. Please remember to include only ungraded assignments in this folder and use the current date of submission.

**USE OF PERSONAL ELECTRONICS**

* Cell phone use (texting included) is not allowed in this classroom or any other classroom at Bethe High School. Failure to comply will result in confiscation of your phone.
* MP3 players may not be used in the classroom.

**SEATING**

Seating is assigned by the 10th day of school. Please do not move to another workstation without the instructor’s permission.

**CLASS DISMISSAL**

The instructor will dismiss you from the class, not the bell. Make sure you have cleaned up your area and return any supplies to the appropriate storage containers before you leave.

**TARDINESS**

You are tardy if you are not seating in your assigned seat when the tardy bell rings. Excessive tardiness is subjected to the school’s tardy and loitering policy. Tardiness may be excused if you receive a written pass from another teacher or administrator that has your name, and the date and time written in ink. The instructor will send an email to verify the excuse. Forging a hall pass is lying and will result in appropriate consequences.

**HALL PASSES**

Your student planner must be used in order to have my permission to leave the classroom during class for the restroom, health office, or other reason. Your planner must have your name on it, and you may not borrow another student’s planner. **Don’t ask for permission for a hall pass**

* Until the class attendance is taken
* Until after instruction
* Until after 10 minutes when class begins
* 10 minutes before dismissal

About 5 minutes should be sufficient for a restroom trip. If you abuse your restroom privilege, you will lose it for a period of time.

**FOOD AND DRINKS**

*Okay:*

* Beverages in screw-cap containers (placed on surfaces away from the computer)

*Not Okay:*

* Beverages in cups, cans or cartons without a screw cap.
* All foods – especially Cheetos! Gum chewing is not allowed in the classroom
* Drinks consumed over the keyboard or other part of the computer.
* Trash on floors or desks – clean it up!

**What Can I Expect from Mrs. Ashe?**

* Provide a variety of fun challenging projects to encourage higher-level thinking and creative solutions in the production of digital art.
* Differentiated instruction, tutorials, and demonstrations
* Access to resources from home to hone in software skills.
* A clear grading policy and scheduled formal or informal progress reports
* Timely feedback to ensure growth
* Professionalism

**Student Expectations**

* Maintain regular attendance & be on time
* Follow class rules
* Keep cell phones off & away during class. If you use your phone inside my classroom, you will risk detention or confiscation of your phone
* Plan, organize & complete projects & assigned tasks on time, meeting standards of quality
* Use creative solutions and higher-level thinking skills when solving problems encountered when creating personal art
* Take responsibility for workspace, materials & missed classes
* Maintain appropriate interactions with staff & other students
* Have a **POSITIVE ATTITUTE** and have **FUN, WORK HARD,** and **LEARN**! The amount of learning and skill mastered during the year will be directly reflected in the amount of effort the student invests. Time wasted cannot be replaced. Attitude and time management are keys to success.

**Parent Expectations**

Please review this syllabus and class/lab policies with your child. Parents are always welcome to contact me in regards to their child’s progress in this class or if you have any questions or concerns. You can reach me at **825-4749**, or email me at [aashe@hampton.k12.va.us](mailto:aashe@hampton.k12.va.us). Please encourage and support your student in his or her creative abilities.

**Please sign and print name(s) below, and return this page to the instructor.**

Please read this syllabus and be sure you understand it and can agree to abide by the expectations of this class. Keep the syllabus but return this form to Mrs. Ashe as soon as possible.

We have read through the introduction, course description, teacher expectations, student expectations, and parent expectations and assessment policies. We understand what is expected and we are in agreement with it and can abide by the expectations of this class.

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student’s Name (**please print**): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student’s Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent’s Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Preferred Method of Contact*

*(check all that applies)*

*⬜ At Work ⬜ At Home/Cell*

*⬜ Email*

Parent Contact: Home/cell Phone:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Work Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PLEASE NOTE:**

Parents and students are responsible to check grades and attendance at the website below. Grades are updated bi-weekly.

**https://ps.hampton.k12.va.us/public/**

**Computer Lab Agreement**

1. Students will **NOT** damage the computer hardware or software in any manner.
2. Students will **NOT** alter the computer hardware or software in any manner without the expressed permission of the instructor. This includes tampering with fonts, or desktop patterns, moving icons, and any other activity that may slow or prevent other lab users from completing their assignments.
3. Food, drink, gum, or candy are **FORBIDDEN** anywhere near the computers.
4. Students are to use only their assigned computer unless otherwise directed by the instructor.
5. **NO GAMES or personal email** are to be accessed on the computers. The Internet is to be used solely for **educational** purposes directly relating to class. **Students are NOT ALLOWED to go on the Internet unless directed by the instructor!** THIS IS A HAMPTON CITY SCHOOLS directive. Internet access is filtered through the district network and students are not allowed to download games, music, or attempt to view inappropriate materials, or use proxy servers to access blocked sites. Students attempting to do the above will be banned from the computers and will be subject to consequences as listed in the Hampton City Schools handbook.
6. **NO MP3 players or cellular phones** are to be used in the Computer Lab. If phones or mp3 players are visual or audible during class, they will be confiscated and sent to the Dean’s office.
7. Student **WILL** practice good housekeeping and citizenship by keeping computer work areas clean and free of trash, paper, disks and other items when they leave the class. This requires all lab users to participate in a cleanup at the conclusion of every class period. Students will also report hardware and software alterations and damage immediately to the instructor. Treat computer equipment well and it will work for the entire year. Treat it poorly and we will have a computer shortage when your work is due.
8. Students **MUST** close out all programs and **LOG OUT** at the end of the period.

**Consequences**

Refusal to comply with lab rules and computer policy will result in the student losing the access to all computers in the lab for that day. Students who willfully or repeatedly disregard this computer policy will be subjected to disciplinary actions found in the Hampton City School’s Student Rights and Responsibilities Handbook.

By reading and signing this agreement, both the student and parents agree to abide by the stated rules. **Students who violate computer procedures can be restricted from computer use and may be removed from the class and will also be subjected to disciplinary action per the Hampton City Schools Student Handbook.**

**Please sign, date, and return this entire agreement to Mrs. Ashe as soon as possible. Students WILL NOT have access to the computers in the lab unless this form is completed and returned to Mrs. Ashe.**

I understand that to insure both my computer lab privileges and the continued efficiency of the available hardware and software, I must abide by the rules stated here.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Student Signature Parent Signature

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student’s Printed Name Date