

Pompano Beach High School
Scientific Visualization 2 (Data Modeling)
Course Syllabus 2016 - 2017

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Course Description:

This course is concerned with the visualization and creation of 3-D computer generated models and their applications in today's manufacturing, communication, and publishing industries.

Students will be instructed in the principles of 3-D modeling using Rhinoceros NURBS modeling software. In a laboratory setting, students will have an opportunity to practice the strategies and methods commonly used in creating and solving 2-D and 3-D geometric problems. Information given in lectures and demonstrations will address aspects of modeling free-form curves, surfaces, and solids. Students will be introduced to a variety of 3-D model applications as they are used in illustration, engineering, design, documentation drawing, entertainment, and animation.

In addition to developing a working knowledge of 3-D terminology and concepts, each student will learn how to create a variety of 3-D geometric models from technical drawings, sketches, real models, and written descriptions.

We will also be learning Dreamweaver and will be taking the certification for the first half of the year.

Prerequisite: Successful completion of Sci-Viz 1.

Course Objectives

- Provide a working foundation in sketching, interpreting, and creating computer-generated models
- Provide students with the ability to describe the organization, terminology, function, capabilities, and limitations of 3-D computer graphic software in regards to modeling
- Use Rhino 3-D modeling software to create surface and solid models
- Develop sketches of models and practice viewpoint identification and selection
- Place lights and render scenes
- Create 2-Dimensioned drawings of 3-D models
- Pass Photoshop Certification

Evaluation

- Design assignments 60%
 - Completing assigned activities on time is essential to learning computer software. Students must be encouraged to keep up with the daily computer work so future projects can be completed.
 - Students who fall behind in assignments in the first few weeks of class find it difficult to produce more complicated designs near the end of the year.
- Writing assignments 15%
 - Writing assignments will be due after every project is completed.
 - The assignments will discuss what you did, what commands you used, and other stuff.
 - TTO (Tornado Time-Out), TDQ (Text Dependent Question), CRT (Critical Reading Time) or whatever it is call this year.
- Worksheets from the book 15%
 - The items from the book that we create.
- Participation 10%

Academic dishonesty (cheating of any kind) will result in a grade of 0%.

Attendance:

1. Coming to class on time everyday is required.
2. If you must be absent from any class, make sure it is excused immediately.
3. You are responsible for all material presented in class. Tests, quizzes, notes, and homework often include questions on material presented only in class, so performance on these indirectly reflects attendance.
4. All work must be handed in on time for full credit.
5. You have only 2 days per absence to turn in your assignment.

Classroom Behavior:

1. Be seated and ready to work at the sound of the tardy bell.
2. Begin and complete your daily assignment on time.
3. Stay in assigned seat and keep working on your assigned task.
4. Non-class related activities, such as Games, Internet, etc, are not allowed!
5. Disruptions, lack of respect, unwanted chatter, pranks, insubordination, etc WILL NOT BE TOLERATED.
6. Get a good night rest, because sleeping will not be tolerated
7. No student will be allowed to change any computer configurations on their computer workstations
8. Treat others the way you would like to be treated

Class Rules:

1. No CD's or phones are allowed to be used in the computers.
2. No food, drinks, and chewing gum are allowed in the classroom, unless by the door.
3. School Phone policy is strictly enforced.
4. Complete all the assignments on time to earn all the points.
5. Playing games, browsing on non-lecture related web sites, standing by the door before the end of the block bell will not be permitted
6. No sleeping
7. Every student stands for the pledge of allegiance
8. Learn and have fun!

Textbook: Rhino Level 1v4.pdf & Level 2v4.pdf (this will be on the computer so it can be referenced at any time)

Supplies:

- Writing utensil
- A notebook of some type.
- Jump drive (aka flash drive, aka USB drive)
- Head phones for watching videos for Dreamweaver.

Student: If you have any problems or questions, please feel free to make an appointment with me, or email me. Assistance can be arranged with me for after school.
I CANNOT HELP IF YOU DO NOT ASK!

Detentions will be given for any disciplinary infraction. The student will have one week to serve the detection. Failure to serve the detection will cause referral to administration.

Parent/Guardian: Please check with your child frequently to see how he or she is doing in class. It is important that you are aware of his or her progress. If you have any question, please email me, and I will do my best to respond to you in a timely manner. I will post grades as quickly as I can on Pinnacle.

Thank you,

Mr. Holley

If you understand and your parent both accept the rules and expectations of the class, please type your **name**, your **parents name**, the **date**, and **your parents phone number** into the Edmodo assignment. If all 4 are not there you get a zero.

Please return this portion by August 30th or August 31st, 2016

School Facebook: <https://www.facebook.com/pages/Pompano-Beach-High-School/112289312117396>

School Twitter Account: <https://twitter.com/mypbhs>

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Time Line:

September – Dreamweaver basics

October – Dreamweaver instructional videos & test attempt 1

November – Dreamweaver making your own website & test attempt 2

December – Dreamweaver finishing your own website & test attempt 3

January – Rhino Refresh

February – Contest with 3D modeling

March – Make ... Something (will be shared when the times come)

April – Finish strong and make something amazing for yourself before you go

May– Finish strong and make something amazing for yourself before you go