

3D Modeling and Analysis

Syllabus, Spring 2016

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Ms. Valerie Bolen

Wheeler High School, Rm. LL3

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3D Modeling and Analysis

COURSE DESCRIPTION:

Three-Dimensional (3D) Modeling and Analysis is a one-credit course that completes the pathway in Engineering Drafting and Design. Reverse engineering strategies are recommended for third level working drawings. Computer-aided design (CAD) is recommended for use extensively with each standard in the course. Focus is on working drawings, and assembly drawings. The final culmination is a presentation project that contains information mastered throughout the three courses that will be presented at STEAM Symposium. Students will have the opportunity to use digital fabrication tools such as a 3-D printer, laser engraver/cutter and CNC mill. The prerequisite for this course is Survey of Engineering Drafting & Design. Students will prepare for the End of Pathway Assessment: Autodesk User Certification in Inventor 2017.

MATERIALS AND EQUIPMENT:

You will need a USB drive and a sketchbook for notes/ideas (any size of your choice). Items are available at office supply or art stores. All other equipment will be provided to you in class. You will be responsible for maintaining an ongoing portfolio of your work that will be submitted throughout the semester digitally. Some projects may require purchase of additional materials such as acrylic, wood, or other model making materials. You may download free Autodesk Inventor software for student use at home from Autodesk at <http://www.autodesk.com/education/free-software/all>.

GRADING:

10%	Class Participation
10%	Portfolio
20%	Tests/Quizzes
40%	*Multiple Class Exercises, Project Drawings and Physical/Digital Models
20%	*Comprehensive Final Project - STEAM Symposium

**Major Assignments will be received late, but there will be up to 20% penalty for each day late.*

Per Wheeler policy, grades will be entered weekly and graded work returned within 5 days with the exception of the final project and exam.

EXPECTATIONS:

1. Be respectful: Of yourself, others, our classroom environment, your work station, materials/equipment, our school, and our community. Keep your workstation neat and put supplies away at the end of class. Use classroom tools properly and for their intended use.
2. Be on time: Have a pass if you are late. Be prepared and complete assignments on time.
3. Be courteous: Be polite and helpful and willing to work with others.
4. Be actively engaged: Be attentive and participate in class activities, discussions, and presentations. Utilize class time and work diligently on projects and assignments. Lab computers and printers are for class related research and projects only. Videos, gaming or other non-class related activities including printing projects/papers for other classes are not permitted. Please have cell phones and other devices, food and drinks put away unless otherwise noted.
5. Class participation grades will be based on following class expectations and exhibiting workplace readiness and employability skills. A daily grade will be given. Students off task or using their cell phone continuously will receive a "0" for that day. Class participation is 10% of your overall grade.
6. Class assignments will be posted to the google classroom. Valerie.bolen@wheelerhigh.com access code: xqz360n

COMMUNICATION:

Please feel free to contact me if you have any questions or concerns by email: Valerie.bolen@cobbk12.org

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PLEASE SIGN AND RETURN THIS PART OF THE COURSE SYLLABUS. RETAIN THE SYLLABUS FOR YOUR REFERENCE. IF YOU HAVE ANY QUESTIONS, YOU MAY NOTE THEM BELOW OR CONTACT ME SEPARATELY.

Student's printed name

Class period

Student's e-mail

I have read and understand the terms of the 3D Modeling and Analysis.

Student Signature

Date

Parent/Guardian Signature

Date

Parent/Guardian Printed Name(s)

Parent Phone Number

Phone Number

Parent Work/Daytime

Parent Email Address (please print clearly)