

Introduction to Drafting & Design

Syllabus

wheelerdrafting.weebly.com

Ms. Valerie Bolen

Wheeler High School, Rm. LL3

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Introduction to Drafting and Design

COURSE DESCRIPTION:

Introduction to Drafting and Design is the introductory course for both the Architectural and Engineering Drafting and Design pathways. Emphasis is placed on safety, use of tools, sketching, lettering, geometric construction, fundamentals of Computer Aided Design (CAD) and multi-view drawing. Students learn hand drafting techniques and are then introduced to computer-aided drafting and design through use of Autodesk 2017 AutoCAD, Revit and Inventor software. Students will have the opportunity to learn basic digital fabrication through the use of the laser cutter/engraver and FDM 3-D printer as well. Students are expected to be engaged and work diligently in class as projects often can best be completed using lab computers and equipment.

MATERIALS AND EQUIPMENT:

Students must bring in the following:

- Pencils (HB/#2 and 4H)
- pink or white erasers
- USB drive
- 1 inch thick 3-ring view binder with customizable clear cover
- 5 tab divider pages

A class set of drafting equipment as well as a lab computer with software will be provided.

Free AutoDesk Software is available to download: www.autodesk.com/education/free-software/all.

GRADING:

10% Class Participation – daily grade based on following class expectations

10% Quizzes/CTLS

10% Drawing Exercises/Practice

50% *Tests, Multiple Class Projects, Drawings and Physical/Digital Models/Notebook

20% *Final Project and Final Exam Presentation

**Assignments will be received late, but there will be a reduction in points for each day late.*

EXPECTATIONS:

1. Be respectful, courteous and polite.
2. Keep your workstation neat and put supplies away at the end of class.
3. Use classroom tools properly and for their intended use.
4. Be on time.
5. Be actively engaged. Use class time to complete work.
6. Take notes and keep class assignments in your notebook
7. Class assignments will be posted on the google classroom and class blog.
8. Turn in your work - Hand drafted drawings will be submitted in class. CAD/PDF file drawings will be submitted to the google classroom.
9. 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 repeatedly on their cell phone will receive a "0" for that day. You may bring headphones to plug into the desktop for music while you work – not your cell phone.
10. Tutoring available after school on Thursdays 3:30-5:30 and by appointment after school.

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COMMUNICATION:

Please feel free to contact me if you have any questions or concerns. I can best be reached by email:

E-mail: valerie.bolen@cobbk12.org or by phone (770) 578-3266 ext. 103.

Blog: <https://wheelerdrafting.weebly.com/>

Assignments: <https://classroom.google.com/>

Username: student first.lastname@wheelerhigh.com

Password: lunch id + whs

Class assignments will be posted on the google classroom and class blog. Students will submit completed assignments digitally to the google classroom throughout the semester. Hand drafted drawings will be submitted to the designated block shelf.

Course Standards we will be covering:

1. Employability Skills
2. Architectural and Engineering Professions
3. Proper use of tools and equipment safely in the drafting lab
4. Correct use and management of drafting tools and supplies
5. Technical Freehand Sketches
6. Lettering Techniques
7. Proper Line Types
8. Read and draw using the proper scale
9. Knowledge and skills of computer operations
10. Single view drawings with dimensions
11. Multi-view drawings with dimensions manually and using Computer-Aided Design (CAD)

Students will use hand drafting and computer-aided drafting and design (CADD) throughout the semester on a variety of projects including:

Hand drafting:

- Freehand sketching, geometric construction, pictorials
- Multi-view and single-view drawings of various objects

Autodesk AutoCAD:

- Multi-view and single-view drawings
- Lasercut Keychain design and 3D paper object model
- Lasercut Shadow Box project

Autodesk Inventor:

- 3D digital modeling of mechanical objects and Multi-view Drawing
- Cell phone 3D Digital Model
- Advanced: cell phone case design 3d printed optional

Autodesk Revit/Homestyler:

- Classroom drawing
- Simple house design
- Laser cut house model and presentation board

Final Project: Your choice of Product Design or Architecture related project.

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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 Name: _____

Class Period: _____

Student Email Address: _____

I have read and understand the terms of the Syllabus.

Student Signature: _____ Date: _____

Parent/Guardian Signature: _____ Date: _____

Parent/Guardian Printed Name(s): _____

Parent/Guardian Cell Number: _____

Parent/Guardian Work/Daytime Number: _____

Parent/Guardian Email Address (Please print clearly): _____

Please feel free to leave any comments, concerns or information you would like to share with me below: