

Engineering Drawing Syllabus: TE8436

Kempsville High School
Entrepreneurship & Business Academy
Technology Department
<https://kempsvillehs.vbschools.com/>
☎: Phone 757-648-5450

Mrs. Jones

Room 306

e-mail: Elizabeth.Jones@vbschools.com

Website: <http://ebjones4tech.weebly.com>

Twitter: @LizBJones4Art

Available for tutoring/ open lab time at lunch every Friday or by appointment.

Course Materials:

Students materials are required daily for class:

- Small three ring binder
- Two pocket divider or a pocket folder
- Earbuds or Headphones for Self-Guided Tutorials
- Mechanical Pencils and #2 pencils
- A sketchbook no bigger than 11x14 or printer paper provided by the teacher

Material Lab Fee: \$5.00 is due on or before **Sept. 20**, to be paid via cash, money order or check to KHS.

Textbooks: A classroom set is available in the lab only.

Class donations request:

(not required but appreciated for class community)

- Tissues
- Wet wipes
- Any above materials

Computers and Chromebooks:

Chromebooks are not required for this class, as each student will be assigned a Windows based PC to use in the lab. Students will use **Schoology** to access assignments and announcements daily. Software applications used in class, such as AutoDesk Inventor and **AutoCAD**, are not compatible with the school issued Chromebooks. This software can be downloaded on home computers with specific requirements through AutodeskStudent.com. However, **Solid Works** can not.

Make-up Work and Absenteeism:

If a student needs to **make-up assignments** they can come during lunch, office hours, scheduled Study Hall time with a teacher pass, or by appointment. It is the **student responsibility** to see the teacher and check Schoology to get **makeup work**. Make-up work is considered homework.

A student has **two class periods** to turn in an assignment or complete an assessment for one day of **excused absenteeism**. **Extenuating circumstances** will allow additional days, such as an extended period of absence. Students can earn full credit for make-up work from an excused absence. Additional time to make-up work may be added at the discretion of the teacher.

Course Goals & Outcomes:

Prerequisite: Basic Technical Drawing TE8435

This course promotes the STEM Initiative and by providing students with the opportunity to integrate the practices of science, math, engineering, and technology. Participation in group study provides an atmosphere of collaboration in this design-based lab. Students use computer-aided design (CAD) programs that are currently used in industry. Students earning two or more credits in a program area will obtain a Technology Education Diploma Seal.

Students learn the interpretation of industrial working drawings and the efficient use of resources for codes and formulas used in engineering. Students will be offered an CAD Certification test and a Workplace Readiness Skills Certification test, both of which are beneficial to their future education and employment. In Technology classes, emphasis is placed on Virginia Beach Schools' strategic plan of developing skills in critical and creative thinking, innovation, and problem solving.

Course Outline:

Engineering Design Introduction
Computer skills and digital file management
CAD Pretest and Review (Solid Works or AutoCad)
Sketching and visualization
Careers in Engineering
3D Modeling
SNAME Boat Design Competition
Types and uses of technical drawings
Architectural and Engineering Scales
Engineering Design and 3D Printing
Working Drawings
Dimensioning
Section Views
Mechanisms, Cams and Gears
Fasteners

Extra Credit:

Extra credit is not available as the assignments are given with purpose and reasonable timelines are set. Please take advantage of extra help or open lab times for support.

Reassessments:

Reassessments can take place at a time convenient for the teacher and student, per teacher discretion.

Evaluation:

Grades are based on a variety of assessments with the understanding that each student learns & demonstrates knowledge, skills and understanding in a variety of ways.

Lab/Class participation. 40%
Projects and Test 40%
Quizzes and HW 20%

LETTER	NUMERICAL SPAN	Unweighted GPA WT
A	93-100	4.0
A-	90-92	3.7
B+	87-89	3.3
B	83-86	3.0
B-	80-82	2.7
C+	77-79	2.3
C	73-76	2.0
C-	70-72	1.7
D	64-69	1.0
F	Below 64	0

Lab/Class Participation:

Students will be evaluated on participation, assignments & time management. This is a workplace readiness skill.

Projects and Test:

Students will also be tested on their competency in computer software and their construction of technical drawings. There will be 2 to 4 major projects per quarter.

Quizzes and Homework:

Quizzes will be used to assess smaller amounts of content throughout the course. Incomplete classwork is considered homework and should be completed at home, in study hall, or during lunch. If assignments are turned in at the beginning of the next block, full credit will be awarded; otherwise, the late policy applies.

Late Work:

Late work will receive a deduction of points. Late work will be accepted prior to the closure of grades, per teacher discretion.

Zeros:

Any work not turned in within a grading period will receive a zero.

Extra Help Procedures:

Communication is key! Please see me to discuss any issues with make-up or late work. I am available for extra help during lunch every Friday. Additional time is available after school by appointment, the student is responsible for scheduling a date and time with the teacher for any extra help sessions.

Lab Safety:

All students are expected to follow and demonstrate lab safety. Students will be required to pass a safety exam in order to participate with hazardous machinery or tools.

Schoology access code:

5GMD-KCFV-HNWCR

Student Expectations

<p>1. Be respectful...</p> <ul style="list-style-type: none"> To yourself To your teacher To your peers 	<p>2. Be prepared.</p> <ul style="list-style-type: none"> Come to class on time Come with the necessary materials Attend to personal needs before coming to class
<p>3. Be aware & participate during class.</p> <ul style="list-style-type: none"> Know what is going on in class at all times Your questions and comments are welcomed and expected. Don't be afraid to ask questions when appropriate. 	<p>4. Do work that you can be proud of.</p> <ul style="list-style-type: none"> Be proud of your work. Make sure that each piece of work that you do is your best. Don't be afraid to make mistakes, but be sure to learn from your mistakes. Seek help when needed. Remember you represent KHS in all you do.

TSA (Technology Student Association):

Perhaps the most important benefit of TSA membership is the inspiration and enthusiasm that students gain from receiving recognition for applying their knowledge. Demonstrating skills in a forum beyond school walls motivates students, especially when there is a large, like-minded audience of peers who support them. Other benefits include:

- Enhance technological literacy and leadership skills
- Work on complex activities from start to finish
- Compete on local, state and national levels
- Develop skills through TSA's leadership program, LEAP
- Meet and work with business and industry leaders
- Attend organized meetings
- Network with students and teachers with similar interests from all over the United States
- Contribute time and effort to a national service project
- Receive national membership services, including the online TSA newsletter, School Scene
- Receive recognition through TSA's honor society, scholarships and achievement programs
- Have a voice in a national organization that is helping to shape the future of technology education

TSA dues are \$15.

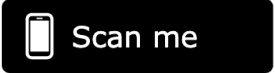
Engineering Drawing Course Expectations

STUDENT/PARENT ACKNOWLEDGEMENT AND SIGNATURES

By signing below, I verify that I have read and understand the information in the course expectations for the **Engineering Drawing Course**. Document can be viewed via student schoology, QR Code or <http://ebjones4tech.weebly.com/engineering-drawing.html>



Student Name (Printed): _____ Date: _____



Student Signature: _____

Parent Name (Printed): _____

Parent Signature: _____

Parent/Guardian Email: _____ Phone: _____

Best Time of Day to be reached: _____ Preferred Method of Contact: Email Phone

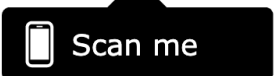
Engineering Drawing Course Expectations

STUDENT/PARENT ACKNOWLEDGEMENT AND SIGNATURES

By signing below, I verify that I have read and understand the information in the course expectations for the **Engineering Drawing Course**. Document can be viewed via student schoology, QR Code or <http://ebjones4tech.weebly.com/engineering-drawing.html>



Student Name (Printed): _____ Date: _____



Student Signature: _____

Parent Name (Printed): _____

Parent Signature: _____

Parent/Guardian Email: _____ Phone: _____

Best Time of Day to be reached: _____ Preferred Method of Contact: Email Phone