College of Science and Engineering Technology
COURSE SYLLABUS

80561 - ETDD 1361.4 – Engineering Graphics
3 credit hours (2 Lecture = Online in Bb / 2 Lab): Fall 2017

LOCATION/TIME: Pirkle 240
Monday 6:00 - 9:50PM

INSTRUCTOR: Dr. Gabriel Teodorescu
E-mail: sgt006@shsu.edu

Office hours: Via Virtual Office or E-mail for alternate appointment

TEXT: You will be provided chapters and/or resources to you digitally through BlackBoard (Bb).

DRAWING PACKET: Purchased at Eagle Graphics

Suggested Course Textbooks:

Modern Graphics Communication 4th edition

Giesecke, F. E.; Mitchell, A.; Spencer, H. C.; Hill, I. L.; Dygdon, J. T.; Novak, J. E.; Lockhart, S., Modern Graphics Communication, Pearson Prentice Hall,

Engineeering Graphics Essentails with AutoCAD 2016 Instruction
Plantenberg, Kristie. SDC Publications.

REQUIRED BASIC DRAFTING EQUIPMENT: *Campus Corner book store or* Bearkat Art Supply
(Homegrown Marketplace)

- Triangular Engineers Scale
- Eraser
- 6" (or larger) 30/60 degree triangle
- Compass (6")
- Sanding Block (sharpener for compass lead)
- Drafting Tape or Dots
- 180 Degree Protractor

- Triangular Architects Scale
- Eraser Shield
- 6" (or larger) 45 degree triangle
- Dividers (6")
- Brush
- Bag or Case for your drafting tools

Select one of the following "pencil" options:
A - Mechanical Pencils with extra refill lead = 0.5mm + 0.7mm + 0.9mm
B - Pencils (2H, F, 6H)
C- Lead Holder(s)   + Lead for holder (2H, F, 6H) + Lead Sharpener

Optional: Triangular Metric Scale, 5" or larger French Curve, Tracing Paper, or
Templates = Circle, Ellipse, etc….

Other REQUIRED Supplies:
- 4GB minimum portable memory flash drive
- Headphones for listening to online videos and/or music as you do lab work
- Notebook for your "Drawings Portfolio" and Reflections Final Assignment OR You may create a digital/electronic version of this

COURSE FORMAT:

All presentations, demonstration, and/or lectures will be delivered through BlackBoard. You will be expected to view these **BEFORE** class time. Class time will be reserved for lab or application only. This is what is called "flipped" or "blended" learning. You will need to take the "pre-quiz" BEFORE you come to class to provide proof that you have watched the lecture or demonstrations. Readings from various sources will be assigned, both in class and through announcements on BlackBoard. You are expected to keep up with all assignments. You are also expected to use the internet and other references to find additional information related to the subjects being discussed in class.

Potentially useful websites:
- FREE Autodesk software for home use = create a free acct and then download any of the software you would like. We will be using AutoCAD 2016.
  http://www.autodesk.com/education/free-software/students-university/popular

- Baxter's Google Sites
  - Drafting 101 http://goo.gl/NR2e4
  - Measurement Scales = http://goo.gl/q8ITF
  - Geometric Construction = http://goo.gl/5ye1F
  - Orthographic Projection = http://goo.gl/xfZuU
  - Dimensioning = http://goo.gl/29EV3
  - Pictorials = http://goo.gl/9kq76
  - Sectionals = http://goo.gl/cCsxOb
  - ACAD = http://goo.gl/7kfrX
  - Inventor Basics = http://goo.gl/wSO6u

  Others may be identified as we progress through the semester.

COURSE OBJECTIVES:

This course is a comprehensive introduction to the engineering graphics utilized in today's industry and industrial technology education. Students are given comprehensive coverage of drafting theories, symbols, and ANSI standards, which are highlighted and put into practice by having each student complete a number of drawing assignments. The areas covered including technical sketching, lettering, drafting, equipment, geometric construction, orthographic projection, sectional views, basics dimensioning, and an introduction to CAD.

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

- Apply primary techniques in engineering drafting practices and CAD software application
- Visualize objects from orthographic projection and multiview drawings
- Draw objects in orthographic projection, multiview, and pictorial views
- Use AutoCAD to create 2D and 3D drawings

COURSE SCHEDULE/OUTLINE:

Bb = work must be submitted to Blackboard by the Due Date for grading
 **Lab = work must be completed and turned in during lab time for grading

ALL work must be turned in for grading by the end of the unit on the date given for the unit. It will be considered late at the beginning of the next unit and it will **NOT** be accepted for grading after the second day of the next unit!

UNIT	CONTENT/ASSIGNMENTS	POINTS	START DATE	DUE DATE
Welcome & Course Intro.	**Welcome & Course Intro.**			
	1. Syllabus Quiz *Bb*	100	Aug 28	Sept 11
	2. Student Biography Survey and Forum Post *Bb*	50+50		
	3. Basic Drafting Knowledge Quiz (to see what you know; you get full credit no matter how low your score actually is on it) *Bb*	100		
HAND DRAFTING	**Unit #1- Basic Drafting: Tools Lettering, Line Types, & Sketching**			
	A. Lecture Quiz (this must be completed before 1st day of this unit's class/lab!) *Bb*	50	Sept 11	BEFORE the Start of Unit #2
	B. Terms Activity Mat *Bb*	50		
	C. Drawing Problem(s) **Lab*	200		
	D. Knowledge Post Quiz *Bb*	50		
	Unit #2 - Architect, Metric, and Engineer Scales			
	A. Lecture Quiz (this must be completed before 1st day of this unit's class/lab!) *Bb*	50	Sept 18	BEFORE the Start of Unit #3
	B. Terms Activity Mat *Bb*	50		
	C. Drawing Problem(s) **Lab*	600		
	D. Knowledge Post Quiz *Bb*	50		
	Unit #3- Geometric Construction			
	A. Lecture Quiz (this must be completed before 1st day of this unit's class/lab!) *Bb*	50	Sept 25	BEFORE the Start of Unit #4
	B. Terms Activity Mat *Bb*	50		
	C. Drawing Problem(s) **Lab*	200		
	D. Knowledge Post Quiz *Bb*	50		
	Unit #4- Orthographic Projection, Auxiliary Views, and Dimensioning			
	A. Lecture Quiz (this must be completed before 1st day of this unit's class/lab!) *Bb*	50	Oct 2	BEFORE the Start of Unit
	B. Terms Activity Mat *Bb*	50		

		Points	Date	Note
	C. Drawing Problem(s) **Lab*	600		#5
	D. Knowledge Post Quiz *Bb*	50		
	Unit #5- Pictorials			
	A. Lecture Quiz (this must be completed before 1st day of this unit's class/lab!) *Bb*	50	Oct 9	BEFORE the Start of Unit #6
	B. Terms Activity Mat *Bb*	50		
	C. Drawing Problem(s) **Lab*	400		
	D. Knowledge Post Quiz *Bb*	50		
	Unit #6- Sectionals			
	A. Lecture Quiz (this must be completed before 1st day of this unit's class/lab!) *Bb*	50	Oct 16	BEFORE the Start of Exam #1
	B. Terms Activity Mat *Bb*	50		
	C. Drawing Problem(s) **Lab*	200		
	D. Knowledge Post Quiz *Bb*	50		
	Hand Drafting Final – Exam #1			
	Written Questions *Bb*	100	Oct 23	
	Drawings Problem(s) **Lab*	200	Oct 23	
Computer Aided Drafting / Design	**Unit #7- Coordinate Systems**			
	A. Lecture Quiz (this must be completed before 1st day of this unit's class/lab!) *Bb*	50	Oct 30	BEFORE the Start of Unit #8
	B. Terms Activity Mat *Bb*	50		
	C. CAD Problem(s) **Lab* (Initials by hand & in CADD)	200		
	D. Knowledge Post Quiz *Bb*	50		
	Unit #8- Basic ACAD			
	A. Lecture Quiz (this must be completed before 1st day of this unit's class/lab!) *Bb*	50	Nov 6	BEFORE the Start of Unit #9
	B. Terms Activity Mat *Bb*	50		
	C. CAD Problem(s) **Lab* (P1, P2, P3, & Plate)	400		
	D. Knowledge Post Quiz *Bb*	50		
	Unit #9- Edit Tools and View Ports			

	A. Lecture Quiz (this must be completed before 1st day of this unit's class/lab!) *Bb*	50	Nov 13	BEFORE the Start of Unit #10
	B. Terms Activity Mat *Bb*	50		
	C. CAD Problem(s) **Lab** (Pipe Clamp, Squares, Circles, Gasket, Sprocket))	700		
	D. Knowledge Post Quiz *Bb*	50		
	Unit #10- Sectionals and Hatching			
	A. Lecture Quiz (this must be completed before 1st day of this unit's class/lab!) *Bb*	50	Nov 20	BEFORE the Start of Unit #11
	B. Terms Activity Mat *Bb*	50		
	C. CAD Problem(s) **Lab** (Feeder Cam, Retaining Wall, Stone Reservoir)	400		
	D. Knowledge Post Quiz *Bb*	50		
	Unit #11- 3D Modeling			
	A. Lecture Quiz (this must be completed before 1st day of this unit's class/lab!) *Bb*	50	Nov 27	
	B. Terms Activity Mat *Bb*	50		
	C. CAD Problem(s) **Lab**	400		
	D. Knowledge Post Quiz *Bb*	50		
Portfolio	Work on either digital/electronic OR traditional in a "3 ring binder"	200		Dec 2
Computer Aided Drafting / Design	**CADD Final – Exam #2**			
	Written Questions *Bb*	100	Dec 4	
	Drawings Problem(s) **Lab** OR you may elect to let your portfolio grade count for this! Just email me if you wish to do so.	200	Dec 4	8:30-10:30PM

NOTE: *The above Course Schedule/Outline can change based upon the classes progress as a whole group, bad weather, etc... Pay attention to announcements in lab and Check Bb periodically for changes. You will receive an announcement for any changes and they will be made here also. Date of this syllabus update = January 16, 2017*

GRADE: Assignments and Exams are roughly equal in weight. Your grade will be based upon the following points break down.

A (90 to 100) = 6,950 to 6,046
B (80 to 89) = 6,045 to 5,212
C (74 to 79) = 5,211 to 4,795
D (66 to 73) = 4,794 to 4,517
F (0 to 65) = 4,516 to 0

COURSE EVALUATION:

This course consists of a series of on-line lectures, presentations, required readings from electronic media. Two (2) exams will be given over the lecture material, of which one will be the final exam. The other grades will come from quizzes, assignments, drawing problems, and your portfolio. It is the student's responsibility to check Blackboard and track their own grades. If they think the instructor has inputted incorrect scores you must let the instructor know about this within five (5) days of the grade being posted.

RECOMMENDED OR REQUIRED READINGS:

There has yet to be a single text adopted that covers the curriculum for this course. Digital text book chapters, internet or reference materials, video lectures/instructions will all be shared electronically via Blackboard with updates made as needed. Students are expected to keep up with readings and will be held responsible for all assignment participation. Exam questions may also be drawn from the reading assignments.

ATTENDANCE POLICY:

1. Every student is expected to be present and *on time* for every class. Roll will take at the beginning of each class or lab session; if you are not signed in, you will be counted absent. In case you are absent, whether excused or unexcused, you are still responsible for the material covered.

NOTE: Class will end when you are done with the assignments and have turned them, or at 8:50PM whichever comes first.

Material and instructions will be disseminated on Bb only. It is your responsibility for obtaining handouts and information is incumbent on you.

2. Each student should be prepared for class/lab by having carefully read and studied all assigned textbook readings and/or handouts. Each project is to be done on an individual basis. You should expect to spend **a minimum of three to four hours per week** in lab and up 1-2 hours doing work online. Drawings / Assignments turned in late will be penalized *ten points per day late*. Each regular calendar day after due date = day. ***Work will NOT be accepted for credit beyond one week of the due date.*** Absences <u>do not</u> exempt you from the responsibility of turning material in on time and they <u>do not</u> extend the due date of the assignment schedule.

3. There will not be repeat exams, quizzes, or makeup assignments except for extenuating circumstances (Documented illness, family crisis, etc.) or by mutual agreement **prior** to the absences between the instructor and the student.

4. You will have the option to be exempt from taking the CADD Exam #2 if you have earned enough **POINTS** to receive an A or B.

ACADEMIC DISHONESTY:

All students are expected to engage in all academic pursuits in a manner that is above reproach.

Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. For a complete listing of the university policy, see:

http://www.shsu.edu/administrative/faculty/sectionb.html#dishonesty

STUDENTS WITH DISABILITIES POLICY:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail disability@shsu.edu). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see:

http://www.shsu.edu/dept/academic-affairs/documents/aps/students/811006.pdf