

The Stuff You Will Actually Read3 Keys to Success in Studying Engineering:

- 1) Effort = Work Hard
- 2) Approach = Work Smart (Study Groups, 50% to 100% of the time you study)
- 3) Attitude = Think Positively

Auto-Forward your SBCC PipeLine E-mail (to be kept up-to-date on important Engineering info)
Sign up for AlertU.org (to be alerted via text messaging to your cell phone if SBCC is closed due to fire, power outage, etc. – easy to sign up on your PipeLine login page).

Santa Barbara City College

1/24/2012

SYLLABUS:**Engineering/Drafting 105, Engineering Graphics**

4 Units, Spring 2012, Section CRN # 55495 (ENGR 105)

4 Units, Spring 2012, Section CRN # 58034 (DRAFT 105)

Bring this syllabus to class **every day!!!**

If you lose your syllabus, check the Engineering web site (listed below).

INSTRUCTOR:

Dr. Nick Arnold

Office: PS 118

Phone: 965-0581 x4253

E-mail: arnold@sbcc.edu

Web Site: <http://science.sbcc.edu/physics/engineering/>

Office Hours: Tuesday: 12:20-12:45 PM and 1:45-2:10 PM

Wednesday: 2:05-2:55 PM

Thursday: 12:20-12:45 PM and 1:45-2:10 PM

Friday: 2:05-2:55 PM

CLASS MEETINGS:

Time: TTh 2:15-5:20pm

Room: OE 16 (Drafting Room) & OE 12 (CAD Room)

TEXT(S):Modern Graphics Communication, 3rd Ed., Giesecke, 2004, Prentice Hall.**(Recommended – Instructor will supply textbook)**AutoCAD 2004 Tutorial - First Level: 2D Fundamentals, Randy Shih, Schroff Development Corporation. ISBN: 1-58503-126-7**(Recommended – Instructor will supply textbook)**ENGR/DRAFT 105 Packet, Engineering Graphics, Nick Arnold.**(Required – Purchase at SBCC Bookstore)**ENGR/DRAFT 105, Drafting Supplies Kit.**(Required – Purchase at SBCC Bookstore)**PREREQUISITES:

Math 1 (basic Mathematics).

COURSE DESCRIPTION:

Graphic/visual communication emphasizing the engineering design process. Topics include the design process, freehand sketching, multi-views, dimensioning, tolerancing, auxiliary views, sectional views and computer-aided-drafting using AutoCad software.

SUGGESTIONS FOR STUDYING:

- Attend class regularly – this is one of the highest indicators of student success!
- Read the book before it is covered in class – **“Reading Questions” will be assigned.**
- If you miss a class, get the notes from a Study Group partner (make arrangements early in the semester).
- See me during office hours for help or clarifications.
- Check your SBCC Pipeline account (you can set up a forwarding address) for updates.

STUDENT LEARNING OUTCOMES (SLO's):

Student Learning Outcomes (SLO's) are results at the end of the semester that we want students to know after finishing the course (with a grade of 'C' or better), and for faculty to measure, for the sole purpose of improving student attainment of these desired competencies. SLO's are to be overarching – i.e., general ideas that usually cover more than one specific course topic.

SLO's for ENGR 105

SLO #	Description	Measure
1	Generate two-dimensional and pictorial drawings (including multi-views, dimensioning, auxiliary views, sectional views, isometric projection, and oblique projection) using manual drafting for an engineering product using standard drawing conventions recognized in the engineering field.	Drafting assignments, midterm exam, and final exam.
2	Generate two-dimensional and pictorial drawings (including multi-views, dimensioning, auxiliary views, sectional views, isometric projection, and oblique projection) using Computer Aided Drafting (CAD) for an engineering product using standard drawing conventions recognized in the engineering field	CAD assignments and final exam.

SBCC students with disabilities who are requesting accommodations for classes, college activities or tests should use the following SBCC procedure. (NOTE: This also includes students who are requesting to bring service animals into classes. The animals will be registered in DSPS. The procedure also includes requests to bring into classes personal service attendants who are not SBCC employees.)

- [1] **Contact Disabled Student Programs and Services (DSPS).**
- [2] **Submit documentation of your disability to the DSPS office.**
- [3] **Communicate with a DSPS counselor regarding options for services and accommodations.**
- [4] **Reach written accommodation agreement with the DSPS counselor and your instructor.**

SBCC requests you complete this process at least ten working days before your accommodation is needed, in order to allow DSPS staff time to provide your accommodation.

**Contact: DSPS office (805) 965-0581 x 2364, SS Building, room 160,
[HREF="mailto:dspshelp@sbcc.edu" MACROBUTTON HtmlResAnchor dspshelp@sbcc.edu](mailto:dspshelp@sbcc.edu)**

WEEKLY COMMITMENT:

6 hours in class plus at least 1 to 2 hours of reading and study outside of class.

ATTENDANCE POLICY:

Class attendance will contribute significantly to your success in this course. The instructor may drop you after a total of 3 absences. If you decide to drop this class, it is your responsibility to withdraw prior to the deadlines published in the schedule of classes.

GRADING:

Manual Drawing Work ¹	40%	A:	90–100%
AutoCad Drawing Plots	35%	B:	80–89%
Reading Questions	5%	C:	70–79%
<u>Two Examinations (each worth 10%)²</u>	<u>20%</u>	D:	60–69%
Total	100%	F:	<60%

- ¹ Some of the drawing assignments will be graded only for completion – other drawings will be graded more thoroughly on content and accuracy. The drawings will, in general, be worth different point values.
- ² Examinations may cover material from textbook reading assignments, lectures, manual drawing assignments, multiple choice questions on AutoCAD.

POLICY ON CHEATING:

All assignments and exams must represent your own drawing work, and cheating or copying will not be tolerated. All instances of cheating or copying will be reported to the appropriate Dean of Educational Programs. Making copies of other students' AutoCAD drawings will not be tolerated; you must do your own work. I encourage you to help other students in learning concepts and in completing drawings; the drawing or the plot, however, shall represent the individual student's work only.

POLICY ON LATE ASSIGNMENTS AND MAKE-UPS:

Drawings are due on Thursday in the week they are assigned. If there are 2 assignments in a given week, the first assignment, in general, should be completed by Tuesday – however, it won't be due until Thursday. Any late assignments will be penalized as follows:

- **10%** if turned in **within 1 week** after the due date (i.e., by the following Thursday).
- **20%** if turned in **within 2 weeks** after the due date.
- **30%** if turned in **more than 2 weeks** after the due date (won't be corrected, just scanned for completeness).

Late Reading Questions will be penalized **50%** (won't be corrected, just scanned for completeness).

Make-up exams will only be allowed for a valid illness, emergency, etc. Make-up exams will be penalized as follows:

- 10% if late one class period
- 20% if late two class periods
- No make-up exams will be allowed after two class periods.

In the case of anticipated absence, early exams may not necessarily be available – if available, early exams will be penalized 5%.

SCHEDULE (DETAILED) WITH ASSIGNMENT DUE DATES:

<u>Week</u>	<u>Dates</u> <u>2012</u>	<u>Drawing Assignments</u>	<u>Reading</u> <u>Assignment</u>	<u>Reading</u> <u>Questions Due</u>
		Drafting	Giesecke	
1	1/24, 1/26	1, Freehand Sketching 2, Lettering	Ch 3 (Sect. 3.1-3.11) Ch 3 (Sect. 3.21-3.30)	3.21-3.30
2	1/31, 2/2	3, Orthographic Projection and MV Drawings 4, MV Drawings, Hidden Lines, and Center Lines	Ch 5 (Sect. 5.1-5.42)	5.1-5.29 5.30-5.42
3	2/7, 2/9	5, Isometric Pictorials 6, Isometric Pictorials (due next week, but start today)	Ch 6 (Sect. 6.1-6.15)	6.1-6.15
4	2/14, 2/16	7, Oblique Pictorials (and 6, Isometric Pictorials – Continued)	Ch 6 (Sect. 6.23-6.25)	6.23-6.25
5	2/21, 2/23	8, Scales EXAM #1	Supp Reader (p 29- 37 in the Appendix)	Scales
6	2/28, 3/1	12, Auxiliary Views – Part 1 13, Auxiliary Views – Part 2	Ch 8 (Sect. 8.1-8.20)	8.1-8.20
7	3/6, 3/8	10, Sections 11, Isometric Sections	Ch 7 (Sect. 7.1-7.20)	7.1-7.20
8	3/13, 3/15	9, Dimensioning	Ch 9 (Sect. 9.1-9.28)	9.1-9.28
		CAD	Shih	
9	3/20, 3/22	15, AutoCAD: Geometric Construction Basics	Ch 1, Ch 2	Ch 1-2
	3/27, 3/29	Spring Break		
10	4/3, 4/5	16, Geometric Construction and Editing Tools	Ch 3	Ch 3
11	4/10, 4/12	17, Orthographic Views in Multi-View Drawings	Ch 5	
12	4/17, 4/19	18, Object Properties and Organization (Architectural) (Note: Exercise 4_3 is optional → Extra Credit , 5 Pts. Max)	Ch 4	
13	4/24, 4/26	19, Basic Dimensioning and Notes	Ch 6	
14	5/1, 5/3	20, Mirror and Array Commands (Note: For lesson, optional to match dimension style exactly, but will count as Extra Credit , 3 Pts. Max; have to match dimension style exactly on Exercise 7_1; Exercise 7_2 is optional → Extra Credit , 5 Pts. Max)	Ch 7	
15	5/8, 5/10	21, Auxiliary Views and Editing with Grips (Note: Exercise 8_2 is optional → Extra Credit , 5 Pts. Max) 22, Sectional Views (EXTRA CREDIT)	Ch 8 Ch 9	

Final (Exam #2), Thursday, 5/17/2012, 2:00-4:00 PM

Bring a big-size Scantron form, and your drafting equipment.

Deadlines:

Last day to add class	04-FEB-2012
Last day to drop with a refund	04-FEB-2012
Last day to drop without a “W”	05-FEB-2012
Last day to drop with a “W” (no grade)	23-MAR-2012

Note: This syllabus is a guideline for how the course will be conducted. Changes to the syllabus will be kept to a minimum. However, the instructor may make changes as necessary.