

 HCC Houston Community College	Department of Drafting & Design Engineering Technology	
<p style="text-align: center;">DFTG-1305 Technical Drafting</p>	<p style="text-align: center;">Syllabus</p> <p style="text-align: center; color: blue;">Please note: This is a 14-week term for the fall 2017 semester</p>	Semester: Fall 2017 Class (CRN) # 33168
Semester Credit Hours (SCH): 96 Credit Hours: 3 Format: Lecture: 1/3 Lab and/or Web: 2/3 Weekly class meetings and home assignments: For 16-wk regular semester: 6 hrs. (4-5 hrs. for WE class) For 2 nd Start 12-wk term: 8 hrs. (4.8-6 hrs. for WE class) For Summer 8wk term: 12 hrs. (7.2-9 hrs. for WE class) <u>Note:</u> Web Enhanced classes include online assignments.	Professor/Instructor: Francis Ha Contact phone number: 713-718-5454 Other phone number: Best times to call: Any time, please leave a message if needed. Email: francis.ha@hccs.edu	Class meeting location: <ul style="list-style-type: none"> • Campus: Spring Brach • Room: 317 • Date: Tuesday • Time: 08:30am-12:50pm
<p style="color: orange;"><i>Any question or concern, please contact your instructor first. You can also contact Lead Instructor or Department Chair for further assistance and comments. Thank you.</i></p>	Acting Faculty Department Chair: Nelson Simpson Phones: 713 718-5234 Rowena Hubbard, Dept. Assistant: 713-718-8033 Email: nelson.simpson@hccs.edu	Office: 1265 Pinemont Dr., Suite 151, MC 1376 Houston, Texas 77018.

Revised 17-0909

PREREQUISITE: None**Message from the instructor:**

Due to hurricane Harvey, the syllabus for Fall 2017 semester has been reduced to 14 weeks instead a typical 16 week semester. In order to achieve the requirement for total contact learning hours per semester for Fall 2017, students will be assigned Learning Web or Online assignments hours of instructor facilitated studies. These studies may include extra take-home web assignments or online library reports. Please see Learning Web assignments on <http://learning.hccs.edu/> for this course.

Due to Delay from Hurricane Harvey there will be additional 12 hours of Web Enhanced instruction on Learning Web <http://learning.hccs.edu/> . Note: DFTG 1305 is 2lec, 4lab=4 contact hour per week, for two weeks=12 hours lost time.

“Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. Furthermore, please notify the professor if you are comfortable in doing so.”

Please feel free to contact me concerning any problems that you are experiencing in this course. You do not need to wait until you have received a poor grade before asking for my assistance. Your performance in my class is very important to me. I am available to hear your concerns and just to discuss course topics. See me either before or after class as I may not have an office at this campus or contact me by email or a phone call.

A. YOUR CLASS

A1. COURSE DESCRIPTION: This course is designed to provide the *beginning* drafting student with fundamental *manual* drafting skills. It covers an introduction to the principles of drafting to include terminology and fundamentals, including sizes and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and dimensioning.

A2. TEXTBOOK: **“Technical Drawing with Engineering Graphics”**
by Frederick E. Giesecke, newest Edition (15th Edition)
published by Prentice Hall, Pearson Education Inc. [required]

A3. REQUIRED COURSE MATERIALS - See attached Drawing Equipment List

A4. COURSE OBJECTIVE - Demonstrate an understanding of geometric construction, various view selections, and principles of working drawings, competency in drafting principles in plane geometry, technical sketching, orthographic projection theory and practice, auxiliary views, and competency in sectioning, dimensioning, and tolerance.

A5. KNOWLEDGE & SKILLS

- a. Understand the drafter's role in industry
- b. Exposure to ANSI drafting standards & standard drawing sheet sizes used in industry
- c. Use of manual drafting instruments
- d. Proficiency in using and reading an architect, metric, decimal, and engineers' scale
- e. Understanding the alphabet of lines used on engineering drawings
- f. Technical sketching and freehand lettering
- g. Geometric Constructions
- h. Multi-view Projections (create drawings of simple objects using Multi-view or Orthographic Projection)
- i. Apply dimensions to drawings using ANSI drafting practices
- j. Isometric Drawing (create an Isometric view of an object from given multi views)
- k. Sectional Views (create full, half, partial, removed, revolved, offset views of objects with dimensions)
- l. Auxiliary Views (create full and partial views with dimensions)

A6. SCANS SKILLS:

The Department of Labor has identified skill sets that U.S. employers want most in entry-level employees. It is our commitment to prepare every student with the knowledge and skills needed to succeed in today's dynamic environment. Toward this end the following skills will be included in this course:

- Decision making: specifies goals and constraints, generates alternatives, considers risks and chooses best alternative.
- Organize/maintain information: Organizes, processes, and maintains written or computerized records and other forms of information in a systematic fashion.
- Arithmetic: performs basic computations; uses basic numerical concepts such as whole numbers and percentages in practical solutions, makes reasonable estimates of arithmetic results without a calculator and uses tables, graphs, diagrams, and charts to obtain and convey quantitative information.
- The student will be presented problems in which they must establish their objective, and organize and maintain appropriate documentation and dimensioned drawing details in achieving that objective.

A7. COURSE WORK: The course will consist of Study Guide and textbook reading assignments, lectures, class exercises, and drafting lab assignments. *The student is expected to read and study the text before the lecture on the unit.* Study Guide units will be assigned either as homework or class work, at the instructor's option.

Note: Refer to the "Course Outline & Assignment" document for scheduled weekly activities - Refer to the "Drafting Equipment & Supplies" list for drafting equipment requirements. The student should bring the Study Guide, textbook, and drafting instruments every day, unless otherwise instructed.

B. GENERAL INFORMATION (for all classes)

COURSE EVALUATION PROCEDURE: The student will be evaluated and receive a final grade based upon the following criteria:

- Laboratory work consisting of assigned technical drawing problems.
- A minimum of 2 tests: (a mid-term and a final examination): *NOTE: - Individual instructors may schedule more tests if desired*
- Class and laboratory attendance, active participation in class, professional attitude and growth in terms of technical skill development and teamwork within the laboratory environment shall be taken into consideration.

STUDENT EVALUATION (Instructor: you can modify these percentages):

Attendance (lecture sessions) 20%

Drawing assignments	40%
Chapter Exams	10%
Final Project	20%
Final Exam	<u>10%</u>
Total:	100%

GRADING PROCEDURE:

A = 90-100	B = 80-89
C = 70-79	D = 60-69
F = 59 and below.	Fx= Stop to show up to the class until the end of the semester.
I = Incomplete (Fail to submit Final project or not show up at the Final Exam. Student needs to apply)	

The drawing portion of the above evaluation criteria shall be based on the layout, dimensional accuracy, neatness, and timely completion.

LATE ASSIGNMENT POLICY: Students are encouraged to turn assignments in on time if at all possible. This allows the instructor to grade the work, return it to the student and the student use the feedback as a learning tool.

MAKE-UP TEST/PROJECT POLICY: The student must request a make-up test and it should be scheduled at the earliest possible date following the quiz (or mid-term) missed. NO make-up test is given for the final examination.

EXTRA CREDIT: Extra credit work is offered only to assist students that that have a grade range of “D” or “F” at the mid-term break. This work cannot be substituted for regular assignments and can only raise the final grade to a maximum of a “C”.

STUDENTS WITH DISABILITIES

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations for the classroom and/or testing must contact the appropriate HCC Disability Support Service (DSS) Counselor at the beginning of each semester. Faculty is authorized to provide only the accommodations requested by the Disability Support Services Office. Students who are requesting classroom and/or testing accommodations must first contact the DSS office for assistance prior to the beginning of each semester. At Northwest college, please call 713.718.5422.

CLASS ATTENDANCE: You are expected to attend all lecture classes and labs. You are also responsible for all materials covered in either lecture or lab. In the case of your absence, you must contact the instructor to obtain make-up assignments or arrange make-up testing, either of which can be distributed at the instructor’s discretion. Class attendance is checked daily.

The instructor has the authority to drop you from the class for excessive absence. You may be dropped from the class and get an F grade if you are absent more than 12.5% of the instruction hours (lecture and lab). For example: A 12.5% of 96-hour course, meeting twice per week for 3 hours per class meeting equals 12 hours. If you are absent more than 4 class meetings, you may drop.

WITHDRAWAL - It is your responsibility to withdraw from the class if you cannot complete it. Failure to do so will result in an F grade. Check the calendar for official last day to withdraw.

Note: *Although it is your responsibility to officially withdraw from a class, please discuss with your instructor first. Consistent class attendance is very important. However, if you have to miss a class for a valid reason, you instructor may be able to help you catch up with the class. Please let your instructor knows as soon as possible if you have to miss a class. Valid reason is decided on a case by case basis. Departments and programs governed by accreditation or certification standards may have different attendance policies.*

REPEAT COURSE

Students who repeat a course three or more times may soon face significant tuition/fee increases at HCC and other Texas public colleges and universities. If you are considering course withdrawal because you are not earning passing grades, confer with your instructor/counselor as early as possible about your study habits, reading and writing homework, test-taking skills, attendance, course participation, and opportunities for tutoring or other assistance that might be available.”

RELIGIOUS HOLIDAYS: If you observe a religious holiday and miss class, you must notify your instructor in writing two weeks in advance to arrange to take a test or make up an assignment. A religious holiday is "a holy day observed by a religion whose place of worship is exempt from property taxation under Section 11.20, Tax Code."

SCHOLASTIC DISHONESTY: Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. College System Officials may initiate penalties and/or disciplinary proceedings against a student accused of scholastic dishonesty.

"Scholastic dishonesty" includes, but is not limited to, cheating on a test, plagiarism, and collusion.

- "Cheating"** on a test includes:
 - Copying from another student's test paper;
 - Using materials during a test that are not authorized by the person giving the test;
 - Collaborating with another student during a test without authority;
 - Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of an un-administered test;
 - Bribing another person to obtain a test that is administered.
- "Plagiarism"** means the misuse of another's work and the deliberate incorporation of that work into work you offer for credit.
- "Collusion"** means the unauthorized collaboration with another person in preparing work offered for credit.

Determination of scholastic dishonesty will be at the discretion of the instructor.

Reference the following web link for additional information: <http://www.hccs.com>

ADVISING

A senior advisor is connected to this class section and will meet with the class within the first two weeks of instruction. The senior advisor will review the advising syllabus and the ways in which you can communicate with him/her. Students are required to meet with their senior advisor at least twice within the semester. Participation in these advising sessions is required and will be a part of the grade in this success class.

EGLS3 – Evaluation for Greater Learning Student Survey System

At Houston Community College, professors believe that thoughtful student feedback is necessary to improve teaching and learning. During a designated time, you will be asked to answer a short online survey of research-based questions related to instruction. The anonymous results of the survey will be made available to your professors and division chairs for continual improvement of instruction. Look for the survey as part of the Houston Community College Student System online near the end of the term.

HCC PUBLIC EMERGENCY PLAN

<http://www.hccs.edu/district/departments/police/crime-prevention--safety/hcc-public-emergency-plan/>

Every member of the Houston Community College community should understand his or her role in emergency situations. All faculty, staff, and students should review this plan so they can support their colleagues should an emergency arise.

Evacuation routes and assembly areas are posted throughout the campus(s). If you are faced with a situation that requires evacuation, proceed in an orderly fashion to the designated assembly area. If a situation arises that requires you to shelter-in-place, you will be given instructions to proceed to a designated area - do not leave the building. **In Case of Emergency** Dial 911 or call HCC Police at **713-718-8888**. To update your emergency contact information, log into PeopleSoft on the Student Sign-Ins page. The "Run.Hide.Fight." videos provide the information you need to survive an active shooter event. (Fall 2015).

DISCRIMINATION

Students should be aware that discrimination and/or other harassment based on race, sex, gender identity and gender expression, national origin, religion, age, disability, sexual orientation, color or veteran status is prohibited by HCC Policy G.1 Discrimination and Harassment and D.1.1 Equal Educational Opportunities. Any student who feels they have been discriminated against or harassed on the basis of race, sex, gender identity, gender expression, national origin, religion, age, disability, sexual orientation, color or veteran status including sexual harassment, has the opportunity to seek informal or formal resolution of the matter. All complaints/concerns should be directed to the Office of Institutional Equity, 713 718-8271 or oi@hccs.edu. Additional information may be obtained online. Visit <http://www.hccs.edu/district/departments/institutionalequity/>

Complaints involving sexual misconduct to include but not limited to: sexual assault, stalking, dating violence, sexual harassment or domestic violence should be directed to the HCC Title IX Coordinator, Renée Mack at 713 718-8272 or renee.mack@hccs.edu (Fall 2015).

MINORS IN THE WORKPLACE POLICY & PROCEDURES

As a public educational institution, HCC has an obligation to provide a safe and enjoyable learning and working environment for its students, faculty and staff. Minors or relatives of enrolled students are not permitted in classrooms or at any HCC facility.

STUDENTS WITH DISABILITIES

Fall 2016

Houston Community College is dedicated to providing an inclusive learning environment by removing barriers and opening access for qualified students with documented disabilities in compliance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act. Ability Services is the designated office responsible for approving and coordinating reasonable accommodations and services in order to assist students with disabilities in reaching their full academic potential. In order to receive reasonable accommodations or evacuation assistance in an emergency, the student must be registered with Ability Services.

If you have a documented disability (e.g. learning, hearing, vision, physical, mental health, or a chronic health condition), that may require accommodations, please contact the appropriate Ability Services Office below. Please note that classroom accommodations cannot be

provided prior to your Instructor's receipt of an accommodation letter and accommodations are not retroactive. Accommodations can be requested at any time during the semester, however if an accommodation letter is provided to the Instructor after the first day of class, sufficient time (1 week) must be allotted for the Instructor to implement the accommodations.

Ability Service Contact Information

Central College 713.718.6164
 Coleman College 713-718-7376
 Northeast College 713-718-8322
 Northwest College 713-718-5422 & 713-718-5408
 Southeast College 713-718-7144
 Southwest College 713-718-5910
 Adaptive Equipment/Assistive Technology 713-718-6629 & 713-718-5604
 Interpreting and CART services 713-718-6333

TITLE IX STATEMENT REGARDING DISCRIMINATION POLICY

New as of Fall 2017

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status-in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504. Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to: Mr. David Cross, Director EEO/Compliance, Office of Institutional Equity & Diversity, 3100 Main, (713) 718-8271, Houston, TX 77266-7517 or Houston, TX 77266-7517 or Institutional.Equity@hccs.edu

CAMPUS CARRY LAW

New as of Fall 2017

"At HCC the safety of our students, staff, and faculty is our first priority. As of August 1, 2017, Houston Community College is subject to the Campus Carry Law (SB11 2015). For more information, visit the HCC Campus Carry web page at <http://www.hccs.edu/district/departments/police/campus-carry/>."

Course Contents for DFTG-1305

2017 Version

(Based on Technical Drawing, by Frederick E. Giesecke)
 Please see your instructor for updated class schedule.

The objectives, order of presentation and source of reference for each unit shall be as follows:

Week 1 - Unit 1: Introduction to Drafting (Chapter 1: World Wide Graphics)

At the end of this unit, the student will be able to:

1. Understand the function of a draftsman in an engineering environment.
2. Identify the different types of engineering drawings.
3. Understand the technical skills required for a draftsman.
4. Identify the various trade publications, associations and standards used in industry

Week 2a - Unit 2: Drafting Instruments (Chapter 2: Layouts and Lettering)

At the end of this unit, the student will be able to:

1. Identify drafting equipment and describe its usage.
2. Describe the types and standard sizes of drafting paper.
3. Use the different drafting scales to create a simple drawing.
4. Identify and draw the alphabet of lines.
5. Draw horizontal, vertical and inclined lines in a prescribed manner.

Week 2b - Unit 3: Lettering (Chapter 2: Layouts and Lettering)

At the end of this unit, the student will be able to:

1. Draw guidelines for lettering.
2. Demonstrate good engineering lettering style and technique.
3. Identify the different methods for producing lettering on an engineering drawing.

Week 3 - Unit 4: Geometric Constructions (Chapter 4: Geometry)

At the end of this unit, the student should be able to:

1. Define common shapes
2. Bisect angles and lines
3. Divide a line into equal parts
4. Construct a perpendicular from a point to a line
5. Construct a tangent from a point to a circle
6. Construct an ellipse

Week 4 - Unit 5: Technical Sketching (Chapter 3: Sketching)

At the end of this unit, the student will be able to:

1. Understand the principles of good free-hand sketching.
2. Create a free-hand isometric & oblique sketch of an object.
3. Create a free-hand multi-view sketch of an object

Week 5 - Unit 6: Multi-view Projection (Chapter 5 (14th) or 6 (15th): Orthographic Projection)

At the end of this unit the student will be able to:

1. Define the six views used in multi-view projection.
2. Draw selected views of a given object.

Week 6 - Unit 7: Dimensioning (Chapter 10 (14th) or 11 (15th): Dimensioning)

At the end of this unit, the student will be able to:

1. Understand the basic principles of dimensioning.
2. Identify the components of dimensioning (dimension line, extension line, leader, etc.)
3. Create a fully dimensioned mechanical drawing.
4. Create a fully dimensioned architectural drawing (floor plan).

Week 7 – Mid Term Exam and Midterm Project**Week 8 - Unit 8: Sectional Views (Chapter 7 (14th) or 8 (15th): Sectional Views)**

At the end of this unit, the student will be able to:

1. Understand the principles of sectional views.
2. Identify the components of sectional views (cutting plane, sectional lining etc.).
3. Identify and draw the different types of sectional views.

Week 9 - Unit 9: Isometric Projection (Chapter 15 (14th) or 22 (15th): Axonometric Projection)

At the end of this unit, the student will be able to:

1. Draw an isometric view of an object from three given views.
2. Draw isometric circles.
3. Draw inclined surfaces in isometric.

Week 11 - Unit 10: Auxiliary Views & Revolutions (Chapter 8 (14th) or 9 (15th): Auxiliary Views)

At the end of this unit, the student should be able to:

1. Understand the principle of auxiliary views.
2. Draw auxiliary views of an object.
3. Understand the principle of revolutions.

Week 12 - Review major topics – Final Project

Week 13 - Working on Final Project

**Week 14 - Final Project due
Final Exam**

