

 Houston Community College	Department of Drafting & Design Engineering Technology	Semester: Fall 2017
DFTG-1310 Specialized Basic Computer-Aided Drafting	<h1 style="text-align: center;">Syllabus</h1>	Class (CRN) # <u>33493</u>
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) Note: Web Enhanced classes include online assignments.	Professor/Instructor: <u>Mr. Uribe</u> Contact phone number: <u>#</u> Other phone number: Best times to call: <u>Any time, please leave a message if needed.</u> Email: <u>ricardo.uribe2@hccs.edu</u>	Class meeting information: <ul style="list-style-type: none"> • Campus: Stafford- Scarcella Ctr. Rm W105 • Date: Fall 2017 • Time: 8:00am-12:30pm
<i>Any question or concern, please contact your instructor first. You can also contact Lead Faculty or department administration for further assistance. Thank you.</i>	Faculty Department Chair: Francis Ha Phones: 713 718-5544 Rowena Hubbard, Dept. Assistant: 713-718-7264 Email: francis.ha@hccs.edu	Office: 1265 Pinemont Dr., Suite 151, MC 1376 Houston, Texas 77018.

Revised 17-0115 fh

PREREQUISITE: DFTG 1305/1405 Tech. DFTG & 1309 Basic Computer-Aided Drafting (AutoCAD) or Department Chair Approval.

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 8 hours of Web Enhanced instruction on Learning Web <http://learning.hccs.edu/> . Note: DFTG1310 is 1lec, 2lab=3 contact hour per week, for two weeks=6 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 contact me concerning any problems that you are experiencing in this course. Do not wait until a poor grade has been received before asking for assistance. Your performance in the course is very important to me. I am available to discuss the course materials either before or after class. Outside of class sessions you can contact me either by email, or office phone call. If the phone is not answered please leave a message and I'll contact as soon as possible

COURSE DESCRIPTION: An introduction to alternative CAD software (MicroStation). Emphasis is placed on setup; creating, modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using levels, coordinate systems, and out/print to scale.

TEXT: All students are required to have a textbook: "Harnessing MicroStation V8i " by Krishnan & Taylor published by: Delmar ISBN-13: 978-1-4354-9984-3 [*required*]. Student may check with Instructor to determine if an earlier version of the text is adequate for completing assignments.

MATERIALS REQUIRED: USB Drive, writing materials (Notebook & pen or pencil), and textbook.

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:

- **Selects technology:** Judges, which procedures, tools, or machines, including computers and their programs, will produce, desired results.
- **Integrity/honesty:** Can be trusted. Recognizes when faced with making a decision or exhibiting behavior that may break with commonly-held personal or societal values, understands the impact of violating these beliefs and codes of an organization, self, and others: and chooses an ethical course of action.
- **Individual responsibility:** Exerts a high level of effort and perseverance toward goals attainment. Works hard to become excellent at doing tasks by setting high standards, paying attention to details, working well and displaying a high level of concentration even when assigned an unpleasant tasks.

The student will be made aware of the components of the CAD software and the available options and tools therewith. The student will select methods for drawing creation in a timely manner. Integrity and honesty in the workplace will be stressed as a part of this program understanding the ease with which one can plagiarize computer-generated work.

Evaluation of the student's technology understanding will be reviewed and discussed with the class by the instructor to insure a clear understanding of technology by all students. Integrity/honesty will be evident in the instructor's evaluation of the student's work.

LEARNING OUTCOMES: Demonstrate the use of CAD hardware and software to create, display, and output/print working drawings. The student will be responsible for managing time, organizing and processing symbols and interpreting and responding to verbal instruction in the development of the drawing assignments.

Knowledge:

- a. Understand file maintenance and operation of a CAD system
- b. Understand the principals of 2D drawing development in CAD
- c. Understand commands related to drawing, editing, dimensioning geometry and text input and editing.
- d. Understand time efficiency advantages of engineering drawing production with CAD.

2. Skills:

- a. Creation, annotation and dimensioning of a standard 2-D engineering drawing
- b. Creation, insertion and scaling of geometric symbols.
- c. Organization and processing of symbols and other information.
- d. Efficient use of CAD tools to insure drawing accuracy.

3. Attitude/behaviors:

- a. Demonstrate an understanding of microcomputer operations and inherent efficiency of CAD.
- b. Demonstrate ability to set goals, rank them and to apportion time for their completion.
- c. Demonstrate patience, skills, integrity and honesty in the process of timely completion of assignments.

COURSE CONTENT:

Introduction to the Microstation user interface
 Drawing set up procedure
 Coordinate data input for geometry construction.
 2-Dimensional drawing and editing commands
 Accu-draw; object selection and other tools
 Creating and using construction lines

Level creation and control; assigning colors and line types
 Creation and use of Cells
 Text input and text editing commands
 Dimensioning, dimension styles and editing techniques
 Display control and inquiry commands
 Scaling and Printing /Plotting basics

All course content, grading, attendance is subject to change by instructor.

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.

Final Grade Based On: Attendance=20% Drawings=30% Chapter Test/Quiz=20% Final Project=10% Mid-Term=10% Final=10%

GRADING PROCEDURE:

A = 90 –100 B = 80 – 89 C = 70 – 79 D = 60 – 69 F = below 59 Fx = Student stopped attending

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

HCC POLICIES

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 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, your instructor may be able to help you catch up with the class. Please let your instructor know 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*) Click [here](#) or visit www.hccs.edu/EGLS3

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 – Click [here](#) or log into

<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.](#)" video 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, Telephone: **713 718-8271**, click [here](#) or visit oiie@hccs.edu. Additional information may be obtained online. Click [here](#) or 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, Ms. Renée Mack at **713 718-8272** or renee.mack@hccs.edu (Fall 2015).

TITLE IX OF THE EDUCATION AMENDMENTS OF 1972, 20 U.S.C. A§ 1681 ET. SEQ.

Title IX of the Education Amendments of 1972 requires that institutions have policies and procedures that protect students' rights with regard to sex/gender discrimination. Information regarding these rights are on the HCC website under Students-Anti-discrimination. Students who are pregnant and require accommodations should contact any of the ADA Counselors for assistance.

It is important that every student understands and conforms to respectful behavior while at HCC. Sexual misconduct is not condoned and will be addressed promptly. Know your rights and how to avoid these difficult situations. Click [here](#) or log into: www.edurisksolutions.org. Sign in using your HCC student e-mail account, then go to the button at the top right that says **Login** and enter your student number. (Fall 2016)

Specialized Basic CAD- MicroStation**DFTG 1310**

Instructor: Mr. Uribe

Tentative Weekly Course Scheduled Activities**Materials required for course:**

- File Storage Device: memory/zip stick/USB drive (preferable).
- “Harnessing Microstation- V8i” textbook, for course work and future reference.
- A folder (with your name or Abbreviation) on the computer used in lab, to save work on a daily basis.
- <http://docs.bentley.com/ko/MicroStation/ustnhelp1080.html>
- http://learning.hccs.edu/faculty_search_results.html?fullname=nelson+simpson
- WE = Web Enhance (28 hours) outside of class online activities. Click on links below to access Web-Enhanced materials.

Week 1: Introduction to Microstation

The Design File: New, Open, Save, Close

Screen Display: Dialog Boxes, Settings Boxes

Getting Help

Design Plane: Main Palette and Sub-palettes

Unit Setup: Working Units

Coordinate System Global Origin and Coordinates

Precision Inputs: Key-ins, Tentative Snaps, Grid Settings/Lock, Element Selection

View Control

<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/dftg-1310-spec-cad-microstation-first-day-and-microstation-preview/view>

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/title-block-template-and-2d-dwgs-exercise/view>

WE (2hrs) - Pages 15-28 Power Draft Concepts; 41-54 Menu survey; Pg 123 Differences between AutoCAD and MicroStation

Week 2: Placing Element Techniques

Placing Lines, Linestrings, Circles, Arcs, Points, Polygons, Blocks

Edit: Delete/Erase, Undo, Redo, Update

Assignment - Create Multi-View/Orthographic dwgs Due in Week 8

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>

<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Pages 55-61; Input Precise Geometry Data

Week 3: Manipulating Elements

Quiz #1

Move, Copy, Copy Parallel, Scale, Rotate, Mirror Element/Text, Array

Assignment - Create Multi-View/Orthographic dwgs Due in Week 8

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>

<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Pages 29-39

Week 4: Modifying Elements

Modify Element, Delete, Delete Partial, Extend, Trim, Intellitrim
Insert/Delete Vertex, Construct Fillet/ Chamfer
Assignment - Develop Isometric from Multi-View/Orthographic dwgs

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>
<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Pages 29-39

Week 5: View Settings

View Manipulation/Arrangement: Open/Close Views
Setting View Attributes
Assignment #3: Due in Week 8

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>
<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Chapter – TBD

Week 6: Text

Quiz #2
Text Settings: Attributes, Fonts, Justification
Text Placement, Copy and Increment Text, Edit Text
Assignment #4: Due in Week 8

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>
<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Pages 81-85

Week 7: Fence Mid Term Exam

Fence and Fence Modes
Modify Fence
Review of Mid-Term

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>
<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Pages 63-65

Week 8: Attributes

Element Attributes: Color, Style, Weight, and Level
Change Element Attributes
Assignment #5: Due in Week 15

Week 9: Levels

Levels: Structure, Setting, Naming, Displaying, Hiding
Modifying Level Symbology
Level Attributes

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>
<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Pages 71-74

Week 10: Dimensioning

Quiz #3

Dimension Settings: Attributes, Geometry, Units

Dimension Placement

Dimension Types: Linear, Angular, Radial

Assignment #6: Due in Week 15

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>

<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Pages 99-104

Week 11: Measuring

Measurements: Distance, Radius, Angle, Area

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>

<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Chapter - TBD

Week 12: Cells and Cells Library

Quiz #4t

Place Cell, Point Cell, Cell Matrix

Cell Type: Graphic, Shared Cell

Assignment #7: Due in Week #15

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>

<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Pages 87-90

Complex Chains/Shapes and Drop Element

Create Complex Chains/ Shapes

Drop Complex Status

Drop Linestring and Shape Status

Web-Enhanced Activities (2-hours):

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>

<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

Chapter - TBD

Week 13: Hatch/Pattern

Hatch/ Pattern

Assignment #8: Due in Week 13

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>

<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Pages 9396

Wrap up and Turn-In all Work

All drawings/projects are due to instructor.

Printing

Final Exam Discussion/Review

<http://learning.hccs.edu/faculty/nelson.simpson/common-resources/tech-dftg-chap-6/view>

<http://learning.hccs.edu/faculty/nelson.simpson/dftg1310/microstation-resources/microstation-powerdraft-v8i-student-guide/view>

WE (2hrs) - Page 117

Week 14: Final Exam

Final Exam