Midland College
Syllabus
DFTG 1325
Blueprint Reading and Sketching

Course Description:
Introduction to reading and interpreting working drawings for fabrication processes and associated trades. Use of sketching techniques to create pictorial and multiple-view drawings**.**

Upon completion of this course the student will be able to interpret working drawings including dimensions, notes, symbols, sections, and auxiliary views; and sketch pictorials and multi-view drawings.

Text, References, and Supplies:
Print Reading for Industry,
Walter C. Brown, Ryan K. Brown

NOTE: Students will be advised of the book edition on the first day of class.

The student will need to provide his/her own:
Pencil
Paper
Brad/Pocket Folder

These supplies may be needed in future classes.

Students Learning Outcomes and Core Competencies:
The following list of course goals will be addressed in the course. The goals are directly related to the performance objectives. Upon successful completion of the course the student will:

1. Identify the standard lines on industrial drawings
2. Describe the types of lines by appearance and purpose
3. Identify the style of lettering recommended for standard industrial drawings
4. Describe drawing sheet sizes and formats
5. Identify marginal information and zoning methods for drawing sheets
6. Identify the elements of the title block as defined by industry standards
7. Explain the techniques for identifying parts of an assembly drawing as represented in a basic parts list
8. Define terms related to the geometry of industrial drawings
9. Describe orientation relationships found within 2D and 3D geometry
10. List various properties of geometric constructions
11. Identify 2D geometric shapes
12. Identify 3D geometric objects
13. Explain the relationship between an orthographic projection and a multiview drawing
14. Identify and define the three dimensions of an object
15. Define the three regular views

16. Explain the characteristics of fillets, rounds, and runouts
17. Explain the characteristics of a drawing that features a full section, half section, or offset section
18. Compare revolved sections and removed sections
19. Explain the purpose of auxiliary views
20. Read prints that incorporate auxiliary views
21. Define terms related to screw threads and fasteners
22. Describe three methods for representing screw threads
23. Identify common screw thread forms
24. Identify standard pipe thread representation and designations
25. Identify terms and measurements associate with dimensioning mechanics
26. Identify symbols that have been standardized for dimensioning notations
27. Explain choice and placement rules drafters use
28. Identify and discuss various systems and methods for dimensioning
29. Define terms related to tolerancing
30. Explain how tolerances are expressed on a drawing
31. Calculate tolerances or limits for mating parts based on maximum material conditions and allowance
32. Identify and interpret general notes on a drawing
33. Read and interpret specification for holes and additional processes such as counterbores and countersinks
34. Explain common terms related to surface quality and surface texture symbols
35. Explain standard practices for applying surface texture symbols on a print
36. Describe the purpose and objectives of geometric dimensioning and tolerancing (GD&T)
37. Identify current and former ASME Y14.5 symbols used in GD&T
38. Define terms related to GD&T
39. Read and interpret basic applications of feature control frames for each of the GD&T control systems
40. Describe drawing practices related to drawing revisions
41. Identify revision information on an industrial print
42. Describe how detail drawings are define and categorized in industry
43. List and describe other specialized types of drawings used in industry
44. Explain different ways of creating pictorial and multiview assembly drawings used in industry

Student Contributions, Responsibilities and Class Policies:

- Students are responsible for maintaining, organizing, and backing-up copies of all digital files. Failure to maintain an up-to-date backup may result in data loss.
- Students are expected to exhibit professional and courteous behavior on campus, in the classrooms and labs.
- Cell phones should be silenced while in class.

Attendance Policy

Regular and punctual attendance is expected of all students in all classes for which they have registered. It is the obligation of the student to notify the instructor of all absences as soon as

possible and make up all missed work. All absences are considered to be unexcused until a valid reason is provided. It is the responsibility of the instructor to judge the validity of any reasons given for an absence.

Withdrawal Policy
It is the student's responsibility to initiate the withdrawal in the Office of Student Services. Students must complete an official withdrawal form either in person in the Student Services office, online or by written request. Failure to do so may result in the student receiving a grade of "F."

The last day for withdrawal for each registration period is published in the catalog and the current course schedule. Online withdrawal requests must be made on or prior to the dates listed.

Scholastic Dishonesty & Academic Misconduct
Midland College encourages high academic standards, including student responsibility for original work. As a part of this stance, Midland College endorses specific definitions and guidelines regarding scholastic dishonesty and academic misconduct, including the areas of cheating, plagiarism, and collusion.

Definitions and full policy can be found in the Student Rights & Responsibilities section of the online catalog at catalog.midland.edu.

Evaluation of Students:
Assignments.....45%
Attendance & Regular Daily Work.....35%
Final Project/Exam.....20%

90 and above	*A*
80-89	*B*
70-79	*C*
60-69	*D*
0-59	*F*

Course Schedule:
This course meets two or four times a week, for a total of two (2) lecture hours and four (4) lab hours.

Due dates for class assignments will be announced throughout the semester. This will be subject to the progression of the class; therefore, attendance is very important.

AMERICANS WITH DISABILITIES ACT (ADA):
Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit www.midland.edu/accommodation and complete the Application for Accommodation Services located under the Apply for Accommodations tab. Services or accommodations are not automatic, each student must apply

and be approved to receive them. All documentation submitted will be reviewed and a "Notice of Accommodations" letter will be sent to instructors outlining any reasonable accommodations.

NON DISCRIMINATION POLICY:
Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individual has been designated to handle inquiries regarding the non-discrimination policies:

Tana Baker
Title IX Coordinator/Compliance Officer
3600 N. Garfield, SSC 131
Midland, Texas 79705
(432) 685-4781
tbaker@midland.edu

For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481.

Faculty Information:

Department Chair/Professor: Derek Gasch — Office: 235 LRC
Phone: O: 432-686-4809 — Email: dgasch@midland.edu
Office Hours: TBD

Professor: Vanessa Hyatt — Office: 132 ATC
Phone: O: 432-681-6304 — Email: vbaker@midland.edu
Office Hours: TBD

Adjunct Instructor: Sean Chaney — Office: 193 TC
Phone: O: 432-685-6807 — Email: schaney@midland.edu
Office Hours: TBD

Adjunct Instructor: Kevin Starnes — Email: kstarnes@midland.edu
Office Hours: TBD

Students are encouraged to contact the instructor at any time; however, making an appointment will guarantee the instructor's availability at a specific time.

Division Information: Applied Technology

Division Dean: Curt Pervier	TC 143	Phone# 432-685-4676
Division Secretary: Lisa	TC 143	Phone# 432-685-4676