Midland College
Syllabus
DFTG 2302
Machine Drafting

Course Description:
Production of detail and assembly drawings of machines, threads, gears, cams, tolerances and limit dimensioning, surface finishes, and precision drawings.
Prerequisite(s): DFTG 1305

Text, References, and Supplies:
Software: AutoCAD, Inventor

NOTE: Students will be advised of the software version on the first day of class.

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. Understand the meaning of sections and cutting-plane lines.
2. Identify seven types of sections.
3. Draw a sectional view, given a two-view drawing.
4. Demonstrate the proper techniques for sectioning ribs, webs, and spokes.
5. Demonstrate the proper technique for aligned sections.
6. Demonstrate correct hidden-line practices.
7. Draw correct conventional break symbols for elongated objects.
8. Recognize and draw the correct section-lining symbols for 10 different materials.
9. Use conventional dimensioning techniques to describe size and shape accurately on an engineering drawing.
10. Create and read a drawing at a specified scale.
11. Create drawings using metric, engineering, and architect scales.
12. Correctly place dimension lines, extension lines, angles, and notes.
13. Recognize aligned and unidirectional dimensioning systems.
14. Dimension circles, arcs, and inclined surfaces.
15. Apply finish symbols and notes to a drawing.
16. Read and create limit dimensions.
17. Describe the nominal size, tolerance, limits, and allowance of two mating parts.
18. Identify a clearance fit, interference fit and transition fit.
19. Describe the basic hole and basic shaft systems.
20. Dimension two mating parts using limit dimensions, unilateral tolerances, and bilateral tolerances.
21. Describe the classes of fit and give examples of each.
22. Draw geometric tolerancing symbols.

23. Specify position and geometric tolerances.
24. Define and label the parts of a screw thread.
25. Identify various screw thread forms.
26. Draw detailed, schematic, and simplified threads in section and elevation.
27. Define typical thread specifications.
28. Identify various fasteners and describe their use.
29. Draw various screw head types.
30. Draw springs in elevation using break conventions. Create free-hand multi-view sketches.

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-discriminatsion, 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 Hays	TC 143	Phone# 432-685-4676