

**Midland College**  
**Syllabus**  
**DFTG 2321**  
**Topographical Drafting**

**Course Description:**

A careful examination of computer aided drafting as a tool of technical communications and for solving graphical problems pertaining to land development. Emphasis is on furthering of basic drafting skills, visualization, solutions of spatial problems. It covers the plotting of surveyor's field notes, deeds, the plotting of elevations, contours, alignments, parcels and plans and profiles. Develop map data using specific software.

**Prerequisite: DFTG 1305**

**Text, References, and Supplies:**

**Mastering AutoCAD Civil 3D,**  
**Richard Graham and Louisa Holland**

Software: AutoCAD, AutoCAD Civil 3D

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

The student will need to provide his/her own:

USB Flash Drive – **REQUIRED**

Pen/ Pencil

Paper for taking notes

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. List the basic components used in the field for data storage and processing.
2. List and describe the relationship between horizontal and vertical datum.
3. Recognize and convert point data to an equivalent of a different data set
4. List the major parts of a total station and describe their function.
5. Describe ellipsoids, geoids and surfaces.
6. Describe the purpose of a land surveying.
7. Understand how to navigate through the computer program to produce a topographic plat.
8. Understand issues which affect the choice of informational data collection.
9. Explain features common to most data gathering instruments.
10. Describe how to start a new drawing.
11. Utilize various coordinate systems.
12. Apply the AutoCAD shortcut commands.

13. Construct templates and use them to control software customizations; layers, line types, objects and commands.
14. Apply Line, Circle and Arc correctly to a drawing.
15. Explain the Model and Layouts tabs.
16. Explain the difference in horizontal and vertical alignments.
17. Discuss the different options in relation to labeling styles.
18. Discuss the options in creating curves.
19. Explain the Parent/Child relationship in Civil 3d.
20. Discuss the different options in the Tool space
21. Explain the use of Styles on a drawing.
22. Explain how access Point Label Styles.
23. Describe two ways to work on Model space through a viewport.
24. Explain how to change and save Label Sets.
25. Discuss the difference between Block and an Xref.
26. Discuss the placement of Text and Styles.
27. Understand the basic commands used in the construction of a drawing.
28. Describe ways to prepare the drawing for export.

#### **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](http://catalog.midland.edu).

**Evaluation of Students:**

<i>Assignments</i> .....	45%
<i>Attendance &amp; Regular Daily Work</i> .....	35%
<i>Final Project/Exam</i> .....	20%

<i>90 and above</i>	<i>A</i>
<i>80-89</i>	<i>B</i>
<i>70-79</i>	<i>C</i>
<i>60-69</i>	<i>D</i>
<i>0-59</i>	<i>F</i>

**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](http://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](mailto: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  
Phone: O: 432-686-4809  
Office Hours: TBD

Office: 235 LRC  
Email: [dgasch@midland.edu](mailto:dgasch@midland.edu)

Professor: Vanessa Hyatt  
Phone: O: 432-681-6304  
Office Hours: TBD

Office: 132 ATC  
Email: [vbaker@midland.edu](mailto:vbaker@midland.edu)

Adjunct Instructor: Sean Chaney  
Phone: O: 432-685-6807  
Office Hours: TBD

Office: 193 TC  
Email: [schaney@midland.edu](mailto:schaney@midland.edu)

Adjunct Instructor: Kevin Starnes  
Office Hours: TBD

Email: [kstarnes@midland.edu](mailto:kstarnes@midland.edu)

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