



Course Syllabus

Course #: QCT1020 Course Name: Blueprint Reading

Division: Engineering and Industrial Technologies

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Class Days: Class Time:
Location: Classroom: Laboratory:
Credit Hours: Contact Hours: Lab Hours: Lecture Hours:

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Instructor: Office Location:
Phone: Email Address:

Office Hours: TBD

Division Office/Location: Engineering Building Division Fax: 419-334-2300

Full-time Contact Person: Jayne Bowersox Phone(s): (419) 559-2410

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Course Description:

An introductory blueprint reading course designed primarily for students in the Manufacturing Engineering Technology or apprenticeship programs. The student will learn to read blue prints through the use of freehand sketching, measurement projects and lecture. Topics covered include blue print reading basics, sketching, orthographic projection, basic measurement, dimensioning, tolerancing (including geometric tolerancing), section views, basic drawing specifications, and isometric projection.

Prerequisite(s): None

Corequisite(s): None

Entry Level Skills and Knowledge:

Required Texts, Supplies and Equipment:

Textbook:

Blueprint Reading & Technical Sketching for Industry
2nd Ed. By Thomas P. Olivo

- 1. Calculator for conversion calculations
2. Six inch steel rule or measuring device with 1/16 inch increments.
\*the instructor has several rulers available if you need to borrow one.

Grading:

Homework and assignments\* . . . . . 50%

Mid-Term and Final Tests . . . . . 50%

\*Homework and assignments will include sketching projects, exercises from the textbook, and reading blueprints that are provided.

**Grading:**

93-100%	=	A
85-92%	=	B
77-84%	=	C
70-76%	=	D
Less than 70%	=	F

**Learning Outcomes:**

General Education

1. **Communicate effectively**
2. **Evaluate arguments in a logical fashion**—Competence in analysis and logical argument are explicit learning goals for most general education programs, although these skills go by a variety of names (e.g., critical thinking, analysis, logical thinking, etc.). **Students will be able to demonstrate competence in problem solving in communication, mathematics, and in team settings.**
3. **Employ the methods of inquiry characteristic of natural sciences, social sciences, mathematics, and the arts and humanities;** general education introduces students to methods of inquiry in several fields of study and thereby prepares students to integrate information from different disciplines.

Upon completion of the course, the student should be able to:

1. Interpret
  - a. Orthographic projections
  - b. Section views
  - c. Dimensions
  - d. Tolerances
  - e. Drawing specifications
2. Accurately use
  - a. Measuring instruments
  - b. Scale
3. Accurately sketch and dimension
  - a. orthographic views
  - b. sectional views
  - c. isometric views
4. Read a blueprint and identify the following
  - a. dimensional data
  - b. views of the prints
  - c. title block data
  - d. detail data

**Topical Outline:**

1. Line types
2. Units of measurement
3. Orthographic sketching

4. Basic measurement tools and their use
5. Section views
6. Dimensioning
7. Tolerancing
8. Drawing specifications and notes
9. Isometric sketching

**Assessment of Student Learning:**

Assessment Project and Measurement in course (if any):

**Plan of Work:**

- Week 1
- Week 2
- Week 3
- Week 4
- Week 5
- Week 6
- Week 7
- Week 8
- Week 9
- Week 10
- Week 11
- Week 12
- Week 13
- Week 14
- Week 15

**NOTE:** Since this course is a distance learning course, you will be expected to check in with the instructor through email or in person weekly and submit assignments on time. If you do not complete all assignments by the 10<sup>th</sup> week, the highest grade you can earn is a B.

**Assignments/Projects:**

Week	Chapter in Text
1	<b>Unit 1</b> Pages 1-7; <b>Unit 2</b> Pages 8-12 <b>What is a Three View Drawing? *Only on CD</b> <b>Unit 3</b> Pages 13-15; <b>Unit 4a and 4b</b> Pages 16-19; <b>Unit 5</b> Pages 20-23
2	<b>Unit 63</b> Pages 383; <b>Unit 64</b> Pages 384-387; <b>Unit 65</b> Pages 384-387;

	<b>Unit 66</b> Pages 393-397; <b>Unit 6</b> Pages 24-29;
<b>3</b>	<b>Unit 7</b> Pages 30-33; <b>Unit 8</b> Pages 34-37; <b>Unit 9a, 9b, and 9c</b> Pages 38-44; <b>Unit 10</b> Pages 45-59 <b>Unit 67</b> Pages 398-402;
<b>4</b>	<b>Unit 68</b> Pages 403-407 <b>Unit 69</b> Pages 408-411; <b>Unit 70</b> Pages 412-417 <b>Unit 11</b> Pages 51-55; <b>Unit 12</b> Pages 56-61; <b>Mid-term Test Available in Testing Center or in Engineering Division Office</b>
<b>5</b>	<b>Unit 13</b> Pages 62-69; <b>Unit 14</b> Pages 71-75 <b>Unit 15</b> Pages 76-81; <b>Unit 16</b> Pages 82-86; <b>Unit 17</b> Pages 87-92;
<b>6</b>	<b>Unit 24</b> Pages 130-133; <b>Unit 25</b> Pages 134-139 <b>Unit 30</b> Pages 159-167; <b>Unit 37</b> Pages 203-207;
<b>7</b>	<b>Unit 38</b> Pages 208-213; <b>Unit 39</b> Pages 214-218; <b>Unit 40</b> Pages 219-223; <b>Unit 41</b> Pages 224-230;
<b>8</b>	<b>Unit 51</b> Pages 294-303; <b>Unit 50</b> Pages 286-293; <b>Unit 54,</b> Pages 316-321;
<b>9</b>	<b>Unit 57</b> Pages 336-341; <b>Unit 58</b> Pages 343-349; <b>Unit 59</b> Pages 350-355
<b>10</b>	<b>Unit 60</b> Pages 256-363; <b>Unit 61</b> Pages 364-371; <b>Final Test in Testing Center or in Engineering Division Office</b>

**Course Requirements:**

Complete all assignments as required

**Policies**

**Course Withdrawing:** If for any reason you need to withdraw from this course, be certain that you do so according to College procedure. It is your responsibility to know and follow this procedure. If you simply stop coming to class, without officially withdrawing from the course, your grade is an automatic “F.” Please follow official College procedure for withdrawing from this or any course.

*College Academic Policies are located in the College Catalog. A copy of the current catalog may be picked up in any of the division offices or admissions. The list of college policies is also available online at <https://www.terra.edu/register/Collegecat/policies.asp>.*

**Support Services:** The College offers a number of support services to assist in your success in this course and all courses. Among these services are the Writing & Math Center in B105, the Office of Learning Support Services, which coordinates the campus disability services and tutoring programs, the computer labs, and the computers in the atriums.

Any student who feels he/she may need an accommodation based on the documentation of a disability should contact the Office of Learning Support Services privately to discuss his/her specific issues. Please contact the OLSS at (419) 334-8400 X 208 or visit 100 Roy Klay Hall (Building A) to coordinate reasonable accommodations.

***If you have a documented disability and are receiving academic accommodations through the Office of Learning Support Services, please schedule a meeting with your instructor in a timely manner so that we may discuss how these services will be arranged.***

Tutoring services are available to students beginning the second week of every quarter. Students requesting tutoring services should obtain a tutor request form from the OLSS in 100 Roy Klay Hall (Building A) or online at the Terra website. Please note that instructor verification and acceptance of the Student Learner Agreement is necessary for all tutoring requests. All requests should be submitted to 100 Roy Klay Hall (Building A).