

## **TAM 132 Blueprint Reading 2 Course Syllabus**

Text: Interpreting Engineering Drawings

Author: Branoff, 8th edition, ISBN-10: 1-133-69359-8

Course Title: Blueprint Reading 2

Course Abbreviation & Section: TAM -132-xxx

Credits: 3

Prerequisites/Corequisites: TAM 131

**Description:** The students will learn to solve complex blueprint problems, including:

- Geometric Dimensioning and Tolerancing referencing the current ASME Y14.5-2018 standard
- Assemblies, section views, special views, surface textures, welding symbols, gears and screw threads will be examined.
- Topics will be presented in a lecture format using selected drawings from the text or from the Instructor

### **Course Learning Outcomes:**

Upon completion of this class the student will be able to:

- correctly interpret multi-view machined and casting drawings.
- correctly interpret section views, special views, and surface finish symbols on drawings.
- correctly interpret assembly drawings, and specialty drawings containing basic welding symbols and gear terminology.
- recognize and interpret Geometric Dimensioning and Tolerancing when used on drawings. The GD&T Standard ASME Y14.5-2018 will be used as the interpretation.

## Topic and Assignments by Week

**Topic:** Review: Arrangement of views, dimensions and tolerance, projection angles (first and third), title blocks, necessary views

**Wk 1**      **Assignment:** Read Unit 4 (page22-29) and unit 19

Complete A-65 in text

**Topic:** Auxiliary Views

**Assignment:** Read Unit 17, Complete A58 and A64 in text

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**Topic:** Section Views

**Wk 2**      **Assignment:** Read Unit 10, Complete A38, A34 in text

**Topic:** Violating True Projections

**Assignment:** Read Unit 24, Complete A81, A83M, A84M in text

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**Wk 3**      **Topic:** Machining Symbols

**Do:** Read Unit 8, Complete A29M, A30 in text

**Topic:** Surface Texture

**Assignment:** Read Unit 12, Complete A41, A42 in text

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**Wk 4**      **Topic:** GD&T Terminology and Form Tolerances

**Assignment:** Complete the Instructor supplied worksheets

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**Wk 5**      **Topic:** GD&T Datums and Datum Reference Systems

**Assignment:** Complete Instructor supplied worksheets

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**Wk 6**      **Topic:** GD&T Location Tolerances  
**Assignment:** Complete Instructor supplied worksheets

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**Wk 7**      **Topic:** GD&T Location Tolerances  
**Assignment:** Instructor supplied worksheets  
**Topic:** GD&T Runout  
**Assignment:** Instructor supplied worksheets

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**Wk 8**      **Topic:** GD&T Profile Tolerance  
**Assignment:** Instructor supplied worksheets

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**Wk 9**      **Topic:** Structural Steel  
**Assignment:** Read Unit 28, Complete A91 in text

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**Wk 10**     **Topic:** Castings  
**Assignment:** Read Unit 23, Complete A74, A75, A76 in text

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**Wk 11**     **Topic:** Welding Drawings / Fillet Welds  
**Assignment:** Read Unit 29, Complete Instructor supplied worksheets

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**Wk 12**      **Topic:** Welding Drawings/Groove Welds  
**Assignment:** Read Unit 30, Complete Instructor supplied worksheets

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**Wk 13**      **Topic:** Spur Gears  
**Assignment:** Read Unit 32, Complete A99 in text

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**Wk 14**      **Topic:** Pin Fasteners (time permitting)  
**Assignment:** Read Unit 25, Complete A85m, A78 in text

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**Wk 15**              **Topic:** Review