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|  | **Course:** | **EGT 104** |
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|  | **Title:** | **Technical Drafting IV** |
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|  | **Long Title:** | **Technical Drafting IV** |
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|  | **Course Description:** | **Introduces students to industrial working drawings. Students continue to develop drafting skills using various industrial standards for drawing generation. Examines material selection, part function and relationship, and tolerancing of parts for assemblies.** |
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|  | **Min Credit:** | **3** |

 STANDARD COMPETENCIES:

1. The engineering design process: Design models, analysis and problem solving.
2. Manufacturing materials and processes: Proper material and process selection.
3. Working drawings: Detail, subassembly, assembly, etc. drawings drawn to industrial standards.

 TOPICAL OUTLINE:

1. Define tolerancing concepts.
2. Discuss proper manufacturing processes.
3. Define function and relationship of parts.
4. Apply toleranced dimensions to detailed drawings.
5. Set up drawings using design specifications and required dimensions.
6. Identify vendor parts, part numbers and catalog numbers if applicable.
7. Apply vendor part specifications.
8. Select raw materials.
9. Draw part details.
10. Draw subassemblies and assemblies.
11. Apply proper drawing documentation.
12. Create a bill of materials.
13. Calculate weights for parts, subassemblies and assemblies.
14. Discuss the engineering design process and the design review process.
15. Discuss ECO/ECR generation and tracking.
16. Prepare all documentation for presentation using word processing and CADD software.
17. Generate prints/plots of drawings and associated documentation.
18. Present the project.