

DRAF 112 Advance Drafting Techniques

Credit Hours: 3

Scheduled hours per week

Lecture: 3

Lab: 0

Other: 0

Catalog Course Description: Advanced-level drafting course, includes auxiliary views, sectional views, working drawings, tolerancing, threads/fasteners/springs, gears and cams.

Pre-requisites: DRAF 102 or DRAF 111 or DRAF 314

Co-requisites: None

Course Learning Outcomes:

- Identify, visualize, and draw auxiliary drawings, sectional drawings, working drawings, tolerances, threads/fasteners/springs drawings, gear and cam drawings.
- Compute and solve geometric construction problems using the principals of plane geometry.
- Use accuracy and neatness, and speed in producing all required drawings.

Topics to be studied:

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| • Auxiliary Views | • Geometric dimensioning and tolerancing |
| • Section Views | • Threads/Fasteners/Springs |
| • Working Drawings | • Gears and Cams |

Relationship of Course to Program Learning Outcomes:	
Create two and three-dimensional drawings using AuotCAD, Microstation, Inventor, Revit, and 3D Studio Max.	X
Create three-dimensional animations and walkthroughs using AutoCAD, Revit, Inventor and 3D Studio Max.	
Apply arithmetic, algebraic, and trigonometric calculations in solving basic design problems.	X
Apply physics to solve mechanical design problems.	X
Understand by verbal and visual means the design of drawings and models.	X
Understand in writing to fellow coworkers and customer of any comments and concerns	X

Relationship of Course to General Education Learning Outcomes:	
Composition and Rhetoric Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.	X
Science & Technology Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.	X
Mathematics & Quantitative Skills Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	X
Society, Diversity, & Connections Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	X
Human Inquiry & the Past Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	X
The Arts & Creativity Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	X
5/3/2016	

Special requirements of the course:

Additional information:

Prepared by: Callix Miller 10/20/17

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