DRAF 314 Computer Aided Drafting
Credit Hours: 3
Scheduled hours per week
Lecture: 3
Lab: 0
Other: 0

Catalog Course Description: The basics of 2-D AutoCAD. Study drawing types from the major field of study. Create drawings in technology majors, such as electronics, electro-mechanical, environmental, manufacturing, and welding.

Pre-requisites: None

Co-requisites: None

Course Learning Outcomes:
- Identify, visualize, and draw orthographic projections, axonometric projections, dimensions and basic geometric construction.
- 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:
- Sketching
- Lettering
- Traditional Drafting Equipment
- Geometric Construction
- 2D Representation
- Computer-Aided Drafting
- Dimensioning Fundamentals
- Orthographic Projection
- Isometric Drawing
- Oblique Drawing
- Perspective Drawing

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.	
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.	
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:

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