DATE OF LAST REVIEW: 2/15/2013
CIP CODE: 15.1302
SEMESTER: Departmental Syllabus
COURSE TITLE: Print Reading
COURSE NUMBER: ENGR-0105
CREDIT HOURS: 3
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: 913-334-1100
EMAIL: Departmental Syllabus
KCKCC-issued email accounts are the official Means for electronically communicating with our students.
PREREQUISITE(S): None

REQUIRED TEXT: Please check with the KCKCC bookstore, http://www.kckccbookstore.com for the Required text for your particular class.

COURSE DESCRIPTION:
Students will read, interpret and visualize drawings and prints from actual industries. This course is designed to assist beginning and intermediate students to read and understand Industrial and Architectural prints.

METHOD OF INSTRUCTION:
A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:
Course content may vary, but will generally include the following:

I. Drafting and Printing Procedures
   A. The Language of Industry
   B. Reading a Scale
   C. Applied Mathematics
      1. Adding, Subtracting, Multiplying, and Dividing Fractions.
   D. The Alphabet of Lines
   E. Technical Sketching
II. Fundamentals of Shape Descriptions  
   A. Multiview Drawings  
   B. Auxiliary Views  
   C. Section Views  
   D. Threads and Fasteners  

III. Fundamentals of Size Descriptions  
   A. Dimensioning Normal Surfaces  
   B. Inclined Surfaces  
   C. Cylindrical Surfaces  
   D. Choice and Placement of Dimensions  
   E. Tolerances  
   F. Machining Specifications and Surface Quality  
   G. Geometric Dimensioning and Tolerancing  

IV. Types of Industrial Drawings  
   A. Detail Drawings  
   B. Assembly Drawings  
   C. Pictorial Drawings  

V. Drawing Annotations and Management  
   A. The Title Block  
   B. The Materials List  
   C. Drawing Notes  
   D. Drawing Revision Systems  

VI. Specialized Prints and Parts  
   A. Cam Diagrams and Prints  
   B. Gears, Splines, and Serrations  
   C. Numerical Control Documents  
   D. Plastic Part  
   E. Sheet Metal Parts  
   F. Welding Prints  
   G. Instrumentation and Control Drawings  

EXPECTED LEARNER OUTCOMES:  
A. Upon completion of the course the student will be able to demonstrate knowledge of drafting and printing procedures and its’ components.  
B. Upon completion of the course the student will be able to demonstrate knowledge of the fundamentals of shape descriptions as related to print reading.  
C. Upon completion of the course the student will be able to demonstrate knowledge of the fundamentals of size descriptions as related to print reading.  
D. Upon completion of the course the student will be able to demonstrate knowledge of three different types of industrial drawings.  
E. Upon completion of the course the student will be able to demonstrate knowledge of drawing annotations and management practices as related to print reading.  
F. Upon completion of the course the student will be able to demonstrate knowledge of specialized prints and parts as related to print reading.  

COURSE COMPETENCIES:  

Upon completion of the course the student will be able to demonstrate knowledge of Drafting and printing procedures and its’ components.
1. Upon completion of the course the student will be able to define “the language of industry.”
2. Upon completion of the course the student will be able to read a scale and apply those readings.
3. Upon completion of the course the student will be able to define and interpret the alphabet of lines as related to print reading.
4. Upon completion of the course the student will be able to demonstrate the ability to create a technical sketch of various objects.

Upon completion of the course the student will be able to demonstrate knowledge of:
The fundamentals of shape descriptions as related to print reading.

5. Upon completion of the course the student will be able to read and interpret multi-view drawings.
6. Upon completion of the course the student will be able to read and interpret auxiliary view drawings.
7. Upon completion of the course the student will be able to read and interpret section view drawings.
8. Upon completion of the course the student will be able to read and interpret thread and fastener specifications as related to print reading.

Upon completion of the course the student will be able to demonstrate knowledge of:
The fundamentals of size descriptions as related to print reading.

9. Upon completion of the course the student will be able to identify normal surfaces on a drawing.
10. Upon completion of the course the student will be able to identify inclined surfaces on a drawing.
11. Upon completion of the course the student will be able to identify cylindrical surfaces on a drawing.
12. Upon completion of the course the student will be able to demonstrate knowledge of dimension placement on a drawing.
13. Upon completion of the course the student will be able to interpret tolerances as related to print reading.
14. Upon completion of the course the student will be able to identify and interpret machining specifications and surface texture requirements when indicated on a drawing.
15. Upon completion of the course the student will be able to identify and interpret geometric dimensions and tolerances when indicated on a drawing.

Upon completion of the course the student will be able to demonstrate knowledge of three different types of industrial drawings.

16. Upon completion of the course the student will be able to identify and interpret detail drawings.
17. Upon completion of the course the student will be able to identify and interpret assembly drawings.
18. Upon completion of the course the student will be able to identify and interpret pictorial drawings.

Upon completion of the course the student will be able to demonstrate knowledge of:
Drawing annotations and management practices as related to print reading.

19. Upon completion of the course the student will be able to identify and interpret title block information as found on a drawing.
20. Upon completion of the course the student will be able to identify and interpret materials as found in a materials list on a drawing.
21. Upon completion of the course the student will be able to identify and interpret notes as found on a drawing.
22. Upon completion of the course the student will be able to identify and interpret revision data as found on a drawing.

Upon completion of the course the student will be able to demonstrate knowledge of:
Specialized prints and parts as related to print reading.

23. Upon completion of the course the student will be able to identify and interpret cam diagrams when found on prints.
24. Upon completion of the course the student will be able to identify and interpret gear, spline, and serration data when found on prints.
25. Upon completion of the course the student will be able to identify and interpret numerical control data when found on prints.
26. Upon completion of the course the student will be able to identify and interpret data as it applies to plastic parts when found on prints.
27. Upon completion of the course the student will be able to identify and interpret data as it applies to sheet metal parts when found on prints.
28. Upon completion of the course the student will be able to identify and interpret welding data when found on prints.
29. Upon completion of the course the student will be able to identify and interpret instrumentation and control drawings.

ASSESSMENT OF LEARNER OUTCOMES:
Assessment methods may include, but are not limited to, the following: Homework, Assignments, Quizzes, Class Participation, Chapter Tests, and Final Exam. The grading scale and the process for calculating the course grades are to be determined by the individual instructors. This information will be included in each instructor’s syllabus.

SPECIAL NOTES:
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college’s policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center, in Rm. 3354 or call at: 288-7670.