DATE OF LAST REVIEW: 2/15/2013

CIP CODE: 15.1302

SEMESTER: Departmental Syllabus

COURSE TITLE: Structural Steel Drafting

COURSE NUMBER: ENGR-0266

CREDIT HOURS: 4

INSTRUCTOR: Departmental Syllabus

OFFICE LOCATION: Departmental Syllabus

OFFICE HOURS: Departmental Syllabus

TELEPHONE: 913-334-1100

EMAIL: KCKCC-issued email accounts are the official means for electronically communicating with our students.

PREREQUISITE(S): None

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

COURSE DESCRIPTION: This course is a continuation of Structural Drawing, ENGR-0253. This course further develops the students’ knowledge of prefabricated steel structures and advanced work in Computer-Aided Drafting (CAD).

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. Structural drafting principles review
   A. Projection
   B. Symbols
   C. Definitions
   D. Notations
   E. Dimensions
   F. Structural shapes
   G. Structural scales
II. Classification of structural drawings.
   A. General plans
   B. Shop drawings
   C. Foundation and masonry plan
   D. Erection diagrams
   E. Bill of material
   F. High strength bolting
   G. Drawing list
   H. Structural welds

III. Detail drawings
   A. Beam
   B. Column
   C. Skewed

EXPECTED LEARNER OUTCOMES:
A. Upon completion of the course the student will be able to demonstrate an understanding of structural drafting terminology and principles.
B. Upon completion of the course the student will be able to demonstrate an understanding of the manner in which structural steel drawings are classified.
C. Upon completion of the course the student will be able to demonstrate an understanding of structural steel detail drawings.

COURSE COMPETENCIES:

*Upon completion of the course the student will be able to demonstrate an understanding of structural drafting terminology and principles.*
1. Upon completion of the course the student will be able to define and identify structural steel drafting symbols.
2. Upon completion of the course the student will be able to define structural steel drafting terms.
3. Upon completion of the course the student will be able to identify structural steel shapes.
4. Upon completion of the course the student will be able to determine correct structural steel scales to use on different parts of structural drawings.
5. Upon completion of the course the student will be able to correctly notate a structural steel drawing.
6. Upon completion of the course the student will be able to dimension a structural steel drawing.
7. Upon completion of the course the student will be able to draw structural steel shapes.

*Upon completion of the course the student will be able to demonstrate an understanding of the manner in which structural steel drawings are classified.*
8. Upon completion of the course the student will be able to identify general structural steel plans.
9. Upon completion of the course the student will be able to create general structural steel plans.
10. Upon completion of the course the student will be able to interpret data and create structural foundation and masonry plans.
11. Upon completion of the course the student will be able to interpret data and create structural erection diagrams.
12. Upon completion of the course the student will be able to interpret data and create a structural steel drawing list.
13. Upon completion of the course the student will be able to interpret data and draw structural welds on drawings.
14. Upon completion of the course the student will be able to interpret data and create structural steel shop drawings.
15. Upon completion of the course the student will be able to interpret data and create structural steel beam detail drawings.
16. Upon completion of the course the student will be able to interpret data and create structural steel column detail drawings.
17. Upon completion of the course the student will be able to interpret data and create structural steel skewed drawings.
18. Upon completion of the course the student will be able to determine the correct scale in which to draw structural detail drawings.
19. Upon completion of the course the student will be able to determine the correct scale in which to draw structural foundation drawings.
20. Upon completion of the course the student will be able to identify a framed structural steel connection detail.
21. Upon completion of the course the student will be able to interpret data and create a framed structural steel connection.
22. Upon completion of the course the student will be able to identify a seated structural steel connection detail.
23. Upon completion of the course the student will be able to interpret data and create a structural steel connection.
24. Upon completion of the course the student will be able to identify a framed and seated structural steel connection detail.
25. Upon completion of the course the student will be able to interpret data and create a structural steel connection.
26. Upon completion of the course the student will be able to identified a skewed structural steel drawing.
27. Upon completion of the course the student will be able to identify a structural steel column drawing.
28. Upon completion of the course the student will be able to identify a structural steel beam drawing.

**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.