

SYLLABUS

DATE OF LAST REVIEW:	03/2017
CIP CODE:	15.1302
SEMESTER:	Departmental Syllabus
COURSE TITLE:	Fundamentals of Structural Steel Drawing
COURSE NUMBER:	ENGR-0253
CREDIT HOURS:	3
INSTRUCTOR:	Departmental Syllabus
OFFICE LOCATION:	Departmental Syllabus
OFFICE HOURS:	Departmental Syllabus
TELEPHONE:	Departmental Syllabus
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 covers the practical and related information concerning the various types of structural steel, reinforced concrete, and curtain wall construction. A study is made of overall construction problems with emphasis on interpretations of technical drawings, erection plans, and detailed drawings.

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:

- I. Principles of Structural Drafting
 - A. Projection
 - B. Symbols
 - C. Definitions

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- D. Notations
 - E. Dimensions
 - F. Titles Boxes
 - G. Structural Shapes
 - H. Specifications
 - I. Abbreviated shapes
- II. Classification of Structural Drawings
- A. General plans
 - B. Shop drawings
 - C. Stress diagrams
 - D. Foundation and masonry plans
 - E. Erection diagrams
 - F. False work plans
 - G. Bill of Material
 - H. High strength steel bolting
 - I. Structural welds
- III. Detail Drawings
- A. Beam
 - B. Column
 - C. Skewed
 - D. Connection

EXPECTED LEARNER OUTCOMES:

- A. Upon completion of the course, the student will be able to demonstrate understanding of the principles of structural drafting.*
- B. Upon completion of the course, the student will be able to demonstrate knowledge of structural drawings.*
- C. Upon completion of the course, the student will be able to interpret data and create structural steel detail drawings.*

COURSE COMPETENCIES:

Upon completion of the course, the student will be able to demonstrate understanding of the principles of structural drafting.

1. Upon completion of the course, the student will be able to identify the symbols associated with structural drafting.
2. Upon completion of the course, the student will be able to define the terms associated with structural drafting.
3. Upon completion of the course, the student will be able to dimension a structural drawing.
4. Upon completion of the course, the student will be able to identify structural shapes.
5. Upon completion of the course, the student will be able to interpret structural shape specifications.
6. Upon completion of the course, the student will be able to identify abbreviated structural shapes.

Upon completion of the course, the student will be able to demonstrate knowledge of structural drawings.

7. Upon completion of the course the student will be able to interpret data and create a general structural drawing.

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8. Upon completion of the course, the student will be able to interpret data and create a structural shop drawing.
9. Upon completion of the course, the student will be able to interpret data and create a structural erection diagram.
10. Upon completion of the course, the student will be able to identify false work plans.
11. Upon completion of the course, the student will be able to interpret high strength bolt specifications.
12. Upon completion of the course, the student will be able to identify and interpret structural welding symbols.

Upon completion of the course, the student will be able to interpret data and create structural steel detail drawings.

13. Upon completion of the course, the student will be able to interpret data and create structural steel beam drawings.
14. Upon completion of the course, the student will be able to interpret data and create structural steel column drawings.
15. Upon completion of the course, the student will be able to interpret data and create structural steel skewed drawings.
16. Upon completion of the course, the student will be able to interpret data and create structural steel connection detail drawings.
17. Upon completion of the course, the student will be able to interpret data and create structural steel elevation drawings.
18. Upon completion of the course, the student will be able to interpret data and create a framed structural steel connection drawing.
19. Upon completion of the course, the student will be able to interpret data and create a seated structural steel connection drawing.
20. Upon completion of the course, the student will be able to interpret data and create a structural steel welding drawing.
21. Upon completion of the course, the student will be able to interpret welding symbols on a structural steel 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

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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 disabilities services office at (913) 288-7664.

All enrolled students at Kansas City Kansas Community College are subject to follow all rules, conditions, policies and procedures as described in both the Student Code of Conduct as well as the Student Handbook. All Students are expected to review both of these documents and to understand their responsibilities with regard to academic conduct and policies. The Student Code of Conduct and the Student Handbook can be found on the KCKCC website.