[A-3]COURSE SYLLABUS

1. Course Description (Approximately 100 words)

This is an introductory course in the design of steel structures. This course is recommended for seniors in the civil engineering program at St. Paul's University who are interested in learning the design of steel structures.

2. Course Goals and Objectives (Approximately 100 words)

The objectives of this course are:
1. To learn the behavior and design of structural steel components, for example, members and connections in two - dimensional (2D) truss and frame structures.
2. To gain an educational and comprehensive experience in the design of simple steel structures.

3. Textbook (Title, Author, Publisher, Year of Publication, etc.)

Unified Design of Steel StructuresMay 3, 2017 by Louis F. Geschwindner and Judy Liu

4. Reference

Steel Structures Design: ASD/LRFDFeb 8, 2011 by Alan Williams

5. Course Requirements and Grades

CAT 30%
EXAM 70%

6. Course Calendar

Week	Main Content
1	DESIGN OF STEEL STRUCTURES:MECHANICAL PROPERTIES OF STR
2	ANALYSIS PROCEDURES AND DESIGN PHILOSOPHY
3	BASIC CONCEPTS OF PLASTIC THEORY
4	CONNECTIONS:LIMITS ON WIDTH-THICKNESS RATIO
5	DESIGN OF TENSION MEMBERS
6	MID-TERM EXAMINATION
7	COMPRESSION MEMBERS:Effective Length of Compression Members
8	Column and base plate connections and their impact in structural connectior
9	DESIGN OF BEAMS: Beam classification
10	LATERALLY UNSUPPORTED BEAMS
11	ELASTIC LATERAL BUCKLING MOMENT AND THEIR CALCULATIONS
12	Designing compression member or columns
13	Designing beam-columns for combined axial and flexural forces
14	FINAL EXAMINATION