

**Course Name:**

LRFD Design of Steel Structures

<b>Course Number:</b> 20-134	<b>Credit:</b> 3
<b>Program:</b> Graduate	<b>Course Type:</b> Technical Selective
<b>Prerequisite:</b> -	<b>Corequisite:</b> -

**Course Description (Objectives):**

This course covers the LRFD-based design of steel members and connections using AISC codes. Topics include tension, compression, and bending member design, beam-columns, welded and bolted connections, and seismic design of steel frames and connections per AISC 341 and AISC 358.

**Course Content (outline):**

- Chapter 1: American Codes
- Chapter 2: Steel properties and design principles
- Chapter 3: Design of tensile and compression members
- Chapter 4: Design of weld and bolt connections
- Chapter 5: Design of braces and gusset plate for earthquake according to AISC341
- Chapter 6: Design of bending members
- Chapter 7: Design of beam-columns and P- $\delta$  problem
- Chapter 8: Seismic design of steel rigid frames according to AISC341
- Chapter 9: Seismic design of steel rigid connections according to AISC358

**References:**

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