附件1：

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| 课程名称（中英文） | 钢结构（1）（英）  Steel Structures (1): Basic Principles and Design |
| 课程先修条件  Course prerequisite  （中英文） | 材料力学、结构力学课程  Material Mechanics, Structural Mechanics |
| 课程大纲及  考核方式 | **Course Contents:**  **Chpt.1** Introduction  1.1 Characteristics of steel structures  1.2 Engineering applications  1.3 Structural elements and systems  1.4 Development of steel structures  **Chpt.2** Design Concepts & Required Steel  2.1 Design concepts  2.2 Requirements of structural steel  2.3 Factors affecting steel properties  2.4 Static failure of structural steel  2.5 Fatigue failure of structural steel  2.6 Steel grades, products & selection  2.7 Advanced structural steel  **Chpt.3** Connections  3.1 Butt welded connections  3.2 Fillet welded connections  3.3 Bolted connections  **Chpt.4** Axially Loaded Members  4.1 Introduction  4.2 Strength & Stiffness  4.3 Overall Buckling Behaviour  4.4 Buckling of Plate in Columns  4.5 Built-up Columns  **Chpt.5** Flexural Members  5.1 Introduction  5.2 Overall Buckling Behaviour  5.3 Strength  5.4 Stiffness  5.5 Local Buckling Behaviour  5.6 Design of Flexural Members  **Chpt.6** Beam-Columns  6.1 Introduction  6.2 Overall Buckling Behaviour  6.3 Local Buckling Behaviour  6.4 Strength & Stiffness  6.5 Effective Length  6.6 Design of Beam-Columns  **Chpt.7** Joints  7.1 Introduction  7.2 Component splice joints  7.3 Beam-to-beam joints  7.4 Beam-to-column joints  7.5 Column base  **Assessment**:  Performance in class & OOH (10%)  Assignments (20%)  Midterm examination (30%)  Final examination (40%) |