

The Hong Kong University of Science and Technology

UG Course Syllabus

[Course Title] **Structural Steel Design**

[Course Code] **CIVL 4320**

[No. of Credits] **3**

[Any pre-/co-requisites] **Prerequisites: CIVL 3310 Structural Analysis**

Name: [Instructor(s) Name] Prof. Yuxin PAN

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Course Description

[Briefly describe the course content, key topics or themes, objectives, methods of instruction, e.g., lectures, discussions, projects].

Introduction to the behaviour and design of steel structures. Stability analysis and applications of limit states design methods to tension members, columns, beams, plate girders, beam-columns, and structural connections.

Assessments:

[List specific assessed tasks, exams, quizzes, their weightage]

Assessment Task	Contribution to Overall Course grade (%)
Assignments	15%
Pop quizzes	5%
Mid-term examination	30%
Final examination	50%

Required Texts and Materials

[List required textbooks, readings, and any other materials]

Code of Practice for the Structural Use of Steel 2011 (2023 Edition), Buildings Department, Hong Kong Special Administrative Region, March 2023 (Required).

Lam D, Ang T.C. and Chiew S.P., Structural Steelwork - Design to Limit State Theory, Elsevier, 3rd Ed., 2004.

Nethercot, D.A., Limit States Design of Structural Steelwork, Chapman & Hall, 3rd Ed., 2001.

Trahair, N.S. and Bradford, M.A. and Nethercot, D.A., The Behaviour and Design of Steel Structures to BS5950, Chapman & Hall, 3rd Ed., 2001.

Owen, G.W., Knowles, P.K. and Dowling, P.J., Steel Designers' Manual, Blackwell Scientific Publications, 1992.