

The Hong Kong University of Science and Technology

UG Course Syllabus

Machine Learning with Structured Data

COMP4222

3 credits

Name: Yangqiu Song

Email: yqsong@ust.hk

Course Description

This course provides an introduction to learning algorithms for structured data such as sequences, trees, relational databases (such as knowledge bases), and graphs (including graph databases such as large heterogeneous information networks and knowledge graphs, and using programming tools such as Python to implement them for real problems. It will use some of the following practical problems such as graph classification, statistical relational learning, structure prediction models, QA system, etc. as illustrations to demonstrate the power of the learning algorithms.

Assessments:

Assessment Task	Contribution to Overall Course grade (%)
Reading notes and assignments	20-30%
Project code and report	20-30%
Final project presentation	10%
Final exam	40%
Total	100%

Required Texts and Materials

N/A

[Optional] Additional Resources

N/A