This course is designed to provide the student with an understanding and working knowledge of crystallography and diffraction in materials science investigations using x-rays, electrons and neutrons and how these techniques are currently used to characterize materials.
Reference books:


Y. Waseda, E. Matsubara, K Shinoda, X-Ray Diffraction Crystallography Introduction, Examples and Solved Problems


R.W James, The Optical Principles of Diffraction of X-rays, Cornell University Press (1965)
Crystallography and Diffraction: PPG-CEM

Lectures notes:

http://www.dema.ufscar.br/wjbotta/