COURSE DETAIL

STRUCTURAL & CHEMICAL BIOLOGY
Country South Africa
Host Institution University of Cape Town
Program(s) University of Cape Town
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Biological Sciences Bioengineering Biochemistry
UCEAP Course Number 134
UCEAP Course Suffix
UCEAP Official Title STRUCTURAL & CHEMICAL BIOLOGY
UCEAP Transcript Title STRUCTUR&CHEMICLBIO
UCEAP Quarter Units 12.00
UCEAP Semester Units 8.00

Course Description

This course addresses how modern techniques of structural and chemical biology are being used to solve biological problems. It draws on multiple aspects of macromolecular biochemistry including nucleic acid structure and interactions, signaling proteins, and membrane proteins. The course demonstrates how this knowledge can be used in drug discovery and protein design in biotechnology. Topics include mechanisms of reversible and irreversible enzyme inhibitors, ligand binding, protein folding, the molecular basis for protein function, regulation of protein activity, cell signaling, and proteomics. Assessment: Tests count 40%; practicals, tutorials essays, and assignments count 10%; one 3-hour examination written in June counts 50%. A subminimum of 40% in the examination is required.

Language(s) of Instruction
English

Host Institution Course Number
MCB3025F

Host Institution Course Title
STRUCTURAL & CHEMICAL BIOLOGY

Host Institution Campus
University of Cape Town

Host Institution Faculty
Science

Host Institution Degree

Host Institution Department
MOLECULAR AND CELL BIOLOGY

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