Bioinformatics (7 days)

Module Content
General Introduction to Bioinformatics and Databases
To perform BLAST of a protein sequence
Phylogenetic study
To find the binding pockets of the protein using CASTp
To Draw the structure of carbamic acid using ChemSketch
To predict ADMET properties using the Chemicalize online tool
Primer designing

Bioinformatics (15 days)

Module Content
General Introduction to Bioinformatics and Databases
To retrieve FASTA sequence from Various database
To perform BLAST of a protein sequence
Phylogenetic study
To perform molecular modelling using SwissModel
To validate the model structure of HIV-1 protease using the Swiss model and PROCHECK
Model validation using various parameters
To find the binding pockets of the protein using CASTp

To perform a change in the format of the molecule from mol to PDB
To predict ADMET properties using the Chemicalize online tool
Primer designing
Concluding lecture and discussion
Presentations, Viva-voice and report submission

Bioinformatics (30 days)

Module Content
General Introduction to Bioinformatics and Databases
To retrieve FASTA sequence from Various database
To perform BLAST of a protein sequence
Phylogenetic study
To perform molecular modelling using SwissModel
To validate the model structure of HIV-1 protease using the Swiss model and PROCHECK
Model validation using various parameters
To find the binding pockets of the protein using CASTp
To Draw the structure of carbamic acid using ChemSketch
To perform a change in the format of the molecule from mol to PDB
Introduction to AutoDock-4.2.5.1
To perform molecular docking using AutoDock-4.2.5.1
To predict ADMET properties using the Chemicalize online tool
Protein-protein interaction
Introduction to QSAR

Concluding lecture and discussion
Presentations, Viva-voice and report submission