Sr. No	Lecture Tiltle	Description	Category	Duration
		Segment 3: 3D Structure Prediction		
1	PEPFOLD 3 Peptide Structure Modeling	• Introduction to PEPFOLD_3 server and its purpose. • Generating 3D models of a peptide using the query sequence. • Defines parameters and analysis of results.	Peptide Structure prediction	13:14
2	MODELLER	• Introduction to Modeller tool and its uses. • Procedure to predict a protein structure through Modeller. • Evaluation method of MODELLER to find out the most optimal and good protein structure predicted.	3D Structure Prediction	36:13:00
3	SwissModel	• Introduction to homology modeling and SwissModel, a homology modeling server. • Prediction of protein structure for a target sequence using SwissModel. • Defines parameters for a good protein structure and analysis of resulting protein.	3D Structure Prediction	12:52
4	HHPRED	• Basic description of HHPred tool and its purpose. • Procedure to predict the protein structure from target sequence through HHPred tool. • Selecting a particular template structure for homology modeling of target protein using HHPred tool.	3D Structure Prediction	14:09
5	M4T	• Introduction to M4T, a protein structure prediction tool. • Procedure to predict the protein structure from a Target protein sequence, using the M4T server.	3D Structure Prediction	9:26

6	IntFOLD	• Introduction to IntFOLD and its purpose. • Procedure to predict the protein structure from target protein sequence, using the IntFOLD server. • Interpretation of results.	3D Structure Prediction	8:41
7	ROBETTA	• Introduction to Robetta, a protein structure prediction tool. • Procedure to predict and analyse protein structure. • Prediction of protein structure for a query sequence using ab-initio techniques.	3D Structure Prediction	14:39

8	Homology Modeling Using MOE	• Introduction to homology modeling and Molecular Operating Enviroment
		  (MOE) tool.
		• Generating a homology 3D model of a target protein using MOE.
		• Analysis of results and how to align the two structures of the protein
		  using the MOE tool.
			3D Structure Prediction	12:34