Segment No.	Lecture Title	Duration	Category	Main Category
1	Introduction to UniProt	9:56	UniProt	Protein Databases & Analysis
1	UniProtKB & Protein Analysis	39:29:00	UniProt	Protein Databases & Analysis
1	UniProteome & Retreieval of an Entire Proteome	13:05	UniProt	Protein Databases & Analysis
1	UniRef & Retrieve Protein Clusters	11:35	UniProt	Protein Databases & Analysis
1	UniParc & Find the Non-Redundant Entries	4:58	UniProt	Protein Databases & Analysis
1	Peptide Search: Searching for a Particular Peptide on UniProt	3:15	UniProt	Protein Databases & Analysis
1	Introduction to Protein Data Bank (PDB)	6:44	PDB	Protein Databases & Analysis
1	Accurately Searching for a Protein Structure on PDB & Protein Analysis	13:55	PDB	Protein Databases & Analysis
1	Browsing PDB According to Annotation	6:52	PDB	Protein Databases & Analysis
1	Digging Out Categorized & Specific Protein Structures from PDB Archives	6:23	PDB	Protein Databases & Analysis
1	3D Structure Visualization on PDB	10:49	PDB	Protein Databases & Analysis
1	Biological Annotation and Protein Features View & Analysis	8:18	PDB	Protein Databases & Analysis
1	Protein Symmetry: Understanding the Protein Validation	2:34	PDB	Protein Databases & Analysis
1	NCBI BLAST Database Searching	25:36:00	NCBI	Protein Databases & Analysis

1	UniProt BLAST & Protein Database Searching	12:32	UniProt	Protein Databases & Analysis
1	Introduction to InterPro	4:10	Protein Families Database	Protein Families Database
1	InterPro - Protein Family Classifcation and Analysis	14:35	Protein Families Database	Protein Families Database
1	Protein & Protein Domain Analysis	9:29	Protein Families Database	Protein Families Database
1	Pfam: Understanding Protein Families and their Members	15:55	Protein Families Database	Protein Families Database
1	PROSITE: Understanding and Analyzing Protein Motif and Domain Profiles	13:46	Protein Families Database	Protein Families Database
1	Introduction to Molecular Modeling Database (MMDB)	8:06	NCBI	Protein Databases & Analysis
1	STRING: Protein-Protein Network Database and Analyzing PPI Between Proteins	13:16	PPI Database	Protein-Protein Interaction Database
2	NEEDLE: Pairwise Global Sequecne Alignment	20:02	Pairwise Sequence Alignment	Sequence Alignment & Analysis
2	WATER: Pairwise Local Sequence Alignment	9:10	Pairwise Sequence Alignment	Sequence Alignment & Analysis
2	UniProt Align & Alignment of 2 Proteins	3:47	Pairwise Sequence Alignment	Sequence Alignment & Analysis
2	Alignment Between Two PDB Sequences & Structures	6:07	Pairwise Sequence & Structure Alignment	Sequence Alignment & Analysis
2	Clustal Omega: Multiple Sequence Alignment	19:18	Multiple Sequence Alignment	Sequence Alignment & Analysis
2	Aln2Plot: Prediction of Hydrophobocity Between Two Proteins	2:30	Protein Analysis	Protein Analysis
2	REPPER: Prediction of Gapless Repeats in Protein Sequences	2:25	Protein Analysis	Protein Analysis

2	SignalP: Prediction of Signal Peptide in Proteins	7:57	Protein Analysis	Protein Analysis
2	TargetP: Prediction of Protein Localization	9:21	Protein Analysis	Protein Analysis
2	ScanProsite: Prediciton of Important Functional Sites in Proteins Using Profiles	7:36	Motif & Domain Analysis	Motif & Domain Analysis
2	HMMER: Prediction of Import Functional Sites in Proteins Using Hidden Markov Models	13:16	Motif & Domain Analysis	Motif & Domain Analysis
2	SMART: Finding Domains in Proteins	6:44	Protein Analysis	Protein Analysis
2	Ali2D	4:09	Secondary Structure Prediction	Secondary Structure Prediction
2	Quick2D	4:33	Secondary Structure Prediction	Secondary Structure Prediction
2	HHrepID: Prediction Secondary Structure of Proteins	5:15	Secondary Structure Prediction	Secondary Structure Prediction
2	DeepCoil: Prediction of the Coiled-coil Domain Regions	3:22	Secondary Structure Prediction	Secondary Structure Prediction
2	MARCOIL: Analysis of Coiled-coil Domains of Proteins	4:05	Secondary Structure Prediction	Secondary Structure Prediction
2	Jpred: Prediction Secondary Structure of the Proteins	4:54	Secondary Structure Prediction	Secondary Structure Prediction
3	PEPFOLD 3 Peptide Structure Modeling	13:14	Peptide Structure prediction	Peptide Structure prediction
3	MODELLER	36:13:00	3D Structure Prediction	3D Structure Prediction
3	SwissModel	12:52	3D Structure Prediction	3D Structure Prediction
3	HHPRED	14:09	3D Structure Prediction	3D Structure Prediction

3	M4T	9:26	3D Structure Prediction	3D Structure Prediction
3	IntFOLD	8:41	3D Structure Prediction	3D Structure Prediction
3	ROBETTA	14:39	3D Structure Prediction	3D Structure Prediction
3	Homology Modeling Using MOE	12:34	3D Structure Prediction	3D Structure Prediction
4	Chimera	25:23:00	3D Structure Visualization	3D Structure Visualization
4	PyMol	40:48:00	3D Structure Visualization	3D Structure Visualization
4	WhatCheck	8:40	3D Structure Evaluation	3D Structure Evaluation
4	ProCheck	12:36	3D Structure Evaluation	3D Structure Evaluation
4	ERRAT	6:44	3D Structure Evaluation	3D Structure Evaluation
4	Verify3D	8:31	3D Structure Evaluation	3D Structure Evaluation
4	RAMPAGE	3:29	3D Structure Evaluation	3D Structure Evaluation
4	PROSA	10:05	3D Structure Evaluation	3D Structure Evaluation
4	SAVES	5:31	3D Structure Evaluation	3D Structure Evaluation
5	Molecular Docking of Protein Ligand using MOE	9:23	Molecular Docking	Molecular Docking
5	Protein-protein Docking using MOE	11:38	Molecular Docking	Molecular Docking

5	SwissDock	19:16	Molecular Docking	Molecular Docking
5	Docking a Library of Compounds using MOE	19:48	Molecular Docking	Molecular Docking
5	ClusPro Protein-Protein Docking	21:44	Molecular Docking	Molecular Docking
5	patchDock	17:39	Molecular Docking	Molecular Docking
5	MDockPEP protein peptide docking	10:06	Molecular Docking	Molecular Docking
5	ZDOCK	19:35	Molecular Docking	Molecular Docking
5	Structure Based Drug Desinging Using MOE	16:19	Molecular Docking	Molecular Docking
5	Discovery Studio+	12:03	Molecular Docking	Molecular Docking
5	AutoDock		Molecular Docking	Molecular Docking
5	PDBsum Docking Complex Evaluation	18:49	Docking Complex Evaluation	Docking Complex Evaluation
5	PDBepisa Docking Complex Evaluation	23:27	Docking Complex Evaluation	Docking Complex Evaluation
5	SwissADME	15:31	Docking Complex Evaluation	Docking Complex Evaluation
6	Getting Started With Molecular Dyanmics Simulation - Pre-processing of Protein Structure and Removal of Unncessary Structural	12:33	Protein Simulation	Molecular Dynamics Simulation
6	pdb2gmx - Construction of Topology File for Simulation	9:00	Protein Simulation	Molecular Dynamics Simulation
6	Defining a Solvant Box for Simulation	4:14	Protein Simulation	Molecular Dynamics Simulation

6	Solvation - Adding Water Molecules in Solvant Box	5:30	Protein Simulation	Molecular Dynamics Simulation
6	Generating Input Run File Replacement of Water Molecues With Ions	6:55	Protein Simulation	Molecular Dynamics Simulation
6	genion - Replacement of Water Molecules With Ions	4:18	Protein Simulation	Molecular Dynamics Simulation
6	Energy Minimization - Relaxing and Fixing the Structure for Simulation	11:25	Protein Simulation	Molecular Dynamics Simulation
6	GRACE - Visualization and Analysis of Minimized Structure	4:11	Protein Simulation	Molecular Dynamics Simulation
6	Equibiliration of Protein Structure NVT ENSEMBLE Phase 1	8:37	Protein Simulation	Molecular Dynamics Simulation
6	Equibiliration of Protein Structure NPT ENSEMBLE Phase 2	8:09	Protein Simulation	Molecular Dynamics Simulation
6	mdrun - Executing Simulation Analysis	3:46	Protein Simulation	Molecular Dynamics Simulation