

**Introduction to Genomics, Proteomics, and Bioinformatics: MBGC 5002Q
(Spring 2022)**

Time: Monday and Wednesday, 10:00 am- 11:50 am Room: MSB Room B619

Directors:

Dr. Seema Husain
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Instructors:

Dr. Mainul Hoque (hoquema@njms.rutgers.edu)
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Schedule:

Week 1

2/28/22: Overview Genomics, Proteomics and Bioinformatics (Dr. Husain)
3/2/22: Deep Sequencing (Dr. Hoque)

Week 2

3/7/22: Genomics Experiment Design (Dr. Hoque)
3/9/22: Sequence comparison algorithms and tools (Dr. Lemenze)

Week 3

3/14/22: Differential Gene Expression (Dr. Lemenze)
3/16/22: Genomics Data Analysis (Dr. Hassimi)

Week 4

3/21/22: New frontier in Genomics (Dr. Lemenze)
3/23/22: Research Applications of Sequencing (Dr. Yang) [Take Home Exam 1](#)

Week 5

3/28/22: Pathway Analysis (Dr. Chintalapudi)
3/30/22: Clinical Genomics I Dr. (Dermody)

Week 6

4/4/22: Clinical Genomics II (Dr. Dermody)
4/6/22: Proteomics and Mass Spec (Dr. Li)

Week 7

4/11/22: Bioinformatics of proteomics (Dr. Li)
4/13/22: Student presentations on proteomics papers (Dr. Li)

Week 8

4/18/22: Office hour
4/20/22: Metabolomics (Dr. Yang), [Take Home Exam 2](#)

Grading: Attendance & Participation: 10%; Exam 1, 45%; Exam 2, 45%.