

# Topic 1 Information

## Topic 1 Module Learning Objectives (MLOs)

By the end of Topic 1, students will be able to:

1. classify amino acids in categories based on chemical properties of their side chains. (MLO1)
  2. interpret simple protein structure representations to identify different levels of folding structure. (MLO2)
  3. deduce a protein consensus sequence, identifying conservative substitutions. (MLO3)
  4. compare the binding strengths of different proteins to other proteins or substrates, in the case of enzymes. (MLO4)
  5. describe the roles of posttranslational modifications on protein structure (conformation) and function. (MLO5)
  6. explain the roles of a polypeptide's amino acid sequence and chaperones in protein folding. (MLO6)
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## Topic 1 Alignment to Course Learning Objectives (CLOs)

Topic 1 MLOs contribute toward the CLO1: By the end of the course, students should be able to do recognize, describe and make inferences about the role that protein structure plays in protein function. (CLO1)

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## Deadlines

You must complete the Topic 1 lecture videos on **Protein Structure** and the corresponding quizzes (1-1, 1-2, 1-3 and 1-4) by **midnight August 30<sup>th</sup>**.

Monday August 31<sup>st</sup>, we will meet during the scheduled class time and apply the concepts from Topic 1 in Activity 1 posted at the bottom of this module. This activity is not graded, but a problem set with similar kinds of problems will be assigned as graded homework later to assess your understanding. We will also review any questions posted to the Q & A Discussion Board that require further discussion, and we will look at the problems assigned for the textbook chapter.

Extra class time will be used as an informal help session.

### Assigned Reading

Molecular Biology: Principles and Practice (2<sup>nd</sup> edition) - Chapter 2, section 2.4 and Chapter 4

### End of Chapter Practice Problems

Chapter 4: #4, 5, 8, 9, 13, 14

