

## Syllabus for CHEM504500 PROTEIN STRUCTURE AND CHEMISTRY, Spring 2016

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**Lecture:**

Time: T3T4F2

Room: CHEM114

Method: Lecture, 3 credits

**Course Outline:**

- Protein chemistry
  - Overview on Amino acid chemistry and properties
  - Peptide/protein sequence analysis
  - Peptide synthesis
  - Chemical ligation
- Protein Structure
  - Secondary/supersecondary structures
  - Noncovalent interactions in proteins
  - Globular and fibrous proteins
  - Membrane proteins
  - Protein aggregations

**Note:**

Some handouts are available on iLMS system. Print a copy and bring it to the class.

**Grading:**

Homework & Problem set	30%
Two exams	2 x 35% = 70%
■ 4/12/16 (Tue)	
■ 6/07/16 (Tue)	

**References:**

- T.E. Creighton (2010), *The biophysical chemistry of nucleic acids & proteins*.
- T.E. Creighton (1999), *Proteins – Structures and Molecular Properties*, 2<sup>nd</sup> Ed.
- A.V. Finkelstein & O.B. Ptitsyn (2002), *Protein Physics*.
- A. Fersht (1999), *Structure and Mechanism in Protein Science*.

- C. Branden & J. Tooze (1999), *Introduction to Protein Structure*, 2<sup>nd</sup> Ed.
- S.M. Hecht (Ed.)(1998), *Bioorganic Chemistry: Peptides and Proteins*.
- W.C. Chan & P.D. White (Ed.)(2000), *Fmoc Solid Phase Peptide Synthesis: A Practical Approach*.