

<b>General Information</b>			
<b>Course name</b>	ÚCHV/PSF/03 Proteins, Structure and Function	<b>ECTS Credits</b>	5
		<b>Semester</b>	winter
<b>Aims</b>			
Ability to suggest/use suitable methods for determination of structural and functional properties of proteins.			
<b>Content</b>			
Chemical properties of polypeptides. Detection of amino acids, peptides and proteins. Biosynthesis of proteins – procaryotes. Biosynthesis of proteins – eucaryotes. Topogenesis. Protein folding. Postranslational covalent modifications of polypeptide chains. Physical interactions that determine the properties of proteins. Conformational properties of polypeptide chains. Proteins in solution and in membranes. Interactions with other molecules. Allostery. Degradation. Extremophiles.			
<b>Assessment Methods and Criteria</b>			
oral examination			
<b>Grading Scale (in %):</b> 100-91%-A, 90-81%-B, 80-71%-C, 70-61%-D, 60-51%-E, 50-0%-FX			

**Grading System:**

The University recognises the following six degrees for the evaluation of the study results:

- a) A – excellent (excellent results) (numerical value 1)
- b) B – very good (above average results) (1.5)
- c) C – good (average results) (2)
- d) D – satisfactory (acceptable results) (2.5)
- e) E – sufficient (results meet the minimum criteria) (3)
- f) FX – failed (requires further work) (4)

**Bibliography**

T.E. Creighton: Proteins - structures and molecular properties, 1993, W.H. Freeman and Company - New York.

Alan Fersht: Structure and mechanism in protein science, W.H. Freeman and Company, New York, 1999.

