

SYLLABUS

Subject:	BIOCHEMISTRY OF NUTRITION – selected chapters		
Field of study:	<i>General Medicine</i>	Degree of study:	<i>III.</i>
Study programme:	<i>Clinical Biochemistry</i>	Form of study:	<i>Internal / External</i>
Subject evaluation:	<i>Exam</i>	Subject type:	<i>Elective course</i>

Department: **Department of Medical and Clinical Biochemistry UPJŠ FM**

<i>Lectures and seminars</i>	
INTRODUCTION TO HUMAN NUTRITION	
<ul style="list-style-type: none"> – Definition of basic terms – Chemical composition of basic nutrients – Macro and microelements – Basic components of food 	
DIGESTION, RESORPTION AND METABOLISM OF ESSENTIAL NUTRIENTS	
<ul style="list-style-type: none"> – Metabolism of saccharides, lipids, amino acids and minerals. – Water and its importance in metabolism 	
DIETARY FIBER AND ITS RELATIONSHIP TO THE MICROBIOME OF COLON	
<ul style="list-style-type: none"> – Definition, composition and properties of dietary fiber – Metabolism of dietary fiber in the intestine – Importance for health and disease – Prebiotics and probiotics 	
NUTRITIVE VALUE OF FOOD	
<ul style="list-style-type: none"> – Energy value – Biological value – Importance of essential components of food 	
NUTRITION AND ITS CONTRIBUTION TO REDUCING THE RISK OF DISEASE	
<ul style="list-style-type: none"> – Importance of the nutrients – Possibilities of prophylactic action of nutrients and foods – Specifics of nutrition in different periods of life – Food intolerance and allergens 	
	1th revision test
EFFECTS OF NUTRITION ON THE RISK OF CERTAIN DISEASES	
<ul style="list-style-type: none"> – Diabetes Mellitus – Atherosclerosis – Metabolic syndrome – Carcinogens and other toxins in food 	
PARENTERAL NUTRITION AND ALTERNATIVE FORMS OF DIET	
<ul style="list-style-type: none"> – Parenteral nutrition - specification – Vegetarian forms of diet – Popular diets 	
TECHNOLOGICAL PROCESSING OF FOOD	
<ul style="list-style-type: none"> – Positives and negatives of food processing – Foods prepared by gene technology 	
NUTRIGENOMICS	
<ul style="list-style-type: none"> – Definition – Relationship between nutrition and genes – Personalized nutrition 	
	2nd revision test