Subject information sheet

University: *Comenius University in Bratislava*	
Faculty: *Faculty of Physical Education and Sport*	
Subject code:	**Subject title: Basic Nutrition**
Type, range and method of educational activities: 1-hour of seminars per week, presence method	
Number of credits: *3*	
Recommended semester/trimester of study: 6th semester of coaching study	
Degree of study: Bachelor's degree	
Course prerequisites:	
Conditions for completing the course: *During the semester:* *• active student participation in seminars is required* *• submission of a 1-seminar work on a given topic* *Passing the final exam.* *Overall rating:* *A - 100 to 91%, B - 90 to 81%, C - 80 to 71%, D - 70 to 65%, E - 64 to 60%, FX - less than 60%.* *Credits will not be awarded to students who:* *• failed to attend at least 80% of the seminars during the semester*	
Learning outcomes: *The student masters the qualitative and quantitative components of nutrition, knows the factors involved in the energy and substance needs of humans, knows the metabolism of essential nutrients in our body, and can develop a menu for the needs of a healthy diet of the general population.*	
Course contents: 1. The nutritional needs of human 2. The qualitative and quantitative aspects of nutrition 3. Digestive system in Human 4. The importance of proteins, fats, and sugars in nutrition 5. Importance of vitamins, minerals, and fiber (Detailed syllabus - for internal needs of the faculty) Topic 1 and thesis Human nutritional needs - human energy needs, factors influencing human energy needs, basal metabolism, thermal impact of diet, and physical activity. Topic 2 and thesis Human substance requirements, quantitative and qualitative components, metabolism, the energy value of substances, anabolic and catabolic reactions as a part of metabolism. Topic 3 and thesis Human digestive system, enzymatic processing and digestion of nutrients in the oral cavity, stomach, and small intestine. Topic 4 and thesis Proteins and their importance for humans, amino acids - basic building blocks of proteins, essential amino acids, their importance, and function in the human body, their sources in food.	

Topic 5 and thesis
Non-essential amino acids, importance and function of individual non-essential amino acids in the human body, food sources.

Topic 6 and thesis
The biological value of proteins, animal sources of proteins - advantages and disadvantages, plant sources of proteins - advantages and disadvantages, risks of excessive protein intake, use of knowledge in creating the menu.

Topic 7 and thesis
Fats, their classification, physiological functions, fat metabolism.

Topic 8 and thesis
The importance of essential fatty acids for health, sources of omega 3 fatty acids, cholesterol - its function in the body.

Topic 9 and thesis
Carbohydrates, distribution of carbohydrates, representation of carbohydrates in various food sources, digestion of carbohydrates, glycogen metabolism.

Topic 10 and thesis
Glycemic index and glycemic load of food, their influence on the development of blood glucose, distribution of food sources, and their inclusion in the diet.

Topic 11 and thesis
Fat-soluble vitamins, the importance for the body, food sources, risks of their insufficient and excessive intake.

Topic 12 and thesis
Water-soluble vitamins, the importance for the organism, food sources, risks of their insufficient and excessive intake.

Topic 13 and thesis
Minerals, essential minerals, and trace elements, their importance, sources, and risks of insufficient and excessive intake.

Recommended literature:

1. *Nancy Clark´s: Sports Nutrition Guidebook, Human Kinetics, 2008.*
2. *Jie Kang: Nutrition and Metabolism in Sports, Exercise and Health, Routledge. 2018.*

Language, knowledge of which is necessary to complete the course: English language

Notes:

Evaluating history:
Total number of evaluated students:

A	*B*	*C*	*D*	*E*	*FX*

Lecturer:. **Mgr. Ľubica Böhmerová, PhD., doc. Mgr. Milan Sedliak, PhD., MSc. Ľudmila Oreská, PhD.**

Last modification:

Supervisor: prof. RNDr. Viktor BIELIK, PhD.