Food Chemistry
The Food Chemistry course attempts to introduce students to the chemical composition and properties of food components. Starting with water as a structural and functional component of food (Structure - physical properties of water, interactions with other components, role in food), followed by carbohydrates (elements of carbohydrate chemistry, monosaccharides - oligosaccharides, stereochemistry - cyclic structures, non-enzymatic browning, caramelization) and polysaccharides (chemical structures and properties). Then there is a reference to amino acids - peptides - proteins (physicochemical properties, protein structure, denaturation) and enzymes (classification, factors affecting enzyme activity, enzymatic browning). The group of fatty substances is also described (chemical elements, classification, and nomenclature of fatty substances in food, physical properties). Finally, reference is made to vitamins, minerals, and additives as food ingredients.