

<b>Level:</b> bachelor				
<b>Course title:</b> Biochemistry of Hormones (IB402)				
<b>Status:</b> elective				
<b>ECTS:</b> 6				
<b>Requirements:</b> none				
<b>Learning objectives</b> Provide students with broad and balanced knowledge of the key concepts of endocrine system functioning. Develop practical skills necessary for understanding and independent solving problems in the field of biochemistry of hormones using a standard methodology.				
<b>Learning outcomes</b> After successful completion of this course the student is able to 1) explain the concepts related to intercellular communication and the maintenance of homeostasis, 2) define the metabolic role of individual tissues and hormones in physiological and / or pathological processes in the body, 3) describe the structure of certain hormones and processes by which they synthesize and secrete, 4) explain the mechanism of action of certain hormones, 5) analyze the connection between catabolic and anabolic processes, 6) explain the regulation of metabolic pathways, 7) applies the standard experimental methods used in the study of metabolism				
<b>Syllabus</b> <i>Theoretical instruction</i> Organization of neuro-endocrine system, intercellular communication, regulation of synthesis and secretion of hormones. Division of hormones by the origin, chemical structure, location and mechanism of action. Hormone receptors: receptors in the cell membrane and in the cell. Target tissues. Secondary and tertiary messengers. Hormones of hypothalamus, pituitary, pineal, thyroid, adrenal and parathyroid glands, hormones that regulate the metabolism of calcium and phosphate, sex hormones, pancreas, kidney, gastro-intestinal tract hormones (structure, types, mechanism of action, target tissues, the physiological effects).				
<b>Weekly teaching load</b>				Other:
Lectures: 3	Exercises: 2	Other forms of teaching:	Student research:	