

Course Title	Psychoneuroendocrinology				
Course Code	MD285				
Course Type	Elective				
Level	1 st Cycle (MD)				
Year / Semester	2 nd Year / 3 rd Semester				
Teacher's Name	TBA				
ECTS	3	Lectures / week	1 hr/ 14 weeks	Laboratories / week	0 hr / 14 weeks
Course Purpose and Objectives	<p>The course provides an introduction to the interaction between the brain, hormones and behaviour, with emphasis on human studies for an understanding of how complex social behavior emerges from the interplay of hormones, the brain and environmental signals.</p> <p>Central learning objective is to gain foundational knowledge of major theories, research finding and methodological approaches in the field of human neuroendocrinology.</p> <p>The aim of the course is to familiarize students with:</p> <ul style="list-style-type: none"> • the mechanisms by which hormones act in the brain to influence behaviour in health and disease • the dynamic interactions among hormones, the environment and behaviour • sexual behaviour, parenting, social attachment, aggression stress and other behaviours and their interaction with hormonal mechanisms. • How hormones shape the brain and behavior in development 				
Learning Outcomes	<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> • Describe the basic physiology of the human neuroendocrine system • Describe the principles of brain, hormone and behaviour interactions • Describe & discuss key concepts in psychoneuroendocrinology, including: <ul style="list-style-type: none"> ○ Negative feedback control ○ Key neuroendocrine axes ○ Hormonal control of behaviour • Describe & discuss key concepts in sex & gender <ul style="list-style-type: none"> ○ Hormones and sexual behaviour ○ Sexual differentiation ○ Aggression, dominance 				

	<ul style="list-style-type: none"> • Describe & discuss key concepts in stress neurobiology <ul style="list-style-type: none"> ○ Stress response 		
Prerequisites	None	Co-requisites	None
Course Content	<ul style="list-style-type: none"> • Introduction to psychoneuroendocrinology and the origins of behavioural endocrinology • Introduction to basic neuroendocrine system and hormonal axes • Sex & Gender <ul style="list-style-type: none"> ○ Sexual differentiation ○ The effects of hormones on the brain and behaviour in early development ○ The biology of gender and sex differences ○ Female Reproductive and social behaviour ○ Male Reproductive and social behavior ○ Aggression, dominance & competition • Stress Response <ul style="list-style-type: none"> ○ Basic concepts of the stress response ○ Stress & the HPA axis ○ Stress & Neuronal Plasticity ○ Stress & Learning, Memory & Mental Health • Hormones & Health <ul style="list-style-type: none"> ○ Sexuality ○ Mental Disorders • Homeostasis and behavior <ul style="list-style-type: none"> ○ Eating disorders ○ Obesity • Behavioral epigenetics (how the environment shapes brain differences) 		
Teaching Methodology	Face-to-Face		
Bibliography	<p>Psychoneuroendocrinology: The scientific basis of clinical practice. Ed. O. Wolkowitz, A. Rothschild, Am Psychiatric Association Publishing, ISBN 978-0-88048-857-0</p> <p>Hormones and Behavior, Nick Neave. Cambridge University Press, ISBN 978-0-521-69201-4</p> <p>Hormones, Brain and Behavior, Ed. D.W. Pfaff, et al, Academic Press, ISBN 978-0-12-374382-4</p>		

	The students will have access to current publications in related journals, including: Psychoneuroendocrinology, Neuroscience & Biobehavioral Reviews, etc.
Assessment	Examinations: 70% Assignment/Lab 20% Class Participation: 10%
Language	English