Schedule of the lectures, seminars and practical lessons for the summer semester 2018 – 2019

Study programme: General medicine

1st week: 11.2.2019-15.2.2019

Lectures:
1. The nervous system - General neurophysiology (prof. MUDr. Viliam Donič, CSc.)
2. Synaptic transmission, relationships between neurons (prof. MUDr. Viliam Donič, CSc.)

Seminar:
1. General instructions and course requirements
2. Gastrointestinal physiology
3. Thermoregulation

Practical lessons:
1. Safety in the laboratory
2. Measurement of the body temperature
3. Function of sweat glands and neutralization ability of the skin

2nd week: 18. 2. 2019 - 22. 2. 2019

Lectures:
1. The nervous system - Sensory physiology. Somesthetic analyzer (prof. MUDr. Viliam Donič, CSc.)
2. Sense of vision (prof. MUDr. Viliam Donič, CSc.)

Seminar:
1. General neurophysiology
2. Receptors

Practical lessons:
1. Model of the analogic and functional connections of neurons
2. Cutaneous receptors
3. Space perception by tactile sense and stereognosis
4. Weber´s illusions

3rd week: 25. 2. 2019 - 1. 3. 2019

Lectures:
1. Sense of hearing (MUDr. Igor Peregrim, PhD.)
2. Sense of equilibrium. Taste and smell (MUDr. Igor Peregrim, PhD.)

Seminar:
1. Somestetic analyzer
2. Physiology of proprioception

Practical lessons: ( alternation of the 3rd and the 4th week)
1. Determination of the near and the far point
2. Binocular vision
3. Reversible figures and optical illusion images
4. Physiologic scotoma
5. Purkinje’s images
6. Astigmatism
7. Colour vision

4th week: 4. 3. 2019 - 8. 3. 2019

Lectures:
1. Control of the somatic functions by spinal cord (prof. MUDr. Viliam Donič, CSc.)
2. Control of the somatic functions by brain stem (prof. MUDr. Viliam Donič, CSc.)

Seminar:
1. Physiology of vision

Practical lessons: (alternation of the 3rd and the 4th week)
1. Ophthalmoscopy
2. Examination of the visual acuity (visus)
3. Examination of the visual field (perimetry)
4. Flicker fusion threshold

5th week: 11. 3. 2019 - 15. 3. 2019

Lectures:
1. Control of the somatic functions by cerebellum and basal ganglia (prof. MUDr. Viliam Donič, CSc.)
2. Physiology of the autonomic nervous system (prof. MUDr. Viliam Donič, CSc.)

Seminar:
1. Physiology of hearing
2. Statokinetic receptors
3. Smell and taste sensations

Practical lessons:
1. Otoscopic examination
2. Hearing test with tuning forks
3. Examination of vestibular system
4. Examination of taste
5. Examination of smell

6th week: 18. 3. 2019 - 22. 3. 2019

Lectures:
1. Hypothalamus (prof. MUDr. Viliam Donič, CSc.)
2. Integrative function of formatio reticularis and thalamus
   TEST - General neurophysiology, sensory physiology, special Senses (prof. MUDr. Viliam Donič, CSc.)

Seminar:
1. Control of somatic functions

Practical lessons:
1. Examinations of the spinal proprioceptive reflexes
2. Examinations of the spinal exteroceptive reflexes
3. Examination of elementary postural and upright reflexes
4. Examination of the reaction time

7th week: 25. 3. 2019 - 29. 3. 2019

Lectures:
1. Integrative function of limbic system and brain cortex  
   (doc. RNDr. Pavol Švorc, CSc.)
2. Manifestation of cerebral functions. Alertness and sleep.  
   (prof. MUDr. Viliam Donič, CSc.)

Seminar:
1. Autonomic nervous system
2. Hypothalamus

Practical lessons:
1. Examination of vegetative reflexes - Ewing's tests
2. Examination of cerebellar function
3. Bilateral transfer

8th week: 1. 4. 2019 - 5. 4. 2019

Lectures:
1. Higher nervous activity  
   (prof. MUDr. Viliam Donič, CSc.)
2. Learning and memory  
   (prof. MUDr. Viliam Donič, CSc.)

Seminar:
1. Integrative and associative functions of CNS
2. Manifestation of cerebral functions

Practical lessons:
1. Electronic model of sleep
2. Model of salivation reflex
3. Melli's test of memory
4. Associative test

9th week: 08. 4. 2019 - 12. 4. 2019

Lectures:
1. Types of the central inhibition  
   (prof. MUDr. Viliam Donič, CSc.)
2. General principles of endocrine physiology  
   (doc. MUDr. Mária Pallayová, PhD.)

Seminar:
1. Higher nervous activity - reflexes, signalling systems, learning and memory

Practical lessons:  
(alternation of the 9th and the 10th week)
1. Krestovník's test
2. Lian's test
3. Ruffier's test
4. Test of the maximal expiratory force

10th week: 15. 4. 2019 - 19. 4. 2019

Dean's day 18.04.2019;  
Friday holiday 19.04.2019

Lectures:
1. Thyroid gland and parathyroid gland  
   (doc. MUDr. Mária Pallayová, PhD.)
2. Physiology of the adrenal glands TEST-CNS  
   (doc. MUDr. Mária Pallayová, PhD.)
Seminar:
1. The principles of the hormonal control
2. Thyroid gland and parathyroid gland

Practical lessons: (alternation of the 9th and the 10th week)
1. Measurement of the hand grip force by dynamometry
2. The work pulse index by Müller - ergometry
3. Lehmann's and Michalis's modified amplitude-frequency test

11th week: 22. 4. 2019 - 26. 4. 2019
Monday holiday 22.04.2019;
Rector's day 23.04.2019

Lectures:
1. Physiology of the endocrine pancreas (doc. MUDr. Mária Pallayová, PhD.)
2. Endocrine physiology of the hypothalamus and pituitary gland (doc. MUDr. Mária Pallayová, PhD.)

Seminar:
1. Adrenal medulla and cortex
2. Pancreatic hormones

Practical lessons:
1. Glucose-loading test
2. Measurement of the basal metabolic rate
3. Determination of the body mass index
4. Hypocalcemia
5. Test of gravidity

12th week: 29.04. 2019 - 3. 5. 2019
Wednesday holiday 01.05.2019

Lectures:
1. Physiological roles of gastrointestinal hormones, other endocrine glands and tissue hormones (doc. MUDr. Mária Pallayová, PhD.)
2. Sexual hormones, physiology of pregnancy (doc. MUDr. Mária Pallayová, PhD.)

Seminar:
1. Hypophysis
2. Hormones of nonspecific endocrine glands

Practical lessons:
1. Repetition of the selected practical tasks from the winter semester

13th week: 6. 5. 2019 - 10. 5. 2019
Wednesday holiday 08.05.2019
09. 05. 2019 (Thursday) classes will be held as on Wednesday

Lectures:
1. Pediatric physiology (doc. MUDr. Mária Pallayová, PhD.)
2. Muscle physiology, physiology of exercise TEST - The endocrine physiology (doc. MUDr. Mária Pallayová, PhD.)

Seminar:
1. Reproductive physiology and pregnancy

Practical lessons:
1. Repetition of the selected practical tasks from the summer semester
14th week: 13.5. 2019 - 17. 5. 2019

Lectures:
1. The physiology of aging  (doc. MUDr. Mária Pallayová, PhD.)
2. Biological rhythms  (doc. MUDr. Mária Pallayová, PhD.)

Seminar:
1. Problematic topics and questions from physiology

Practical lessons:
1. Rigorous practical tasks - the practical examination
2. Credits

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