



COURSE DEFINITION Physiology of vision and hearing	Year: 1 code : A1 - 05
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Head of department : M. JL.Darques Teacher(s) : M. G.Fumelli	ECTS : 1,5 Hours credit: 16 Distribution number CM : 16 number TP : number TD :	Type : CM Evaluation: MCQ SEMESTER Language : French Documentation: YES
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Courses objectives :
Understanding the mechanism for processing visual and auditory sensory information

Bibliography :
Buser et Imbert (tome IV, Ed. Hermann); Hammond et Tritsch (Ed. Academic press); Purves et al. (Ed. DeBoeck); Marieb (Ed. DeBoeck); Meyer. (Ed.Flammarion)

Content :

Vision

- 1/ The eye: optical system for image formation
 - Images are formed at the back of the eye
 - The different areas of the eye play specific roles in the formation of images
- 2/ The retina contains specialized photoreceptor cells
 - Structure of the retina observed through a microscope
 - Differentiated sensors to provide a visual representation of the world
 - Nerve messages originate in the retina
- 3/ The brain integrates all sensory information transmitted from the retina
 - Identification of the nerve paths that transmit visual messages
 - Origin of the visual representation of the world

Hearing

- 1/ Auditory stimulus and capacity of human ear
- 2/ Peripheral auditory system
 - The external, middle and inner ear
 - Active mechanism of sound vibrations on the cochlea
 - The organ of Corti
 - Sound signal transduction
 - Environment and damaged cells
- 3/ Auditory paths and centres
- 4/ Auditory pathologies