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# Opto 413

Ocular Neuroanatomy and Physiology

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2nd semester 2015  
Wednesday 8:00 – 10:00

Instructor: Tahani Alqahtani

Course location: 2<sup>nd</sup> floor , class no.32

Office: 244 – 3<sup>rd</sup> floor

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## Goals

In this course, gross anatomy and physiology of the cerebrum and brainstem, anatomy and physiology of the optic nerve, optic chiasm, optic radiations and visual cortex, visual information processing and nuclear organization & innervational control of those cranial nerves which sub serve the oculovisual system will be covered in two-hour weekly lectures over a period of ten weeks.

## Outlines to be covered:

- 1) Gross anatomy of the cerebrum and brain stem.
- 2) Anatomy and orientation of the Visual Pathway:
- 3) Visual information processing (physiology of vision)
- 4) Nuclear organization and innervational control of the cranial nerves which sub serve the oculovisual system.
- 5) Some nerve Palsies related to the eye.
- 6) Pupillary reflex anatomy, physiology and defects

## Evaluation

1<sup>st</sup> midterm 25 marks (February 26<sup>rd</sup>)

2<sup>nd</sup> midterm 25 marks (April 9<sup>th</sup>)

Assignment 10 marks (presentation  
+dissection (2marks for interactive in  
class))

Final exam 40 marks

## Refrences:

- Clinical Anatomy of the Visual System by Lea Ann Remington
- Essentials of Human Anatomy & Physiology by Elaine N. Marieb
- Clinical Ophthalmology ( a systemic approach) by Jack J Kanski , Brad bowling

