

Subject Description Form

Subject Code	SO2005
Subject Title	Ocular Anatomy and Physiology 1
Credit Value	3
Level	2
Pre-requisite	NIL
Objectives	To introduce the basic anatomy and physiology of the outer coats and anterior segment of the eye and their basic functions in visual pathway.
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> a. understand the structures of the outer ocular coat and anterior segment of the eye; b. recognize the functions of the outer coat and anterior segment of the eye; c. recognize the relationship between these structures and individual roles in the visual system; d. apply these ocular structures knowledge to explain real-life clinical cases.
Subject Synopsis/ Indicative Syllabus	<p>Outer coat of the eye Orbit Tears Cornea Pupil Crystalline lens and accommodation Extraocular muscles Ocular reflex Ocular vasculature Ocular adnexa Embryology of the eye</p>
Teaching/Learning Methodology	<p>Lecture: The basic anatomy and physiology of the outer coats and anterior segment of the eye will be covered.</p> <p>Laboratory: Two laboratory sessions will be provided for some hands-on experience with eye models and tear films.</p> <p>Tutorial: Students will work as small groups and prepare presentation to show unique ocular structures and vision for individual animal species.</p> <p>E-learning: Interactive learning materials for self-study and revision will be provided.</p>

Assessment Methods in Alignment with Intended Learning Outcomes	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)			
			a	b	c	d
	1. Coursework (test)	20	✓	✓		
	2. Coursework (two Practical sessions)	20	✓	✓	✓	
	3. Coursework (Presentation)	10	✓	✓	✓	✓
	4. Examination	50	✓	✓	✓	✓
	Total	100				
<p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <ul style="list-style-type: none"> - One written mid-term test will be arranged during the course to examine students' knowledge on various topics individually. - Two laboratory reports will be required to demonstrate their knowledge on the eye and tear films. - A group presentation will be arranged to examine students' review on animal ocular structures and vision. - Final examination will be arranged to examine students' knowledge on all the topics covered. 						
Student Study Effort Required	Class contact:					
	▪ Lecture					24 Hrs.
	▪ Laboratory					6 Hrs.
	▪ Tutorial					7 Hrs.
	Other student study effort:					
	▪ e-learning					30 Hrs.
	▪ Self-study					40 Hrs.
	Total student study effort:					107 Hrs.

<p>Reading List and References</p>	<p><u>Prescribed Reading</u></p> <p>Oyster CW. The Human Eye: Structure and Function. Sinauer Associates, 1999.</p> <p>Lens A. Ocular Anatomy and Physiology. SLACK, 2008.</p> <p>Remington LA. Clinical Anatomy of the Visual System, 2nd Ed. St. Louis Mo., Elsevier, 2005.</p> <p><u>Recommended Reading</u></p> <p>Herranz RM, Herran RM. Ocular Surface: Anatomy and Physiology, Disorders and Therapeutic Care, 1st Ed. CRC Press, 2012</p> <p>Forrester J, Dick AW, McMenemy PG and Roberts F, Roberts F. and Pearlman E. The Eye, Basic Sciences in Practice, 4th Ed. Saunders Elsevier, 2015</p> <p>Jorge Fischbarg J. The Biology of The Eye. Amsterdam, Oxford, Elsevier, 2006.</p> <p>Saude T. Ocular Anatomy and Physiology. Blackwell Scientific Publications, 1993.</p> <p>Pipe DM, Rapley LJ. Ocular Anatomy and Histology. Association of Dispensing Opticians, 1984.</p> <p>Snell R, Lemp MA. Clinical Anatomy of the Eye, 2nd Ed. Blackwell Scientific Publications, 1998.</p> <p>Wyatt HJ. A Manual of Visual Anatomy and Physiology. Professional Press Book, 1988.</p>
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