The student should be able to:

1. Describe the epidemiological aspects of conjunctivitis neonatorum and epidemic keratoconjunctivitis. Suggest the proper management for each one of them
2. Explain the rationale about the use of antibiotics in bacterial conjunctivitis and name at least two of the commonest antibiotics used in adults and children respectively.
3. List the criteria for differential diagnosis between conjunctivitis, scleritis, keratitis, iritis and acute angle-closure glaucoma
4. Distinguish the conjunctival tumors from other benign conditions (i.e. pterygium, pinguecula)
5. Describe the physiological functions of the cornea with regards to its anatomical architecture and consider it as part of the optical system of the eye and vital structure of the anterior segment
6. Understand the pivotal role that the normal tear film plays in the corneal physiology and refraction and describe how the dry eye syndrome affects the cornea (skill 26)
7. Know of the neuroparalytic keratitis as well as the lagophthalmos-induced keratitis
8. Describe the clinical features of megalocornea and buphthalmos and the criteria that differentiate these two entities
9. Distinguish corneal infiltrates from ulcers, epithelial defects and corneal scars and suggest appropriate treatments for all these entities
10. Describe the symptoms and clinical signs of ultraviolent keratitis as well as its pathophysiology, complications and management
11. Mention the common clinical manifestations of Herpes Simplex Virus (HSV) keratitis (dentritiform, stromal, disciform) and the usual complications. Suggest a proper management and point out frequent mistakes that may lead to mistreatments
12. Recognize arcus senilis as a totally benign condition
13. List the contact lens-related complications
14. Describe the pathophysiological and clinical features of chemical and thermal burns. Describe the primary emergency care in such cases.
15. Recognize lacerations of the lid margins and the upper lacrimal duct and suggest a proper management
16. Recognise the mechanisms involved in a blunt or penetrating ocular injury (with or without the presence of an intraocular foreign body) and seek relevant information from the patient's history. Describe the methods of tracking and investigating intraocular foreign bodies. Recognise the possible complications related to a residual metallic foreign body in the eye
17. Recognize the anterior chamber haemorrhage (hyphema) and the distorted pupil as signs of a recent blunt ocular trauma and refers to the late possible complications of this condition.
18. Describe causes, types, symptoms and progression stages of cataract. Describe complications related to mature cataracts and their management
19. List indications for the surgical management of cataract. Recognise the importance of early management of infantile cataract in avoiding amblyopia. Describe the current cataract operation technique and its complications
20. Understand the factors and mechanisms that determine the size of the pupil
21. Describe the afferent and efferent nerve fibres controlling the pupil size depending on imminent light
22. Understand why, in a IIIrd nerve paresis, pupillary dysfunction is an early manifestation

23. Describes the differences between the afferent and efferent papillary defects in relation to the pupillary reflex pathways (p. 894-898)
24. Describe the direct and indirect pupillary reaction to light as a result of the pupillary reflex pathway.
25. Recognize anisocoria as a result of either sympathetic or parasympathetic route dysfunction.
26. Describe the symptoms, causes and lesion locations of Cl. Bernarnd-Horner syndrome
Describe the pharmakodynamics of myotic and mydriatic drugs. Name at least one from each category. Understand the possible complications that may derive from mydriasis in an eye with narrow angle
27. Name common causes that may lead to an irregular pupil, such as anterior and posterior synechiae, iris trauma, previous surgery etc., and describe the form of irregularity
28. Understand how the aqueous humor is produced and circulates in the eye and explains the roles of the ciliary body, the pupil, Schlemm's channel and episcleral veins in this process
29. Describe the early, characteristic functional defects as well as the morphological changes of the nerve fibre layer following a longstanding rise of the intraocular pressure. Describe the course of functional decline in primary open angle glaucoma.
30. Name the symptoms, signs and management of acute angle-closure glaucoma
31. Name the clinical and paraclinical tools for early detection, diagnosis and monitoring of glaucoma
32. Describe the clinical appearance of congenital glaucoma and buphthalmos. How does the photophobia relate to it?
33. List commonest causes of secondary glaucomas
34. Distinguish the ischaemic swollen disk from true papilloedema (p. 807-809) and make the differential diagnosis based on the functional defects
35. List common causes of a swollen disk: intracranial hypertension, optic nerve inflammation and ischaemic diseases
36. Diagnose optic disk atrophy and set it apart from normal or glaucomatous cupping. Describe retinal, optic nerve, chiasmatic, optic and pre-geniculate body disorders as possible causes of optic disk atrophy
37. Make the differential diagnosis between glaucomatous and ischaemic optic nerve defects based upon the changes in visual acuity and visual fields and the time of their appearance
38. Distinguish intraocular from extraocular disorders that may affect the visual pathway based on the type of visual field defects (altitudinal-vertical defects or scotomas etc.)
39. Track down lesions/defects across the visual pathway by studying the visual field defects
40. List common causes of endoptical phenomena (floaters). In which cases must they be taken into serious consideration?
41. Describe 3 causes of sudden vitreous opacification and distinguish them from posterior pole disorders
42. Explain the differences in visual perception (image resolution) of the macular area compared to that of the peripheral retina based upon their unique anatomical features
43. Acknowledge the vascular changes encountered in the retina during the course of arteriosclerosis, systemic hypertension, vein thrombosis and diabetes

44. Acknowledge the vascular changes encountered in the retina during the course of arteriosclerosis, systemic hypertension, vein thrombosis and diabetes
45. Distinguish the (central or branch) retinal arterial obstruction from vein thrombosis based upon their clinical appearance
46. Describe the clinical findings in diabetic retinopathy and mention the types and stages of the disease as well as the prevention measures, follow-up plan and the appropriate time for laser treatment
47. Know about age related macular degeneration (ARMD): epidemiology, pathogenesis, early symptoms and modern treatments
48. Describe causes, types, early and late symptoms of retinal detachment in relation to the progress of the disease. How does it end up if untreated?
49. Recognise, a retinal detachment that involves the macula based on ophthalmic history and fundoscopy, and distinguish it from retinal vascular disorders
50. Describe retinoblastoma epidemiology, clinical findings, systemic complications, treatment and family plan counselling
51. Recognize the symptoms and clinical manifestation of acute iritis and makes the differential diagnosis from conjunctivitis and acute angle-closure glaucoma
52. List the commonest systemic diseases that may cause autoimmune uveitis
53. Recognize the complications related to iridocyclitis and suggest measures to prevent them
54. Describe epidemiologic features, signs and prevention measures of ocular toxoplasmosis
55. Describe the symptoms, signs and management of choroidal melanoma
56. Know that premature babies kept in incubation units under high-pressure O_2 conditions may be at high risk for development of retinopathy of prematurity
57. Acknowledge the ways in which multiple sclerosis (MS) may affect the vision and the eye
58. Consider the likelihood to encounter ocular haemangiomas or even secondary glaucoma in patients who present with facial haemangiomas
59. Know the deriving pathway of ophthalmic herpes zoster infection and its ocular manifestations
60. Recognize Sjogren syndrome as causative of dry eye syndrome
61. Know that several collagen autoimmune diseases may affect the scleral and episcleral tissue
62. Understand that Adamandiades-Bechet syndrome is a systemic vasculitis and describe its possible ocular manifestations
63. Describe signs and symptoms of intraocular metastatic tumors, and intraocular lymphomas
64. Describe the ocular complications related to chronic quinine, amiodarone and ethambutol administration, systemic corticosteroids
65. Define the visual acuity as the resolving power of the eye and understand the mechanism of resolution based on the stimulation / non-stimulation of adjacent photoreceptor cells.
66. Define the visual acuity as the resolving power of the eye, whereby normal acuity corresponds to the state at which 2 separate points of light subtend an angle of 1 minute of arc on the retina and can therefore be recognised as separate. Relate other levels of visual acuity to this state.
67. Recognise the difference between visual acuity and vision. Relate the visual acuity to a level of function. Recognise the difference of measuring visual acuity in a decimal or logarithmic scale
68. Estimate what the visual acuity level is from elements of the history.

69. Recognise what the full visual field represents.
70. Define refraction as a function of the refractive power of the eye in relation to its axial length
71. Define emmetropia, hypermetropia, astigmatism, and describe the principles of their management.
72. Understand the mechanism of accommodation and its results in near vision.
73. Describe how the hyperopic eye can see clearly at distance and at what cost. Explain the symptoms of eye strain secondary to hyperopia.
74. Know that parasympatheticolytic agents (atropine, tropicamide) cause loss of accommodation
75. Define presbyopia as the result of loss of lenticular elasticity secondary to advancing age, describe the symptoms of presbyopia, and the range of ages at which it appears. Relates presbyopia to eyestrain secondary to hyperopia.
76. Recognise the concept of retinal correspondence and describe the states of binocular vision (simultaneous perception, fusion, stereopsis)
77. Describe pseudostrabismus and accommodative strabismus
78. Differentiate paralytic from concomitant strabismus and describe the clinical signs and symptoms, e.g. diplopia and dependence of the angle of squint on the gaze position
79. Describe the etiology of amblyopia and recognise the importance of early diagnosis and intervention
80. Recognise ocular surface pain characteristics, from dry eye symptoms to the sharp pain in corneal epithelial erosions, and describe its management
81. Distinguish ocular surface pain characteristics from deep pain and localise the potential insults leading to it (conjunctival, corneal, scleral or uveal disease).
82. Describe refractive error (hyperopia) or latent squint as possible causes of a headache that increases with ocular strain (near work) during the course of the day
83. Recognise other forms of headache, such as migraine, temporal migraine, cluster headache, and describe possible ocular symptoms

Describe that in visual disturbances a) that are accompanied by headache in advanced age, one must suspect temporal arteritis, b) that are accompanied by nausea and vomiting, one must suspect acute glaucoma (in the differential diagnosis of acute cholelithiasis/cholecystitis

84. Recognise retrobulbar neuritis as a possible cause of visual loss accompanied by retrobulbar pain especially when this pain is increased with eye movements
85. Recognise retrobulbar neuritis as a possible cause of visual loss accompanied by retrobulbar pain especially when this pain is increased with eye movements
86. Recognise presbyopia as the commonest cause of visual acuity reduction for near (after a certain age)
87. Recognise the possible causes of recent visual acuity loss both in distance and near
88. Name the vascular retinal diseases and optic nerve diseases that may cause sudden visual filed loss of the hemi-field or totality of the field
89. Distinguish the acute onset of visual loss form gradual visual field loss (in the form of a curtain that falls or a wall that rises)
90. Suspect a peripheral retinal tear and possible accompanying retinal detachment in the presence of photopsiae and/or floaters

91. Recognise diseases of the posterior pole of the eye as causes of metamorphopsia and selective loss of the central visual field
92. Name causes of binocular diplopia (which is relieved when one eye is covered), especially paralytic strabismus
93. Name possible causes of red eye accompanied by visual disturbance and pain: diseases of the cornea, iris, ciliary body, but not of the conjunctiva or sclera.
94. Describe the role of lids in mechanical protection and lubrification of the cornea
95. Describe the elements of lid anatomy (conjunctiva, tarsus, levator muscle, skin, lacrimal glands etc.)
96. Name the two cranial nerves that are responsible for lid movements
97. Recognise lagophthalmos, upper lid ptosis, entropion and ectropion, and list their commonest causes
98. Describe possible corneal complications and their management
99. Recognise the element of emergency in managing upper lid ptosis in children
100. Recognise the localisation of ophthalmic zoster features and the location of residence of the virus
101. Recognise the features of stye and describe its management
102. Recognise the features of chalazion and describe its management
103. Recognise exophthalmos. List most frequent causes: inflammation in the orbit, venous stasis in the cavernous sinus, thyroid eye disease, orbital tumors.
104. List diagnostic features of inflammatory globe proptosis versus a non-inflammatory globe proptosis, and describe first measures to be taken in managing this condition
105. List characteristic features of thyroid eye disease
106. Distinguish preseptal from orbital cellulitis
107. List the tear film layers, describe what they consist of and what their function is
108. Recognise congenital nasolacrimal duct obstruction: features and management
109. Describe dacryocystitis and its relation to stenosis or obstruction of the nasolacrimal duct, and describe its management
110. List symptoms of acute and of chronic conjunctivitis, how this condition presents and how symptoms differ depending on cause
111. Describe the relationship between chronic conjunctivitis and chronic blepharitis and dacryocystitis
112. List common causes of conjunctivitis: bacteria, chlamydia, viruses, physical or chemical irritations, allergy, refractive error, and local or systematic autoimmune diseases