

List of Illustrated Curriculum Gaps as of January 5, 2018

Location
I.A. Bony Anatomy –2. Bony Communications – a. Superior Orbital Fissure
I.A. Bony Anatomy –2. Bony Communications – c. Inferior Orbital Fissure
I.A. Bony Anatomy –2. Bony Communications – d. Ethmoidal Foramina
I.A. Bony Anatomy – 3. Skull – a. Anterior Cranial Fossa
I.A. Bony Anatomy –3. Skull – b. Middle Cranial Fossa
I.A. Bony Anatomy –3. Skull – c. Posterior Cranial Fossa
I.B. Anatomy of the Orbit
I.D. Anatomy of the Eyelids
I.D. Anatomy of the Eyelids - 1. Anatomy of the Lacrimal Pathways
I.F. Afferent Visual Pathways—2. Retina – a. Macula
I.F. Afferent Visual Pathways—5. Optic Tract
I.F. Afferent Visual Pathways—6. Lateral Geniculate
I.F. Afferent Visual Pathways—7. Optic Radiations
I.G. Efferent Visual Pathways—4. Ocular Motor Nerves –b. Trochlear (IV)
I.H. Facial Motor Anatomy
I.I. Sensory Anatomy (Trigeminal System)
I.J. Autonomic Anatomy
I.J. Autonomic Anatomy – 2. Parasympathetic –a. Lacrimal
I.K. Vascular Anatomy –1. Arterial Anatomy –a. Internal Carotid Arteries and their Branches
I.K. Vascular Anatomy –1. Arterial Anatomy –a. Internal Carotid Arteries and their Branches---ii. Posterior Communicating Artery
I.K. Vascular Anatomy –1. Arterial Anatomy –b. Circle of Willis
I.K. Vascular Anatomy –1. Arterial Anatomy –c. External Carotid Arteries and their Branches
I.K. Vascular Anatomy –1. Arterial Anatomy –d. Vertebrobasilar System
I.K. Vascular Anatomy –1. Arterial Anatomy –d. Vertebrobasilar System---i. Vertebral Artery
I.K. Vascular Anatomy –1. Arterial Anatomy –d. Vertebrobasilar System---ii. Posterior Inferior Cerebellar Artery
I.K. Vascular Anatomy –1. Arterial Anatomy –d. Vertebrobasilar System---iii. Basilar Artery and Its Branches
I.K. Vascular Anatomy –1. Arterial Anatomy –e. Aortic Arch
I.K. Vascular Anatomy –1. Arterial Anatomy –f. Blood Supply of the Orbit and Eye
I.K. Vascular Anatomy – 1. Arterial Anatomy – g. Blood Supply of the Optic Nerve
I.K. Vascular Anatomy –2. Venous Anatomy –a. Cerebral Venous Sinuses
I.K. Vascular Anatomy –2. Venous Anatomy –a. Cerebral Venous Sinuses---ii. Superior and Inferior Petrosal Sinuses
I.K. Vascular Anatomy –2. Venous Anatomy –a. Cerebral Venous Sinuses---iii. Deep Venous System
I.K. Vascular Anatomy –2. Venous Anatomy –b. Cortical Veins
I.K. Vascular Anatomy –2. Venous Anatomy –c. Venous Drainage in the Neck
I.K. Vascular Anatomy – 2. Venous Anatomy – e. Superior and Inferior Ophthalmic Veins
I.L. Fluids and Secretions –1. Cerebrospinal Fluid
II.A.1.a.i. Visual Acuity Testing
II.A.1.a.ii. Stereopsis
II.A.1.a.iii. Color Vision Testing
II.A.1.a.iv. Contrast Sensitivity
II.A.1.a.v. Basics of Refraction
II.A.1.a.vii. Amsler Grid
II.A.1.a.viii. Photostress Testing
II.A.1.b.i. Intraocular Pressure
II.A.1.b.ii. Resistance to Retropulsion

II.A.1. Ocular Evaluation –c. Pupillary Examination
II.A.7. Examination of Children –a. Developmental Milestones for Children
II.B.1. Visual Field Testing
II.B.1. Visual Field Testing –a. Automated Perimetry
II.B.1. Visual Field Testing –b. Goldmann Perimetry (should be able to perform)
II.B.1. Visual Field Testing –c. Tangent Screen (should be able to perform)
II.B.2. Electrophysiology –a. Visual Evoked Responses
II.B.6. Imaging – d.Ophthalmodynamometry
II.B.6. Imaging – e. CTA
II.B.6. Imaging – f. MRA
II.B.6. Imaging – g. CTV
II.B.6. Imaging – h. MRV
II.B.6. Imaging – i. Conventional Angiogram
III.B. Positive Visual Phenomena
III.J. Ptosis
III.J. Ptosis---8. Levator Dehiscence
III.K. Lid Findings ---3. Lag Ophthalmos
III.M. Pupillary Changes
IV.B. Diseases of the Optic Nerve –1. Ischemic Optic Neuropathy –d. Optic Neuropathy with Retinopathy
IV.B. Diseases of the Optic Nerve –2. Inflammation –b. Infectious –i. Optic Perineuritis
IV.B. Diseases of the Optic Nerve –7. Nutritional
IV.B. Diseases of the Optic Nerve –8. Metabolic
IV.C.2.a.iii. Benign vs malignant neoplasm
IV.C.2.c. Sphenoid Wing Meningioma
IV.C.2.h. Orbital Schwannoma
IV.C.2.i. Orbital Rhabdomyosarcoma
IV.C.2.k. Adenoid Cystic Carcinoma of Lacrimal Gland
IV.C.2.l. Frontal Mucocele
IV.C.3.g. Fungal Infections of the Orbit and Orbital Apex
IV.C.4.a. Orbital Varix
IV.D.2.b. Hypophysitis, Lymphocytic
IV.E. Diseases of the Retrochiasmal Visual Pathways
IV.E. Diseases of the Retrochiasmal Visual Pathways—2. Lateral Geniculate
IV.E. Diseases of the Retrochiasmal Visual Pathways—3. Radiations
IV.E. Diseases of the Retrochiasmal Visual Pathways—4. Calcarine Cortex
IV.E. Diseases of the Retrochiasmal Visual Pathways—5. Association Areas
IV.E. Diseases of the Retrochiasmal Visual Pathways—6. Specialized Syndromes—c. Balint Syndrome
IV.E. Diseases of the Retrochiasmal Visual Pathways—6. Specialized Syndromes—d. Gerstmann Syndrome
IV.E. Diseases of the Retrochiasmal Visual Pathways—6. Specialized Syndromes—e. Cerebral Achromatopsia
IV.E. Diseases of the Retrochiasmal Visual Pathways—6. Specialized Syndromes—g. Acalculia
IV.E. Diseases of the Retrochiasmal Visual Pathways—6. Specialized Syndromes—k. L-R Confusion
IV.E. Diseases of the Retrochiasmal Visual Pathways—6. Specialized Syndromes—l. Akinetopsia
IV.E. Diseases of the Retrochiasmal Visual Pathways—6. Specialized Syndromes—m. Concept of “Blindsight”
IV.E.6.q. Sturge Weber
IV.F. Pupillary Pathology—3. Congenital Pupillary Abnormalities
IV.F. Pupillary Pathology—4. Pupillary Changes Secondary to Ocular Diseases—a. Traumatic, Foreign Body
IV.F. Pupillary Pathology—4. Pupillary Changes Secondary to Ocular Diseases—b. Inflammation
IV.F. Pupillary Pathology—4. Pupillary Changes Secondary to Ocular Diseases—c. Neovascularisation
IV.F. Pupillary Pathology—4. Pupillary Changes Secondary to Ocular Diseases—c. Neovascularisation—i. Ocular Surgery, Laser

IV.F. Pupillary Pathology—5. Traumatic Pupillary Changes
IV.F. Pupillary Pathology—8. Evaluation and Management of Specific Pupillary Disorders—d. Correctopia
IV.F. Pupillary Pathology—8. Evaluation and Management of Specific Pupillary Disorders—j. Flynn Phenomenon, Paradoxical Pupillary Reflex (not in UMLS)
IV.G. Eye Movement Systems Pathology—9. Specific Ocular Motor Syndromes—f. Divergence Insufficiency
IV.G. Eye Movement Systems Pathology—9. Specific Ocular Motor Syndromes—g. Decompensation of Phorias
IV.G. Eye Movement Systems Pathology—9. Specific Ocular Motor Syndromes—j. Cyclic Oculomotor Paresis
IV.G. Eye Movement Systems Pathology—10. Classical Brain Stem Syndromes—a. Foville
IV.G. Eye Movement Systems Pathology—10. Classical Brain Stem Syndromes—b. Millard-Gubler
IV.G. Eye Movement Systems Pathology—10. Classical Brain Stem Syndromes—e. Locked In Syndrome
IV.G. Eye Movement Systems Pathology—10. Classical Brain Stem Syndromes—f. Nothnagel
IV.G. Eye Movement Systems Pathology—10. Classical Brain Stem Syndromes—g. Benedikt
IV.G. Eye Movement Systems Pathology—10. Classical Brain Stem Syndromes—h. Weber
IV.G. Eye Movement Systems Pathology—10. Classical Brain Stem Syndromes—k. Syndrome of the Anterior Inferior Cerebellar Artery
IV.H. Nystagmus and Disorders of Ocular Stability
IV.H. Nystagmus and Disorders of Ocular Stability—5. Specific Types of Nystagmus and Their Localizing Value—c. Left Beat Nystagmus
IV.H. Nystagmus and Disorders of Ocular Stability—5. Specific Types of Nystagmus and Their Localizing Value—i. Divergence Nystagmus
IV.H. Nystagmus and Disorders of Ocular Stability—6. Induced Nystagmus—a. Valsalva
IV.H. Nystagmus and Disorders of Ocular Stability—6. Induced Nystagmus—b. Sounds (Tullio's Phenomena)
IV.H. Nystagmus and Disorders of Ocular Stability—6. Induced Nystagmus—c. Calorics: Hot or Cold Water in Ear
IV.H.7.d.i. Other Saccadic Abnormalities (Dysmetria, Macrosaccadic Oscillations, etc)
IV.H. Nystagmus and Disorders of Ocular Stability—7. Ocular Oscillations—e. Ocular Bobbing
IV.H.7.e.i. Ocular Dipping, Inverse Bobbing, etc.
IV.H. Nystagmus and Disorders of Ocular Stability—7. Ocular Oscillations—g. Oculomasticatory Myorhythmia
IV.I. Eyelid Position Abnormalities—2. Ptosis—a. Pseudoptosis
IV.I. Eyelid Position Abnormalities—2. Ptosis—b. Congenital
IV.I. Eyelid Position Abnormalities—2. Ptosis—c. With Elevator Palsy
IV.I. Eyelid Position Abnormalities—2. Ptosis—e. Blepharophimosis
IV.I. Eyelid Position Abnormalities—2. Ptosis—f. Levator Dehiscence
IV.I.2.g.ii. Myotonic Dystrophy
IV.I.2.g.iii. Oculopharyngeal
IV.I.2.h.i.a. Lambert-Eaton
IV.I. Eyelid Position Abnormalities—5. Lid Bobbing
IV.J. Facial Nerve Dysfunction—1. Central and Peripheral Facial Palsy
IV.J. Facial Nerve Dysfunction—6. Oculomasticatory Myorhythmia (Whipple's)
IV.J. Facial Nerve Dysfunction—7. Facial Tics
IV.J. Facial Nerve Dysfunction—8. Facial Dystonia (Meige's Syndrome)
V.A.4. Congenital Hydrocephalus
V.A.5. Cranial Dysososes (Craniosynotosis)
V.A.7. Other Disc Anomalies—a. Congenital Optic Nerve Anomalies
V.A.7. Other Disc Anomalies—a. Congenital Optic Nerve Anomalies—i. Bergmeister Papilla
V.A.7.a.v. Optic Nerve Aplasia
V.A.7.a.viii. Bridge Coloboma or Second Disc
V.A.8. Common Malformations of the Eye and Orbit
V.B.1.a.i. Marfan Syndrome
V.B.1.a.iii. Fibromuscular Dysplasia
V.B.1.a.iv. Ehlers-Danlos Syndrome
V.B.3. Vascular Disease—a. Vascular Risk Factors

V.B.3. Vascular Disease—b. Prevention of Vascular Disease
V.B.6. Autoimmune Diseases, Classification of Vasculitides—a. Specific Vasculitides with Ocular and Neurologic Manifestations—iv. Antiphospholipid Antibody Syndrome
V.C.1.d.i. Third (Oculomotor)
V.C.1.d.ii. Fourth (Trochlear)
V.C.1.d.iii. Sixth (Abducens)
V.C.2. Increased Intracranial Pressure—a. Differential Diagnosis and Management of Intracranial Hypertension—ii. Meningitis
V.C.2. Increased Intracranial Pressure—a. Differential Diagnosis and Management of Intracranial Hypertension—iii. Subarachnoid Hemorrhage
V.C.2. Increased Intracranial Pressure—b. Neuro-Ophthalmic Manifestations and Complications
V.C.3.a.viii. Posterior Reversible Encephalopathy
V.C.3.b.iv. Cogan Syndrome
V.C.3.b.v. Acute Posterior Multifocal Placoid Pigment Epitheliopathy
V.C.3.b.vi. Behcet’s Disease
V.C.3. Vascular Disease of the Brain and the Eye—c. Basics of Acute Treatment and Secondary Prevention of Stroke
V.C.3. Vascular Disease of the Brain and the Eye—d. Neuro-Ophthalmologic Manifestations of Stroke
V.C.3. Vascular Disease of the Brain and the Eye—f. Venous Sinus Thrombosis
V.C.3. Vascular Disease of the Brain and the Eye—g. Hemorrhage
V.C.3. Vascular Disease of the Brain and the Eye—g. Hemorrhage—i. Subarachnoid
V.C.3. Vascular Disease of the Brain and the Eye—g. Hemorrhage—iii. Thalamic Hemorrhage
V.C.3.g.vi. Cerebellar Hemorrhage
V.C.3.g.vii. Optic Nerve Hemorrhage
V.C.3.g.viii. Optic Chiasm Hemorrhage
V.C.3. Vascular Disease of the Brain and the Eye—g. Hemorrhage—ix. Midbrain Hemorrhage
V.C.3. Vascular Disease of the Brain and the Eye—h. Intracranial Vascular Malformations, Diagnosis, and Neuro-Ophthalmologic Manifestations
V.C.3.h.i.b. Cavernous Sinus Aneurysms
V.C.3. Vascular Disease of the Brain and the Eye—h. Intracranial Vascular Malformations, Diagnosis, and Neuro-Ophthalmologic Manifestations—ii. Arteriovenous Malformations
V.C.3.h.iii. Retinal Arteriovenous Malformations
V.C.3.h.vi. Orbital Venous Malformations
V.C.4. Seizures with Neuro-Ophthalmologic Manifestations—b. Pupillary Changes, Ocular Movement Changes During Seizures
V.C.5. Neuro-Ophthalmic Manifestations of Neoplasms—f. Orbital Neoplasms—i. Choroidal Folds From Orbital Mass
V.C.8. Metabolic Diseases—a. Wilson’s Disease
V.C.9. Neuro-Degenerative Diseases—c. Vascular Dementias
V.C.10. Polyradiculopathies—a. Guillain-Barré
V.C.11. Neuro-Muscular Transmission Deficits—c. Lambert-Eaton Myasthenic Syndrome
V.C.12. Myopathies (Involving the Extraocular Muscles)—a. Congenital Myopathies/Oculopharyngeal Muscular Dystrophy—i. Dystrophies/Ion Channel Disorders (Myotonia)
V.C.12.a.i.a. Myotonic Dystrophy
V.C.12.a.i.a.i. Ocular Myotonia
V.C.12.b.i. Sporadic CPEO
V.C.12. Myopathies (Involving the Extraocular Muscles)—c. Ischemic
V.C.12. Myopathies (Involving the Extraocular Muscles)—d. Metabolic – Toxic- Melissa
V.C.12. Myopathies (Involving the Extraocular Muscles)—d. Metabolic – Toxic—i. Drug Induced, Toxic
V.C.12. Myopathies (Involving the Extraocular Muscles)—e. Inflammatory—ii. Orbital Inflammatory Disease

V.C.12. Myopathies (Involving the Extraocular Muscles)—g. Congenital Syndromes Involving the Extraocular Muscles—i. Anomalous Muscle Insertions
V.C.12. Myopathies (Involving the Extraocular Muscles)—g. Congenital Syndromes Involving the Extraocular Muscles—ii. Brown’s Syndrome
V.C.13. Headache and Facial Pain—a. Classification of Headaches and Facial Pain Proposed by the International Headache Society (IHS)
V.C.13. Headache and Facial Pain—b. Migraine—i. Migraine Without Aura
V.C.13. Headache and Facial Pain—b. Migraine—vi. Hemianopia After Migraine
V.C.13. Headache and Facial Pain—c. Tension Headaches—i. Episodic
V.C.13. Headache and Facial Pain—c. Tension Headaches—ii. Chronic
V.C.13. Headache and Facial Pain—e. Headache Associated with Increased Intracranial Pressure
V.C.13. Headache and Facial Pain—f. Headache and Facial Pain of Vascular Origin
V.C.13. Headache and Facial Pain—g. Ocular Pain Related to Ocular or Optic Nerve Disease
V.C.13. Headache and Facial Pain—h. Trigeminal Neuralgia (Fifth Nerve)
V.C.14. Psychiatric Illness
V.D.1. Retinal Disorders—a. Vascular
V.D.1.c.ii. Idiopathic retinal vasculitis
V.D.1.c.iii. AMPPE
V.D.1.d.iii. White Dot Syndromes
V.E.3. Various Drugs with Specific Neuro-Ophthalmologic Complications, Including—a. Cyclosporine
V.E.3. Various Drugs with Specific Neuro-Ophthalmologic Complications, Including—g. Vasoconstrictors
V.E.3. Various Drugs with Specific Neuro-Ophthalmologic Complications, Including—h. Steroids
V.F.1. Terminology—a. Factitious (Münchhausen’s)
V.F.1. Terminology—b. Malingering
V.F.1. Terminology—c. Conversion Reaction
V.F.1. Terminology—d. Exaggeration—i. Hypochondriasis
V.F.1. Terminology—d. Exaggeration—ii. Somatization Disorder
V.F.2. Clinical Presentations—b. Visual Field Defects
V.F.3. Specific Techniques of Evaluation
VI.A.2. Principles and Complications of Strabismus Surgery
VI.A.7. CSF Shunting Procedures
VIII.A. Administration—1. Credentialing, Career Development, Recruitment, Budgeting, Health Care Financing, Managed Care, Public Relations, Personnel Management, Marketing, Hospital Administration, Practice Management, Contracts, Work Schedule
VIII.A. Administration—2. JCAHO Requirements Relating to Neuro-Ophthalmology (Staffing, Equipment and Supplies, Facilities, Quality Insurance)
VIII.B. Research—Read and Analyze Scientific Articles
VIII.B. Research—4. Ethical Issues in Research, Including Consent and Researchers’ Interactions with Corporate Funding Sources (Conflict of Interest)
VIII.B. Research—5. Write and Publish a Manuscript
VIII.D. Ethics and Professionalism—2. Knowledge of Cost, Resource Allocation, Quality of Care, and Access to Care Issues
VIII.D. Ethics and Professionalism—3. Basic Familiarity with Medical Malpractice
VIII.D. Ethics and Professionalism—4. Physician-Physician Relationships
VIII.D. Ethics and Professionalism—5. Laws Relating to Drug Dispensing, Regulation, and Abuse
VIII.D. Ethics and Professionalism—6. Role of Expert Witness in Medico-Legal Procedures
VIII.E. Neuro-Ophthalmologic Resources—1. Organizations—a. NANOS
VIII.E. Neuro-Ophthalmologic Resources—1. Organizations—b. INOS
VIII.E. Neuro-Ophthalmologic Resources—1. Organizations—c. EUNOS
VIII.E. Neuro-Ophthalmologic Resources—1. Organizations—d. AAN
VIII.E. Neuro-Ophthalmologic Resources—1. Organizations—e. ANA

VIII.E. Neuro-Ophthalmologic Resources—1. Organizations—f. AAO
VIII.E. Neuro-Ophthalmologic Resources—1. Organizations—g. ARVO
VIII.E. Neuro-Ophthalmologic Resources—1. Organizations—h. Regional Organizations
VIII.E. Neuro-Ophthalmologic Resources—1. Organizations—i. NEI
VIII.E. Neuro-Ophthalmologic Resources—1. Organizations—j. NINDS
VIII.E. Neuro-Ophthalmologic Resources—2. Journals
IX. ReferencesA – K