

Course Description Form

1. Course Name:	
Squint	
2. Course Code:	
MTOP4006	
3. Semester / Year:	
Year/4	
4. Description Preparation Date:	
2025	
5. Available Attendance Forms:	
In person + practical experiences	
6. Number of Credit Hours (Total) / Number of Units (Total)	
180 Credit hours (2 theory +4 practical Weekly)/4 units	
7. Course administrator's name (mention all, if more than one name)	
Name: SALIM OUDAH MEZAN Email: salim.oudah@alayen.edu.iq	
8. Course Objectives	
Course Objectives	General Objective: To ensure the student understands the scientific methods for patient examination, strabismus diagnosis, correction, and treatment. Specific Objective: The student will be able to diagnose, correct, and treat strabismus.
9. Teaching and Learning Strategies	
Strategy	1. Interactive Lecture - Visual and Animated Presentations - Class Discussion

- Exercises
- Self-Directed Learning
- Discovery Learning
- Learning through Modeling and Simulation

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 theory+ 4 practical	(A3) (B3)	Management of concomitant esotropia	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
2	2 theory+ 4 practical	(A3) (B3)	Correction of error of refraction	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
3	2 theory+ 4 practical	(A3) (B3)	Treatment of amblyopia	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
4	2 theory+ 4 practical	(A3) (B3)	Orthoptic treatment	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
5	2 theory+ 4 practical	(A3) (B3)	Surgical correction	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
6-9	4 theory+ 8 practical	(A3) (B3)	Exotropia definition, causes ,Types , Intermittent And exotropia	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
10-13	4 theory+ 8 practical	(A3) (B3)	Hypertropia, definition, causes, Clinical findings Diagnosis and Treatment	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams

14	2 theory+ 4 practical	(A3) (B3)	Convergence insufficiency, definition and causes	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
15	2 theory+ 4 practical	(A3) (B3)	Clinical findings	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
16	2 theory+ 4 practical	(A3) (B3)	Esotropia-5: Acute Acquired Concomitant Isotropic (Basics).	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
17	2 theory+ 4 practical	(A3) (B3)	Esotropia-6: Surgical principles	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
18	2 theory+ 4 practical	(A3) (B3)	Exotropia-1: Definition,types, pseudoesotropia , exophoria (presentation, diagnosis and treatment)	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
19	2 theory+ 4 practical	(A3) (B3)	Exotropia-2: Intermittent Exotropia (types, presentation,exa mination, and treatment)	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
20	2 theory+ 4 practical	(A3) (B3)	Exotropia-3: convergence insufficiency, infantile exotropia	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
21	2 theory+ 4 practical	(A3) (B3)	Exotropia-4: sensory exotropia,conse cutive exotropia	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams

22	2 theory+ 4 practical	(A3) (B3)	Exotropia-5: surgical principles	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
23	2 theory+ 4 practical	(A3) (B3)	Pattern Strabismus: Etiology, Clinical Features and Identification of Pattern Strabismus	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
24	2 theory+ 4 practical	(A3) (B3)	Special motility disorders-1: Duane retraction syndrome	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
25	2 theory+ 4 practical	(A3) (B3)	Special motility disorders-2: Duane retraction syndrome treatment	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
26	2 theory+ 4 practical	(A3) (B3)	Special motility disorders-3: myasthenia gravis	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
27	2 theory+ 4 practical	(A3) (B3)	Convergence insufficiency-1: Definition, causes, clinical finding diagnosis	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
28	2 theory+ 4 practical	(A3) (B3)	Convergence insufficiency-2: Treatment	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
29	2 theory+ 4 practical	(A3) (B3)	Convergence insufficiency-3: Orthoptic exercise	Interactive lectures + experiments Practical + exercises	Practical and oral + reports + Paper exams
30	2 theory+ 4 practical	(A3) (B3)	Review	Interactive lectures + experiments Practical +	Practical and oral + reports + Paper exams

				exercises	
11. Course Evaluation					
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc 1-Monthly exam: 25 2-Interaction: 2 3-Reports: 3 3-Monthly: 70					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)					
Main references (sources)					
Recommended books and references (scientific journals, reports...)					
Electronic References, Websites					

Course Description Form

1. Course Name:	
Eye X-rays and ultrasound	
2. Course Code:	
MTOP4006	
3. Semester / Year:	
Year/4	
4. Description Preparation Date:	
2025	
5. Available Attendance Forms:	
In person + practical experiences	
6. Number of Credit Hours (Total) / Number of Units (Total)	
90/4	
7. Course administrator's name (mention all, if more than one name)	
Name: SALIM OUDAH MEZAN Email: salim.oudah@alayen.edu.iq	
8. Course Objectives	
Course Objectives	General objective: Identify the material used in ultrasound examination and how to ensure that the energy used is appropriate and not harmful to the device or sample. • Specific objective: Learn how to use the device to diagnose types of defects and how to evaluate them.
9. Teaching and Learning Strategies	
Strategy	1. Interactive lecture 2. Laboratory enhancement 3. Research-based learning

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	(A3) (B3)	Introduction to radiological	Interactive lectures + experiments Practical + exercises	Paper exams
2	6	(A3) (B3)	Standard orbital views	Interactive lectures + experiments	Practical and oral + reports
3	6	(A3) (B3)	Standard orbital views	Practical + exercises	Paper exams
4	6	(A3) (B3)	Radiological orbital anatomy	Interactive lectures + experiments	Practical and oral + reports
5	6	(A3) (B3)	Radiographic changes seen with orbital pathology	Practical + exercises	Paper exams
6	6	(A3) (B3)	Foreign body localization by plain x-ray film	Interactive lectures + experiments	Practical and oral + reports
7	6	(A3) (B3)	Introduction to computed tomography of the orbit	Practical + exercises	Paper exams
8	6	(A3) (B3)	Vascular lesions, inflammation and infections of the orbit by CT-scan	Interactive lectures + experiments	Practical and oral + reports
9	6	(A3) (B3)	Vascular lesions, inflammation and infections of the orbit by CT-scan	Practical + exercises	Paper exams
10	6	(A3) (B3)	Tumors of the optic nerve, orbital tumors (primary, secondary and metastasis) as seen by CT-scan	Interactive lectures + experiments	Practical and oral + reports
11	6	(A3) (B3)	Tumors of the optic nerve, orbital tumors (primary, secondary and metastasis) as seen by CT-scan	Practical + exercises	Paper exams
12	6	(A3) (B3)	Orbital trauma by CT-scan	Interactive lectures + experiments	Practical and oral + reports
13	6	(A3) (B3)	Introduction to MRI of the orbit	Practical + exercises	Paper exams
14	6	(A3) (B3)	Physical principles of MRI	Interactive lectures + experiments	Practical and oral + reports

15	6	(A3) (B3)	Physical principles of MRI	Practical + exercises	Paper exams
16	6	(A3) (B3)	MRI systems (units, surface coil, site selection)	Interactive lectures + experiments	Practical and oral + reports
17	6	(A3) (B3)	MRI systems (units, surface coil, site selection)	Practical + exercises	Paper exams
18	6	(A3) (B3)	Clinical applications of MRI orbital diseases	Interactive lectures + experiments	Practical and oral + reports
19	6	(A3) (B3)	Clinical applications of MRI orbital diseases	Practical + exercises	Paper exams
20	6	(A3) (B3)	Trauma and tumors of the orbit seen by MRI	Interactive lectures + experiments	Practical and oral + reports
21	6	(A3) (B3)	Trauma and tumors of the orbit seen by MRI	Practical + exercises	Paper exams
22	6	(A3) (B3)	Intraocular tumors as seen by MRI	Interactive lectures + experiments	Practical and oral + reports
23	6	(A3) (B3)	Advantages and disadvantages of MRI over CT-scan	Practical + exercises	Paper exams
24	6	(A3) (B3)	Advantages and disadvantages of MRI over CT-scan	Interactive lectures + experiments	Practical and oral + reports
25	6	(A3) (B3)	Introduction to diagnostic orbital ultrasonography	Practical + exercises	Paper exams
26	6	(A3) (B3)	Introduction to diagnostic orbital ultrasonography	Interactive lectures + experiments	Practical and oral + reports
27	6	(A3) (B3)	A-scan and B-scan ultrasonography	Practical + exercises	Paper exams
28	6	(A3) (B3)	A-scan and B-scan ultrasonography	Interactive lectures + experiments	Practical and oral + reports
29	6	(A3) (B3)	Indications of orbital ultrasonography, clinical applications and biometry	Practical + exercises	Paper exams
30	6	(A3) (B3)	Indications of orbital ultrasonography, clinical applications and biometry	Interactive lectures + experiments	Practical and oral + reports

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

1-Monthly exam: 25

2-Interaction: 2

3-Reports: 3

3-Monthly: 70

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Mahajan, V. N. (1991). <i>Aberration theory made simple</i> (Vol. 6). SPIE Press.
Main references (sources)	Mahajan, V. N. (1998). <i>Optical imaging and aberrations: Ray geometrical optics</i> . SPIE press.
Recommended books and references (scientific journals, reports...)	Mahajan, V. N. (1991). <i>Aberration theory made simple</i> (Vol. 6). SPIE Press.
Electronic References, Websites	Mahajan, V. N. (1998). <i>Optical imaging and aberrations: Ray geometrical optics</i> . SPIE press.

Course Description Form

1. Course Name:	
Pediatric Ophthalmology	
2. Course Code:	
MTOP4003	
3. Semester / Year:	
Year /Fourth	
4. Description Preparation Date:	
09/02/2025	
5. Available Attendance Forms:	
Physical Presence	
6. Number of Credit Hours (Total) / Number of Units (Total)	
6 Credit Hours/4 Units	
7. Course administrator's name (mention all, if more than one name)	
Name: Ammar Adel Fahd Email: AmmarAdilFahad@Gmail.com	
8. Course Objectives	
Course Objectives	General objective: The student learns about eye diseases in children. Specific objective: How to diagnose, treat or prevent eye diseases in children, as well as what pertains to school health..
9. Teaching and Learning Strategies	
Strategy	- Interactive Lecture - Dialogue and Discussion

	• Exercises • Self-learning • Learning by Exploration				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Visual acuity in children, Pictures on snellen chart , Hand test, Sheridan gardiner test. Fookes cube test ,	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports
2	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Worth's ivory ball, catford drum, OKN drum	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports
3	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Visual acuity examination (testing newborn, testing infants)	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports
4	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Examination of children with eye disorders	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports
5	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk	Examination of ocular muscles balance in	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports

		factors and preventive measures	children		
6	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Ocular movement	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports
7	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Cover test	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports
8	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Indications for referral to an ophthalmologist –newborn	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports
9	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Indications for referral to an ophthalmologist –infancy, childhood	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports
10	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Medications in the young patient	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports
11		(A5) Summary of common eye	History		

		diseases, their associated risk factors and preventive measures			
12	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Pediatric eye examination	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports
13	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Strabismus in children	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports
14-15	2 Theory+ 4 Practical	(A5) Summary of common eye diseases, their associated risk factors and preventive measures	Nystagmus	Lectures Interactive + Scientific Experiments + Exercises	Paper, practical, oral exams and reports

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

1. Monthly Exam: 25 marks
2. Semester Exam: 70 marks
3. Interaction: 1 mark
4. Reports: 1 mark
5. Oral Exam: 2 marks

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Glasses and contact lenses	
2. Course Code:	
MTOP4004	
3. Semester / Year:	
Year/4	
4. Description Preparation Date:	
2025	
5. Available Attendance Forms:	
presence	
6. Number of Credit Hours (Total) / Number of Units (Total)	
180/8	
7. Course administrator's name (mention all, if more than one name)	
Name: SALIM OUDAH MEZAN Email: salim.oudah@alayen.edu.iq	
8. Course Objectives	
Course Objectives	General Objective: To learn how to dispense prescriptions for medicines for medical ministries and their affiliated bodies and methods of receiving and dispensing them. Specific Objectives: - How to check and write prescriptions in medical ministries. - Know their types and how to stamp a prescription for verification. - Describe the medicines affiliated with the medical ministries and how to use them and how to dispense them.
9. Teaching and Learning Strategies	
Strategy	Interactive Lecture 2. Laboratory Experiments

	3. Learning by Research				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	6	(A3) (B3)	Spectacle , parts of spectacle	Interactive lectures + experiments	Paper exams Practical and oral + reports
2	6	(A3) (B3)	Spectacles frames and measurements for different type of spectacles	Interactive lectures + experiments Practical + exercises	Paper e Practical and oral + reports xams
3	6	(A3) (B3)	How to maintain eyeglasses	Interactive lectures + experiments Practical + exercises Practic al + exercises	Paper exams Practical and oral + reports
4	6	(A3) (B3)	B.V.P (back vertex power)	Interactive lectures + experiments	Practical and oral + reports
5	6	(A3) (B3)	Decentration (single lens and biofocal lens)	Interactive lectures + experiments Practical + exercises	Paper exams
6	6	(A3) (B3)	Lenticular lenses (spherical (+) or (-)	Practical + exercises	Paper exams Practical and oral + reports
7	6	(A3) (B3)	Biofocal glasses and how to fit biofocals	Interactive lectures + experiments	Practical and oral + reports
8	6	(A3) (B3)	Progressive glasses	Interactive lectures + experiments Practical + exercises	Paper exams
10&9	6	(A3) (B3)	Auto reflection coating for different materials method of lens tinting	Practical + exercises	Paper exams Practical and oral + reports

\$11 12	6	(A3) (B3)	Prism lens and stage of making prism lens	Interactive lectures + experiments	Practical and oral + reports
13	6	(A3) (B3)	Image jump	Interactive lectures + experiments	Paper exams
14	6	(A3) (B3)	Productive and safety glasses	Practical + exercises	Paper exams Practical and oral + reports
15	6	(A3) (B3)	Variation in the size of the retinal image	Interactive lectures + experiments	Practical and oral + reports
16	6	(A3) (B3)	Sport spectacles with prescription	Interactive lectures + experiments Practical + exercises	Paper exams
17	6	(A3) (B3)	Glossary of terms contact lens	Practical + exercises	Paper exams Practical and oral + reports
18	6	(A3) (B3)	Type of contact lens and type of hard contact lens	Interactive lectures + experiments	Paper exams Practical and oral + reports
19	6	(A3) (B3)	Contact lens materials	Interactive lectures + experiments Practical + exercises	Paper exams
20	6	(A3) (B3)	Principles of test with measurements of CL	Interactive lectures + experiments Practical + exercises Practical + exercises	Paper exams Practical and oral + reports
\$21 22	6	(A3) (B3)	Fitting, maintenance, stages for CL	Interactive lectures + experiments	Practical and oral + reports
23	6	(A3) (B3)	Care of contact lens	Interactive lectures + experiments Practical + exercises	Paper exams
24	6	(A3) (B3)	Soft contact lenses (ADVANTAGES)	Practical + exercises	Paper exams Practical and

					oral + reports
25	6	(A3) (B3)	Disadvantages and design dimension of soft contact lens (cosmetic CL)	Interactive lectures + experiments	Practical and oral + reports
26	6	(A3) (B3)	Follow up post fitting examination	Interactive lectures + experiments Practical + exercises	Paper exams
27	6	(A3) (B3)	Prescription of hard contact lenses and spectacles	Practical + exercises	Paper exams Practical and oral + reports
28	6	(A3) (B3)	Risk , complication and oedema	Interactive lectures + experiments	Practical and oral + reports
30	6	(A3) (B3)	Kerato meter	General Review	Paper exams

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

1-Monthly exam: 25

2-Interaction: 2

3-Reports: 3

3-Monthly: 70

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Efron, N. (2023). <i>Contact Lens Practice Book</i> . Elsevier Health Sciences.
Main references (sources)	Gasson, A., & Morris, J. A. (2010). <i>The contact lens manual: a practical guide to fitting</i> . Elsevier Health Sciences.
Recommended books and references (scientific journals, reports...)	Efron, N. (2018). <i>Contact Lens Complications E-Book: Contact Lens Complications E-Book</i> . Elsevier Health Sciences.
Electronic References, Websites	Sinha, R., & Dada, V. K. (2017). <i>Textbook of contact lenses</i> . JP Medical Ltd.

