

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

This specialization offers improved clarity and vision enhancement, where glasses help reduce visual strain resulting from prolonged reading or computer work, thus improving visual comfort. They correct optical defects such as nearsightedness or farsightedness.

1. Teaching Institution	Al Ayen University
2. University Department/Centre	Health and Medical Technologies, Optics Technology Department
3. Program Title	Glasses and Contact lens
4. Title of Final Award	Bachelor's
5. Modes of Attendance offered	Lecture practice in the methodology class
6. Accreditation	Two semesters/ 4 ^h year 6 hours of theoretical +Practical lectures of each week
7. Other external influences	
8. Date of production/revision of this specification	2024-1-3 Academic year 2023-2024

9. Aims of the Program

Students learn how to revitalize vision and provide clear sight for individuals by identifying appropriate eyewear, reducing eye strain, correcting eye defects, ensuring comfort in wearing glasses, improving performance in daily activities, and understanding care and maintenance through individual guidance.

Cognitive goals

- 1. Understanding Optical Principles:** Mastery of the fundamental optical principles underlying the design and function of glasses and contact lenses, including refraction, accommodation, and visual correction. **Knowledge of Lens Materials and Designs:** Familiarity with various materials used in lens manufacturing, as well as different lens designs such as single vision, bifocal, and progressive lenses.
- 2. Assessment of Visual Needs:** Developing the ability to assess and analyze patients' visual needs through comprehensive eye examinations, including visual acuity testing, refraction, and evaluation of ocular health. **Prescription Determination:** Acquiring skills in determining accurate prescriptions for

glasses and contact lenses based on refractive errors, astigmatism, and other visual anomalies.

3. **Lens Fitting and Adjustment:** Proficiency in fitting and adjusting glasses and contact lenses to ensure optimal vision correction, comfort, and alignment with the patient's facial features and lifestyle. **Management of Ocular Conditions:** Understanding the role of glasses and contact lenses in managing various ocular conditions and visual impairments, such as myopia, hyperopia, presbyopia, and astigmatism.
4. **Patient Education:** Ability to educate patients on proper eyewear usage, lens care and maintenance, and potential visual changes associated with wearing glasses or contact lenses. **Clinical Decision-Making:** Developing clinical reasoning skills to make evidence-based decisions regarding the selection, fitting, and adjustment of glasses and contact lenses to meet the individual needs of patients. **Integration of Technology:** Incorporating advancements in lens materials, manufacturing techniques, and digital technologies into clinical practice to enhance the effectiveness and customization of glasses and contact lenses. **Continuous Learning and Professional Development:** Cultivating a commitment to lifelong learning, staying updated with emerging trends and innovations in optical technology, and pursuing continuing education opportunities to improve clinical skills and patient care.

Teaching and Learning Methods

- Student-Centered Discussions. ...
- Making Connections. ...
- Increased Autonomy. ...
- Building Relationships. ...
- A Focus on Literacy.

Assessment methods

Quizzes, midterm exams, and final exams both theoretically and practically

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1 Communication Skills: Effectively communicating with patients to understand their visual needs, explaining complex concepts in a clear and understandable manner, and providing instructions on lens care and usage. **Customer Service:** Providing excellent customer service by addressing patient concerns, ensuring satisfaction with eyewear selections, and building rapport to enhance the overall patient experience.

D2 Attention to Detail: Meticulously evaluating prescriptions, measuring pupillary distances, and ensuring accurate lens fitting and alignment to optimize visual acuity and comfort. **Problem-Solving Abilities:** Analyzing patient complaints or issues with eyewear and finding practical solutions to address them, whether it involves adjusting frames, troubleshooting contact lens discomfort, or resolving prescription discrepancies.

D3 Time Management: Balancing multiple patient appointments, administrative tasks, and follow-up responsibilities efficiently to maximize productivity and minimize wait times for patients. **Adaptability:** Being flexible and adaptable to changes in patient needs, technological advancements in lens design and manufacturing, and shifts in industry trends and regulations. **Technical Proficiency:** Demonstrating proficiency in using specialized equipment for refraction, lens measurement, and contact lens fitting, as well as familiarity with optical software for prescription analysis and order processing.

D4 Teamwork and Collaboration: Collaborating effectively with colleagues, optometrists, ophthalmologists, and other healthcare professionals to coordinate patient care and ensure seamless transitions between eye care providers. **Ethical and Professional Conduct:** Upholding ethical standards in patient interactions, respecting patient confidentiality, and maintaining professionalism in all aspects of practice. **Continuous Learning:** Actively seeking opportunities for professional development, staying

updated on industry advancements and best practices through continuing education courses, workshops, and conferences.

10. Program Structure				4. Awards and Credits
Level/Year	Course or Module Code	Course or Module Title	Credit rating	
Third year	Glasses and Contact lens	Anatomy of the face	2 hours	Bachelor Degree Requires (x) credits
Third year	Glasses and Contact lens	Anatomy of the face	2 hours	
Third year	Glasses and Contact lens	Causes of the eye damage and facial damage	2 hours	
Third year	Glasses and Contact lens	Types of eye damage	2 hours	
Third year	Glasses and Contact lens	Patient assessment for artificial eye	2 hours	
Third year	Glasses and Contact lens	Materials used for ocular and orbital prostheses	2 hours	
Third year	Glasses and Contact lens	Impression materials for ocular and orbital prosthesis	2 hours	
Third year	Glasses and Contact lens	How to reconstruct the eye damage	2 hours	
Third year	Glasses and Contact lens	How to reconstruct the eye damage and its associated structures	2 hours	
Third year	Glasses and Contact lens	Impression of the eye defect	2 hours	
Third year	Glasses and Contact lens	Impression of the eye and its associated structure	2 hours	
Third year	Glasses and Contact lens	Developing the ocular model	2 hours	
Third year	Glasses and Contact lens	Developing the facial model	2 hours	
Third year	Glasses and Contact lens	Wax pattern the ocular defect	2 hours	
Third year	Glasses and Contact lens	Wax pattern the facial defect	2 hours	
Third year	Glasses and Contact lens	Try in anterior wax pattern on patient and make the modification	2 hours	
Third year	Glasses and Contact lens	Constrict the posterior wax pattern of missing eye	2 hours	
Third year	Glasses and Contact lens	How to flask the eye wax pattern	2 hours	
Third year	Glasses and Contact lens	Types of silicon material used in orbital prosthesis	2 hours	

Third year	Glasses and Contact lens	Coloring the silicon material used in eye prosthesis	2 hours	
Third year	Glasses and Contact lens	Curing the silicon material inside the mold of the flask wax pattern	2 hours	
Third year	Glasses and Contact lens	Placement the ready made ocular prosthesis inside the anterior part of the eye prosthesis	2 hours	
Third year	Glasses and Contact lens	Mounting the anterior part with the posterior part	2 hours	
Third year	Glasses and Contact lens	Placement the ready made eyelash and eyebrow on the eye prosthesis	2 hours	
Third year	Glasses and Contact lens	Trying eye prosthesis by insertion and removing	2 hours	
Third year	Glasses and Contact lens	Complete finished eye prosthesis	2 hours	
Third year	Glasses and Contact lens	Orbital implant for ocular prosthesis	2 hours	
Third year	Glasses and Contact lens	Traditional Retention methods for orbital prosthesis	2 hours	
Third year	Glasses and Contact lens	Bar and clip , magnetic implant to fix eye prosthesis	2 hours	
Third year	Glasses and Contact lens	How to construct the combination ocular prosthesis, how to reline the ocular prosthesis , relining the ocular cavity	2 hours	

13. Personal Development Planning

Seminars and presentation all over the academic year

I am Dr. Salem Ouda Mezzan will supervise the students' seminars, presentations, and help them academically and practically all year long.

14. Admission criteria.

15. Key sources of information about the program

This book covers basic clinical procedures in primary eye care, including the provision and fitting of eyeglasses.

Title: Clinical Procedures in Primary Eye Care

Training Toolkit

Optometry Specialty:

"Optometry: Science, Techniques, and Clinical Management" by Mark Rosenfield and Nicola S. Anstice:

This book provides a comprehensive overview of optometry and eyeglasses, including the latest techniques and clinical management.

Title: Optometry: Science, Techniques, and Clinical Management

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

The specialization of pediatric optometry in the optometry department is a specialized field focusing on the healthcare of children's eyes and vision. It covers techniques for diagnosing vision problems in children such as strabismus and refractive errors and discusses appropriate optical and medical treatments for the child.

1. Teaching Institution	Al Ayen University
2. University Department/Centre	Health and Medical Technologies, Optics Technology Department
3. Program Title	Pediatric Ophthalmology
4. Title of Final Award	Bachelor's
5. Modes of Attendance offered	Lecture practice in the methodology class
6. Accreditation	Two semesters/ 4 ^h year 6 hours of theoretical +Practical lectures of each week
7. Other external influences	
8. Date of production/revision of this specification	2024-1-3 Academic year 2023-2024
9. Aims of the Program	
Students learn how to understand the changes in the eye and vision during developmental stages, considering genetic and environmental factors affecting visual development. They also learn to comprehend, diagnose, and treat eye diseases in children, including congenital abnormalities and genetic disorders affecting the eyes. Additionally, they receive training in communicating with parents or guardians and promoting eye health care.	
Cognitive goals	
1. finding and using sources of information. 2. planning a research project. conducting research. 3. using and analyzing data. disseminating results. 4. acting ethically. developing deeper research skills.	
Teaching and Learning Methods	

- Student-Centered Discussions. ...
- Making Connections. ...
- Increased Autonomy. ...
- Building Relationships. ...
- A Focus on Literacy.

Assessment methods

Quizzes, midterm exams, and final exams both theoretically and practically

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1 Communication Skills: Effective communication with pediatric patients, their parents, and other healthcare professionals is crucial. This includes the ability to explain complex medical concepts in simple terms, listen attentively to concerns, and provide emotional support. **Empathy and Patience:** Working with children requires a high level of empathy and patience. Pediatric ophthalmologists must be able to connect with young patients, understand their fears and anxieties, and create a comfortable and reassuring environment.

D2 Child-Friendly Approach: Developing strategies to engage and interact with children in a friendly and approachable manner, such as using age-appropriate language, incorporating games and toys into the clinical environment, and building trust with young patients. **Pediatric Clinical Skills:** Acquiring specialized clinical skills relevant to pediatric ophthalmology, including performing comprehensive eye examinations on children of all ages, assessing visual development, and diagnosing and managing common pediatric eye conditions.

D3 Parent Education: Educating parents and caregivers about their child's eye health, treatment options, and the importance of regular eye exams. This involves effective communication, providing written materials or resources, and addressing any concerns or questions. **Teamwork and Collaboration:** Collaborating with pediatricians, pediatric nurses, optometrists, and other specialists involved in the care of pediatric patients to ensure comprehensive and coordinated treatment plans. **Cultural Competency:** Understanding and respecting cultural differences and how they may impact pediatric eye care practices and beliefs. Being sensitive to cultural norms and preferences when interacting with diverse patient populations.

D4 Adaptability and Flexibility: Being adaptable to the unique needs and challenges of pediatric patients and their families, as well as being flexible in adjusting treatment approaches based on individual circumstances and responses. **Problem-Solving Abilities:** Developing creative solutions to address challenges encountered in pediatric eye care, such as managing difficult behaviors during exams, overcoming communication barriers, or optimizing treatment compliance. **Continuous Learning and Professional Development:** Staying current with advancements in pediatric ophthalmology through ongoing education, attending conferences and seminars, and participating in research initiatives to enhance clinical skills and knowledge.

10. Program Structure				4. Awards and Credits
Level/Year	Course or Module Code	Course or Module Title	Credit rating	
Third year	Pediatric Ophthalmology	Visual acuity in children, Pictures on snellen chart , Hand test, Sheridan gardiner test.	3 hours	Bachelor Degree Requires (x)

				credits
Third year	Pediatric Ophthalmology	Fookes cube test , Worth's ivory ball, catford drum, OKN drum	3 hours	
Third year	Pediatric Ophthalmology	Visual acuity examination (testing newborn, testing infants)	3 hours	
Third year	Pediatric Ophthalmology	Examination of children with eye disorders	3 hours	
Third year	Pediatric Ophthalmology	Examination of ocular muscles balance in children Ocular movement	3 hours	
Third year	Pediatric Ophthalmology	Examination of ocular muscles balance in children Ocular movement	3 hours	
Third year	Pediatric Ophthalmology	Cover test	3 hours	
Third year	Pediatric Ophthalmology	Indications for referral to an ophthalmologist –newborn	3 hours	
Third year	Pediatric Ophthalmology	Indications for referral to an ophthalmologist –infancy, childhood	3 hours	
Third year	Pediatric Ophthalmology	Medications in the young patient	3 hours	
Third year	Pediatric Ophthalmology	History Pediatric eye examination	3 hours	
Third year	Pediatric Ophthalmology	History Pediatric eye examination	3 hours	
Third year	Pediatric Ophthalmology	Strabismus in children	3 hours	
Third year	Pediatric Ophthalmology	Nystagmus	3 hours	
Third year	Pediatric Ophthalmology	Nystagmus	3 hours	
Third year	Pediatric Ophthalmology	Visual acuity in children, Pictures on snellen chart , Hand test, Sheridan gardiner test.	3 hours	
Third year	Pediatric Ophthalmology	Fookes cube test , Worth's ivory ball, catford drum, OKN drum	3 hours	
Third year	Pediatric Ophthalmology	Visual acuity examination (testing newborn, testing infants)	3 hours	

Third year	Pediatric Ophthalmology	Examination of children with eye disorders	3 hours	
Third year	Pediatric Ophthalmology	Examination of ocular muscles balance in children Ocular movement	3 hours	
Third year	Pediatric Ophthalmology	Examination of ocular muscles balance in children Ocular movement	3 hours	
Third year	Pediatric Ophthalmology	Cover test	3 hours	
Third year	Pediatric Ophthalmology	Indications for referral to an ophthalmologist –newborn	3 hours	
Third year	Pediatric Ophthalmology	Indications for referral to an ophthalmologist –infancy, childhood	3 hours	
Third year	Pediatric Ophthalmology	Medications in the young patient	3 hours	
Third year	Pediatric Ophthalmology	History Pediatric eye examination	3 hours	
Third year	Pediatric Ophthalmology	History Pediatric eye examination	3 hours	
Third year	Pediatric Ophthalmology	Strabismus in children	3 hours	
Third year	Pediatric Ophthalmology	Nystagmus	3 hours	
Third year	Pediatric Ophthalmology	Nystagmus	3 hours	

13. Personal Development Planning

Seminars and presentation all over the academic year

I am Dr. Amar Adel will supervise the students' seminars, presentations, and help them academically and practically all year long.

The curriculum development plan is based on the following:

Presenting the prescribed academic material and observing student results, followed by analysis.

Studying the reverse feedback from students regarding vocabulary usage.

Analyzing feedback from practical laboratory sessions related to the course.

Comparing current vocabulary with that used in comparable colleges within the field.

14. Admission criteria.

15. Key sources of information about the program

This book serves as a comprehensive reference for pediatric ophthalmology and strabismus. Title: Pediatric Ophthalmology and Strabismus Training Toolkit:

1. "The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease" by Nika Bagheri and Charles Calvo Official Website of the American Association for Pediatric Ophthalmology and Strabismus (AAPOS), providing information about strabismus and its treatments. Website: [AAPOS](#)

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

This course focuses on studying the anatomy of the eye, specifically emphasizing the nerves and muscles controlling eye movements. Students learn clinical examination techniques and how to identify cases of strabismus (ocular misalignment) and correct vision using the latest scientific techniques.

1. Teaching Institution	Al Ayen University
2. University Department/Centre	Health and Medical Technologies, Optics Technology Department
3. Program Title	Squint 2
4. Title of Final Award	Bachelor's
5. Modes of Attendance offered	Lecture practice in the methodology class
6. Accreditation	Two semesters/ 4 ^h year 6 hours of theoretical +Practical lectures of each week
7. Other external influences	
8. Date of production/revision of this specification	2024-1-3 Academic year 2023-2024

9. Aims of the Program

Students are prepared with high proficiency and the ability to effectively manage cases of strabismus with patients, enhancing long-term visual outcomes. In addition to keeping up with recent advancements in the field, students are encouraged to engage in continuous reading and actively participate in scientific research on strabismus.

Cognitive goals

- Understanding Ocular Anatomy and Physiology:** Mastery of the anatomy and physiology of the visual system, including the extraocular muscles, cranial nerves, and binocular vision mechanisms.
Recognition and Classification of Strabismus: Developing the ability to recognize different types of strabismus, including esotropia, exotropia, hypertropia, and their variations, through clinical observation and examination.
- Evaluating Binocular Vision:** Assessing binocular vision and depth perception using techniques such as cover tests, alternate cover tests, and stereoacuity assessments to determine the presence and severity of strabismus. **Understanding Etiology and Pathophysiology:** Investigating the underlying

causes and pathophysiological mechanisms of strabismus, including factors such as refractive errors, muscle imbalances, neurological disorders, and genetic predispositions.

3. **Diagnostic Imaging Interpretation:** Interpreting diagnostic imaging modalities such as magnetic resonance imaging (MRI) or computed tomography (CT) scans to identify structural abnormalities or neurological conditions associated with strabismus. **Treatment Options and Management Strategies:** Understanding the various treatment modalities for strabismus, including optical correction, orthoptic exercises, prism glasses, botulinum toxin injections, and surgical intervention, and their indications, contraindications, and potential complications. **Clinical Decision-Making:** Integrating patient history, clinical findings, and diagnostic test results to formulate individualized treatment plans for patients with strabismus, considering factors such as age, visual acuity, ocular motility, and patient preferences.
4. **Follow-up and Monitoring:** Establishing appropriate follow-up schedules and monitoring patients' progress following treatment for strabismus, evaluating ocular alignment, visual function, and treatment outcomes over time. **Patient Education and Counseling:** Providing education and counseling to patients and their families about the nature of strabismus, treatment options, expected outcomes, and potential complications, addressing any concerns or misconceptions they may have. **Evidence-Based Practice:** Applying principles of evidence-based medicine to evaluate the efficacy and safety of different strabismus treatment modalities, incorporating current research findings and clinical guidelines into clinical decision-making.

Teaching and Learning Methods

- Student-Centered Discussions. ...
- Making Connections. ...
- Increased Autonomy. ...
- Building Relationships. ...
- A Focus on Literacy.

Assessment methods

Quizzes, midterm exams, and final exams both theoretically and practically

D. General and Transferable Skills (other skills relevant to employability and personal development)

1. **Communication Skills:** Effective communication with patients, their families, and other healthcare professionals is crucial in the management of squint. This includes the ability to explain treatment options, address concerns, and provide emotional support. **Empathy and Sensitivity:** Developing empathy and sensitivity towards patients with squint and their families, understanding the impact of the condition on their lives, and providing compassionate care. **Clinical Observation and Assessment:** Developing skills in clinical observation and assessment to accurately diagnose and monitor squint, including evaluating ocular alignment, assessing visual function, and identifying associated eye conditions.
2. **Critical Thinking and Problem-Solving:** Analyzing clinical data, interpreting diagnostic tests, and formulating evidence-based treatment plans for patients with squint, considering factors such as the type and severity of the deviation, visual acuity, and patient age. **Technical Proficiency:** Proficiency in performing specialized clinical procedures related to the management of squint, such as cover tests, prism measurements, and ocular motility assessments.
3. **Patient Education:** Educating patients and their families about the nature of squint, treatment options, and the importance of compliance with therapy. This involves clear communication, the use of visual aids, and addressing any misconceptions or fears. **Interdisciplinary Collaboration:** Collaborating effectively with other healthcare professionals, such as pediatricians, optometrists, orthoptists, and

ophthalmic surgeons, to coordinate care and achieve optimal treatment outcomes for patients with squint.

4. **Cultural Competency:** Understanding and respecting cultural differences and how they may impact patients' perceptions of squint and healthcare. Tailoring communication and care plans to accommodate diverse cultural backgrounds and beliefs. **Time Management:** Efficiently managing time and resources to prioritize patient care, complete clinical assessments, and follow-up appointments while ensuring quality and safety standards are met. **Lifelong Learning:** Committing to continuous professional development through participation in conferences, workshops, and continuing education courses, staying updated on advancements in squint management, and incorporating new knowledge into clinical practice.

10. Program Structure				4. Awards and Credits
Level/Year	Course or Module Code	Course or Module Title	Credit rating	
Third year	Squint 2	Management of concomitant esotropia Correction of error of refraction	2 hours	Bachelor Degree Requires (x) credits
Third year	Squint 2		2 hours	
Third year	Squint 2	Treatment of amblyopia Orthoptic treatment	2 hours	
Third year	Squint 2		2 hours	
Third year	Squint 2	Surgical correction Exotropia definition, causes of exotropia	2 hours	
Third year	Squint 2		2 hours	
Third year	Squint 2	Types of exotropia Intermittent exotropia	2 hours	
Third year	Squint 2		2 hours	
Third year	Squint 2	Treatment of exotropia	2 hours	
Third year	Squint 2	Hypertropia , definition and causes	2 hours	
Third year	Squint 2	Clinical findings Diagnosis of hypertropia	2 hours	
Third year	Squint 2		2 hours	
Third year	Squint 2	Treatment of hypertropia	2 hours	
Third year	Squint 2	Convergence insufficiency, definition and causes	2 hours	
Third year	Squint 2	Clinical findings	2 hours	
Third year	Squint 2	Characters of convergence insufficiency	2 hours	

Third year	Squint 2	Diagnosis of convergence insufficiency	2 hours	
Third year	Squint 2	Treatment of convergence insufficiency	2 hours	
Third year	Squint 2	Aims of treatment	2 hours	
Third year	Squint 2	Paralytic squint, definition and causes	2 hours	
Third year	Squint 2	Symptoms of paralytic squint	2 hours	
Third year	Squint 2	Symptoms of paralytic squint(cont.)	2 hours	
Third year	Squint 2	Signs of paralytic squint	2 hours	
Third year	Squint 2	Investigation of extraocular muscle palsy	2 hours	
Third year	Squint 2	Investigation of diplopia	2 hours	
Third year	Squint 2	Lee`s screen method	2 hours	
Third year	Squint 2	Interpretation of Lee`s screen	2 hours	
Third year	Squint 2	Changes with time	2 hours	
Third year	Squint 2	Treatment of paralytic squint	2 hours	
Third year	Squint 2	Revision	2 hours	

13. Personal Development Planning

Seminars and presentation all over the academic year I am Assistant lecture Qasim Aboud Yasser will supervise the students' seminars, presentations, and help them academically and practically all year long.

14. Admission criteria.

15. Key sources of information about the program

This book is part of the "Fundamentals of Clinical Ophthalmology" series and covers various aspects related to strabismus.

"The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease" by Nika Bagheri and Charles Calvo

Official Website

American Academy of Ophthalmology (AAO)

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

Overall Objective: To understand how to use, describe, maintain, and manufacture alternatives.

Specific Objective: To understand how to use, describe, maintain, and manufacture alternatives.

1. Teaching Institution	Al Ayen University
2. University Department/Centre	Health and Medical Technologies, Optics Technology Department
3. Program Title	Ocular Prosthesis
4. Title of Final Award	Bachelor's
5. Modes of Attendance offered	Lecture practice in the methodology class
6. Accreditation	Two semesters/ 4 ^h year 6 hours of theoretical +Practical lectures of each week
7. Other external influences	
8. Date of production/revision of this specification	2024-1-3 Academic year 2023-2024
9. Aims of the Program	
1. To provide a comprehensive understanding of the subject matter. 2. To develop practical skills relevant to the field. 3. To foster critical thinking and problem-solving abilities. 4. To promote collaboration and effective communication. 5. To instill ethical and professional values. 6. To prepare students for further academic pursuits or career advancement. 7. To stay updated with the latest developments and trends in the field. 8. To encourage innovation and creativity. 9. To contribute positively to society through knowledge and expertise gained from the program.	

Cognitive goals

1. **Understanding Ocular Anatomy:** Mastery of the anatomy of the eye, including the structure and function of the eyelids, conjunctiva, sclera, and orbit, to comprehend the anatomical basis for ocular prosthesis fitting and aesthetics. **Knowledge of Eye Pathology:** Familiarity with common eye conditions and diseases that may result in enucleation or evisceration, such as trauma, tumors, or congenital anomalies, to understand the indications for ocular prosthesis.
2. **Understanding Prosthetic Materials:** Knowledge of the materials used in ocular prostheses, including acrylic, silicone, and polymethyl methacrylate (PMMA), their properties, and their suitability for different patient needs and preferences. **Assessment of Orbital Anatomy:** Developing skills in evaluating the orbital socket and surrounding structures through clinical examination, imaging studies, and measurements to determine the suitability for ocular prosthesis placement and stability.
3. **Ocular Prosthesis Design:** Understanding the principles of ocular prosthesis design, including size, shape, color, and texture, and their impact on prosthetic fit, comfort, and aesthetic appearance. **Ocular Prosthesis Fabrication Techniques:** Acquiring knowledge of the various fabrication techniques for ocular prostheses, including impression making, wax sculpting, and painting, to ensure precise customization and lifelike appearance. **Patient Assessment and Counseling:** Developing skills in assessing patients' needs, preferences, and expectations regarding ocular prostheses, and providing counseling on prosthetic options, care, and maintenance.
4. **Prosthetic Rehabilitation:** Understanding the psychosocial impact of ocular loss on patients and their families and providing support and guidance throughout the prosthetic rehabilitation process to promote acceptance and adjustment. **Interdisciplinary Collaboration:** Collaborating effectively with ophthalmologists, ocularists, maxillofacial surgeons, and other healthcare professionals involved in the care of patients with ocular prostheses to ensure comprehensive and coordinated treatment. **Evidence-Based Practice:** Applying principles of evidence-based medicine to evaluate the efficacy and outcomes of different ocular prosthesis techniques and interventions and incorporating current research findings into clinical decision-making.

Teaching and Learning Methods

- Student-Centered Discussions. ... Making Connections. ... Increased Autonomy. ... Building Relationships. ... A Focus on Literacy.

Assessment methods

Quizzes, midterm exams, and final exams both theoretically and practically

D. General and Transferable Skills (other skills relevant to employability and personal development)

1. **Communication Skills:** Effective communication with patients, their families, and healthcare professionals is crucial for understanding their needs, explaining treatment options, and providing emotional support throughout the prosthetic rehabilitation process.
2. **Empathy and Sensitivity:** Developing empathy and sensitivity towards patients who have experienced ocular trauma or loss, understanding their emotional challenges, and providing compassionate care. **Clinical Observation and Assessment:** Acquiring skills in clinical observation and assessment to accurately evaluate the orbital socket, facial anatomy, and prosthetic fit, and to identify any abnormalities or complications. **Technical Proficiency:** Proficiency in performing specialized procedures related to ocular prosthesis fabrication and fitting, including impression taking, wax modeling, and painting, to ensure a comfortable and cosmetically pleasing result.
3. **Patient Education and Counseling:** Educating patients and their families about the prosthetic process, including care and maintenance of the prosthesis, and providing counseling on coping strategies and psychosocial adjustment. **Interdisciplinary Collaboration:** Collaborating effectively

with ophthalmologists, ocularists, maxillofacial surgeons, and other healthcare professionals involved in the care of patients with ocular prostheses to ensure comprehensive and coordinated treatment.

Problem-Solving Abilities: Developing problem-solving skills to address challenges encountered during the prosthetic rehabilitation process, such as fitting issues, prosthetic malpositioning, or patient dissatisfaction, and finding appropriate solutions.

4. **Cultural Competency:** Understanding and respecting cultural differences and how they may impact patients' perceptions of ocular prosthetics, and adapting communication and care plans to accommodate diverse cultural backgrounds and beliefs. **Time Management:** Efficiently managing time and resources to prioritize patient care, complete clinical assessments, and follow-up appointments while ensuring quality and safety standards are met. **Lifelong Learning:** Committing to continuous professional development through participation in conferences, workshops, and continuing education courses, staying updated on advancements in ocular prosthetics, and incorporating new knowledge into clinical practice.

10. Program Structure				4. Awards and Credits
Level/Year	Course or Module Code	Course or Module Title	Credit rating	
Third year	Ocular Prosthesis	Anatomy of the face	2 hours	Bachelor Degree Requires (x) credits
Third year	Ocular Prosthesis	Anatomy of the face	2 hours	
Third year	Ocular Prosthesis	Causes of the eye damage and facial damage	2 hours	
Third year	Ocular Prosthesis	Types of eye damage	2 hours	
Third year	Ocular Prosthesis	Patient assessment for artificial eye	2 hours	
Third year	Ocular Prosthesis	Materials used for ocular and orbital prostheses	2 hours	
Third year	Ocular Prosthesis	Impression materials for ocular and orbital prosthesis	2 hours	
Third year	Ocular Prosthesis	How to reconstruct the eye damage	2 hours	
Third year	Ocular Prosthesis	How to reconstruct the eye damage and its associated structures	2 hours	
Third year	Ocular Prosthesis	Impression of the eye defect	2 hours	
Third year	Ocular Prosthesis	Impression of the eye and its associated structure	2 hours	
Third year	Ocular Prosthesis	Developing the ocular model	2 hours	
Third year	Ocular Prosthesis	Developing the facial model	2 hours	
Third year	Ocular Prosthesis	Wax pattern the ocular defect	2 hours	
Third year	Ocular Prosthesis	Wax pattern the facial defect	2 hours	

Third year	Ocular Prosthesis	Try in anterior wax pattern on patient and make the modification	2 hours	
Third year	Ocular Prosthesis	Constrict the posterior wax pattern of missing eye	2 hours	
Third year	Ocular Prosthesis	How to flask the eye wax pattern	2 hours	
Third year	Ocular Prosthesis	Types of silicon material used in orbital prosthesis	2 hours	
Third year	Ocular Prosthesis	Coloring the silicon material used in eye prosthesis	2 hours	
Third year	Ocular Prosthesis	Curing the silicon material inside the mold of the flask wax pattern	2 hours	
Third year	Ocular Prosthesis	Placement the ready made ocular prosthesis inside the anterior part of the eye prosthesis	2 hours	
Third year	Ocular Prosthesis	Mounting the anterior part with the posterior part	2 hours	
Third year	Ocular Prosthesis	Placement the ready made eyelash and eyebrow on the eye prosthesis	2 hours	
Third year	Ocular Prosthesis	Trying eye prosthesis by insertion and removing	2 hours	
Third year	Ocular Prosthesis	Complete finished eye prosthesis	2 hours	
Third year	Ocular Prosthesis	Orbital implant for ocular prosthesis	2 hours	
Third year	Ocular Prosthesis	Traditional Retention methods for orbital prosthesis	2 hours	
Third year	Ocular Prosthesis	Bar and clip , magnetic implant to fix eye prosthesis	2 hours	
Third year	Ocular Prosthesis	How to construct the combination ocular prosthesis, how to reline the ocular prosthesis , relining the ocular cavity	3 hours	

13. Personal Development Planning

Seminars and presentation all over the academic year

I am Dr. Ahmed Fahd will supervise the students' seminars, presentations, and help them academically and practically all year long.

14. Admission criteria.

15. Key sources of information about the program

Grainger & Allison's Diagnostic Radiology" by Andy Adam : Grainger & Allison's Diagnostic Radiology
 "The Wills Eye Manual : Office and Emergency Room Diagnosis and Treatment of Eye Disease" Nika Bagheri , Charles Calvo

Primer of Diagnostic Imaging" by Ralph Weissleder, Jack Wittenberg, Mukesh Harisinghani, and John W. Chen : Primer of Diagnostic Imaging

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HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

The subspecialty of ophthalmology provides an extensive study of the basic structure and functions of the eye, addressing common diseases that affect its anatomy. It covers a wide range of eye diseases and how to diagnose them, along with the appropriate medications, including dosages, and their side effects. This enables students to understand the spectrum of diseases and injuries that can affect the eye comprehensively. They learn about each disease that may affect the eye and the methods for early diagnosis, allowing for guidance, counseling, and referral to specialists for appropriate treatment.

1. Teaching Institution	Al Ayen University
2. University Department/Centre	Health and Medical Technologies, Optics Technology Department
3. Program Title	Diseases of the eye
4. Title of Final Award	Bachelor's
5. Modes of Attendance offered	Lecture practice in the methodology class
6. Accreditation	Two semesters/ 4 ^h year 6 hours of theoretical +Practical lectures of each week
7. Other external influences	
8. Date of production/revision of this specification	2024-1-3 Academic year 2023-2024

9. Aims of the Program

Students are prepared to develop a deep understanding of the structure and function of the eye and diagnose diseases that may affect it. They also acquire the ability to utilize advanced techniques and skills in medical image analysis, along with comprehensive knowledge of treatment options and the types of medications used. Additionally, they gain a profound understanding of surgical procedures.

Cognitive goals

- Communication Skills:** Effective communication with patients, their families, and healthcare professionals is essential for conveying information about eye diseases, treatment options, and prognosis in a clear and compassionate manner. **Empathy and Sensitivity:** Developing empathy and sensitivity towards patients coping with vision loss or eye-related disorders, understanding their emotional challenges, and providing supportive care.
- Clinical Observation and Assessment:** Acquiring skills in clinical observation and assessment to

accurately diagnose and monitor various eye diseases, including conducting visual acuity tests, slit-lamp examinations, and ophthalmoscopy. **Diagnostic Skills:** Developing proficiency in interpreting diagnostic tests and imaging modalities commonly used in ophthalmology, such as optical coherence tomography (OCT), fluorescein angiography, and visual field testing. **Treatment Planning and Management:** Understanding the principles of medical and surgical management for different eye diseases, including prescribing medications, performing procedures such as laser therapy or intraocular injections, and coordinating postoperative care. **Patient Education and Counseling:** Educating patients and their families about their eye condition, treatment options, and the importance of compliance with therapy, and providing counseling on lifestyle modifications and preventive measures.

3. **Interdisciplinary Collaboration:** Collaborating effectively with other healthcare professionals, such as optometrists, ophthalmic technicians, and retinal specialists, to coordinate patient care and ensure comprehensive treatment plans. **Problem-Solving Abilities:** Developing problem-solving skills to address challenges encountered in the diagnosis and management of eye diseases, such as treatment complications, patient non-compliance, or unexpected clinical findings. **Cultural Competency:** Understanding and respecting cultural differences and how they may impact patients' beliefs and attitudes towards eye care, and adapting communication and care plans accordingly.
4. **Ethical and Professional Conduct:** Upholding ethical standards, integrity, and professionalism in all interactions with patients and colleagues, ensuring patient confidentiality and autonomy are respected. **Time Management:** Efficiently managing time and resources to prioritize patient care, complete clinical assessments, and follow-up appointments while maintaining accuracy and thoroughness in documentation. **Lifelong Learning:** Committing to continuous professional development through participation in conferences, workshops, and continuing education courses, staying updated on advancements in ophthalmic research and clinical practice.

Teaching and Learning Methods

- Student-Centered Discussions. ... Making Connections. ... Increased Autonomy. ... Building Relationships. ... A Focus on Literacy.

Assessment methods

Quizzes, midterm exams, and final exams both theoretically and practically

D. General and Transferable Skills (other skills relevant to employability and personal development)

1. Communication Skills:

- Understanding the principles of effective communication.
- Developing active listening skills to comprehend information accurately.
- Learning different communication styles and adapting them to various situations.
- Enhancing written communication skills for clarity and professionalism.

Critical Thinking:

- Developing the ability to analyze complex information and draw logical conclusions.
- Evaluating evidence and arguments to make informed decisions.
- Applying problem-solving strategies to identify and address challenges.
- Developing creative solutions to novel problems.

2. Adaptability:

- Understanding the importance of adaptability in diverse work environments.
- Learning to embrace change and view challenges as opportunities for growth.

- Developing resilience to cope with unexpected situations or setbacks.
- Flexibility in adjusting to new roles, responsibilities, or technologies.

Time Management:

- Learning effective time management techniques to prioritize tasks and meet deadlines.
- Setting realistic goals and breaking them down into manageable steps.
- Managing distractions and maintaining focus on important tasks.
- Improving productivity by optimizing workflow and task organization.

3. Problem-Solving Abilities:

- Developing systematic problem-solving skills to identify root causes and develop solutions.
- Applying analytical reasoning to break down complex problems into manageable components.
- Using creativity and innovation to generate alternative solutions.
- Evaluating the effectiveness of solutions through feedback and iteration.

Interpersonal Skills:

- Understanding the dynamics of interpersonal relationships in professional settings.
- Developing empathy and emotional intelligence to build rapport with colleagues and clients.
- Enhancing teamwork and collaboration skills for effective group communication and decision-making.
- Resolving conflicts constructively and fostering a positive work environment.

4. Decision-Making Skills:

- Understanding decision-making processes and factors influencing choices.
- Evaluating risks and benefits to make informed decisions.
- Developing confidence in decision-making and accepting accountability for outcomes.
- Learning from past decisions to improve future choices.

Information Literacy:

- Developing the ability to locate, evaluate, and use information effectively.
- Enhancing research skills to gather relevant data and evidence.
- Distinguishing between credible and unreliable sources of information.
- Synthesizing information from multiple sources to inform decision-making.

Continuous Learning:

- Cultivating a growth mindset and embracing lifelong learning as a personal and professional value.
- Seeking out opportunities for skill development and professional growth.
- Staying updated on industry trends, technological advancements, and best practices.
- Reflecting on learning experiences and applying insights to future endeavors.

10. Program Structure				4. Awards and Credits
Level/Year	Course or Module Code	Course or Module Title	Credit rating	

Third year	Diseases of the eye	Diseases of the orbit (infection)	3 hours	Bachelor Degree Requires (x) credits
Third year	Diseases of the eye	Diseases of the eye lids (infections,viral, bacterial,allergic)	3 hours	
Third year	Diseases of the eye	Diseases of the eye lids (ptosis, ectropion & entropion)	3 hours	
Third year	Diseases of the eye	lacrimal drainage diseases(causes & evaluation)	3 hours	
Third year	Diseases of the eye	lacrimal drainage diseases (obstruction & infection)	3 hours	
Third year	Diseases of the eye	Diseases of the conjunctiva(infections,viral, bacterial)	3 hours	
Third year	Diseases of the eye	Diseases of the conjunctiva (allergic conjunctivitis& degenerative Diseases of the conjunctiva)	3 hours	
Third year	Diseases of the eye	Disorders of the cornea inflammation(infection &allergic)	3 hours	
Third year	Diseases of the eye	Anomalies of the cornia (congenital)(micro cornia) megalocornia ,sclerocornia ,keratoconus, anophthalmus.	3 hours	
Third year	Diseases of the eye	Diseases of the crystalline lens abnormalities of (shape,act0pis)	3 hours	
Third year	Diseases of the eye	watery eye) Cataracts congenital	3 hours	
Third year	Diseases of the eye	watery eye) Cataracts congenital	3 hours	
Third year	Diseases of the eye	Cataract – acquired	3 hours	
Third year	Diseases of the eye	Diseases of uveal tract(uveitis, infection,fungal,bactiral)	3 hours	
Third year	Diseases of the eye	Anterior & posterior uveities.	3 hours	
Third year	Diseases of the eye	Vitreous opacities (introduction , Vitreous hemorrhage)	3 hours	
Third year	Diseases of the eye	Cholesterosis bulb, Vitreous cyst.	3 hours	
Third year	Diseases of the eye	Diseases retina – retinopathy (diabetic, hypertensive &retinopathy of prematurity)	3 hours	
Third year	Diseases of the eye	Age related macular regeneration	3 hours	
Third year	Diseases of the eye	Retinal detachment	3 hours	
Third year	Diseases of the eye	Hereditary fundus dystrophies	3 hours	
Third year	Diseases of the eye	Glaucoma(introduction & tonometries)	3 hours	
Third year	Diseases of the eye	Types of Glaucoma (open angle , closed angle)	3 hours	
Third year	Diseases of the eye	Primary congenital Glaucoma	3 hours	

Third year	Diseases of the eye	Normal pressure Glaucoma	3 hours	
Third year	Diseases of the eye	Pseudo exfoliation	3 hours	
Third year	Diseases of the eye	Trauma, orbital fracture & trauma to the globes , eyelid trauma	3 hours	
Third year	Diseases of the eye	Chemical injuries	3 hours	
Third year	Diseases of the eye	Ocular side effect of systemic medication (cornea ,lens)	3 hours	
Third year	Diseases of the eye	Ocular side effect of systemic medication(uveitis,retina)	3 hours	

13. Personal Development Planning

Seminars and presentation all over the academic year

I am Dr. Amjad Mohsen Al-Asadi will supervise the students' seminars, presentations, and help them academically and practically all year long. The curriculum development plan is based on the following:
 Providing the relevant academic material and collecting student feedback for analysis. Studying the reverse feedback from students regarding the vocabulary. Analyzing student feedback from practical experiments in related laboratories. Comparing current vocabulary and materials with those used in other relevant colleges in the field.

14. Admission criteria.

15. Key sources of information about the program

Title: Eye Conditions and Diseases - National Eye Institute Subtitle: A-Z Eye Conditions

Official Website: [National Eye Institute](https://www.nei.nih.gov/)

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

This specialization provides the capability to obtain precise imaging of tissues, enabling the specialist to accurately diagnose the condition. This aids physicians in formulating treatment plans based on the results and images obtained. Additionally, it allows for the monitoring of the condition's progression or recovery.

1. Teaching Institution	Al Ayen University
2. University Department/Centre	Health and Medical Technologies, Optics Technology Department
3. Program Title	X-ray and ultrasound
4. Title of Final Award	Bachelor's
5. Modes of Attendance offered	Lecture practice in the methodology class
6. Accreditation	Two semesters/ 4 ^h year 4 hours of theoretical +Practical lectures of each week
7. Other external influences	
8. Date of production/revision of this specification	2024-1-3 Academic year 2023-2024

9. Aims of the Program

Providing the ability to diagnose through images and utilizing them in research, offering educational resources for trainee students to enhance their structural knowledge of each case, early diagnosis of diseases to improve treatment opportunities, and providing accurate imaging to assist doctors in making timely and appropriate decisions.

Cognitive goals

1. Understanding Radiation Physics:

- Mastery of the principles of radiation physics, including the production, interaction, and detection of X-rays.
- Comprehension of the properties of X-rays, such as wavelength, energy, and attenuation, and their application in medical imaging.

2. Knowledge of Imaging Modalities:

- Understanding the principles and applications of X-ray imaging techniques, including radiography, fluoroscopy, and computed tomography (CT).
- Familiarity with ultrasound imaging principles, including sound wave propagation, transducer technology, and image formation.

Anatomy and Pathology:

- Proficiency in anatomical knowledge relevant to X-ray and ultrasound imaging, including recognition of normal anatomical structures and their variants.
- Understanding the pathological manifestations visible on X-ray and ultrasound images, such as fractures, tumors, and organ abnormalities.

Image Interpretation:

- Developing skills in interpreting X-ray images to identify abnormalities, assess bone integrity, and diagnose conditions affecting the skeletal system.
- Proficiency in interpreting ultrasound images to visualize soft tissues, organs, and blood flow patterns, and diagnose a wide range of medical conditions.

3. Radiation Safety:

- Understanding the principles of radiation safety and protection for patients, healthcare professionals, and the public.
- Comprehension of radiation dose optimization techniques and adherence to established safety protocols in X-ray imaging.

Ultrasound Physics:

- Mastery of the principles of ultrasound physics, including pulse-echo imaging, tissue interactions, and Doppler ultrasound.
- Understanding the factors affecting ultrasound image quality, such as frequency, depth, resolution, and artifacts.

Clinical Decision-Making:

- Developing the ability to correlate imaging findings with clinical history, physical examination, and laboratory results to formulate diagnostic impressions.
- Proficiency in prioritizing imaging studies and selecting appropriate imaging modalities based on clinical indications and patient characteristics.

4. Quality Assurance:

- Understanding the principles of quality assurance and quality control in X-ray and ultrasound imaging, including equipment maintenance, calibration, and image optimization.
- Comprehension of image quality criteria and participation in quality improvement initiatives to ensure optimal diagnostic accuracy.

Continuing Education:

- Cultivating a commitment to lifelong learning and staying updated on advances in X-ray and ultrasound technology, imaging protocols, and clinical applications.
- Participating in continuing education activities, professional development opportunities, and interdisciplinary collaborations to enhance knowledge and skills.

Teaching and Learning Methods

- Student-Centered Discussions. ...
- Making Connections. ...
- Increased Autonomy. ...
- Building Relationships. ...
- A Focus on Literacy.

Assessment methods

Quizzes, midterm exams, and final exams both theoretically and practically

D. General and Transferable Skills (other skills relevant to employability and personal development)

1. **Communication Skills:**

- Effective communication with patients, colleagues, and other healthcare professionals to convey information clearly and empathetically.
- Ability to explain procedures, findings, and treatment plans in a manner that is easily understandable to patients and their families.

2. **Interpersonal Skills:**

- Developing strong interpersonal skills to build rapport with patients and establish trust, particularly in situations where medical procedures may cause anxiety or discomfort.
- Collaborating effectively with multidisciplinary teams, including radiologists, physicians, nurses, and other allied healthcare professionals.

Critical Thinking:

- Analyzing imaging studies and clinical data to identify abnormalities, assess diagnostic accuracy, and formulate appropriate patient management plans.
- Evaluating the quality and reliability of imaging findings and recognizing potential sources of error or artifact.

Problem-Solving Abilities:

- Developing problem-solving skills to troubleshoot technical issues related to imaging equipment, optimize image quality, and ensure patient safety during procedures.
- Addressing logistical challenges and adapting workflows to maximize efficiency and productivity in the imaging department.

3. **Technical Proficiency:**

- Mastery of technical skills related to operating X-ray and ultrasound equipment, including proper positioning of patients, adjusting imaging parameters, and acquiring high-quality images.
- Proficiency in using imaging software and electronic health record systems to store, retrieve, and analyze patient data.

Attention to Detail:

- Demonstrating meticulous attention to detail in image interpretation and documentation to ensure accurate diagnosis and treatment planning.
- Following standardized protocols and safety procedures to minimize the risk of errors and

adverse events.

Ethical and Professional Conduct:

- Upholding ethical standards and patient confidentiality in all aspects of practice, including obtaining informed consent, protecting patient privacy, and maintaining confidentiality of medical records.
- Demonstrating professionalism, integrity, and empathy in interactions with patients, colleagues, and other stakeholders.

4. Continuous Learning:

- Committing to lifelong learning and professional development through participation in continuing education courses, workshops, conferences, and other learning opportunities.
- Staying updated on advancements in imaging technology, diagnostic techniques, and evidence-based practices to enhance clinical skills and knowledge.

Time Management:

- Efficiently managing time and resources to prioritize tasks, complete imaging studies in a timely manner, and meet patient care needs while maintaining quality standards.
- Balancing competing demands and adapting to changes in workload or scheduling to optimize productivity and patient flow.

Adaptability:

- Being adaptable to changes in technology, regulations, and clinical practices in the field of medical imaging, and embracing opportunities for professional growth and advancement.
- Flexibility in responding to diverse patient populations, clinical scenarios, and healthcare settings with empathy and professionalism.

10. Program Structure				4. Awards and Credits
Level/Year	Course or Module Code	Course or Module Title	Credit rating	
Third year	X-ray and ultrasound	Introduction to radiological	2 hours	Bachelor Degree Requires (x) credits
Third year	X-ray and ultrasound	Standard orbital views	2 hours	
Third year	X-ray and ultrasound	Standard orbital views	2 hours	
Third year	X-ray and ultrasound	Radiological orbital anatomy	2 hours	
Third year	X-ray and ultrasound	Radiographic changes seen with orbital pathology	2 hours	
Third year	X-ray and ultrasound	Foreign body localization by plain x-ray film	2 hours	

Third year	X-ray and ultrasound	Introduction to computed tomography of the orbit	2 hours	
Third year	X-ray and ultrasound	Vascular lesions, inflammation and infections of the orbit by CT-scan	2 hours	
Third year	X-ray and ultrasound	Vascular lesions, inflammation and infections of the orbit by CT-scan	2 hours	
Third year	X-ray and ultrasound	Tumors of the optic nerve, orbital tumors (primary, secondary and metastasis) as seen by CT-scan	2 hours	
Third year	X-ray and ultrasound	Tumors of the optic nerve, orbital tumors (primary, secondary and metastasis) as seen by CT-scan	2 hours	
Third year	X-ray and ultrasound	Orbital trauma by CT-scan	2 hours	
Third year	X-ray and ultrasound	Introduction to MRI of the orbit	2 hours	
Third year	X-ray and ultrasound	Physical principles of MRI	2 hours	
Third year	X-ray and ultrasound	Physical principles of MRI	2 hours	
Third year	X-ray and ultrasound	MRI systems (units, surface coils, site selection)	2 hours	
Third year	X-ray and ultrasound	MRI systems (units, surface coils, site selection)	2 hours	
Third year	X-ray and ultrasound	Clinical applications of MRI and orbital diseases	2 hours	
Third year	X-ray and ultrasound	Clinical applications of MRI and orbital diseases	2 hours	
Third year	X-ray and ultrasound	Trauma and tumors of the orbit as seen by MRI	2 hours	
Third year	X-ray and ultrasound	Trauma and tumors of the orbit as seen by MRI	2 hours	
Third year	X-ray and ultrasound	Intraocular tumors as seen by MRI	2 hours	
Third year	X-ray and ultrasound	Advantages and disadvantages of MRI over CT-scan	2 hours	
Third year	X-ray and ultrasound	Advantages and disadvantages of MRI over CT-scan	2 hours	
Third year	X-ray and ultrasound	Introduction to diagnostic orbital ultrasonography	2 hours	
Third year	X-ray and ultrasound	Introduction to diagnostic orbital ultrasonography	2 hours	

Third year	X-ray and ultrasound	A-scan and B-scan ultrasonography	2 hours	
Third year	X-ray and ultrasound	A-scan and B-scan ultrasonography	2 hours	
Third year	X-ray and ultrasound	Indications of orbital ultrasonography, clinical applications and biometry	2 hours	
Third year	X-ray and ultrasound	Indications of orbital ultrasonography, clinical applications and biometry	2 hours	

13. Personal Development Planning

Seminars and presentation all over the academic year

I am Dr. Ahmed Fahd will supervise the students' seminars, presentations, and help them academically and practically all year long.

14. Admission criteria.

15. Key sources of information about the program

Grainger & Allison's Diagnostic Radiology" by Andy Adam : Grainger & Allison's Diagnostic Radiology

"The Wills Eye Manual : Office and Emergency Room Diagnosis and Treatment of Eye Disease" Nika Bagheri , Charles Calvo

Primer of Diagnostic Imaging" by Ralph Weissleder, Jack Wittenberg, Mukesh Harisinghani, and John W. Chen : Primer of Diagnostic Imaging

يركز على تطوير السلوك الاخلاقي والمهني للطالب يعتمد على دراسة حالات وسيناريوهات عملية لتطبيق المفاهيم الاخلاقية ، يشجع ايضا على التفاعل والتواصل للفعال مع العملاء والمجتمع يركز على اخلاقيات التشخيص والتصحيح والتعامل مع الحالات الصحية .

1. المؤسسة التعليمية	جامعة العين
2. القسم العلمي / المركز	بصريات
3. اسم / رمز المقرر	اخلاقيات المهنة
4. أشكال الحضور المتاحة	100%
5. الفصل / السنة	سنوي
6. عدد الساعات الدراسية (الكلي)	ساعتان
7. تاريخ إعداد هذا الوصف	2023
8. أهداف المقرر	
التعرف على على كيفية التعامل مع التحديات الاخلاقية التي قد تطرأ عند تشخيص مشاكل الرؤية وتصحيحها ، التشجيع على اتخاذ القرارات الاخلاقية الصحيحة في هذا السياق تناول كيفية بناء علاقة احترافية واخلاقية مع العملاء يشمل التوجيه والاحترام وحقوق المريض.	

10. مخرجات المقرر وطرائق التعليم والتعلم والتقييم	
أ- الأهداف المعرفية 1- فهم المفاهيم الاخلاقية المتعلقة بطب البصريات 2- القدرة على تحديد وتحليل التحديات المختلفة 3- القدرة على الصبر والتحمل من اجل مهنة سامية 4- تحمل المسؤولية الاجتماعية كتقني في مجال البصريات	

ب - الأهداف المهاراتية الخاصة بالمقرر. 1 - التطوير السلوكي والاخلاقي والمهني للطالب 2 - القدرة على التفاعل والتواصل مع العملاء 3 - احترام خصوصية وسرية ملفات المرضى 4- الدقة والتشخيص الصحيح	
طرائق التعليم والتعلم	
نظري عملي مختبري	
طرائق التقييم	
اجراء الامتحانات والاسئلة الدورية و الامتحان الشفهي ، الملاحظه ، الواجب البيتي ، التقارير المختبرية .	
ج- الأهداف الوجدانية والقيمية ج1- يقتنع بأهمية التخصص الذي يدرسه . ج2- يقدر جهد التدريسيين والفنيين في اعطاء المادة العلمية . ج3- يشارك مجاميع الطلبة في الاعمال الجماعية . ج4- يحترم الاخلاص في العمل ويكره الغش .	
طرائق التعليم والتعلم	
طريقه المحاضره ، المناقشه ، بحوث الطلبة بطريقة تفاعلية و الكترونية و فيديو.	
طرائق التقييم	
المناقشه ، الملاحظه ، المهام الجماعية .	
د - المهارات العامة والتأهيلية المنقولة (المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي). د1- استخدام الحاسبة الالكترونية في مجال الاختصاص . د2- امكانيه البحث عن المعلومات وتحليلها احصائيا واخراجها من خلال استخدام البرامج المدروسة . د3- القدرة على جمع المعلومات وتحليلها وتلخيص الافكار الرئيسيه منها . د4- كتابة التقارير الفنيه حول الاجهزه المستخدمة في حقل الاختصاص .	

11.بنية المقرر					
الأسبوع	الساعات	مخرجات التعلم المطلوبة	اسم الوحدة / أو الموضوع	طريقة التعليم	طريقة التقييم
1	2		الوحدة (1) – الأخلاق • مفهوم الأخلاق و منشأها. • القواعد العامة للأخلاقيات. • مصادر الاخلاقيات. • القيم الاخلاقية. أهمية الأخلاق للفرد والمجتمع. الوحدة (2) – العمل والمهنة	تفاعلية	اختبار و تطبيق

		• العمل واهميته. • سلوكيات العمل. • مفهوم المهنة. • تعريف المهنة. • الفرق بين مفهوم العمل و المهنة والحرفة. • المعايير التي يجب ان تقوم عليها المهنة.			
اختبار و تطبيق	تفاعلية	<u>الوحدة (3) – اخلاقيات المهنة</u> • ماهية أخلاقيات المهنة. • المردودات الايجابية للالتزام بأخلاقيات المهنة. • خصائص أخلاقيات العمل. • صفات اخلاقيات المهنة. • خطوات المستوى المقبول من اخلاقيات المهنة. <u>الوحدة (4) – القيم واخلاقيات المهنة</u> • الأمانة. • الصدق. • النصح. • العدل. • حسن التعامل.		2	2
اختبار و تطبيق	تفاعلية	<u>الوحدة (5) – أنماط السلوك الغير أخلاقي في المهنة</u> • الفساد الاداري. ○ السلوك الاداري الغير أخلاقي. ○ تعريف الفساد الاداري . ○ أنواع الفساد الاداري. • الرشوة. ○ مفهوم الرشوة. ○ انواع الرشوة. ○ الفرق بين الهدية والرشوة. ○ الاسباب والدوافع التي تقف وراء الرشوة. • الغش. ○ مفهوم الغش. ○ طبيعة الغش في العمل. مظاهر الغش في أداء الوظيفة. <u>الوحدة (6) – وسائل واساليب ترسيخ قيم اخلاقيات المهنة</u> • اسلوب ترسيخ اخلاقيات المهنة. • مستويات بناء وترسيخ أخلاقيات المهنة. • وسائل واساليب ترسيخ أخلاقيات المهنة. • الامور التي يجب مراعاتها في صياغة الميثاق الاخلاقي للمهنة . الكيفية التي يتم بها تعزيز السلوك الاخلاقي في العمل وفق ل(كريتنر وكينيكي).		2	3
اختبار و تطبيق	تفاعلية	<u>اخلاقيات ممارسة المهن الهندسية (خاصة بالمعاهد التقنية التكنولوجية)</u> <u>الوحدة (7) - اخلاقيات مهنة الهندسة</u> • اهمية التقني (الفني) في المجتمع. • الاخلاق الفنية والتكنولوجية . • شروط التقني (الفني) المحترف. • سمات التقني (الفني) المحترف.		2	4

		• بنود لائحة مزاولة المهنة لنقابة العمال. - النظرة الاسلامية للاخلاقيات المهنة ، مقارنة بالنظرة الغربية والامريكية. الوحدة (8) - ميثاق اتحاد المهندسين العرب (نموذج اخلاقيات مهنة الهندسة) • المرتكزات الأساسية لميثاق أخلاق مهنة الهندسة. • علاقة التقني(الفني) مع ذاته وزملائه . • طبيعة علاقة التقني(الفني) مع مؤسسته. • علاقة التقني(الفني) مع صاحب العمل. • علاقة التقني(الفني) مع عمله الهندسي. • دور التقني(الفني) وعلاقته بالمجتمع. • طبيعة علاقة التقني(الفني) مع البيئة والتنمية المستدامة والصحة والسلامة العامة. • علاقة التقني(الفني) مع القوانين والتشريعات والانظمة، و قوانين العمل والعمال. • علاقة التقني(الفني) مع قضايا الوطن والأمة والقضايا الانسانية.			
اختبار و تطبيق	تفاعلية	الوحدة (9) - اخلاقيات التقني (الفني) في التعليم والتدريب المستمر • اهمية المشاركة في التعليم والتدريب المستمر اخلاقياً. • قواعد السلوك الواجب ان يلتزم بها التقني(الفني) نحو ذاته في مجال التعليم . • قواعد سلوك التقني(الفني) نحو مرؤوسيه في مجال التعليم والتدريب المستمر. • قواعد سلوك التقني(الفني) نحو النقابات في مجال التعليم والتدريب المستمر. - قواعد سلوك التقني(الفني) نحو مراكز التدريب في مجال التعليم والتدريب المستمر.		2	5
اختبار و تطبيق	تفاعلية	اخلاقيات ممارسة المهن الطبية (خاصة بالمعاهد والاقسام الطبية) الوحدة(10) – خصائص واجبات التقني الطبي • الصفات التي يجب ان يتحلى بها التقني الطبي. • واجبات التقني الطبي تجاه مهنته. • واجبات التقني الطبي تجاه المريض. • واجبات التقني الطبي تجاه المجتمع.		2	6
اختبار و تطبيق	تفاعلية	الوحدة(11) - حقوق المريض • مفهوم حقوق المريض. • اهمية احترام حقوق المريض. • اهم حقوق المريض. الوحدة(12) -علاقة التقني الطبي مع المجتمع		2	7

		ومسؤوليته تجاه البيئة والسلامة العامة • أهمية دور التقني الطبي في المجتمع. • المجالات التي يمكن للتقني الطبي ان يؤدي من خلالها دور فعال في المجتمع. • مصطلح تعزيز الصحة. • دور التقني الطبي في تعزيز الصحة.			
اختبار و تطبيق	تفاعلية	الوحدة (13) - العلاقات المهنية: علاقة التقني الطبي مع زملائه في المؤسسة الصحية • أهمية العلاقات المهنية. • اهم ركائز العلاقات المهنية السليمة.		2	8
اختبار و تطبيق	تفاعلية	الوحدة (14) - أخلاقيات التعليم والتعلم على المرضى 1. المبادئ الرئيسية لأخلاقيات التعلم على المرضى. 2. كيفية مراعاة الموازنة بين عملية التدريب وتوفير الرعاية والعلاج اللازم للمرضى. السبل التي تحفظ كرامة المتدرب امام المرضى.		2	9
اختبار و تطبيق	تفاعلية	اخلاقيات ممارسة المهن الادارية (خاصة بالمعاهد والاقسام الادارية) الوحدة (15) - اخلاقيات المهنة لمنظمات الاعمال • مفهوم العمل والمهنة الإدارية. • مفهوم اخلاقيات مهنة الإدارة. • أهمية اخلاقيات مهنة الإدارة للمجتمع والمنظمة والفرد. • الأخلاقيات الواجب توافرها في مهنة الإداري. • أنماط السلوك غير الأخلاقي المرفوض في مهنة الإدارة. • مصادر أخلاقيات مهنة الإدارة. • العوامل المؤثرة في السلوك الأخلاقي الإداري. محددات اخلاقيات مهنة الاعمال.		2	10
اختبار و تطبيق	تفاعلية	الوحدة (16) - السلوك المهني والعلاقات الوظيفية • السلوك الوظيفي لقادة الإداريين (المدراء ورؤساء العمل). • السلوك الوظيفي للموظفين والعاملين والعلاقات المهنية مع رؤساء وزملاء العمل. • السلوك المهني والتعامل مع المواطنين.		2	11
اختبار و تطبيق	تفاعلية	الوحدة (17) - اثار التعاقد الوظيفي والعمل الاداري • الحقوق المالية الموظف الإداري. • الحقوق الوظيفية للموظف الإداري. جزاءات اخلال الموظف بواجباته.		2	12
اختبار و تطبيق	تفاعلية	الوحدة (18) – نماذج من اخلاقيات المهنة وفق التخصصات الإدارية • اخلاقيات مهنة المدير الإداري اتجاه الموظفين (العاملين). • الاخلاقيات المهنية للموظف المحامي.		2	13

		• يوضح واجبات المحامي تجاه نقابته / القضاء/ زملائه / موكله/ كمستشار قانوني.			
اختبار و تطبيق	تفاعلية	اخلاقيات ممارسة الفنون التطبيقية (خاصة بمعهد الفنون التطبيقية) الوحدة (19) - المحددات الاخلاقية لمهن الفنون التطبيقية • طبيعة العلاقة بين الفنون التطبيقية واخلاقيات المهنة. • مفهوم السرقة الفكرية كوسيلة غير اخلاقية. • مفهوم الملكية الفكرية. • مصطلح حق المؤلف. • مفهوم براءة الاختراع. • ميزة العلامة التجارية. • فكرة النماذج الصناعية.فكرة النماذج الصناعية. تميز الجزء المسروق من العمل الفني ومعرفة الاصيلي من المسروق.		2	14
اختبار و تطبيق	تفاعلية	الوحدة (20) - خلق المبادرة • مفهوم المبادرة وصورها . • كيفية التخلق بحسن المعاملة في البيئة العملية. كيف يطبق خلق التعاون في الحياة مع زملاء العمل.		2	15
اختبار و تطبيق	تفاعلية	الوحدة (21) - علاقة الفنان بالبيئة المحيطة • اوجه تأثر وتأثير الفنان ببيئته. • اهمية دور الفنان في نقل الموروث الحضاري. علاقة التذوق الجمالي بالقيمة الأخلاقية في بيئة معينة.		2	16
اختبار و تطبيق	تفاعلية	الوحدة (22) - وظيفة الفنان الاخلاقية • دور الفنان في توجيه المجتمع نحو قيم السعادة. • الغايات الاجتماعية . • الغايات النفسية وكيفية ابرازها من قبل الفنان. الدور الاخلاقي للفنان في ايجاد تحول روحاني في الانسان.		2	17
اختبار و تطبيق	تفاعلية	اخلاقيات ممارسة المهن الزراعية (خاصة بالاقسام الزراعية) الوحدة (23) - أخلاقيات المهنة في المجال الزراعي • المقصود من المحافظة على المصادر الطبيعية للإنتاج الزراعي. • الحاجة الى أخلاقيات المهنة في حماية الثروة الحيوانية والإنتاج الحيواني. • الاسباب وراء الاضرار بعملية انتاج الاعلاف. • كيفية الالتزام بالجانب الأخلاقي المهني يمنع انتشار الأمراض المعدية والوبائية بين الحيوانات. السبيل الامثل لتطبيق شروط ذبح الحيوانات وتجارة اللحوم.		2	18

اختبار و تطبيق	تفاعلية	الوحدة (24) - خصائص التقني الزراعي واخلاقيات علاقاته المهنية • خصائص وصفات التقني الزراعي. • علاقة التقني الزراعي بذاته. • علاقة التقني الزراعي بزملاء العمل. • علاقة التقني الزراعي بالمؤسسة التي يعمل بها. • علاقة التقني الزراعي بطالب الخدمة الزراعية. • علاقة التقني الزراعي بعمله الزراعي. • علاقة التقني الزراعي بالجمعية الزراعية المنتسب اليها. • علاقة التقني الزراعي بالمجتمع . • علاقة التقني الزراعي بالقوانين والتشريعات والانظمة. • علاقة التقني الزراعي بقوانين العمل والعمال .	2	19
اختبار و تطبيق	تفاعلية	الوحدة (25) - الواجبات الاخلاقية للتقني الزراعي / قسم الانتاج النباتي • طبيعية واجبات التقني الزراعي / قسم الانتاج النباتي. • الواجبات الاخلاقية للتقني الزراعي في مجال إدارة التشجير والتجميل. • الواجبات الاخلاقية للتقني الزراعي في إدارة تشغيل وصيانة الحدائق. • الواجبات الاخلاقية للتقني الزراعي في إدارة المشاتل. • الواجبات الاخلاقية للتقني الزراعي في مجال المشاريع الزراعية المنفذة بواسطة المقاولين والمستثمرين. • الاساسيات الاخلاقية للتقني الزراعي في مجال تربية النحل وادارة المناحل.	2	20
اختبار و تطبيق	تفاعلية	اخلاقيات مهنة التعليم والتدريب (خاصة بمعهد اعداد المدربين التقنيين) الوحدة (26) - اخلاقيات مهنة التعليم والتدريب • اهمية اخلاقية مهنة التعليم. • تعريف مفهوم اخلاقيات مهنة التعليم. • مستوى فاعلية الأداء التعليمي المطلوبة. • بعض السلوكيات الاخلاقية لمهنة التدريس والتدريب. • المردودات الايجابية للالتزام بأخلاقيات مهنة التدريس والتدريب.	2	21

12. البنية التحتية	
1- الكتب المقررة المطلوبة Ethical, Legal, and Professional Issues in Counseling" :by Theodore P. Remley Jr. and Barbara P. Herlihy يغطي هذا الكتاب القضايا الأخلاقية والقانونية والمهنية في مجال الإرشاد والاستشارة. الرابط: Ethical, Legal, and Professional Issues in Counseling	

Ethics in Health Services and Policy: A Global "Approach" by Dean M. Harris	
الحقية التدريبية	2- المراجع الرئيسية (المصادر)
يقدم هذا الكتاب منظوراً عالمياً على الأخلاقيات في خدمات الرعاية الصحية وتطوير السياسات. الرابط: Ethics in Health Services and Policy	ا- الكتب والمراجع التي يوصى بها (المجلات العلمية ، التقارير ،)
	ب - المراجع الالكترونية، مواقع الانترنت

13. خطة تطوير المقرر الدراسي
ترتكز خطة تطوير المنهج على مايتي : ● اعطاء المادة العلمية المقررة وملاحظة نتائج الطلاب وتحليلها. ● دراسة التغذية العكسية من ملاحظات الطلبة حول المفردات. ● دراسة ملاحظات المختبر العملي للمقرر. ● مقارنة المفردات الحالية مع مفردات كليات مناظرة في المجال