

HEALTH SCIENCE CENTER
BACHELOR'S IN OPTOMETRY

OBJECTIVE:

To form bachelor's in optometry competent in the visual health area, able to detect and diagnose: ocular structure anomalies, alterations in binocular functions, ametropias, visual-perceptual deficiencies and visual system disease; to be able to conduct, treat and/or rehabilitate with any of the required conditions: optic systems, visual therapy and topic therapeutics in anterior segment disease, within the areas of preventing, aiding, commerce and research with an ethical and human attitude compromised with the necessities of society.

PROFILE OF THE ASPIRANT:

The aspirant of the Bachelor's in optometry should have:

Knowledge:

- Mathematics for statistics
- Physics
- Biology

Abilities to:

- Integrate in teamwork
- Analyzing and synthesis
- Reading and comprehension of texts
- Observation
- Basic management of computers
- Visually healthy

Attitudes:

- Service
- Positivity
- Tolerant and respectful to others
- Honest

PROFILE OF THE GRADUATE

Knowledge of:

- Fundamentals about the parameters and procedures of adapting glasses, contact lenses and/or optic systems to compensate visual anomalies.

- Fundamentals about the structure and function of the tissues and organs of the human body specially the visual system.
- Fundamentals about the reaction to light in optic devices.
- Fundamentals about the composition and function of tissue and organs specially of the visual system.
- Materials and procedures for the elaboration of contact lenses, ophthalmic lenses and the development of new technologies in the optic branch.
- The procedures of the function of normal binocular visual system and its alterations in the different stages of life (Pediatric and geriatric optometry).
- The bases about the function and procedures of the binocular visual system and normal perception and its alterations to fundament the rehabilitation through visual therapy and/or perceptual therapy.
- Bases for an efficient communication with the patient.
- The principles that determine the action of drugs such as pharmacokinetics, pharmacodynamics, pharmacometry and toxicology to fundament the use of drugs in clinical practice.
- The diseases of the anterior segment and posterior segment of the eye to identify risk factors, the elements for prevention such as aiding with the management of these.
- The methodology of research that provides theoretical and methodological support for the study of visual problems and visual function.
- The characteristics of optical, promoting and sales.
- Professional ethics and bioethics.

Abilities to:

- Elaborate a diagnosis of the conditions of the refractive state, binocular vision, perceptual vision and ocular health.
- Do the procedures to prescribe and adapt contact lenses, glasses, protection devices and optic systems that allow the compensation of different visual conditions.
- Recognize visual emergencies to be able to implement the necessary measures and if needed refer the patient to the correspondent doctor.
- Indicate and apply a plan for therapy to rehabilitate the most frequent alterations of binocular and perceptual vision.
- Establish an efficient communication with the patient to obtain trustworthy replies and cooperation with the treatment.
- Indicate the correct management in each case in a correct manner to limit the progression of the disease and consequent damage and if necessary rehabilitate or treat.
- The correct use of optometric equipment.
- Apply a business vision in optometric services.
- Perform research about problems related to the human visual function.
- Listen, speak, write and read with emphasis on academic purposes.

Attitudes:

- Positive in the field of service to the community.
- Professional ethics in the field.
- Responsible.
- Teamwork
- Propositional
- Engaged in constant learning.

WORK FIELD

The fields in which a graduate will be able to labor include:

- Private practice
- Optical chains
- In optic branch business that provide supplies for the optical industry such as frames, materials for the elaboration of lenses in diverse plastics and crystals.
- In private visual attention clinics.
- In government health sectors and education.

DURATION:

Eight semesters and one year of Social Service that will be implemented through the Regulations and Guidelines of the health sector.

FIRST SEMESTER	T	P	C	Center	Department
ALGEBRA AND TRIGONOMETRY	5	0	10	BSC	MATH AND PHYS.
HUMAN ANATOMY	3	3	9	BSC	MORPHOLOGY
BIOCHEMISTRY	5	2	12	BSC	CHEMISTRY
OCULAR REFRACTION	2	0	9	HSC	OPTOMETRY
HISTOLOGY EMBRIOLOGY	3	3	9	BSC	MORPHOLOGY
SECOND SEMESTER					
GEOMETRICAL OPTICS	3	4	10	BSC	MATH AND PHYS.
GENERAL PHYSIOLOGY	4	4	12	BSC	PHYSIO. AND PHARMA.
MOLECULAR BIOLOGY	3	0	6	BSC	CHEMISTRY
GENERAL PHARMACOLOGY	3	3	9	BSC	PHYSIO. AND PHARMA
INTRODUCTORY I	3	2	8	BSC	OPTOMETRY
THIRD SEMESTER					
PHYSICAL OPTICS	3	4	10	BSC	MATH AND PHYSICS
OCULAR PHYSIOLOGY	3	3	9	BSC	PHYSIOLOGY AND PHARMACOLOGY
OCULAR MORPHOLOGY	3	2	8	BSC	MORPHOLOGY
OCULAR MICROBIOLOGY	3	2	8	BSC	MICROBIOLOGY

INTRODUCTORY II	2	4	8	HSC	OPTOMETRY
HUMAN RELATIONSHIPS	2	2	6	SHSC	PSYCHOLOGY
FOURTH SEMESTER					
CONTACT LENSES	5	4	14	HSC	OPTOMETRY
OCULAR HEALTH I	3	3	9	HSC	OPTOMETRY
OPHTHALMIC OPTICS	2	3	7	HSC	OPTOMETRY
BINOCULAR VISION	3	2	8	HSC	OPTOMETRY
REFRACTION PRECLINIC	2	4	8	HSC	OPTOMETRY
SYSTEMIC DISEASE	3	2	8	HSC	SURGERY
APPLIED PSYCHOLOGY	3	0	6	SHSC	PSYCHOLOGY
FIFTH SEMESTER					
INTEGRAL CLINIC I	0	14	14	HSC	OPTOMETRY
MEDICAL EMERGENCY	2	2	6	HSC	MEDICINE
PUBLIC HEALTH	2	1	5	HSC	PUBLIC HEALTH
OCULAR HEALTH II	3	3	9	HSC	OPTOMETRY
INTRO TO RESEARCH	3	0	6	HSC	OPTOMETRY
PROFESSIONAL ETHICS	2	2	6	SHSC	PHILOSOPHY
COMPUTATION	0	7	7	BSC	INFORMATION SYSTEMS
SIXTH SEMESTER					
INTEGRAL CLINIC II	0	16	16	HSC	OPTOMETRY
EYE DISEASE	3	0	6	HSC	SURGERY
BIOETHICS	2	1	5	HSC	MEDICINE

PEDIATRIC AND GERIATRIC OPTOMETRY	3	2	8	HSC	OPTOMETRY
OPTOMETRIC RESEARCH	1	2	4	HSC	OPTOMETRY
STATISTICS	2	3	7	BSC	STATISTICS
SEVENTH SEMESTER					
PROFESSIONAL OPTATIVE I					
CONTACTOLOGY CLINIC I	2	0	4	HSC	OPTOMETRY
CLINICAL RESEARCH SEMINARY	0	4	4	HSC	OPTOMETRY
ANTERIOR SEGMENT DISEASE	2	0	4	HSC	SURGERY
SUBNORMAL VISION CLINIC I	2	0	4	HSC	OPTOMETRY
INTEGRAL CLINIC III	0	12	12	HSC	OPTOMETRY/SURGERY
OCULAR THERAPEUTICS	3	3	9	HSC	SURGERY
VISUAL THERAPY I	3	4	10	HSC	OPTOMETRY
EIGHTH SEMESTER					
PROFESSIONAL OPTATIVE II					
CONTACTOLOGY CLINIC II	2	0	4	HSC	OPTOMETRY
POSTERIOR SEGMENT DISEASE	2	0	4	HSC	SURGERY
SUBNORMAL VISION CLINIC II	2	0	4	HSC	OPTOMETRY

INTEGRAL CLINIC IV	0	12	12	HSC	OPTOMETRY/SURGERY
BUSINESS DEVELOPMENT	2	3	7	EASC	BASIC ADMIN
VISUAL THERAPY II	2	4	8	HSC	OPTOMETRY

INSTITUTIONAL PROGRAMS

- Tutoring
- Foreign exchange programs
- Foreign Languages
- Humanist training

REQUIREMENTS FOR LICENCE

- I. Prove that all debt has been paid to the Autonomous University of Aguascalientes
- II. Have covered the established quote in the plan of excuses for the obtaining of the license
- III. Have presented the graduate exam
- IV. Have accredited a second language.

Along with the previous requirements, the graduate must cover 9 credits of humanist training.

Notes:

1. Social service is to be completed according to the Regulations and Guidelines of the Health Sector.
2. The credits for Humanist Training and Foreign Exchange Language should be covered during the first semesters, or else the students may be saturated to cover all of these required credits during the last semesters and must have them all covered in order to begin Social Service.