

**Faculty of
Health Sciences
(FHS)**

Faculty of Health Sciences (FHS)

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Roua Dalli	Research Assistant (Accreditation Unit)
Maya Abi Chahine	Instructor of Public Health Practice (University for Seniors)

Historical Background

The Faculty of Health Sciences (FHS) was established in 1954 as an independent School of Public Health, the first of its kind in the region. The name of the school was changed to the Faculty of Health Sciences in 1978 to accommodate programs in allied health.

FHS serves to educate and train professionals and competent leaders to help meet the health needs of Lebanon and the region. Currently, FHS hosts four departments: Epidemiology and Population Health (EPH), Environmental Health (EH), Health Promotion and Community Health (HPCH), and Health Management and Policy (HMP), and a Division of Health Professions hosting three programs in collaboration with the Faculty of Medicine: Medical Audiology Sciences, Medical Imaging Sciences and Medical Laboratory Sciences. FHS offers a BS degree in: Environmental Health, Medical Audiology Sciences, Medical Imaging Sciences and Medical Laboratory Sciences; a Master's degree in Public Health (MPH) (concentrations in Epidemiology and Biostatistics, Health Promotion and Community Health, and Health Management and

Policy); an MS in Epidemiology; and an MS in Population Health. FHS also offers an MS in Environmental Sciences, major: Environmental Health (as part of an Interfaculty Graduate Environmental Sciences Program) and an Executive Master in Health Care Leadership. In addition, FHS provides teaching of public health to students in the Faculty of Medicine.

Accreditation

In October 2006, the Graduate Public Health Program of the Faculty of Health Sciences became accredited by the Council on Education for Public Health (CEPH) and was reaccredited in 2012 for seven years. CEPH is an independent agency in the United States which is recognized to accredit schools and programs of public health. The GPHP at FHS was the first graduate public health program to be accredited by CEPH outside the Americas. Accreditation indicates that the GPHP of the FHS meets standards for Public Health Education of leading schools of public health in the world.

Mission

The Faculty of Health Sciences prepares professionals in the disciplines of public health and health sciences through graduate and undergraduate programs, and introduces future physicians to public health. It contributes to knowledge and the improvement of the public's health in the region by conducting scholarly and relevant research and by responding to priority health issues and training needs in collaboration with stakeholders. In all of its functions, FHS promotes and adheres to the principles of ethics, social justice, and collective responsibility.

Vision

The Faculty of Health Sciences is the leading school of public health in the region serving the wellbeing of people and communities by conducting research and service that influence policy and practice and preparing competent health professionals who are agents of change in society.

Through its vital regional role in knowledge production and advocacy for social justice, FHS aspires to shape the global public health discourse.

Undergraduate Programs

Admission Requirements

To be eligible for admission to the programs leading to the degree of Bachelor of Science, candidates must have satisfactorily completed the freshman program in the Faculty of Arts and Sciences or its equivalent with a minimum cumulative average of 70 and a minimum science average of 70.

Freshman students applying to Environmental Health or Medical Laboratory Sciences must complete the following science requirements: CHEM 101, CHEM 101L, CHEM 102 and CHEM 102L, MATH 101 and MATH 102, (see page 43). In addition to these courses, applicants to the MLS program must take BIOL 101.

Freshman students applying to Medical Imaging Sciences or Medical Audiology Sciences must complete the following science requirements: CHEM 101, CHEM 101L, PHYS 103 and PHYS 103L, MATH 101 and MATH 102, and BIOL 101 (see page 43).

Courses taken before the student is admitted to any of the BS programs may be credited at the discretion of the appropriate department.

To be eligible for admission to advanced standing (second and third year), a candidate must have completed the equivalent requirements for the first (or second) year of undergraduate study in the Faculty of Health Sciences and have met the following criteria:

- a minimum cumulative average of 70
- and a minimum average of 70 in science courses.

A student who has completed a minimum of two semesters of study as a sophomore or its equivalent is eligible for admission to the first year in the Faculty of Health Sciences if the following criteria are met:

- a minimum cumulative average of 70,
- a minimum average of 70 in science courses,
- and completion of a minimum of 6 credits in basic science courses.

Admission decisions are subject to availability of places in the desired program of study. Lebanese students must present the Lebanese Baccalaureate or its equivalent and should be considered eligible by the AUB Office of Admissions for admission to the first year in health sciences. These candidates are evaluated based on SAT I scores and school performance.

Candidates holding the Lebanese Baccalaureate Part II—literature and humanities—or its equivalent are required to take CHEM 200 and MATH 203 as remedial courses if joining the Environmental Health or Medical Laboratory Sciences program, or MATH 203 if joining the Medical Imaging Sciences or Medical Audiology Sciences program. Candidates holding the Lebanese Baccalaureate Part II—sociology and economy—or its equivalent are required to take CHEM 200 as a remedial course if joining the Environmental Health or Medical Laboratory Sciences program.

For complete and detailed information regarding admission to AUB, including recognized certificates, see the Admissions section on page 31-42 and Certificate and Class Chart on page 43 of this catalogue.

Graduation Requirements

All recommendations for graduation are made by a vote of the faculty, upon the recommendation of the Undergraduate Curriculum and Undergraduate Student Academic Affairs and Student Affairs (UGCA-SA) Committee.

- **BS in Environmental Health:** To be eligible for graduation with the degree of Bachelor of Science in Environmental Health, a student must: pass a minimum of 96 credit hours after freshman science class or its equivalent,
 - achieve a total cumulative average of 70,
 - and achieve a **cumulative average of 70 in the major field of study.**
- **BS in Medical Audiology Sciences:** To be eligible for graduation with the degree of Bachelor of Science in Medical Audiology Sciences, a student must: pass a minimum of 103 credit hours after freshman science class or its equivalent
 - obtain a minimum grade of 70 in each of ORLG 220, 230, 240 and 250,

- achieve a total cumulative average of 70,
- and achieve a **cumulative average of 70 in the major field of study.**

- **BS in Medical Imaging Sciences:** To be eligible for graduation with the degree of Bachelor of Science in Medical Imaging Sciences, a student must: pass a minimum of 102 credit hours after freshman science class or its equivalent,
 - obtain a minimum grade of 70 in each of MIMG 201, MIMG 206 and MIMG 207,
 - achieve a total cumulative average of 70,
 - and achieve a cumulative average of 70 in the major field of study.
- **BS in Medical Laboratory Sciences:** To be eligible for graduation with the degree of Bachelor of Science in Medical Laboratory Sciences, a student must: pass a minimum of 103 credit hours after freshman science class or its equivalent,
 - achieve a total cumulative average of 70,
 - and achieve a cumulative average of 70 in the major field of study

Residency Requirements

Students of the Faculty of Health Sciences must meet the following minimum residency requirements.

- **Environmental Health Major:** A student must register in residence at the Faculty of Health Sciences—Environmental Health major for the last three regular semesters.
- **Medical Laboratory Sciences/Medical Audiology Sciences/Medical Imaging Sciences Majors:** A student must register in residence in the major of study for the last four regular semesters.

Minors and Electives

The Faculty of Health Sciences offers two minors, which require the completion of a number of courses as specified in the list below. Moreover, electives can be chosen from the following list of courses to satisfy the distributional requirements of social sciences or sciences.

The minor in Environmental Health introduces students to the environmental system and the interactive processes that affect human health, environmental protection, and development. The minor in Environmental Health requires 15 credits, including the following: HPCH 200¹, ENHL 220², plus a minimum of 9 credits selected from the following ENHL courses: ENHL 221, ENHL 227, ENHL 231, ENHL 234A, ENHL 235; ENHL 238 and ENHL 239.

The minor in Public Health introduces students to the public health field through exposure to the contemporary issues in public health. Students are given a general overview of the field in HPCH 200 and subsequently get more in-depth knowledge by choosing one course from each of the public health disciplines. A minor in public health allows students to become more aware of the factors influencing health and hence more capable of making choices that influence their own health and that of their communities. In addition, a minor in public health expands students' career options by exposing them to an increasingly important and expanding profession.

The minor in Public Health requires 15 credits, including the following:

- HPCH 200¹
- one of the following courses from the Department of Environmental Health: ENHL 220², ENHL 221, ENHL 231, ENHL 234, ENHL 235, and ENHL 238

¹ This is not required of FHS students. The course could be replaced by a course from the above list of courses for the minor.

² Satisfies the General Education requirements in natural sciences

- one of the following courses from the Department of Epidemiology and Population Health: EPHD 203¹, EPHD 213¹
- one of the following courses from the Department of Health Promotion and Community Health: HPCH 201², HPCH 202², HPCH 203², HPCH 237²
- one of the following courses from the Department of Health Management and Policy: HMPD 204², HMPD 251²

The remaining credits can be taken from courses listed above in any of the departments or from other courses in the faculty, with permission of the instructor.

To graduate with a minor, a student must attain a cumulative average of 70 or more in courses taken to satisfy the requirements of that minor.

University minimum requirements for a minor are as follows:

- A minimum of 15 credit hours earned on the basis of regular graded courses (not tutorial or special project type courses) is required for a minor (refer to the requirements of various faculties/schools).
- At least 9 credit hours of course work must be completed at AUB.
- No more than 9 credit hours taken in the major field of study may be used to satisfy a requirement for another minor.
- Minor courses may not be taken on a pass-fail basis at AUB.

General Education Requirements

Please refer to the General Education Requirements section in this catalogue (page 47).

Dual Degree

Students may, upon approval of the Faculty concerned, complete the requirements for a second degree while registered in another Faculty at AUB. In such a case, a student will be granted two degrees at the same time of graduation. If tuition differs, students will pay the higher of the tuitions. Please refer to the section on General University Academic Information (page 45) for more information

Academic Rules and Regulations

Please refer to the section on General University Academic Information page 45-64 for information on attendance, classes and laboratories, examinations and quizzes, course loads, premedical requirements, incompletes, probation (placement on academic probation, removal of probation), dismissal and readmission, repeating courses, special students not working for a degree, tutorials, and withdrawal from courses.

Full-time Students and Credit Load

A full-time student must carry a minimum load of 12 credits per semester. If a student wishes or is forced to reduce his/her load to fewer than 12 credits, s/he must first apply to the UGCA-SA Committee for approval. This should be done no later than 10 weeks after the start of the semester.

¹ Satisfies the General Education requirements in quantitative thought

² Satisfies the General Education requirements in social sciences

Students on probation for the first time are allowed a maximum load of 17 credits. Students who continue on probation beyond one semester can register for a maximum of 13 credits per semester.

Students can normally register for up to 18 credits per semester and 9 credits during the summer term. Students who wish to register for more than 18 credits (or 9 credits in summer) must petition the appropriate faculty committee for permission to do so.

Promotion

For class promotion from year I to year II, a student must complete a minimum number of credits per year as listed in the table below:

	For Class Promotion from Year I to Year II ¹	For Class Promotion from Year II to Year III
EH major	Minimum of 30 credits	Minimum of 63 credits
MLS major	Minimum of 31 credits	Minimum of 65 credits
MAS major	Minimum of 33 credits	Minimum of 68 credits
MIS major	Minimum of 30 credits	Minimum of 65 credits

Majorless Status

Students who refrain from following the assigned course curriculum will be automatically given the status of majorless. Majorless students in the Environmental Health program are required to take ENHL 220. Majorless students are given two academic semesters to transfer to the desired major. If by the end of the second semester the student does not secure acceptance to the desired major, s/he is dropped from the faculty.

Curriculum for Bachelor of Science in Environmental Health

First Year ²

			Lecture Hrs./ Week	Lab Hrs./ Week	Credit Hrs.
First Semester					
BIOL	200	Diversity of Life	3	3	4
CHEM	208	Brief Survey of Organic Chemistry	3	0	3
CHEM	209	Introductory Organic Laboratory	1	4	2
ENGL	203	Academic English	3	0	3
ENHL	220	Fundamentals of Environmental Health Sciences	3	0	3
					Total 15

¹ Excluding credits for ENGL 102

² CHEM 200 is a remedial course required of Literature and Humanities and Sociology and Economics Baccalaureate holders. MATH 203 is a remedial course required of Literature and Humanities Baccalaureate holders.

Second Semester					
ENHL	221	Management of Domestic and Hazardous Wastes	3	0	3
ARAB	2xx	Arabic Communication Skills	3	0	3
ENGL	204	Advanced Academic English	3	0	3
ENHL	227	Environmental Microbiology	2	2	3
Humanities Elective			-	-	3
					Total 15

Second Year

						Lecture Hrs./Week	Lab Hrs./Week	Credit Hrs.
First Semester								
ENHL	231	Water and Wastewater Quality Control	3	0	3			
ENHL	232	Instrumentation, Analytical Techniques, and Sampling	3	1	3			
ENHL	238	Indoor and Outdoor Air Pollution	3	0	3			
EPHD	203	Epidemiology and Biostatistics	2	2	3			
EPHD	203A	Biases in Epidemiology	1	0	1			
Humanities Elective			3	0	3			
					Total 16			
Second Semester								
ENHL	233	Quality Determination of Water and Wastewater	2	2	3			
ENHL	234	Occupational Health	2	2	3			
ENHL	235	Toxicology and Risk Analysis	3	0	3			
ENHL	239	Food Safety	3	0	3			
EPHD	213	Survey Methods	1	2	2			
Social Science Elective			-	-	3			
					Total 17			
Summer Session								
ENHL	236A	Practicum I	-	-	0			

Third Year

						Lecture Hrs./Week	Lab Hrs./Week	Credit Hrs.
First Semester								
ENHL	236B	Practicum II	3	0	3			
ENHL	242	Environmental Management Tools and Applications	3	0	3			
HMPD	204	Introduction to Health Services Administration	3	0	3			
ENHL	245	Environmental Economics	3	0	3			

Free Elective		-	-	3	
PHIL	209	Environmental Ethics	3	0	3
Total 18					
Second Semester					
ENHL	243	Global Environmental Issues	3	0	3
Free Elective			3	3	
Free Elective			-	-	3
HPCH	237	Theories and Practices of health promotion	3	0	3
Humanities Elective			-	3	3
Total 15					

Curriculum for Bachelor of Science in Medical Audiology Sciences

First Year

						Lecture Hrs./Week	Lab Hrs./Week	Credit Hrs.
First Semester								
MAUD	200	Overview of Audiology and Clinical Practice	1	0	1			
ENGL	203	Academic English	3	0	3			
PHYS	204	Classical Physics for Life Sciences	3	0	3			
PHYS	204L	Classical Physics for Life Sciences Laboratory	0	3	1			
Social Sciences		Elective	3	0	3			
Humanities		Elective	3	0	3			
HUMR	246	Human Morphology	2	1	3			
					Total 17			

Second Semester

ARAB		Arabic Communication Skills	3	0	3
MAUD	204	Acoustics, Psychoacoustics and Instrumentation	2	2	3
ENGL	204	Advanced Academic English	3	0	3
PHYL	246	Physiology	4	0	4
Natural Sciences		Elective	3	0	3
					Total 16

Second Year

			Lecture Hrs./ Week	Lab Hrs./ Week	Credit Hrs
First Semester					
MAUD	201	Anatomy and Physiology of the Auditory-Vestibular System	3	0	3
MAUD	202	Basic Audiological Procedures	3	0	3
MAUD	203	Pediatric Audiology	3	0	3
ENGL	227	Introduction to Language	3	0	3
EPHD	203	Epidemiology and Biostatistics	2	2	3
ORLG	220	Screening Procedures	1	9	3
					Total 18
Second Semester					
PHIL	205	Bio-Medical Ethics	3	0	3
MAUD	205	Amplification I	2	2	3
MAUD	207	Auditory Evoked Potentials	3	0	3
HCPH	203	Health Communication	3	0	3
ORLG	230	Basic Clinical Procedures	1	15	5
					Total 17
Summer Session					
MAUD	208A	Practicum Project I	0	0	0
					Total 0

Third Year

			Lecture Hrs./ Week	Lab Hrs./ Week	Credit Hrs
First Semester					
MAUD	206	Amplification II	2	2	3
MAUD	209	Vestibular-Balance Assessment and Management	3	0	3
MAUD	210	Aural Rehabilitation and Counseling	3	0	3
HMPD	204	Introduction to Health Services Administration	3	0	3
ORLG	240	Advanced Clinical Procedures	1	15	5
					Total 17

Second Semester

MAUD	208B	Practicum Project II	1	4	3
MAUD	211	Medical Audiology	2	2	3
MAUD	212	Special Topics in Audiology	1	0	1
MAUD	213	Environmental Audiology	3	0	3
Humanities		Elective	3	0	3
ORLG	250	Comprehensive Practice	1	15	5
					Total 18

Curriculum for Bachelor of Science in Medical Imaging Sciences
First Year

			Lecture Hrs./ Week	Lab Hrs./ Week	Credit Hrs
First Semester					
ENGL	203	Academic English	3	0	3
ARAB		Arabic Communication Skills	3	0	3
Humanities		Elective	3	0	3
HUMR	246	Human Morphology	2	2	3
MIMG	201	Introduction To MIS	2	0	2
PSYC	201	Introduction to Psychological Sciences	3	0	3
					Total 17

Second Semester

ENGL	204	Advanced Academic English	3	0	3
MIMG	206	Principle of Imaging I	3	0	3
MIMG	206L	Principle of Imaging I Laboratory	0	4	2
NURS	201	Introduction to Nursing Practice	1.2	3	2
PHYL	246	Physiology	4	0	4
PHYS	205	Modern Physics	3	0	3
					Total 17

Summer Session

MIMG	202	Imaging Physics	3	0	3
DGRG	220	Clinical Practicum I	0	20	2
					Total 5

Second Year

			Lecture Hrs./ Week	Lab Hrs./ Week	Credit Hrs
First Semester					
DGRG	230	Clinical Practicum II	0	20	4
MIMG	203	Medical Imaging Equipment I	3	0	3
EPHD	203	Epidemiology and Biostatistics	2	2	3
HPCH	203	Health Communication	3	0	3
MIMG	207	Principle of Imaging II	3	0	3
					Total 16
Second Semester					
DGRG	240	Clinical Practicum III	0	10	2
MIMG	208	Sectional Anatomy	3	0	3
MIMG	204	Medical Imaging Equipment II	3	0	3
EPHD	213	Survey Methods	1	2	2
MIMG	205	Introduction to Principles of Diseases	3	0	3
					Total 13
Summer Session					
DGRG	250	Clinical Practicum IV	0	20	2
MIMG	210A	Research Project I	3	0	0
					Total 2

Third Year

			Lecture Hrs./ Week	Lab Hrs./ Week	Credit Hrs
First Semester					
DGRG	260	Clinical Practicum V	0	20	4
Social Sciences			3	0	3
PHIL	205	Bio Medical Ethics	3	0	3
Humanities			3	0	3
HMPD	204	Introduction to Health Services Administration	3	0	3
					Total 16
Second Semester					
DGRG	270	Clinical Practicum VI	0	20	4
MIMG	209	Quality Management and Image Analysis	3	0	3
MIMG	210B	Research Project II	3	0	3
Humanities			3	0	3
Free Elective			3	0	3
					Total 16

**Curriculum for Bachelor of Science in
Medical Laboratory Sciences**
First Year

			Lecture Hrs./ Week	Lab Hrs./ Week	Credit Hrs.
First Semester					
BIOL	201	General Biology I	3	3	4
CHEM	208	Brief Survey of Organic Chemistry	3	0	3
CHEM	209	Introductory Organic Laboratory	1	4	2
ENGL	203	Academic English	3	0	3
Humanities Elective			3	0	3
					Total 15
Second Semester					
ARAB	2xx	Arabic Communication Skills	3	0	3
BIOC	255	Biochemistry for MLSP (or its equivalent)	3	0	3
ENGL	204	Advanced Academic English	3	0	3
PHYL	246	Physiology for Nursing Degree Students and Undergraduates	4	0	4
Humanities Elective			3	0	3
					Total 16

Second Year

			Lecture Hrs./ Week	Lab Hrs./ Week	Credit Hrs.
First Semester					
LABM	201	Clinical Chemistry I	2	0	2
MLSP	201	Clinical Hematology I	3	0	3
MLSP	203	General Microbiology	2	2	3
MLSP	207	Immunology and Blood Banking	2	0	2
MLSP	208	General and Diagnostic Virology	2	0	2
Social Sciences Elective			3	0	3
Humanities Elective			3	0	3
					Total 18
Second Semester					
LABM	202	Clinical Chemistry II	3	0	3
LABM	210	Cytology and Histological Techniques	2	0	2
MBIM	223	Parasitology for MLS students	2	4	4
MLSP	202	Clinical Hematology II	3	0	3
MLSP	204	Systematic Bacteriology	2	4	4
MLSP	259	Diagnostic Serology	1	0	1
					Total 17

	Lecture Hrs./ Week	Lab Hrs./ Week	Credit Hrs.
Summer Session			
Practical Training in Laboratory Medicine	–	–	4
			Total 4

Third Year

	Lecture Hrs./ Week	Lab Hrs./ Week	Credit Hrs.	
First Semester				
EPHD 203	Epidemiology and Biostatistics	2	2	3
HMPD 204	Introduction to Health Services Administration	3	0	3
LABM 233	Genetics and Molecular Biology	2	0	2
LABM 235	Medical Mycology	1	0	1
Practical Training in Laboratory Medicine	–	–	8	
			Total 17	
Second Semester				
PHIL 205	Bio-medical Ethics	3	0	3
HPCH 203	Health Communication	3	0	3
LABM 231	Clinical Laboratory Quality Systems	1	0	1
MLSP 211	Seminar	1	0	1
Practical Training in Laboratory Medicine	–	–	8	
			Total 16	

Practical Training in Laboratory Medicine

A total period of ten months (July to June excluding a one month vacation in September) to cover practical experience and application of theoretical knowledge in the following areas of laboratory medicine for the periods and credits indicated below:

	Duration	Credits
LABM 220	Clinical Chemistry and Endocrinology	6 weeks 4
LABM 230	Clinical Hematology and Reception	6 weeks 4
LABM 240	Clinical Microbiology	6 weeks 4
LABM 250	Clinical Parasitology and Urinalysis	3 weeks 2
LABM 260	Serology	3 weeks 2
LABM 270	Blood Banking	3 weeks 2
LABM 280	Cytogenetics, Molecular Diagnosis and Histotechniques	3 weeks 2