



XAVIER UNIVERSITY

SCHOOL OF MEDICINE

ARUBA



BIOMEDICAL PROGRAM

COURSE INFORMATION





Introduction: Xavier University School of Medicine was chartered in 2004 by the government of Aruba in the Dutch Caribbean. It has been successfully operating a 4-semester pre-medical and a 4-year Doctor of Medicine (M.D.) program for more than a decade. The Board of Trustees of Xavier University School of Medicine approved the launch of a biomedical program to address the global need for trained professionals in the ever-changing healthcare field. The biomedical program is an interdisciplinary program that incorporates a medical school curriculum with current topics in medicine.

Biomedical Curriculum:

The biomedical curriculum is newly-designed and innovative. We combine the medical school curriculum with critical analysis of scientific research, medical humanities, an understanding of human pathophysiology, anatomy, pharmacotherapy, patient safety, and prevention with public health.

The important features of the curriculum are as follows:

- Instruction follows our medical school curriculum and incorporates teaching and learning in molecular biology, fundamental concepts, immunology, genetics and different organ systems
- An emphasis on pathophysiology, therapeutics and clinical correlations
- Additional courses include behavioral sciences, ethics, epidemiology and biostatistics, patient safety, prevention of diseases, and health promotion
- An emphasis on problem-solving and critical thinking
- Early clinical exposure and a hospital-based observership
- Opportunities for concentrated M.Sc. programs in basic medical science subjects such as anatomy, physiology, biochemistry, pharmacology, in addition to the general M.Sc. in Health Sciences
- Opportunities to continue and obtain a Ph.D. in an additional three years with guidance and support for dissertation and research based rotations

Overall assessment will be based on the following criteria:

- Computer-based examinations
- Problem-based learning performance
- Quizzes
- Interactive lectures assessments
- Home assignments
- Oral examinations
- Case studies

Various teaching methodologies will include:

- Lectures (traditional and interactive)
- Problem-based learning
- Critical assessment of scientific literature
- Laboratory exercises
- Clinical observership

Programs Offered:

Master of Science (Health) M.Sc.(H) is a two-year, full-time program of study.

Master of Science (with areas of concentration in anatomy, physiology, biochemistry, pharmacology, microbiology and immunology) is a two-year, full-time program of study. Degrees offered include M.Sc. (Anatomy) and M.Sc. (Physiology).

Master of Science (with Ph.D.) additional three years, after completing the M.Sc., to finish their thesis. This program includes research rotations, journal clubs, seminars and dissertation research.

Ph.D. and M.Sc. students with the thesis options can specialize in one of the following areas:

- Molecular Biology and Genetics
- Anatomy
- Physiology
- Pharmacology
- Pharmacoeconomics
- Infections and Immunity



Admission Requirements:

- Applicants should have completed an undergraduate degree in one of the physical or biological sciences. Courses required for admission include one year each of general chemistry, organic chemistry, physics, calculus, and at least two years of biological sciences. Other preferred courses include biochemistry, physical chemistry and computer science. Preferred upper division courses in biology include vertebrate or human anatomy and physiology, embryology, genetics, cell and molecular biology, microbiology, immunology and neuroscience.
- Students who have insufficient credit hours may apply to take the XUSOM foundation course. After successful completion of the foundation course, they will gain automatic admission to the graduate program.
- An entrance examination will be conducted for M.Sc./Ph.D. candidates. All Ph.D. candidates must defend their dissertation in front of subject experts and publish their work before receiving the Ph.D.

Admission Guidelines for M.Sc. in Health Science:

1. Students who already have a college degree and have completed basic science (2008-2013 in the five-semester curriculum) at XUSOM, will be required to complete two additional online semesters to be eligible for the M.Sc. health degree.
2. Transfer students in the same category - those who have completed 5 semesters of basic science must complete two additional semesters, worth 40 credits.
3. Current students and transfer students who have a college degree, and who have completed the six-semester basic science program, will have to complete only one additional semester of 24 credits for the M.Sc. degree.
4. Students who have completed the XUSOM pre-medical program and then completed the six semesters of basic sciences will get a Bachelor of Science degree in Health Science (B.Sc. in Health Science). After they complete two additional semesters they will be eligible for the Master's degree.
5. Ph.D. candidates must spend an additional three years after the M.Sc. working on a dissertation and thesis. This can be done concurrently with work and does not mandate attendance at XUSOM. This period is flexible for up to five years.
6. Ph.D. candidates must spend at least six weeks at XUSOM every year to meet with their thesis advisor to discuss their project status.

Proposed two additional semesters (for the students of the old curriculum and pre-medical students) for the awarding of the M.Sc. degree (total 40 credits)

Semester 1	20 credits
Healthcare Quality Improvement 1	6
Infection and Immunity	8
Patients, Doctor and Society 1	6

Semester 2	20 credits
Healthcare Quality Improvement 2	6
Nutrition	8
Patients, Doctor and Society 2	6

- Patients, Doctor and Society 1 (medical humanities, epidemiology, critical analysis of scientific research)
- Patients, Doctor and Society 2 (cultural diversity, epidemiology and biostatistics and critical analysis of scientific research)

Proposed one additional semester (for 2013-2015 curriculum students) for award of the M.Sc. degree (total 24 credits)

	24 credits
Healthcare Quality Improvement	12
Nutrition	8
Patients, Doctor and Society	4



Admissions:

- Semesters run every January, May and September
- All applications are online with an application fee of \$50
- All students are required to comply with eligibility standards
- For inquiries related to admissions: contact admissions@xusom.com



M.Sc. (Biomedical) two-year curriculum and credit hours

First Semester	Duration (weeks)	Credit Hours
Fundamental Concepts.....	7	10
Musculoskeletal System	8	8
Patients, Doctor and Society I	15	CR
Healthcare Quality Improvement I	15	CR
<i>Total = 18 Credits</i>		
Second Semester	Duration (weeks)	Credit Hours
Nervous System	11	12
Nutrition and Metabolism.....	4	4
Patients, Doctor and Society II	15	CR
Healthcare Quality Improvement II	15	CR
<i>Total = 16 Credits</i>		
Third Semester	Duration (weeks)	Credit Hours
Gastrointestinal System	8	8
Respiratory System	7	9
Patients, Doctor and Society III	15	CR
Healthcare Quality Improvement III	15	CR
<i>Total = 17 Credits</i>		
Fourth Semester	Duration (weeks)	Credit Hours
Cardiovascular System	9	10
Hematopoietic System.....	6	8
Patients, Doctor and Society IV.....	15	CR
Healthcare Quality Improvement IV.....	15	CR
<i>Total = 18 Credits</i>		
Fifth Semester	Duration (weeks)	Credit Hours
Renal and Metabolic System	4	6
Endocrine System.....	8	8
Infection and Immunity	3	4
Patients, Doctor and Society V	15	CR
Healthcare Quality Improvement V	15	CR
<i>Total = 18 Credits</i>		
Sixth Semester	Duration (weeks)	Credit Hours
Concentration semester depending on M.Sc. Areas selected (Anatomy, Physiology, Epidemiology) CPR/BLS certification	15	18
<i>Total = 18 Credits</i>		
Total credit hours = 105		

Tuition Fee: \$250/credit



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