

Preparing for Health Sciences Programs



Saint Mary's
University
SCIENCE



Halifax • Canada

Many students undertake Bachelor of Science degrees at Saint Mary's in order to effectively prepare themselves for further education leading to careers in medicine, pharmacy, dentistry, nursing, midwifery, veterinary medicine, occupational therapy, physiotherapy, genetic counselling, or other health science fields.

Small class and lab sizes at Saint Mary's allow students to work closely with faculty, helping to develop excellent theoretical and laboratory skills, and—importantly—gain valuable research experiences.

If you're interested in pursuing a career in the health sciences, book an appointment with one of our Science Advisors. They can help ensure that you'll meet the admission requirements for your next academic goal while also completing your Bachelor of Science degree in a timely manner. Common requirements for health science programs can include courses in biology, chemistry, genetics, cell biology, organic chemistry, biochemistry, physiology, anatomy, microbiology, calculus, statistics, and physics.

Graduate and professional health sciences programs have specific prerequisites and admissions tests such as the Medical College Admission Test (MCAT), Dental Admissions Test (DAT), and General Graduate Record Examination (GRE). Be sure to research the admission requirements for your program and school of interest early in your undergraduate degree.

Small class and lab sizes allow students to work closely with faculty.

Science courses at Saint Mary's provide students with an excellent foundation for careers in the health sciences. Students will learn how to:

- Collect, analyze, and interpret scientific data through a wide range of hands-on laboratory experiences
- Search and critically interpret scientific literature
- Deliver effective oral, written, and visual scientific communication
- Work collaboratively

Did You Know...

SMU Students can take a certificate in **Forensic Sciences** or **Health, Wellness and Sport in Society** along with their undergraduate degree programs.



Questions?

Your Science Advisors can help you choose your courses, declare a major, and plan for your career.

Book now: [smu.ca/ScienceAdvising](https://www.smu.ca/ScienceAdvising)

Group One

Common Requirements for admission to Health Sciences Programs such as Accelerated Nursing, Pharmacy, Dentistry, Physiotherapy, Veterinary Science, or Occupational Therapy, or which may be helpful when preparing for standardized tests (e.g. MCAT, DAT, GRE). The specific courses required vary by program and university, so be sure to check the specific requirements for your programs of interest.

Biology

Molecular and Cell Biology.....	Biol 1201
Organismal and Ecological Biology.....	Biol 1202
Human Anatomy.....	Biol 2250
Genetics.....	Biol 2307
Cell Biology.....	Biol 2321
Microbiology.....	Biol 3398
Principles of Physiology.....	Biol 3004
Comparative Vertebrate Anatomy.....	Biol 3020
Integrative Vertebrate Physiology.....	Biol 3021

Chemistry

General Chemistry I.....	Chem 1210
General Chemistry II.....	Chem 1211 or 1212
Organic Chemistry I & II.....	Chem 2344 & 2354
Introduction to Biochemistry.....	Chem 3451

Physics

University Physics I & II.....	Phys 1210 & 1211
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Math

Introductory Calculus I.....	Math 1210
Introductory Calculus II.....	Math 1211
Intro to Mathematical Statistics.....	Math 1216

Group Two

Faculty of Science courses that are not required for admission to most health sciences programs, but which may be of interest and help you prepare for your chosen career.

Biology

Biology of Cannabis.....	Biol 1300
Forensic DNA typing.....	Biol 3007/Frsc 3007
Molecular Biology.....	Biol 3419
Plants and People.....	Biol 3421
Evolution.....	Biol 3423
Bioinformatics and Genomics.....	Biol 4007
Biology of Cancer.....	Biol 4010
Osteology.....	Biol 4100
Animal Athletic Performance.....	Biol 4407
Animal Developmental Biology.....	Biol 4408
Medical and Veterinary Entomology.....	Biol 4432

Chemistry

Biochemistry: Intermediary Metabolism.....	Biol 4452
Biochemistry: Secondary Metabolism.....	Chem 4453

Environmental Science

The Environment & Human Health.....	Envs 3440
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Forensic Sciences (Certificate)

Forensic Human Anatomy.....	Frsc 3400
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**Students must be accepted into the Certificate in Forensic Sciences Program to take this course*

Geology

Environment, Radiation and Society.....	Geol 1207
Environmental Geology: Atlantic Canada Perspective.....	Geol 1208

Psychology

Introduction to Psychology.....	Psyc 1200
Mind and Brain.....	Psyc 1210
Intro to Developmental Psychology.....	Psyc 1240
Sensation and Perception.....	Psyc 2305
Intro to Cognitive Neuroscience.....	Psyc 3310
Child Development.....	Psyc 3329
Adolescent Development.....	Psyc 3332
Abnormal Psychology.....	Psyc 3336
Intro to Forensic Psychology.....	Psyc 3338
Longevity and Aging.....	Psyc 3347
Drugs and Behaviour.....	Psyc 3349
Prevention & Treatment of Addictions.....	Psyc 3351
Applied Sport Psychology.....	Psyc 3360
Behavioral Analysis and Change.....	Psyc 3386
Occupational Health Psychology.....	Psyc 3392
Human Neuropsychology.....	Psyc 4410
Advanced Cognitive Neuroscience.....	Psyc 4411
Psychophysics and Perception.....	Psyc 4415
Disabilities.....	Psyc 4420
Counselling and Psychotherapy.....	Psyc 4436
Health Psychology.....	Psyc 4490

Group Three

Interdisciplinary courses which may be of interest and help you prepare for your chosen career.

Anthropology

Intro to Forensic Anthropology.....	Anth 2282
Human Evolution and Adaptation.....	Anth 2100
Sex, Gender & Society.....	Anth 3303/Wmst 3303
Forensic Skeletal Identification.....	Anth 3471
Forensic Skeletal Analyses.....	Anth 3472
Forensic Facial Anatomy.....	Anth 3473
Human Variation.....	Anth 3474
Paleopathology.....	Anth 3475

Atlantic Canada Studies

Health & Social Policy in Atl. Canada.....	Acst 2400
Health, Illness & Disease in Atl. Can.....	Acst 4400

Criminology

Introduction to Criminology.....	Crim 1303
Criminological Theory.....	Crim 3011
Practicum in Social Development.....	Crim 3610
Criminalization of Mental Illness.....	Crim 4429

English

Cultural Studies.....	Engl 3343
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Economics

Health Economics.....	Econ 3366
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Geography

People, Place and Environment.....	Geog 1200
Fundamentals of Human Geog.....	Geog 2200
Community & Regional Dev.....	Geog 4431

Health, Wellness and Sport in Society (Certificate)

Health, Wellness and Sport in Society: An Introduction.....	Hwss 2000
Experiential Learning in Health, Wellness and Sport in Society.....	Hwss 3000
Seminar in Health, Wellness and Sport in Society.....	Hwss 4000

**Students must be accepted into the Certificate in Health, Wellness and Sport*

History

The Trouble with Normal.....	Hist 3021
History of Medicine.....	Hist 3202
History of the Body, Health and Sexualities, 1400-1900.....	Hist 3203

Intercultural Studies

Intercultural Communication.....	Icst 1000
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Management

Occupational Health and Safety.....	Mgmt 3392
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Philosophy

Ethics.....	Phil 2302
Science and Society.....	Phil 2318
Bioethics.....	Phil 2368

Political Science

Public Administration.....	Poli 3330
Public Policy Challenges: Gender, Race and Class.....	Poli 4449/Wmst 4449

Religious Studies

Spirituality and Work.....	Rels 2330
Death.....	Rels 2352
Science and Religion.....	Rels 3349

Social Justice and Community Studies

Race, Racism and Colonialism.....	Sjcs 3220
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Sociology

Sociology of Health and Illness.....	Soci 3316
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Note that many upper-level courses require introductory courses as prerequisites. Please see the Calendar for details.