Rady Faculty of Health Sciences
Max Rady College of Medicine

DEPARTMENT OF PHYSIOLOGY & PATHOPHYSIOLOGY

COMING FALL 2021
Application deadline April 1, 2021

Post-baccalaureate Diploma in Medical Physiology and Pathophysiology

432 Basic Medical Sciences Building, 745 Bannatyne Avenue, Winnipeg, Manitoba, Canada R3E 0J9

September 1, 2020
Are you interested in learning about medical physiology and pathophysiology?

Wish to pursue a career related to human sciences, biomedical research, professional designations in medicine or other health-related areas?

Then the Post-baccalaureate Diploma in Medical Physiology and Pathophysiology is the program for you!

Features:

- Hands-on experience in a research laboratory environment!
- Learn about the pathophysiology of diseases such as cancer, diabetes, asthma, Parkinson’s and stroke.
- The course is a one year, 27 credit hour, stand-alone program for individuals with little or no medical physiology and/or biomedical research laboratory experience.
- Is offered annually starting in the fall term (September), taught at the Bannatyne Campus.
- Program is available to Canadian and international students.
- **Funding available** to undergraduate students enrolled full-time (2021) in the Post-baccalaureate Diploma program in the form of a [Dr. Heinz Bohnet Bursary](#).

As an undergraduate student you will learn about......

**Respiratory Physiology and Pathophysiology (PHGY 5002, 3 credit hours - Fall Term)**
- lung development, the mechanics of breathing and oxygen exchange, as well as basic concepts and current research related to the diagnosis and treatment of respiratory diseases such as asthma, chronic obstructive pulmonary disease, pulmonary hypertension and sleep apnea.

**Cardiovascular Physiology and Pathophysiology (PHGY 5004, 3 credit hours - Fall Term)**
- how the heart functions as well as ailments such as hypertension, diabetes, atherosclerosis and cardiac fibrosis. Students will also be given an opportunity to learn about new developments in groundbreaking cardiovascular research.

**Endocrine Physiology and Pathophysiology (PHGY 5006, 3 credit hours - Winter Term)**
- endocrine physiology as it applies to the hormonal regulation of various body processes, including metabolism, as well as the consequences of endocrine dysregulation in the
context of cancer, diabetes, reproduction, and metabolic disease. The course will introduce students to current therapeutic approaches and active areas of research.

**Neurophysiology and Pathophysiology (PHGY 5008, 3 credit hours - Winter Term)**
- The nervous system, with emphasis on the structure and function of the brain and spinal cord neurological dysfunctions and disease states such as ALS, Parkinson’s and Huntington’s disease, cerebellar dysfunction and spinal cord injury. Current research and potential future therapeutic approaches will also be discussed.

**Cell Physiology and Pathophysiology (PHGY 5010, 3 credit hours - Fall Term)**
- The current technologies used for the study of cell biology focusing on basic principles of cell physiology including topics such as basic genetic inheritance principles, chromosomes and gene regulation, mitochondrial functions and genetics, biochemical and electrical properties of cell membrane functions. Additionally, students will explore the cellular pathophysiology of various diseases.

**Laboratory Physiology and Pathophysiology (PHGY 5012, 12 credit hours - Fall & Winter Term)**
LAB TIME! This hands-on course introduces students to laboratory research practices, providing a practical research experience in the biomedical or health-related sciences. Research projects will be designed, to include a range of research and educational training such as: an introduction to ethical and/or safe laboratory practices, literature review, experimental design, performance of laboratory protocols and techniques, data analysis, presentation of findings, and the use of related programs/software.

**Pre-requisites and Admissions Information**
Details for Fall 2021 admission can be found on the Undergraduate Admissions website: [http://umanitoba.ca/student/admissions/media/PBDMedicalPhys_bulletin.pdf](http://umanitoba.ca/student/admissions/media/PBDMedicalPhys_bulletin.pdf)
Post-baccalaureate Diploma in Medical Physiology and Pathophysiology
Contact Information

Program Contact
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Department of Physiology & Pathophysiology
745 Bannatyne Avenue
Winnipeg, MB R3E 0J9
http://umanitoba.ca/faculties/health_sciences/medicine/units/physiology/

Admissions Office
Fort Garry Campus
424 University Centre
Telephone: (204) 474-8808
Email: admissions@umanitoba.ca

Lead Admissions Officer
Jody Dewbury
Fort Garry Campus
Email: admissions.postbaccdipmpp@umanitoba.ca

The following other contacts may also be useful.
Student Accessibility Services
520 University Centre
Telephone: (204) 474-7423
Email: student_accessibility@umanitoba.ca

Student Advocacy Office
520 University Centre
Telephone: (204) 474-7423
Email: student_advocacy@umanitoba.ca
**About the Department of Physiology & Pathophysiology**

We are a large department made up of 5 research Divisions providing internationally competitive research and training programs in physiology and pathophysiology. The Department Office is located in room 432 on the 4th floor of the Basic Medical Sciences Building (BMSB) on the **Bannatyne Campus** at the Health Sciences Centre (HSC) in Winnipeg.

Printable maps of the Bannatyne/Fort Garry Campus are available at the back of this guide.

For more information on the Department of Physiology & Pathophysiology visit: [http://umanitoba.ca/faculties/health_sciences/medicine/units/physiology/index.html](http://umanitoba.ca/faculties/health_sciences/medicine/units/physiology/index.html)

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**Life on the Bannatyne Campus**

The University of Manitoba, Rady Faculty of Health Sciences, Bannatyne campus is home to the Colleges of Medicine, Dentistry, and Pharmacy, and Schools of Medical Rehabilitation and Dental Hygiene.

The **Brodie Centre** is a congregation place for students at the Bannatyne Campus. It houses the following facilities:

**Joe Doupe Recreation Centre**
The Joe Doupe Recreation Centre is the Bannatyne campus gymnasium located on the lower level of the Brodie Centre. Membership details can be found on their website.

**Health Sciences Centre Bookstore**
The bookstore, located on the main floor, sells medical related textbooks, computer software and hardware, gifts and stationery materials.

The **Neil John Maclean Health Sciences (NJMHS) Library** occupies the 2nd and 3rd floors of the Brodie Centre. Some of the services offered at NJMHS Library include circulation, photocopying/printing service, document delivery and reference section. Through this library you can order printed copies of journal articles online and pick them up in person or have them delivered to you. Make sure to read emails from the library so you keep up to date. There are computers and study carrels in the library.
Computer Lab
There is a computer lab on the second floor of the Brodie centre (Rm 230/280) open 24/7 that you can enter with your student card once you have it activated.

Housing (Bannatyne & Fort Garry Campuses)

Bannatyne Campus
The Health Sciences Center offers affordable rental accommodations, located on campus that is only available to students of HSC or University of Manitoba campus. Tenants can easily access both academic and professional areas of the Centre. Suite sizes range from bachelor suites to two bedroom apartments, depending on location and availability. There is a very long wait list (up to one year), and a high turnover rate from June-September. Information and application forms are available online http://www.hsc.mb.ca/servicesPlacesToStay.html#Student

Fort Garry Campus
There are six residences on the Fort Garry campus with the total capacity of 950 students. Residences offer furnished rooms, board (meal) plans, study space, lounges, laundry facilities, storage space and reserved parking. On campus residences are available for single students only. Married student housing is not available on the U of M campus. Listings and application forms for on and off campus housing can be found at http://umanitoba.ca/campus/housing/index.html

Homestay
The Homestay program is intended to help International students learn about Canadian culture, and allows Canadian families to learn about International students and their culture. Any University of Manitoba International student registered in an academic program can apply.

Apartments
Rent for off-campus accommodation varies depending on whether it is a room in a house, a bachelor suite, 1, 2, or 3 bedroom apartments or houses. It is recommended that students review the list of Frequently Asked Questions prepared by the Winnipeg Residential Tenancy Branch before renting an apartment.

Students can find a place to live off-campus in local newspapers, the Winnipeg Renter’s Guide (Free at 7 11 stores), billboard postings or online at:

Winnipeg Internet Apartment Guide
Renting Spaces off-campus housing registry
Winnipeg Free Press Classified Ads
Winnipeg Sun Classified Ads
Kijiji - http://www.kijiji.ca/h-winnipeg/1700192
Craigslist
Life as a university student can be very difficult as students can encounter adversity along the way. The Department office staff and Head are here to advise and direct you to the appropriate personnel to answer your questions. Speak with them first.

The University of Manitoba Student Affairs has instituted many offices that can aid students in many aspects of their lives; be it personal, academic, or social. In this section we list a few that can be helpful along the way.

Services for students on Bannatyne Campus
http://umanitoba.ca/student/bannatyne/

Services specific to students located on the Bannatyne Campus
Location: 2nd floor, S211 Medical Services Building, Bannatyne Campus, 204-272-3190

Student Advocacy
The Student Advocacy office provides confidential centralized services for receiving and resolving student complaints and grievances. This includes any type of conflict between staff and students, including grade appeals. In addition, student advocacy provides students with information on matters of academic integrity. Their office is located at room 520 University Centre, Fort Garry Campus. Tel: (204) 474-7423.

International Centre for Students (ICS)
ICS offers help and services for both International and Canadian students of the University of Manitoba. ICS advisors can provide students with information about banking, finding accommodation, University rules and policies, dealing with professors and classmates, Driving in Manitoba, recreation activities, and more. They can also help students interpret immigration regulations and can provide assistance with study permit extensions and changes, Temporary Resident Visa applications, U.S. visitor’s visas, and more.

ICS orientations are held at the start of the fall, winter, and spring/summer terms. Students will get information about the city of Winnipeg, University of Manitoba, ICS programs, university policies and procedures, finding accommodation, study permits and visas, health insurance, etc.

NOTE: You will require a letter from the Department when applying for your study permit

ICS Contact information
ICS homepage
Study Permit
International students must have a study permit in order to study in Canada. To obtain a Study Permit application kit and detailed application instructions, visit the Citizenship and Immigration Canada (CIC) web site (http://www.cic.gc.ca) or contact the visa office in the Canadian embassy, high commission, or consulate to which you will submit your Study Permit application.

Living in Winnipeg
Winnipeg is the capital and largest city of the Province of Manitoba. The city is located near the geographic centre of North America, at the confluence of the Red and Assiniboine Rivers, a point now commonly known as The Forks. It is by far Manitoba's largest city with a population of approximately 633,000 and is the eighth largest metropolitan area in Canada.

Weather
Winnipeg is said to be the sunshine capital of Canada, with an abundance of sunny days throughout the year. The city is famous for its long, cold and snowy winters. If you are coming to Canada from another country, we recommend that you buy your winter clothing here. In contrast, Winnipeg summers are pleasantly warm to hot. Spring and autumn are short and highly variable seasons.

Health Services in Manitoba
For health services in Manitoba you will need a Manitoba Health Card. The form is available at http://www.gov.mb.ca/health/documents/mg1883.pdf

Fill it out and mail to:
Manitoba Health Insured Benefits
Branch 300 Carlton St.
Winnipeg MB R3B2M9

If you qualify for a Manitoba health card, call 204-786-7101 or visit the website http://www.gov.mb.ca/health/mhsip/mbcard.html

International Students health coverage
Effective September 1, 2018 the Province of Manitoba will no longer cover health care for international students. For more information visit: http://umanitoba.ca/research/international_centre/health_coverage_faq.html
How to Find a Family Physician

- **University Health Services**
- **The Family Doctor Connection**
  Monday - Friday 8:30 a.m. to 4:30 p.m. Phone: (204) 786-7111. They can tell you of available doctors in your area. The Manitoba Clinic houses the offices of many types of doctors from general practitioners, to allergists, to gynecologists. The centre also houses a sample collection lab and an x-ray facility. The clinic is included in Manitoba Health coverage and is located on the Health Sciences Centre campus.
- **Family Doctor finder**
- **Manitoba College of Family Physicians**

Transportation

**Winnipeg Transit**
The Winnipeg Transit website provides public transportation information such as bus timetables, stops, trip planning for travelling by bus around Winnipeg. See page 15 for details on purchasing post-secondary student passes and the buses you will need to take between campuses.

**Biking**
- Bike rack location on Bannatyne Campus
- “Come and Go” bike racks are located in front of Brodie Centre, as well as a tune up facility for bikes which offers use of tire pumps and key tools to ensure optimal bike safety.
- Fenced and locked compounds are available to all staff and students. Anyone with a University of Manitoba ID card can seek card access to the bike compound through U of M physical plant.

**By Car**
Driving Licensing and Insurance at **Manitoba Public Insurance (MPI)**
- Applications for a driver’s licence, driver’s licence renewals and photos as well as insurance payments can be processed at any Autopac agent.
MAPS

BANNATYNE CAMPUS
FORT GARRY CAMPUS