

2025-2026

FIRST YEAR PLANNING GUIDE



WELCOME

Congratulations and welcome to your first year at the University of Manitoba! This is an important and exciting year! As a first year student, you will need to make decisions about your course selection, choice of faculties, and career options.

To support your transition to university, we have designed this First Year Planning Guide to help you choose and register for courses in your first year.



This guide is interactive. You can click any **underlined and bold** words for more information. Click **course codes** ex. **BIOL 1020** for specific course descriptions.

STEPS TO REGISTER FOR CLASSES

ACCEPT YOUR OFFER OF ADMISSION

- 1 Go back to your admission offer letter and click on the **Accept** button. This will take you to your online application portal, where you can follow the instructions to accept your offer.

CLAIM YOUR UMNetID

- 2 Your **UMNetID** gives you access to Aurora, your student e-mail, Microsoft Teams, UM Learn, online library resources, campus WiFi, and more.

CHOOSE YOUR TARGET DEGREE PROGRAM(S)

- 3 Use the **First Year Planning Guide** to review the degree and program options available at UM.

CHOOSE YOUR COURSES

- 4 Review the program planning pages in the **First Year Planning Guide** to determine which courses to take in your first year and the requirements for your target degree program.

CREATE YOUR TIMETABLE

- 5 Follow the step by step instructions in this guide to create a schedule for your classes.

REGISTER FOR COURSES

- 6 You're almost there! Once you've created a timetable, log in to **Aurora** and select Open Registration Dashboard to take the last step and register for courses.
-

CONTENTS

Welcome

Steps to register for classes	2
-------------------------------	---

First year planning

Definitions you need to know	4
How to use this guide	5
Course planning basics	6
Determine your course load	7
Create your timetable	8
Register for classes	11

Which courses do I take in first year?

Faculties and Programs	12
Recommended Introductory Courses	166
Upgrading courses	187

Important dates and contact information

Important dates	188
Contact us	190

QUICK LINKS

Additional Resources

New Student Checklist
Get Ready to Register Sessions
Popular Questions
How Do I?

DEFINITIONS YOU NEED TO KNOW

University has a language all of its own! Knowing the terms and definitions will help you to make informed decisions. Here are some terms you may encounter as you prepare for your first year.

ACADEMIC CALENDAR – UM's official publication containing course descriptions, program and graduation requirements, as well as UM and faculty/school specific rules, regulations and policies. Available at umanitoba.ca/calendar.

AURORA – single-sign on launch page used to access many UM systems and resources. Students will use Aurora cards to register for classes, check their fees, view their class schedule, and access their student records and final grades. Available at aurora.umanitoba.ca.

COREQUISITE – A course that must be completed in the same term as a second course.

COURSE ADD DEADLINE – The last day you can register/add a course in a term. Check the **Important Dates and Deadlines** to determine the deadline for each course.

COURSE DROP DEADLINE – The last day you can drop a course in a term. Courses dropped by this deadline do not appear on your academic record and you will not have to pay for the course. Check the **Important Dates and Deadlines** to determine the deadline for each course.

CREDIT HOURS – The hours of credit assigned to a course. 3 credit hour courses run over one term (ex. September-December, January-April). 6 credit hour courses run over two consecutive terms and are called 'spanned' courses.

DISTANCE AND ONLINE EDUCATION – Online courses that do not include a scheduled lecture time where you need to be logged in. Students complete coursework independently, on their own time.

ELECTIVES – Most programs have a certain number of credit hours that you are free to choose. An elective may be any course from the **Recommended Introductory Courses List**.

GRADE POINT AVERAGE (GPA) – A number representing the average value of **final grades**.

INITIAL REGISTRATION TIME – The day and time when you are given access to Aurora to begin your registration.

LABS/TUTORIALS – Instructional teaching periods for practical hands-on learning in addition to lecture time.

LECTURE – Time spent in class for course instruction.

(M) MATHEMATICS REQUIREMENT – All students at UM are required to complete a minimum of one 3 credit hour course with significant content in mathematics. Some programs require a math course(s) for admission. Courses in the First Year Planning Guide that satisfy the mathematics requirement are noted with an (M) after the course code.

'MAY NOT BE HELD WITH' – Some courses have significant content overlap and may not be held for credit together. (Ex. BIOL 1000 and BIOL 1020). Review a course's description in the **Academic Calendar**.

PREREQUISITE – A course which must be satisfactorily completed before a more advanced course may be taken. When registering for courses, add the prerequisite course first.

REGULAR SESSION – The academic session when courses are offered between the months of September to April.

SPANNED COURSE – A class that is scheduled over multiple terms of study, usually Fall-Winter or Winter-Summer.

SUMMER TERM – The academic session when courses are offered in the months of May, June, July and August.

SYLLABUS – An outline of the entire course which includes all assignment and test dates as well as the grading scale used for the course.

TARGET DEGREE PROGRAM – Your faculty or school of choice.

UM LEARN – The University of Manitoba's online learning management system where you can access course information and materials. Available at umanitoba.ca/umlearn.

UNDERGRADUATE DEGREE – The first degree program completed within university-level studies. For example, Bachelor of Arts (B.A.) or Bachelor of Science (B.Sc.).

VOLUNTARY WITHDRAWAL (VW) – VW is when you drop a course between the Course Drop Deadline and the VW Deadline. When you VW from a course, it will remain on your academic record, but you will not receive a final grade. You will still owe the full tuition fees (tuition is not refunded).

(W) WRITTEN REQUIREMENT – All students at UM are required to complete a minimum of one 3 credit hour course with significant content in written English. Some programs require a written course(s) for admission. Courses in the First Year Planning Guide that satisfy the written requirement are noted with a (W) after the course code.

HOW TO USE THIS GUIDE

1 Start by browsing the [Faculties and Programs List](#).

This list shows all the degree programs available at the University of Manitoba.

Read the degree program page for the specific program you're interested in.

2 Make sure to read all of the information included on each degree program page, as you will learn tips on how to choose your courses, high school prerequisites and more!

If you're interested in more than one degree program, compare the program pages.

3 See if there are any overlapping courses that can help you fulfill requirements for the different degree programs you're interested in. Registering in these common courses is a great way to keep your options open.

Don't forget to read the *Minimum Admission Requirements* and the *Tips for Choosing Courses* section.

4 These sections will clarify what the minimum course load requirements are to be eligible to apply to your target degree program and make suggestions about which courses you should consider taking.

FACULTY OF SCIENCE COMPUTER SCIENCE

COMPUTER SCIENCE, B.C.Sc.

Honours and Four Year Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
COMP 1010 Introductory Computer Science 1 or COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
COMP 1020 Introductory Computer Science 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1220 (M) Linear Algebra 1 or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1700 (M) Calculus 2 or MATH 1232 (M) Integral Calculus or MATH 1710 (M) Applied Calculus 2	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Elective (see <i>Tips for Choosing Courses</i>)	3
Total Credit Hours	30

! MINIMUM ADMISSION REQUIREMENTS

To enter the Computer Science Honours or Major program, students must complete 24 credit hours, including:

- COMP 1020 • MATH 1300 (M) • MATH 1700 (M)
- MATH 1240 (M) • MATH 1500 (M) • or substitutes listed in the chart

Minimum grades in required courses are outlined in the [Academic Calendar Computer Science Honours and Four Year Major Degree Requirements](#).

💡 TIPS FOR CHOOSING COURSES

- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1010 (or COMP 1012).
- COMP 1000, COMP 1500, or COMP 1600 is recommended as an elective in your first year.
- If you choose to take COMP 1000 or COMP 1500 as an elective, it must be taken before declaring your major.
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [Recommended Introductory Courses List](#).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.

Continue reading the next few pages on [Course Planning Basics](#), [Timetabling](#), and [Registration](#).

5 These pages will help you take the information from a degree program page and create your own course plan and timetable. Make sure to attend or view the [Get Ready to Register Sessions](#) for more in-depth info from an Academic Advisor.

Connect with an Academic Advisor.

6 After viewing a [Get Ready to Register Session](#) and completing a [Course Planning Form](#), we strongly encourage you to meet with an Academic Advisor to review your courses before you register in Fall or Winter courses. An Academic Advisor can't create your course plan for you, but they can review your plan and give you feedback or advice!

Keeping coming back to the First Year Planning Guide!

7 We encourage students to return to this guide throughout their first year, especially if you're making academic decisions like adding a course or applying to your target degree program.

8 Not sure which degree program is right for you?

That's OK! To help you choose courses for your first year, review the [Undecided](#) program page.






Clarify your career path!

9 Explore your options with [career planning resources](#) or connect with [Career Services](#) to meet with a [Career Consultant](#). Map out your career pathway from the start of your academic journey and see where you can go with your degree program using the Career Compass.

COURSE PLANNING BASICS

Here is some basic information about courses to help you in your planning:

- Courses are offered in two different terms during the Regular Session (September to April).
- Each course has a credit hour value: usually 3 or 6.
- You may take anywhere from 1 course per term (3 credit hours) up to 5 courses per term (15 credit hours) during the Regular Session.
- Courses are also offered in summer. For more information, review the [Summer Term Planning Guide](#).

Course(s) per Term	Credit Hours for One Term	Credit Hours for Both Terms	Course Load (%)	Student Status
1 course 	3 credit hours	6 credit hours	20%	Part-time
2 courses 	6 credit hours	12 credit hours	40%	Part-time
3 courses 	9 credit hours	18 credit hours	60%	Full-time
4 courses 	12 credit hours	24 credit hours	80%	Full-time
5 courses 	15 credit hours	30 credit hours	100%	Full-time

FALL

September to December

3 credit hours

WINTER

January to April

3 credit hours

6 credit hours

E.g. BIOL 1020 + lab

1. MATH 1500 (M) + lab
2. HIST 1420 (W)
3. PSYC 1200 (Part A)
4. _____
5. _____

1. MATH 1700 (M) + lab
2. PHIL 1290
3. PSYC 1200 (Part B)
4. _____
5. _____

3 credit hour courses run over one term.

6 credit hour courses run over both terms and are called 'spanned courses'.

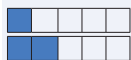
Review the [Faculties and Programs List](#) for your target degree program, then use this course planning form to plan your Fall and Winter Terms.

DOWNLOAD
COURSE PLANNING FORM

DETERMINE YOUR COURSE LOAD

Deciding the number of courses you will take in your first year will depend on many factors, and it differs for every student. After reviewing the program pages for each degree program you are interested in, you should then review the considerations about course load below:

1-2 Courses Per Term (Part-Time)



- Can be a good option if you have significant commitments outside of school (ex. a job or sports commitment).
- Taking 1-2 courses (3 or 6 credit hours per term) means your student status is "part-time." This may make you ineligible for certain types of funding (ex. certain scholarships, student loans, sponsorships) or student benefits (ex. Health coverage, **U-Pass**).
- Contact the **Financial Aid and Awards** office to confirm what course load meets your specific situation.
- If you are an international student, please contact the **International Centre** to determine if you are required to be a full-time student during the Fall and Winter Terms.
- You may not have enough credit hours to apply for your target degree program after your first year.

3 Courses Per Term (Full-Time)



- 3 courses per term (9 credit hours per term) means your student status is "full-time."
- This is often a minimum requirement for government student loans, study permits for international students or sponsorships.
- You are eligible for certain student benefits (ex. UMSU Health and Dental).
- You may not have enough credit hours to apply for your target degree program after your first year.

4 Courses Per Term (Full-Time)



- 4 courses per term (12 credit hours per term) means your student status is "full-time."
- Many degree programs at UM require that students complete a minimum of 24 credit hours to be eligible to apply.
- Some scholarships (including Entrance Scholarships) require that students must take an 80% course load, which is 4 courses per term.

5 Courses Per-Term (Full-Time)



- 5 courses per term (15 credit hours per term) means your student status is "full-time."
- 5 courses per term is the maximum most first year students can register in.
- If you register in 5 courses per term, we recommended that other commitments (ex. employment, social commitments etc) be kept to a bare minimum.
- It can be challenging to balance this course load while also adjusting to the new expectations of university.
- There are some degree programs at UM where you must take 5 courses/15 credit hours per term if you would like to apply by the end of your first year.

i If you have any questions about determining your course load, contact an **Academic Advisor** in the First Year Centre.

STEPS TO CREATING YOUR TIMETABLE

After you decide which courses you want to take, you will need to create a timetable. Courses are offered at various times throughout the week. It is up to you to make a schedule that best suits your lifestyle and commitments.

1 DOWNLOAD OR PRINT A TIMETABLE PLANNING FORM

In Aurora, days of the week are listed as:

M = MONDAY

T = TUESDAY

W = WEDNESDAY

T = THURSDAY

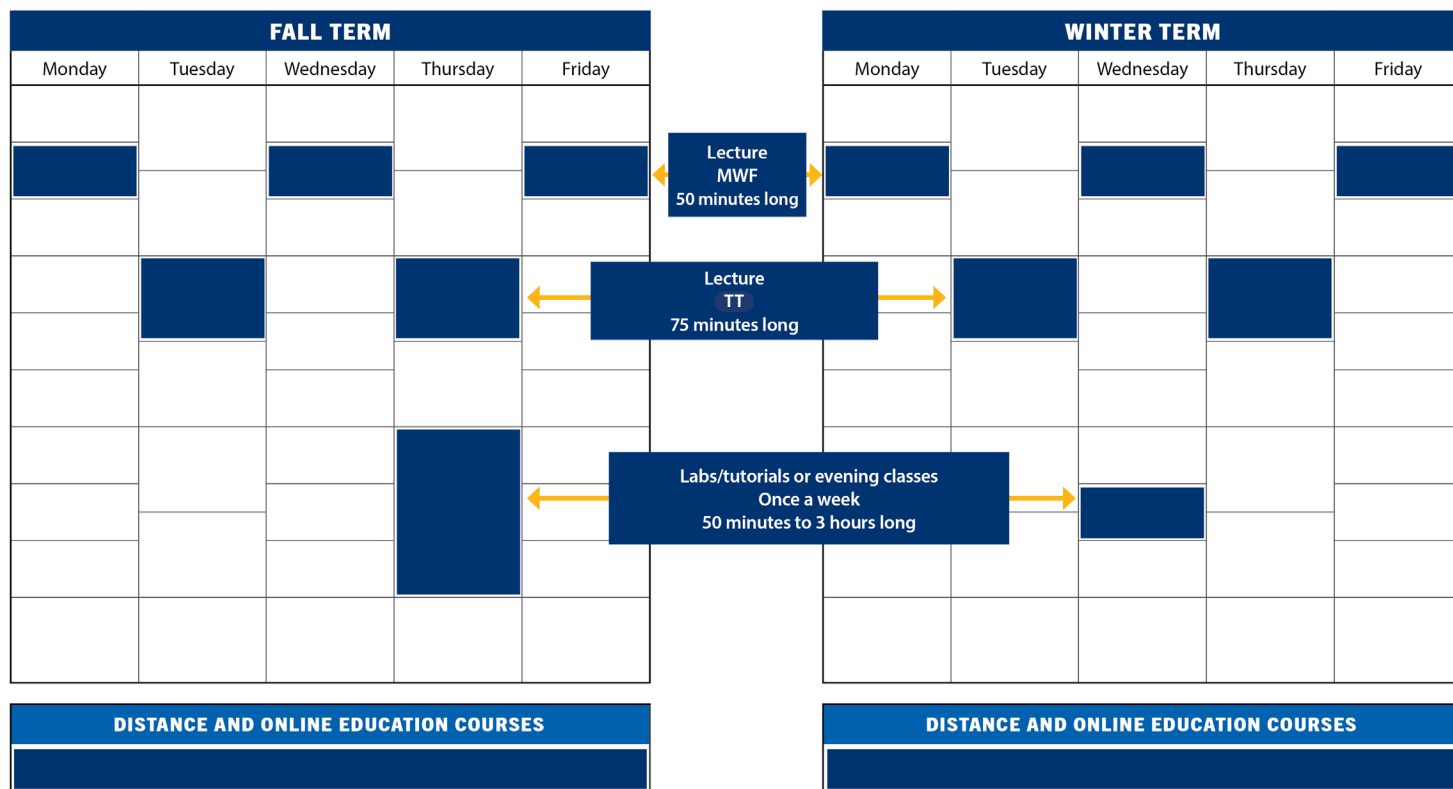
F = FRIDAY

Lectures are usually three hours a week:

- Mondays/Wednesdays/Fridays (MWF) 50 minutes (10 minute break in between class times)
- Tuesdays/Thursdays (TT) 75 minutes (15 minute break in between class times)
- Evening classes 3 hours, once a week

Some courses also have a lab component:

- Labs for Science courses
 - Generally 3 hours, once a week (ex. Biology, Chemistry, Physics)
- Labs for Mathematics or Arts courses
 - Generally 1 hour, once a week (ex. Mathematics, Languages)

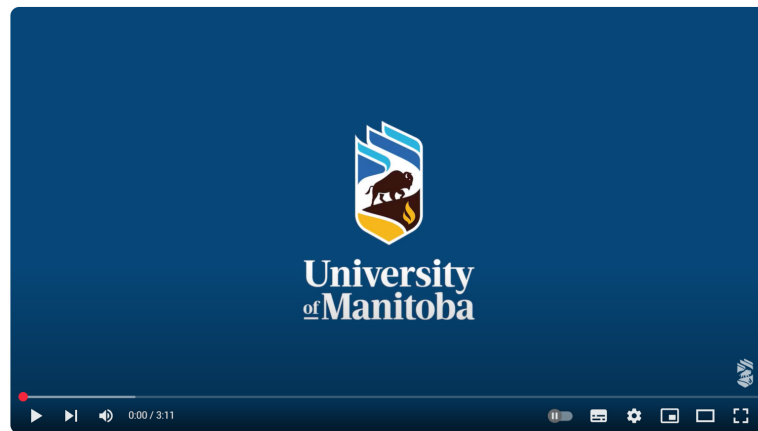


Distance and Online Education sections of a course (ex. D01, D02) have no scheduled class time, so you can do the coursework on your own time.

DOWNLOAD
TIMETABLE PLANNING FORM

2 IDENTIFY WHEN CLASSES ARE OFFERED

You will need to plan your timetable using information found in **Aurora**, the University of Manitoba's online registration and student information system.



In **Aurora**, use the Register for Classes function to search for courses you'd like to register in. Make sure to carefully read all the text in the course entry on Aurora, as this includes essential information.

Sections

- Lecture (A)
- Labs/tutorials (B)
- Distance and Online Education courses (D)
- Lecture sections that include a field trip/field work start with K (ex. K01)

CRN:

- 4 or 5 digit Course Reference Number

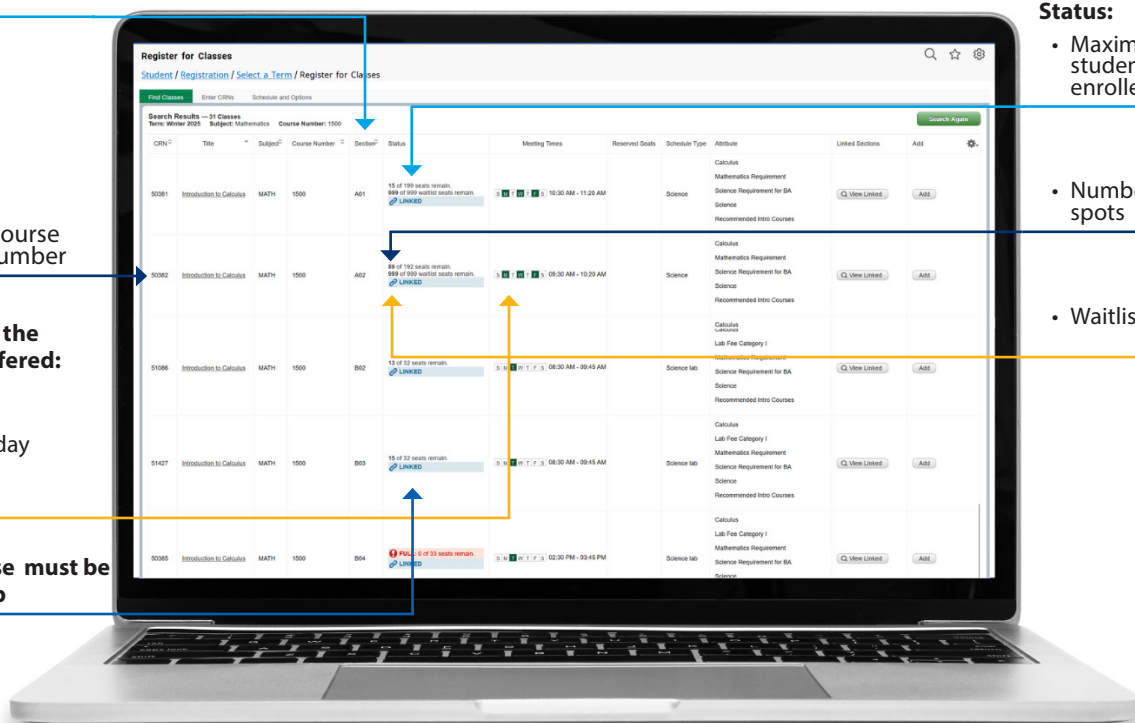
Days and times the course/lab is offered:

- M = Monday
- T = Tuesday
- W = Wednesday
- T = Thursday
- F = Friday

LINKED = Course must be taken with a lab

Status:

- Maximum number of students that can be enrolled in this section
- Number of remaining spots
- Waitlist seats remaining



3 FILL IN YOUR TIMETABLE

Plan your timetable by adding each course to the Timetable Planning Form.

Courses are offered in two different formats:

- **In-Person** sections of a course have specific meeting times and locations.
- **Distance and Online Education** sections of a course (ex. D01, D02) do not have a scheduled lecture time when you need to be logged in. This allows you to go through the course material independently on your own time.
 - Term tests and the final exam will be at a set day and time scheduled in the Central Standard time (CDT/CST) time zone.

When building a timetable, it is critical to prioritize which courses to add to your timetable first.

Prioritize:

- Courses that are offered with the least number of sections, as these offer less flexibility and may fill up more quickly.
- Courses that require both a lecture and a lab section, as these can be challenging to fit into a timetable.
- Required courses, as these are higher priority than those you are choosing as electives.
- Spanned courses, as these will take up the same day and time in both Fall and Winter Terms (ex. PSYC 1200).

TIMETABLE PLANNING FORM

FALL TERM				
Monday	Tuesday	Wednesday	Thursday	Friday
8:30	8:30	8:30	8:30	8:30
9:30		9:30		9:30
PSYC 1200 A02	10:00	PSYC 1200 A02	10:00	PSYC 1200 A02
10:30		10:30		10:30
11:30	11:30	11:30	11:30	11:30
	MKT 2210 A03		MKT 2210 A03	
12:30	1:00	12:30	1:00	12:30
1:30		1:30		1:30
BIOL 1020 A04		BIOL 1020 A04		BIOL 1020 A04
2:30	2:30	2:30	2:30	2:30
3:30	4:00	3:30	BIOL 1020 B06	3:30
4:30		4:30		4:30
5:30	5:30	5:30	5:30	5:30
DISTANCE AND ONLINE EDUCATION COURSES				
PHIL 1290 D01				

WINTER TERM				
Monday	Tuesday	Wednesday	Thursday	Friday
8:30	8:30	8:30	8:30	8:30
9:30		9:30		9:30
PSYC 1200 A02	10:00	PSYC 1200 A02	10:00	PSYC 1200 A02
10:30		10:30		10:30
BIOL 1030 A01		BIOL 1030 A01		BIOL 1030 A01
11:30	11:30	11:30	11:30	11:30
	STAT 1000 A02		STAT 1000 A02	
12:30	1:00	12:30	1:00	12:30
1:30		1:30		1:30
2:30	2:30	2:30	2:30	2:30
	SOC 1000 A04		SOC 1000 A04	
3:30	4:00	3:30	4:00	
STAT 1000 B07				BIOL 1030 B11
4:30		4:30		
5:30	5:30	5:30	5:30	5:30
DISTANCE AND ONLINE EDUCATION COURSES				

STEPS TO REGISTERING FOR CLASSES

By the time you are ready to register for courses, your timetable should be planned. If you have not already done so, watch **How to Register Using Aurora**.

1 DETERMINE YOUR INITIAL REGISTRATION TIME

- All students are given a specific date and time to begin registering for Fall and Winter Term courses. This is called your Initial Registration Time and it is the earliest date that you can register. It is your best chance of getting into the courses you have chosen.
- Check your assigned Initial Registration Time in **Aurora** on or after **June 27**
- In Aurora, select ▶ Open Registration Dashboard ▶ Prepare for Registration
- New students are assigned an Initial Registration Time between **July 8-14**
- *Returning students are assigned an Initial Registration Time between **July 17–August 5***

2 REGISTER FOR CLASSES USING AURORA

- Attend **Get Ready to Register** before your initial registration time.
- If the course you want to register for is full, you may be able to add yourself to a waitlist. For instructions on adding yourself to a waitlist, please visit the **waitlist page**.
- Make adjustments to your registration before the **Course Add and Course Drop Deadlines**.
- Be sure to plan and register for both Fall and Winter terms during your initial registration time.

3 CONFIRM YOUR REGISTRATION

- Confirm your registration
- In Aurora, select ▶ Open Registration Dashboard ▶ View Registration Information

4 CHECK YOUR FEES

- Check Aurora for a fee balance by locating the View Account Summary by Term card.
- Be sure to confirm your account summary whenever you make changes to your registration.

5 GET YOUR BOOK LIST

- A book list for the courses you are registered in will be available through Aurora before your classes begin.
- In Aurora, select ▶ My Course Materials card.

? NEED SOME ADDITIONAL GUIDANCE?

- Attend or watch a recording of the **Get Ready to Register Session** offered by the First Year Centre.
 - Watch **How to Register Using Aurora**.
 - Connect with an **Academic Advisor** in the First Year Centre if you have questions during the course planning process.
-

i If you receive a registration error, consult **Registration Errors** for instructions on how to resolve it.

WHICH COURSES DO I TAKE IN FIRST YEAR?

FACULTIES AND PROGRAMS LIST

Find your target degree program on this index page, which links directly to the appropriate program planning page.

UNDECIDED?

See Tips for Choosing Courses if you are Undecided

FACULTY OF AGRICULTURAL AND FOOD SCIENCES

Agribusiness	Agronomy	Human Nutritional Sciences
Agriculture	Animal Systems	Plant Biotechnology
Agroecology	Food Science	Pre-Veterinary Medicine

FACULTY OF ARCHITECTURE

Environmental Design

SCHOOL OF ART

Art History Fine Arts (Studio) Fine Arts, Diploma (Studio)

ASPER SCHOOL OF BUSINESS

Accounting	Human Resource Management /Industrial Relations
Actuarial Mathematics	Indigenous Business Studies
Business Analytics	Marketing
Entrepreneurship/Innovation	Strategy and Global Management
Finance	Supply Chain Management and Logistics
Generalist	

FACULTY OF EDUCATION

Early, Middle, and Senior Years (After 1st degree)

PRICE FACULTY OF ENGINEERING

Biosystems Engineering
Civil Engineering
Computer Engineering
Electrical Engineering
Mechanical Engineering

FACULTY OF ARTS

Anthropology
Art History
Asian Studies
Canadian Studies
Central & East European Studies
Classical Studies
Criminology
Economics
Economics and Econometrics
Economics and Society
Economics-Statistics
Economics-Mathematics
English
Film Studies
French
German
Global Political Economy
Greek
History
Icelandic
Indigenous Governance
Indigenous Studies
Italian Studies
Labour Studies
Latin
Latin American Studies
Linguistics
Mathematics
Medieval and Early Modern Studies
Philosophy
Political Science
Psychology
Religion
Russian
Sociology
Spanish
Theatre
Ukrainian
Ukrainian Canadian Heritage Studies
Women's and Gender Studies

CLAYTON H. RIDDELL FACULTY OF ENVIRONMENT, EARTH, AND RESOURCES

Environmental Science	Environmental Geoscience
Environmental Studies	Geology
Geography	Geophysics
Earth Sciences	Physical Geography

RADY FACULTY OF HEALTH SCIENCES

Interdisciplinary Health

Health Sciences
Health Studies

School of Dental Hygiene

🇨🇦 Dental Hygiene

Dr. Gerald Niznick College of Dentistry

🇨🇦 Dentistry (After 69 credit hours or 1st degree)

Max Rady College of Medicine

🇨🇦 Medicine (After 1st degree)

College of Nursing

🇨🇦 Midwifery
Nursing

College of Pharmacy

🇨🇦 Pharmacy (After 48 credit hours or 1st degree)

College of Rehabilitation Sciences

Occupational Therapy (After 1st degree)
Physical Therapy (After 1st degree)
🇨🇦 Respiratory Therapy

🇨🇦 Open to Canadian citizens and Permanent Residents only

FACULTY OF KINESIOLOGY AND RECREATION MANAGEMENT

Athletic Therapy
Physical Education
Kinesiology
Recreation Management & Community Development

FACULTY OF LAW

Law (After 60 credit hours or 1st degree)

DESAUTELS FACULTY OF MUSIC

Jazz Studies
Music

FACULTY OF SCIENCE

Actuarial Mathematics
Applied Mathematics
Astronomy & Astrophysics
Biochemistry
Biological Sciences
Chemistry
Chemistry–Physics
Computer Science
Computer Science–Mathematics
Computer Science–Physics and Astronomy
Computer Science–Statistics
Data Science
General Science
Genetics
Mathematics
Mathematics–Economics
Mathematics–Physics and Astronomy
Medical & Biological Physics
Microbiology
Physics
Physics & Astronomy
Psychology
Statistics
Statistics–Actuarial Mathematics
Statistics–Economics
Statistics–Mathematics

FACULTY OF SOCIAL WORK

Social Work

UNDECIDED?

NOT SURE WHICH DEGREE IS RIGHT FOR YOU? DON'T WANT TO RUSH INTO SELECTING A DEGREE?

THAT'S OK!

You can use your first year to test out courses, explore your interests, and research careers. By the time you register for your second year, you should know which degree you want and will pick your courses based on the requirements for that program.

What courses should I take in my first year?

- If you haven't chosen a degree, you won't have a list of specific courses to choose from when registering for your first year. Instead, you can use the **Recommended Introductory Courses List** to identify courses you are interested in and you can register in those courses.
- You can also view the **Faculties and Programs List** to see all the degree programs offered by the University of Manitoba.

What is the Recommended Introductory Courses List?

- The **Recommended Introductory Courses List** contains all of the courses that new students have access to. Some of the subjects are similar to those available in high school, while others will be completely new.
- The courses in the **Recommended Introductory Courses List** are grouped by the faculty that offers them.

How do I use the Recommended Introductory Courses List to pick courses?

- Browse through the courses in the **Recommended Introductory Courses List** (even the ones you are not familiar with). If you are interested in taking a specific course, click on its course code ex. **BIOL 1020** to view essential information such as a course description, prerequisites, and restrictions.
- Make a list of the courses that sound interesting to you and write the name of the faculty that offers the course beside it. Be sure to include the course codes! You'll need that information when it's time to register.
- When it's time to register, pick your courses from the list of courses you created.

What's next for me?

- Explore degrees that contain the courses you find most interesting and research the **careers** related to those degrees.
- If you find that you are interested in several courses from a specific faculty, go to the **Faculties and Programs List**. You can see all the degrees offered by that faculty, and review a degree's specific program page for more information.

Things to consider when using your first year to explore

- Exploring courses and taking time to research degrees and careers can help you feel confident and excited about your degree choice, but it can add time to your studies. Depending on the degree you choose and the number of credit hours you take, you might not be able to apply to the degree after your first year of studies.
- Don't forget to dedicate time during your first year to research degrees and careers. Taking a variety of courses you are interested in is only the first step.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Specific 40S courses may be required as prerequisites depending on the courses you choose. In the **Recommended Introductory Courses List**, click the course code ex. **BIOL 1020** of a specific course to view prerequisites.

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



NEED MORE INFORMATION?

CAREER
SERVICES

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

IMPORTANT
DATES

FACULTY OF AGRICULTURAL AND FOOD SCIENCES

AGRIBUSINESS, B.Sc.

FIRST YEAR COURSES	CREDIT HOURS
ABIZ 1000 Introduction to Agribusiness Management	3
AGRI 1600 Introduction to Agrifood Systems	3 + lab
BIOL 1000 Foundations of Life (3) or BIOL 1020 Biology 1: Principles and Themes (3 + lab) BIOL 1010 Biological Diversity and Interaction (3) or BIOL 1030 Biology 2: Biological Diversity, Function and Interactions (3 + lab)	6
ECON 1010 Introduction to Microeconomic Principles	3
ECON 1020 Introduction to Macroeconomic Principles	3
HNSC 1200 Food: Facts and Fallacies or HNSC 1210 Nutrition for Health and Changing Lifestyles	3
MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1524 (M) Mathematics for Management and Social Sciences or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
Elective (<i>see Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but are not required for admission.

Admission to Agribusiness requires any 24 graded credit hours of university-level courses.

Minimum requirements are outlined in the Faculty of Agricultural and Food Sciences **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- AGRI 1600, ECON 1010, MATH 1300 (M), and MATH 1524 (M) (or substitutes listed in the chart) are prerequisites for required second year courses in the program. It is recommended to complete these in first year, before admission.
- BIOL 1020 and BIOL 1030 are recommended for students who are undecided on which Agriculture degree to pursue or if they want to take advanced Plant Science (PLNT) courses as electives.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by AGRI 2030 (W) in Year 2 of the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by a MATH course in the chart.
- Choose an elective from the **Recommended Introductory Courses List**.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 60% required in:

- Math 40S (Pre-Calculus)

Minimum 50% required in:

- Biology 40S and one of Chemistry 40S or Physics 40S - if taking BIOL 1020

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the [Admissions](#) page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional term or year.



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

FACULTY OF AGRICULTURAL AND FOOD SCIENCES

AGRICULTURE, B.Sc.

AGRONOMY, ANIMAL SYSTEMS, OR PLANT BIOTECHNOLOGY

FIRST YEAR COURSES	CREDIT HOURS
ABIZ 1000 Introduction to Agribusiness Management	3
AGRI 1600 Introduction to Agrifood Systems	3 + lab
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties or CHEM 1130 Introduction to Organic Chemistry	3
ECON 1010 Introduction to Microeconomic Principles	3
HNSC 1200 Food: Facts and Fallacies or HNSC 1210 Nutrition for Health and Changing Lifestyles	3
Choose one of the following: MATH 1210 (M) Techniques of Classical and Linear Algebra MATH 1300 (M) Vector Geometry and Linear Algebra MATH 1500 (M) Introduction to Calculus MATH 1510 (M) Applied Calculus 1 MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
Elective (<i>see Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but are not required for admission.

Admission to Agriculture requires any 24 graded credit hours of university-level courses.

Minimum requirements are outlined in the Faculty of Agricultural and Food Sciences **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- AGRI 1600, BIOL 1020, BIOL 1030, CHEM 1100, CHEM 1110 (or CHEM 1130), and ECON 1010 are prerequisites for required second year courses in the program, depending on the major selected. It is recommended to complete these in first year, before admission.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by AGRI 2030 (W) in Year 2 of the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by a MATH course in the chart.
- Choose an elective from the **Recommended Introductory Courses List**.
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S

Minimum 60% required in:

- Math 40S (Pre-Calculus) or 70% in Math 40S (Applied)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional term or year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF AGRICULTURAL AND FOOD SCIENCES

AGROECOLOGY, B.Sc.

FIRST YEAR COURSES	CREDIT HOURS
ABIZ 1000 Introduction to Agribusiness Management	3
AGRI 1600 Introduction to Agrifood Systems	3 + lab
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties or CHEM 1130 Introduction to Organic Chemistry	3
ECON 1010 Introduction to Microeconomic Principles	3
HNSC 1200 Food: Facts and Fallacies or HNSC 1210 Nutrition for Health and Changing Lifestyles	3
Electives (<i>see Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but are not required for admission.

Admission to Agroecology requires any 24 graded credit hours of university-level courses.

Minimum requirements are outlined in the Faculty of Agricultural and Food Sciences **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- AGRI 1600, BIOL 1020, BIOL 1030, and ECON 1010 are prerequisites for required second year courses in the program. These courses, along with CHEM 1100 and CHEM 1110 (or CHEM 1130), are recommended to complete in first year, before admission.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by AGRI 2030 (W) in Year 2 of the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by AGRI 2400 (M) in year 2 of the program.
- Choose electives from the **Recommended Introductory Courses List**.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S
- Math 40S (Pre-Calculus or Applied)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional term or year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF AGRICULTURAL AND FOOD SCIENCES

FOOD SCIENCE, B.Sc.

Options in Science and Business are available.

FIRST YEAR COURSES	CREDIT HOURS
AGRI 1600 Introduction to Agrifood Systems	3 + lab
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties or CHEM 1130 Introduction to Organic Chemistry	3
ECON 1010 Introduction to Microeconomic Principles	3
HNSC 1200 Food: Facts and Fallacies	3
HNSC 1210 Nutrition for Health and Changing Lifestyles	3
MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but are not required for admission.

Admission to Food Science requires any 24 graded credit hours of university-level courses.

Minimum requirements are outlined in the Faculty of Agricultural and Food Sciences **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- BIOL 1020, BIOL 1030, CHEM 1100, and CHEM 1110 (or CHEM 1130) are prerequisites for required second year courses in the program. It is recommended to complete these in first year, before admission.
- AGRI 1600, HNSC 1200, or HNSC 1210 is a prerequisite for AGRI 2400 (M) in the second year. It is recommended to complete one of these in first year, before admission.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by AGRI 2030 (W) in Year 2 of the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by a MATH course in the chart.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S

Minimum 60% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional term or year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF AGRICULTURAL AND FOOD SCIENCES

HUMAN NUTRITIONAL SCIENCES, B.Sc.

FIRST YEAR COURSES	CREDIT HOURS
HNSC 1200 Food: Facts and Fallacies	3
HNSC 1210 Nutrition for Health and Changing Lifestyles	3
AGRI 1600 Introduction to Agrifood Systems	3 + lab
BIOL 1410 Anatomy of the Human Body	3 + lab
BIOL 1412 Physiology of the Human Body	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties or CHEM 1130 Introduction to Organic Chemistry	3
PSYC 1200 Introduction to Psychology or SOC 1000 Introduction to Sociology	6-3
Elective(s) (see <i>Tips for Choosing Courses</i>)	3-6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but are not required for admission.

Admission to Human Nutritional Sciences requires any 24 graded credit hours of university-level courses.

Minimum requirements are outlined in the Faculty of Agricultural and Food Sciences **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- HNSC 1200, HNSC 1210, CHEM 1100 and CHEM 1110 (or CHEM 1130), 6 credit hours of BIOL, and PSYC 1200 or SOC 1000 are prerequisites for required second year courses in the program. It is recommended to complete these in first year, before admission.
- If you take PSYC 1200, you will have space for 3 credit hours of electives. If you take SOC 1000, you will have space for 6 credit hours of electives.
- BIOL 1020 and BIOL 1030 (minimum grade of C) may be used instead of BIOL 1410. In this case, BIOL 1412 will be taken in Year 2.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by HNSC 2000 (W) in Year 2 of the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by AGRI 2400 (M) in Year 2 of the program.
- Choose elective(s) from the **Recommended Introductory Courses List**.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Chemistry 40S
- Math 40S (Pre-Calculus or Applied)
- Biology 40S if taking BIOL 1020

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional term or year.



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

FACULTY OF AGRICULTURAL AND FOOD SCIENCES

PREPARATION FOR VETERINARY MEDICINE

RECOMMENDED PROGRESSION FOR THE PRE-VETERINARY PATHWAY

YEAR 1	CREDIT HOURS
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1120 Introduction to Chemistry Techniques	3
CHEM 1130 Introduction to Organic Chemistry	3
PHYS 1020 (M) General Physics 1	3 + lab
INDG 1220 Indigenous Peoples in Canada, Part 1 (3) or INDG 1240 Indigenous Peoples in Canada, Part 2 (3) or INDG 1200 Indigenous Peoples in Canada (6)	3-6
Electives (<i>see Tips for Choosing Courses</i>)	9-12
Total Credit Hours	33

YEAR 2	CREDIT HOURS
AGRI 2030 (W) Technical Communications (3) or ENGL 1340 (W) Introduction to Literary Analysis (3) or ENGL 1400 (W) Thematic Approaches to the Study of Literature (3) or	3
AGRI 2400 (M) Experimental Methods in Agricultural and Food Sciences	3 + lab
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
CHEM 2730 / MBIO 2730 Elements of Biochemistry 1	3
MBIO 1010 Microbiology 1	3 + lab
PLNT 2520 Genetics or BIOL 2500 Genetics 1	3 + lab
Electives (<i>see Tips for Choosing Courses</i>)	12
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

Admission to the **Western College of Veterinary Medicine** (WCVM) requires at least 60 credit hours of university-level study, including specific courses listed in the chart.

- CHEM 1120 is not included in the 60 credit hours required admission. UM applicants will apply to WCVM with at least 63 credit hours, including CHEM 1120.
- All applicants must complete at least two full years of university courses. The definition of a "full year" for this purpose is 24 credit hours in each of two Regular Sessions (i.e., September-April).
- CHEM 1120 will not count as part of the 24 credit hours for a full year of university courses. If a student wishes to take CHEM 1120 during a Regular Session, they must take 27 credit hours total during a Regular Session to meet the requirement of a full year of university courses.
- WCVM strongly recommends that applicants complete 30 credit hours a year to ensure applicants' preparedness and future success.



TIPS FOR CHOOSING COURSES

- BIOL 1020, BIOL 1030, CHEM 1100, and CHEM 1130 are prerequisites for required Year 2 courses. It is recommended to complete these in first year.
- AGRI 1600, HNSC 1200, or HNSC 1210 is a prerequisite for AGRI 2400 (M) in the second year. It is recommended to complete one of these in first year as part of your electives.
- In lieu of AGRI 2400 (M), you may take STAT 1000 (M) to meet the statistics requirement for admission to the WCVM. However, AGRI 2400 (M) is required for all degree programs in the Faculty of Agriculture and Food Sciences.
- AGRI 2030 (W) meets the 3 credit hour English requirement. In lieu of AGRI 2030 (W), you may take ENGL 1340 (W) or ENGL 1400 (W) to meet the written requirement for admission to the WCVM. However, AGRI 2030 (W) is required for all degree programs in the Faculty of Agriculture and Food Sciences.
- Choose electives from the **Recommended Introductory Courses List**.
- If you are not admitted to Veterinary Medicine after 63 credit hours, you may decide to complete an **Animal Systems degree**. If you're planning to take the Pre-Vet pathway in parallel with an Animal Systems degree, take the following recommended electives:
 - ABIZ 1000 • AGRI 1600 • ECON 1010 • ANSC 2500 • ANSC 2510 • ANSC 2520 • HNSC 1200 or HNSC 1210
 - MATH 1300 (M) or MATH 1210 (M) or MATH 1500 (M) or MATH 1510 (M) or MATH 1524 (M)
- If you plan on completing all the courses in the charts in your first two years of university studies, you must take courses during the Summer Term between your first and second year or take 33 credit hours during the Regular Session in Year 2. Consider taking CHEM 1120 during the Summer Term, as this course will not count towards the requirement of 24 credit hours in a Regular Session (i.e., September-April).



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S
- Physics 40S (for PHYS 1020)

Minimum 60% required in:

- Math 40S (Pre-Calculus) or 70% in Math 40S (Applied)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- For full admission details, see the **WCVM Admissions** page.
- All applicants must complete the **English Casper® test** (online, open-response situational judgment test).

MINIMUM TIME TO GRADUATION

- 6 years: 2 years minimum (63 credit hours) of study at the University of Manitoba, plus 4 years at the Western College of Veterinary Medicine.



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**PROGRESSION
PLAN**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

FACULTY OF ARCHITECTURE

ENVIRONMENTAL DESIGN, B.Env.D.

FIRST YEAR COURSES	CREDIT HOURS
EVDS 1600 Introduction to Environmental Design	3
EVDS 1602 Visual Literacy	3
EVDS 1660 History of Culture, Ideas and Environment 1	3
EVDS 1670 History of Culture, Ideas and Environment 2	3
EVDS 1680 Environmental Technology	3
Written (W) course (see <i>Tips for Choosing Courses</i>)	3
Mathematics (M) course (see <i>Tips for Choosing Courses</i>)	3
Electives (see <i>Tips for Choosing Courses</i>)	9
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

Admission to Environmental Design requires 30 graded credit hours of university-level courses, which must include:

- EVDS 1600
- EVDS 1602
- EVDS 1680
- Written (W) course
- Mathematics (M) course
- Open electives

All courses must be at the 1000-level or higher.

Minimum requirements are outlined in the Faculty of Architecture [**Advanced Entry admission requirements**](#).

It is strongly recommended to complete EVDS 1660 and EVDS 1670 in your first year, before admission, as part of the open electives. They are prerequisites for 2000-level courses in the program.



TIPS FOR CHOOSING COURSES

- EVDS 1660 and EVDS 1670 are required as part of the degree program, and are strongly recommended to be completed before admission. Minimum grades are outlined in the [**Academic Calendar**](#).
- Choose electives, including a **Written (W) course** and a **Mathematics (M) course**, from the [**Recommended Introductory Courses List**](#). All courses must be at the 1000-level or higher.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and as a prerequisite to 2000-level courses, where applicable.
- Contact an [**Academic Advisor**](#) in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

- A specific Math 40S course may be required, depending on the Mathematics (M) course you choose.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (129 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

SCHOOL OF ART

FINE ARTS, B.F.A. (STUDIO)

Honours and General degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
STDO 1210 Drawing: Studio 1	3
STDO 1240 Figure Study 1	3
STDO 1250 Drawing: Studio 2	3
STDO 1410 Visual Language	3
STDO 1470 Materials Studio	3
STDO 1480 Digital Essentials	3
STDO 1510 Art Now	3
FAAH 1030 Introduction to Art 1A or EVDS 1660 History of Culture, Ideas and Environment 1	3
FAAH 1040 Introduction to Art 2A or EVDS 1670 History of Culture, Ideas and Environment 2	3
Written (W) course (see <i>Tips for Choosing Courses</i>)	3
Mathematics (M) course (see <i>Tips for Choosing Courses</i>)	3



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to a Studio degree program requires 24 graded credit hours of university-level courses and a **portfolio submission**. No specific courses are required.

Minimum requirements are outlined in the School of Art **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- Consider registering for all STDO and FAAH courses listed. This will ensure that you have the necessary prerequisites for Year 2 Studio and Art History courses if you are admitted to the Fine Arts Studio Program.
- Consider taking FA 1020 (M) / MATH 1020 (M) Mathematics in Art to meet the **Mathematics (M) course** requirement.
- Consider taking FAAH 2930 (W) Writing About Art in Year 2 to meet the **Written (W) course** requirement.
- School of Art Direct Entry students should also register in FA 1990 in their first year.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Recommended:

- Art 40S



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- General: 3 years (93 credit hours).
- Honours: 4 years (123 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

SCHOOL OF ART

FINE ARTS, DIPLOMA (STUDIO)

FIRST YEAR COURSES	CREDIT HOURS
STDO 1210 Drawing: Studio 1	3
STDO 1240 Figure Study 1	3
STDO 1250 Drawing: Studio 2	3
STDO 1410 Visual Language	3
STDO 1470 Materials Studio	3
STDO 1480 Digital Essentials	3
STDO 1510 Art Now	3
FAAH 1030 Introduction to Art 1A	3
Total Credit Hours	24



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the diploma program, but may not be required for admission.

Admission to the Diploma in Art requires a **portfolio submission**. No specific courses are required.

Minimum requirements are outlined in the School of Art **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- Consider registering for all STDO and FAAH courses listed. This will ensure that you have the necessary prerequisites for Year 2 Studio and Art History courses required for the Diploma in Art.
- School of Art Direct Entry students should also register in FA 1990 in their first year.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Recommended:

- Art 40S



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- Diploma in Art: 2 years (48 credit hours) in the School of Art.



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

SCHOOL OF ART

ART HISTORY, B.F.A.

Honours and General degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
FAAH 1030 Introduction to Art 1A EVDS 1660 History of Culture, Ideas and Environment 1	3
FAAH 1040 Introduction to Art 2A EVDS 1670 History of Culture, Ideas and Environment 2	3
Choose 6 credit hours from the 'Approved List of Non-School of Art Electives' on the next page	6
ENGL 1200 (W) Representative Literary Works (6) or ENGL 1400 (W) Thematic Approaches to the Study of Literature (3)	3-6
Mathematics (M) course (see <i>Tips for Choosing Courses</i>)	3
Social Sciences or Science electives (see <i>Tips for Choosing Courses</i>)	6
Electives (see <i>Tips for Choosing Courses</i>)	3-6



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Art History (School of Art) requires 24 graded credit hours of university-level courses, which must include 12 credit hours of the courses listed in the chart.

Minimum requirements are outlined in the School of Art **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- Consider taking FA 1020 (M) / MATH 1020 (M) Mathematics in Art to meet the **Mathematics (M) course** requirement. The Mathematics (M) course is not required for admission to the program.
- The following course subjects may be used to fulfill Social Sciences or Science electives. Choose specific courses from these subjects using the **Recommended Introductory Courses List**.

APPROVED LIST OF SOCIAL SCIENCES AND SCIENCE SUBJECTS

Faculty of Arts

- Anthropology (ANTH)
- Economics (ECON)
- Global Political Economy (GPE)
- Labour Studies (LABR)
- Linguistics (LING)
- Political Science (POLS)
- Psychology (PSYC)
- Sociology (SOC)
- Women's and Gender Studies (WOMN)

Faculty of Agricultural and Food Sciences

- Agriculture (AGRI)
- Entomology (ENTM)
- Plant Science (PLNT)
- Soil Science (SOIL)

Clayton H. Riddell Faculty of Environment, Earth, and Resources

- Environment (ENVR)
- Geography (GEOG)
- Geological Sciences (GEOL)

Faculty of Science

- Any course offered by the Faculty of Science



TIPS FOR CHOOSING COURSES CONTINUED

- Academic electives may be fulfilled by any course outside of the School of Art. Choose from the **Recommended Introductory Courses List**.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.

APPROVED LIST OF NON-SCHOOL OF ART ELECTIVES

- | | | | | |
|-----------------|-----------------|-----------------|-------------|-----------------|
| • ASIA 1420 (W) | • FILM 1290 | • HIST 1360 (W) | • MUSC 1930 | • RLGN 1322 (W) |
| • ASIA 1430 (W) | • FILM 1310 | • HIST 1370 (W) | • INDG 1200 | • RLGN 1324 (W) |
| • CDN 1000 | • GRMN 2120 (W) | • HIST 1380 (W) | • INDG 1220 | • RUSN 2290 (W) |
| • CATH 1190 | • GRMN 2130 (W) | • HIST 1440 (W) | • INDG 1240 | • UKRN 2780 (W) |
| • CLAS 1270 | • HIST 1200 (W) | • HIST 2390 (W) | • PHIL 1200 | • WOMN 1500 (W) |
| • CLAS 1280 | • HIST 1350 (W) | • HIST 2420 (W) | • PHIL 1290 | |



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Recommended:

- Art 40S



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- General: 3 years (90 credit hours).
- Honours: 4 years (120 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

FACULTY OF ARTS

DEGREES OFFERED IN THE FACULTY OF ARTS

B.A. GENERAL – (90 CREDIT HOURS)

A three year (90 credit hour) degree which provides a general education in the Humanities and Social Sciences with a concentration in at least two subject areas (the Major and Minor or a Double Major with no Minor). Choose the B.A. General if you need a degree as an employment requirement, or if you plan to enter an academic program that requires a three year degree such as Education, Occupational Therapy, or Medicine.

B.A. ADVANCED – (120 CREDIT HOURS)

A four year (120 credit hour) degree which provides a general education in the Humanities and Social Sciences with a concentration in at least two subject areas (the Major and Minor or a Double Major with no Minor). Choose the B.A. Advanced if you want to develop a greater degree of specialization in one area of study or if you plan to enter an academic program that requires a four year degree.

B.A. HONOURS – (120 CREDIT HOURS)

A four year (120 credit hour) degree, which provides a rigorous examination of a particular subject area. It requires more courses in the Honours field and provides a greater intensity and depth of study. A Minor is optional in this program. Choose the B.A. Honours if you plan on continuing your education at the graduate level. Double Honours programs are available in some areas.

CO-OPERATIVE EDUCATION (CO-OP)

Arts students majoring in Anthropology, Central and East European Studies, Economics, German and Slavic Studies, History, Labour Studies, Linguistics, Political Science, or Psychology can alternate regular academic terms with paid, full-time employment. It is an excellent way to enhance classroom learning with on-the-job experience.

For more information, review the [**Faculty of Arts Co-operative Education Program**](#) page.

MAJOR AND MINOR

Your major is your main area of in-depth study within your degree program. Many of the courses in your degree program will focus on your major.

In contrast, your minor is a second, smaller area of study. A minor takes up 18 credit hours of your degree program, and can be in an area that is unrelated to your major. For example, you can major in Psychology and minor in Biology.

TRAVEL STUDY AND EXCHANGE PROGRAMS

The Faculty of Arts recognizes the value that international experience brings to your degree program and will grant university credit for a number of different types of programs abroad.

You can partake in [**exchange programs, travel study courses, and field study courses**](#) in over 18 countries that provide you with hands-on experience, travel, and even work abroad.

ARTS DEGREES AND PROGRAMS

	MINOR	GENERAL MAJOR	SINGLE ADVANCED MAJOR	DOUBLE ADVANCED MAJOR	HONOURS	DOUBLE HONOURS	CO-OP
Anthropology	✓	✓	✓	✓	✓	✓	✓
Art History Alternatively offered through the School of Art	✓	✓					
Asian Studies	✓	✓					
Canadian Studies	✓	✓			✓	✓	
Catholic Studies	✓						
Central & East European Studies	✓	✓	✓	✓		✓	✓
Classical Studies	✓	✓	✓	✓			
Criminology		✓			✓		✓
Economics	✓	✓				✓	
Economics and Econometrics Stream			✓		✓		✓
Economics and Society Stream			✓		✓		✓
Economics – Mathematics Alternatively offered through the Faculty of Science					✓		
Economics – Statistics Alternatively offered through the Faculty of Science					✓		
English	✓	✓	✓	✓	✓	✓	✓
Film Studies	✓	✓	✓	✓			✓
French	✓	✓	✓	✓	✓	✓	
German	✓	✓	✓	✓	✓	✓	✓
Global Political Economy		✓	✓		✓		
Greek	✓		✓				
History	✓	✓	✓	✓	✓	✓	✓
Icelandic	✓	✓			✓	✓	
Indigenous Studies	✓	✓	✓	✓			
Indigenous Governance			✓				
Indigenous Languages	✓						
Italian Studies		✓	✓				
Italian	✓						
Judaic Studies	✓						
Labour Studies	✓	✓	✓				✓
Latin	✓		✓				
Latin American Studies	✓						
Linguistics	✓	✓	✓	✓	✓	✓	✓
Management	✓						
Mathematics Alternatively offered through the Faculty of Science		✓	✓				
Medieval and Early Modern Studies	✓	✓	✓				
Philosophy	✓	✓	✓	✓	✓	✓	
Polish	✓						
Political Science	✓	✓	✓		✓	✓	✓
Psychology Alternatively offered through the Faculty of Science	✓	✓	✓		✓	✓	✓
Religion	✓	✓	✓	✓	✓	✓	✓
Russian	✓	✓					
Sociology	✓	✓	✓		✓	✓	✓
Spanish	✓	✓	✓				
Theatre	✓	✓	✓	✓			✓
Ukrainian Canadian Heritage Studies	✓	✓	✓				
Ukrainian	✓	✓					
Women's and Gender Studies	✓	✓	✓	✓	✓	✓	

 You can click on any subject in the chart ex. **Spanish** to view the Introductory Course Requirements.

FACULTY OF ARTS

BACHELOR OF ARTS

Review the [Arts Degrees and Programs Chart](#) to see available majors and minors.

FIRST YEAR COURSES	CREDIT HOURS
Choose from <u>Introductory Course Requirements</u>:	
Introductory Course(s) for Major (see the Faculty of Arts Introductory Course Requirements section starting on page 40)	3-6
Introductory Course(s) for Minor (see the Faculty of Arts Introductory Course Requirements section starting on page 40)	3-6
Choose from <u>Recommended Introductory Courses List</u>: (see <i>Tips for Choosing Courses</i>)	
18 credit hours of electives or Choose additional courses that will help you fill Arts degree requirements: 6 credit hours of Social Sciences SS and 6 credit hours of Humanities H including: 3 credit hours of a Written (W) course and 3 credit hours of Indigenous Content Requirement ICR 6 credit hours of Science including: 3 credit hours of a Mathematics (M) course* (see <i>Tips for Choosing Courses</i>)	18-24
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

Admission to the Faculty of Arts requires 24 credit hours.

To declare your major for your Arts degree, you must complete 24 credit hours, including the credit hours of Introductory Course Requirements for your chosen major.



TIPS FOR CHOOSING COURSES

- Choose your introductory major and minor courses from the Faculty of Arts Introductory Course Requirements section starting on page 40.
- Choose your electives from the **Recommended Introductory Courses List**.
- *Refer to the Science Requirements for Arts chart. You can choose 6 credit hours of courses from this chart, or you can choose any Faculty of Science courses from the **Recommended Introductory Courses List**. If you do not have a strong background in Science, consider taking a Science interest course, marked with **SCI** in the **Recommended Introductory Courses List**.
 - If you major in Psychology, **PSYC 2260 (M)** will fill the Math requirement for your degree. Your Science courses do not have to include an (M) course.
 - If you major in Criminology or Sociology, **SOC 2294 (M)** will fill the Math requirement for your degree. Your Science courses do not have to include an (M) course.
- Subject field requirement (15 credit hours):** Throughout your Arts degree, you will have to complete at least one course (3 credit hours) from five different Arts subjects.
 - Introductory courses for your major and minor will count as your first and second subject.
 - Choose your remaining three subjects from the Faculty of Arts section of the **Recommended Introductory Courses List**.
 - MATH and FAAH courses will count as an Arts subject.
- Arts students may complete minor programs offered by other Faculties/Schools. For example, you can major in Psychology and minor in Biology.
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.

SCIENCE REQUIREMENT FOR ARTS

Faculty of Science

See the [Recommended Introductory Courses List](#) for specific courses.

- Astronomy (ASTR)
- Biological Sciences (BIOL)
- Chemistry (CHEM)
- Computer Science (COMP)
- Mathematics (MATH)
- Microbiology (MBIO)
- Physics (PHYS)
- Statistics (STAT)

Faculty of Agricultural and Food Sciences

- Agriculture - **AGRI 1600**
- Entomology - **ENTM 1000**
- Plant Science - **PLNT 1000**

School of Art

- Fine Art, General - **FA 1020 (M)**

Clayton H. Riddell Faculty of Environment, Earth, and Resources

- Environment - **ENVR 1000, ENVR 2000**
- Geography - **GEOG 1290**
- Geological Sciences - **GEOL 1340, GEOL 1400, GEOL 1410, GEOL 1420**

Price Faculty of Engineering

- Engineering - **ENG 1440, ENG 1450, ENG 1460**



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Introductory science courses in Astronomy, Biology, Chemistry, Computer Science, Mathematics, Microbiology, Physics, and Statistics have 40S level prerequisites. Click the course code for a specific course ex. **BIOL 1020** to view more detailed prerequisites.



HOW TO APPLY

- To move from University 1 to the Faculty of Arts, students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is available in June.
- After you transit to Arts, you can declare your major by using the Declarations menu in Aurora or submitting a **declaration form** to the **Faculty of Arts**.

MINIMUM TIME TO GRADUATION

- B.A. General Major: 3 years (90 credit hours).
- B.A. Advanced Major: 4 years (120 credit hours).
- B.A. Honours: 4 years (120 credit hours).
- **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF ARTS

INTRODUCTORY COURSE REQUIREMENTS

AVAILABLE DEGREE OPTIONS

ANTHROPOLOGY

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
ANTH 1210 Ancient Peoples and Places	3
ANTH 1220 Socio-Cultural Anthropology	3
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Anthropology degree and related careers

- [Anthropology program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

Co-op Education Program available for the Anthropology Single Advanced Major and Single Honours.

ART HISTORY

GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
FAAH 1030 Introduction to Art 1A	3
FAAH 1040 Introduction to Art 2A	3
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Art History degree and related careers

- [Art History program page](#)
- [Academic Calendar](#)
- Alternatively offered through the [School of Art](#)

ASIAN STUDIES

GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
Any combination of 6 credit hours from List A or List B in the Asian Studies section of the Academic Calendar	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Asian Studies degree and related careers

- [Asian Studies program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

CANADIAN STUDIES

HONS. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours at the 1000 or 2000-level from the list of approved courses in the Canadian Studies section of the Academic Calendar	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Canadian Studies degree and related careers

- [Canadian Studies program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

i If you are interested in taking a specific course, click on its course code ex. **CLAS 1270** to view essential information such as a course description, prerequisites, and restrictions.

AVAILABLE DEGREE OPTIONS

CATHOLIC STUDIES

MINOR

FIRST YEAR COURSES	CREDIT HOURS
CATH 1190 (W) Introduction to Catholic Studies	3
3 credit hours (minimum) from the list of approved courses in the Catholic Studies section of the Academic Calendar	3
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Catholic Studies minor and related careers

- [Catholic Studies program page](#)
- [Academic Calendar](#)

CENTRAL AND EAST EUROPEAN STUDIES

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours in a language at the 1000 or 2000-level in Russian (RUSN), German (GRMN), Ukrainian (UKRN), Polish (POL), Hungarian (HUNG) or Yiddish (YDSH)	6
6 credit hours from the list of approved courses in the Central and East European Studies section of the Academic Calendar	6
Other courses (see Arts first year courses chart)	18
Total Credit Hours	30

Review these resources to learn more about the Central and East European Studies degree and related careers

- [Central and East European Studies program page](#)
- [Academic Calendar](#)

[Co-op Education Program](#) available for the Central and East European Studies Single Advanced Major.

CLASSICAL STUDIES

ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
CLAS 1270 Introduction to Ancient Greek Culture	3
CLAS 1280 Introduction to Ancient Roman Culture	3
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Classical Studies degree and related careers

- [Classics program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

CRIMINOLOGY

HONS. GEN.

FIRST YEAR COURSES	CREDIT HOURS
SOC 1000 Introduction to Sociology	3
Other courses (see Arts first year courses chart)	27
Total Credit Hours	30

Review these resources to learn more about the Criminology degree and related careers

- [Criminology program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

The [Mathematics \(M\) course](#) requirement will be met by SOC 2294 (M) in Year 2 of the program. Sociology and Criminology may not be used together in a Major/Minor combination.

FACULTY OF ARTS

INTRODUCTORY COURSE REQUIREMENTS

AVAILABLE DEGREE OPTIONS

ECONOMICS

GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
ECON 1010 Introduction to Microeconomic Principles and ECON 1020 Introduction to Macroeconomic Principles, or both ECON 1210 Introduction to Canadian Economic Issues and Policies and ECON 1220 Introduction to Global Environmental Economic Issues and Policies	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Economics degree and related careers

- [Economics program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

The [Mathematics \(M\) course](#) requirement will be met by ECON 2040 (M) in Year 2 of the program.

ECONOMICS - ECONOMICS AND ECONOMETRICS STREAM

HONS. ADV.

FIRST YEAR COURSES	CREDIT HOURS
ECON 1010 Introduction to Microeconomic Principles and ECON 1020 Introduction to Macroeconomic Principles, or both ECON 1210 Introduction to Canadian Economic Issues and Policies and ECON 1220 Introduction to Global Environmental Economic Issues and Policies	6
MATH 1500 (M) Introduction to Calculus or MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
Other courses (see Arts first year courses chart)	21
Total Credit Hours	30

Review these resources to learn more about the Economics degree and related careers

- [Economics program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

[Co-op Education Program](#) available for the Economics Single Advanced Major and Single Honours.

ECONOMICS - ECONOMICS AND SOCIETY STREAM

HONS. ADV.

FIRST YEAR COURSES	CREDIT HOURS
ECON 1010 Introduction to Microeconomic Principles and ECON 1020 Introduction to Macroeconomic Principles, or both ECON 1210 Introduction to Canadian Economic Issues and Policies and ECON 1220 Introduction to Global Environmental Economic Issues and Policies	6
Choose one of the following for the Honours program only: MATH 1500 (M) Introduction to Calculus or MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Economics degree and related careers

- [Economics program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

The [Mathematics \(M\) course](#) requirement will be met by ECON 2040 (M) in Year 2 of the program.

[Co-op Education Program](#) available for the Economics Single Advanced Major and Single Honours.

AVAILABLE DEGREE OPTIONS

ECONOMICS-MATHEMATICS OR ECONOMICS-STATISTICS

HONS.

FIRST YEAR COURSES	CREDIT HOURS
ECON 1010 Introduction to Microeconomic Principles and ECON 1020 Introduction to Macroeconomic Principles, or both ECON 1210 Introduction to Canadian Economic Issues and Policies and ECON 1220 Introduction to Global Environmental Economic Issues and Policies	6
COMP 1010 Introductory Computer Science 1	3 + lab
MATH 1220 (M) Linear Algebra 1	3 + lab
MATH 1230 (M) Differential Calculus	3 + lab
MATH 1232 (M) Integral Calculus	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
6 credit hours of electives, including a Written (W) course	6
Total Credit Hours	30

Review these resources to learn more about the **Economics-Mathematics** degree and related careers

- [Economics program page](#)
- [Academic Calendar](#)
- Alternatively offered through the [Faculty of Science](#)

Review these resources to learn more about the **Economics-Statistics** degree and related careers

- [Economics program page](#)
- [Academic Calendar](#)
- Alternatively offered through the [Faculty of Science](#)

ENGLISH

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
ENGL 1200 (W) Representative Literary Works (6), or both ENGL 1340 (W) Introduction to Literary Analysis (3) and ENGL 1400 (W) Thematic Approaches to the Study of Literature (3)	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the English degree and related careers

- [English program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

[Co-op Education Program](#) available for the English Single Advanced Major and Single Honours.

FILM STUDIES

ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
FILM 1290 Art of Film 1	3
FILM 1310 Film History	3
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Film Studies degree and related careers

- [Film Studies program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

[Co-op Education Program](#) available for the Film Studies Single Advanced Major.

i If you are interested in taking a specific course, click on its course code ex. **FILM 1290** to view essential information such as a course description, prerequisites, and restrictions.

FACULTY OF ARTS

INTRODUCTORY COURSE REQUIREMENTS

AVAILABLE DEGREE OPTIONS

FRENCH

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
FREN 1192 Français pour bilingues et francophones 1 and FREN 1194 Français pour bilingues et francophones 1, or both FREN 1202 Intermediate French 1 and FREN 1204 Intermediate French 2	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the French degree and related careers

- [French program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

GERMAN

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
GRMN 1122 Introductory German 1 (3 + lab) and GRMN 1124 Introductory German 2 (3 + lab), or both GRMN 2102 Intermediate German 1 (3) and GRMN 2104 Intermediate German 2 (3)	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the German degree and related careers

- [German program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

[Co-op Education Program](#) available for the German Single Advanced Major and Single Honours.

GLOBAL POLITICAL ECONOMY

GEN.

FIRST YEAR COURSES	CREDIT HOURS
ECON 1010 Introduction to Microeconomic Principles and ECON 1020 Introduction to Macroeconomic Principles, or both ECON 1210 Introduction to Canadian Economic Issues and Policies and ECON 1220 Introduction to Global Environmental Economic Issues and Policies	6
Choose 6 credit hours from the following: HIST 1370 (W) An Introduction to Modern World History: 1500 – 1800 HIST 1380 (W) An Introduction to Modern World History: 1800 – Present HIST 2730 (W) Modern World History, 1914-1945: The 30 Years' Crisis HIST 2732 (W) Modern World History, 1945-1992: The Age of Three Worlds HIST 2734 (W) Modern World History, 1914-Present: New World Order?	6
GPE 1700 / GEOG 1700 Social Justice in the 21st Century: Global Political Economy and Environment Change	3
Other courses (see Arts first year courses chart)	15
Total Credit Hours	30

Review these resources to learn more about the Global Political Economy degree and related careers

- [Global Political Economy program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

Additional suggested electives are listed in the [Global Political Economy section of the Academic Calendar](#).

The [Mathematics \(M\) course](#) requirement will be met by SOC 2294 (M) or STAT 1000 (M) in Year 2 of the program.

AVAILABLE DEGREE OPTIONS

GLOBAL POLITICAL ECONOMY

HONS. ADV.

FIRST YEAR COURSES	CREDIT HOURS
ECON 1010 Introduction to Microeconomic Principles and ECON 1020 Introduction to Macroeconomic Principles, or both ECON 1210 Introduction to Canadian Economic Issues and Policies and ECON 1220 Introduction to Global Environmental Economic Issues and Policies	6
Choose 6 credit hours from the following: HIST 1370 (W) An Introduction to Modern World History: 1500 – 1800 HIST 1380 (W) An Introduction to Modern World History: 1800 – Present HIST 2730 (W) Modern World History, 1914-1945: The 30 Years' Crisis HIST 2732 (W) Modern World History, 1945-1992: The Age of Three Worlds HIST 2734 (W) Modern World History, 1914-Present: New World Order?	6
GPE 1700 / GEOG 1700 Social Justice in the 21st Century: Global Political Economy and Environment Change	3
POLS 2602 Introduction to Comparative Politics	3
Other courses (see Arts first year courses chart)	12
Total Credit Hours	30

Review these resources to learn more about the Global Political Economy degree and related careers

- [Global Political Economy program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

Additional suggested electives are listed in the [Global Political Economy section of the Academic Calendar](#).

The [Mathematics \(M\) course](#) requirement will be met by SOC 2294 (M) or STAT 1000 (M) in Year 2 of the program.

GREEK

ADV.

MINOR

FIRST YEAR COURSES	CREDIT HOURS
GRK 1010 Introduction to the Reading of Ancient Greek 1	3
GRK 1020 Introduction to the Reading of Ancient Greek 2	3
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Greek degree and related careers

- [Greek program page](#)
- [Academic Calendar](#)

HISTORY

HONS.

ADV.

GEN.

MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours of 1000 or 2000-level History (HIST), or 3 credit hours at the 1000-level and 3 credit hours at the 2000-level.	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the History degree and related careers

- [History program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

[Co-op Education Program](#) available for the History Single Advanced Major and Single Honours.

i If you are interested in taking a specific course, click on its course code ex. **FREN 1192** to view essential information such as a course description, prerequisites, and restrictions.

FACULTY OF ARTS

INTRODUCTORY COURSE REQUIREMENTS

AVAILABLE DEGREE OPTIONS

ICELANDIC

HONS.

GEN.

FIRST YEAR COURSES	CREDIT HOURS
ICEL 1202 Introductory Icelandic 1 (3 + lab) and ICEL 1204 Introductory Icelandic 2 (3 + lab), or both ICEL 2202 Intermediate Icelandic 1 (3) and ICEL 2204 Intermediate Icelandic 2 (3)	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Icelandic degree and related careers

- [Icelandic program page](#)
- [Academic Calendar](#)

Students with superior language ability will not be required to complete ICEL 1200 upon successful completion of a written test administered by the department.

ICELANDIC

MINOR

FIRST YEAR COURSES	CREDIT HOURS
ICEL 1202 Introductory Icelandic 1 (3 + lab) and ICEL 1204 Introductory Icelandic 2 (3 + lab), or both ICEL 1400 Introduction to Contemporary Culture in Iceland (3) and ICEL 1410 Introduction to Culture in Medieval Iceland (3)	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Icelandic minor and related careers

- [Icelandic program page](#)
- [Academic Calendar](#)

Students with superior language ability will not be required to complete ICEL 1200 upon successful completion of a written test administered by the department.

INDIGENOUS STUDIES

ADV.

GEN.

MINOR

FIRST YEAR COURSES	CREDIT HOURS
INDG 1200 Indigenous Peoples in Canada (6), or both INDG 1220 Indigenous Peoples in Canada, Part 1 (3) and INDG 1240 Indigenous Peoples in Canada, Part 2 (3)	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Indigenous Studies degree and related careers

- [Indigenous Studies program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

There are three options available for the General Major depending on your area of interest.

i If you are interested in taking a specific course, click on its course code ex. **INDG 1220** to view essential information such as a course description, prerequisites, and restrictions.

AVAILABLE DEGREE OPTIONS

INDIGENOUS GOVERNANCE

ADV.

FIRST YEAR COURSES	CREDIT HOURS
INDG 1200 Indigenous Peoples in Canada (6), or both INDG 1220 Indigenous Peoples in Canada, Part 1 (3) and INDG 1240 Indigenous Peoples in Canada, Part 2 (3)	6
Consider taking the following courses in your first year, as they will be required for degree completion: ACC 1100 Introductory Financial Accounting (3 + lab) ECON 1010 Introduction to Microeconomic Principles (3) or ECON 1210 Introduction to Canadian Economic Issues and Policies (3) or ECON 1220 Introduction to Global Environmental Economic Issues and Policies (3) GMGT 2060 Management and Organizational Theory (3) HRIR 2440 Human Resource Management (3) MKT 2210 Fundamentals of Marketing (3) STAT 1000 (M) Basic Statistical Analysis 1 (3 + lab)	18
Other courses (see Arts first year courses chart)	6
Total Credit Hours	30

Review these resources to learn more about the Indigenous Governance degree and related careers

- [Indigenous Governance program page](#)
- [Academic Calendar](#)

For additional information on this program contact the [Department of Indigenous Studies](#).

The Indigenous Governance stream has a required Management minor.

INDIGENOUS LANGUAGES

MINOR

FIRST YEAR COURSES	CREDIT HOURS
Option 1 Cree: INDG 1250 Introductory Cree 1 (3 + lab) or INDG 1252 Introductory Cree 1 - Pass/Fail Option (3 + lab) and INDG 1260 Introductory Cree 2 (3 + lab), or INDG 1262 Introductory Cree 2 - Pass/Fail Option (3 + lab)	6
Option 2 Cree: INDG 2252 Intermediate Cree 1 (3 + lab) and INDG 2254 Intermediate Cree 2 (3 + lab)	
Option 1 Anishinaabemowin (Ojibwe): INDG 1270 Introductory Anishinaabemowin (Ojibwe) 1 (3 + lab) or INDG 1272 Introductory Anishinaabemowin (Ojibwe) 1 - Pass/Fail Option (3 + lab) and INDG 1280 Introductory Anishinaabemowin (Ojibwe) 2 (3 + lab), or INDG 1282 Introductory Anishinaabemowin (Ojibwe) 2 - Pass/Fail Option (3 + lab),	6
Option 2 Anishinaabemowin (Ojibwe): INDG 2272 Intermediate Anishinaabemowin (Ojibwe) 1 (3) and INDG 2274 Intermediate Anishinaabemowin (Ojibwe) 2 (3)	
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Indigenous Languages minor and related careers

- [Indigenous Languages program page](#)
- [Academic Calendar](#)

FACULTY OF ARTS

INTRODUCTORY COURSE REQUIREMENTS

AVAILABLE DEGREE OPTIONS

ITALIAN AND ITALIAN STUDIES

ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
ITLN 1080 Introductory Italian	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Italian Studies degree and related careers

- [Italian program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

JUDAIC STUDIES

MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours from Judaic Studies courses (Arabic ARA; Hebrew HEB; Judaic Civilization JUD; Yiddish YDSH) or courses from List A found in the Judaic Studies section of the Academic Calendar .	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Judaic Studies minor and related careers

- [Judaic Studies program page](#)
- [Academic Calendar](#)

LABOUR STUDIES

ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
LABR 1260 (W) Working for a Living	3
LABR 1290 (W) Labour Unions and Workers' Rights in Canada	3
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Labour Studies degree and related careers

- [Labour Studies program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

[Co-op Education Program](#) available for the Labour Studies Single Advanced Major.

LATIN

ADV. MINOR

FIRST YEAR COURSES	CREDIT HOURS
LATN 1080 Introduction to the Reading of Latin 1	3
LATN 1090 Introduction to the Reading of Latin 2	3
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Latin degree and related careers

- [Latin program page](#)
- [Academic Calendar](#)

LATIN AMERICAN STUDIES

MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours from the list of approved courses in the Latin American Studies section of the Academic Calendar	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Latin American Studies minor and related careers

- ▶ [Latin American Studies program page](#)
- ▶ [Academic Calendar](#)

AVAILABLE DEGREE OPTIONS

LINGUISTICS

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
LING 1000 Introduction to Linguistics 1: Foundations of Language	3
LING 1010 Introduction to Linguistics 2: Language in Context	3
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Linguistics degree and related careers

- [Linguistics program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

[Co-op Education Program](#) available for the Linguistics Single Advanced Major and Single Honours.

MANAGEMENT

MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours offered by the Asper School of Business. The following courses are recommended: MGMT 1010 (W) Business and Society MGMT 2060 Management and Organizational Theory MGMT 2070 Introduction to Organizational Behaviour ENTR 2010 Managing the Smaller Business ENTR 2020 Starting a New Business MKT 2210 Fundamentals of Marketing	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Management minor and related careers

- [Management program page](#)
- [Academic Calendar](#)

A grade of C or better in the first 6 credit hours of Business courses is required for entry into the minor. Limited space is reserved for non-Asper students in Business courses during Initial Registration. Further space may be available when the reserves expire. Reserve information, including the release date of reserved space, is listed for each course in the Class Schedule in Aurora.

MATHEMATICS

ADV. GEN.

FIRST YEAR COURSES	CREDIT HOURS
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
Other courses (see Arts first year courses chart)	18
Total Credit Hours	30

Review these resources to learn more about the Mathematics degree and related careers

- [Mathematics program page](#)
- [Career Compass](#)
- [Academic Calendar](#)
- Alternatively offered through the [Faculty of Science](#)

 If you are interested in taking a specific course, click on its course code ex. **LING 1000** to view essential information such as a course description, prerequisites, and restrictions.

FACULTY OF ARTS

INTRODUCTORY COURSE REQUIREMENTS

AVAILABLE DEGREE OPTIONS

MEDIEVAL AND EARLY MODERN STUDIES

ADV. GEN.

FIRST YEAR COURSES	CREDIT HOURS
HIST 2390 (W) Early Modern Europe 1450-1789 or HIST 2420 (W) The Medieval World	6
6 credit hours from Greek (GRK) or Latin (LATN) courses	6
Other courses (see Arts first year courses chart)	18
Total Credit Hours	30

Review these resources to learn more about the Medieval and Early Modern Studies degree and related careers

- [Medieval and Early Modern Studies program page](#)
- [Academic Calendar](#)

MEDIEVAL AND EARLY MODERN STUDIES

MINOR

FIRST YEAR COURSES	CREDIT HOURS
HIST 2390 (W) Early Modern Europe 1450-1789 or HIST 2420 (W) The Medieval World	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Medieval and Early Modern Studies minor and related careers

- [Medieval and Early Modern Studies program page](#)
- [Academic Calendar](#)

PHILOSOPHY

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
PHIL 1200 Introduction to Philosophy or Choose 6 credit hours from: PHIL 1290 Critical Thinking PHIL 1300 (M) Introduction to Logic PHIL 1420 Philosophy as a Way of Life	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Philosophy degree and related careers

- [Philosophy program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

POLISH

MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours of Polish (POL) courses	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Polish minor and related careers

- [Polish program page](#)
- [Academic Calendar](#)

POLITICAL SCIENCE

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours of Political Science (POLS) courses	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Political Science degree and related careers

- [Political Science program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

[Co-op Education Program](#) available for the Political Science Single Advanced Major and Single Honours.

AVAILABLE DEGREE OPTIONS

PSYCHOLOGY

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
PSYC 1200 Introduction to Psychology	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

The **Mathematics (M) course** requirement will be met by PSYC 2260 (M) in Year 2 of the program. Entry to the Honours program is in Year 3, after completing PSYC 2260 (M) with a grade of B or higher in addition to other Honours admission requirements.

Co-op Education Program available for the Psychology Single Advanced Major.

If you are interested in Psychology and want to know what degree may be right for you, please contact the Psychology Undergraduate Advisor at psychugadvisor@umanitoba.ca.

Review these resources to learn more about the Psychology degree and related careers

- [Psychology program page](#)
- [Career Compass](#)
- [Academic Calendar](#)
- Alternatively offered through the [Faculty of Science](#)

RELIGION

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours of Religion (RLGN) courses	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Religion degree and related careers

- [Religion program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

RUSSIAN

GEN.

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours from: RUSN 1302 Introductory Russian 1 (3 + lab) and RUSN 1304 Introductory Russian 2 (3 + lab), or both RUSN 2812 Intermediate Russian 1 (3) and RUSN 2814 Intermediate Russian 2 (3)	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Russian degree and related careers

- [Russian program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

RUSSIAN

MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours of Russian (RUSN) courses	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Russian minor and related careers

- [Russian program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

 If you are interested in taking a specific course, click on its course code ex. **PHIL 1290** to view essential information such as a course description, prerequisites, and restrictions.

FACULTY OF ARTS

INTRODUCTORY COURSE REQUIREMENTS

AVAILABLE DEGREE OPTIONS

SOCIOLOGY

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
SOC 1000 Introduction to Sociology	3
Other courses (see Arts first year courses chart)	27
Total Credit Hours	30

The [Mathematics \(M\) course](#) requirement will be met by SOC 2294 (M) in Year 2 of the program. Sociology and Criminology may not be used together in a Major/Minor combination.

Review these resources to learn more about the Sociology degree and related careers

- [Sociology program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

SPANISH

ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
Option 1: SPAN 1182 Introductory Spanish 1 (3 + lab) and SPAN 1184 Introductory Spanish 2 (3 + lab)	6
Or Option 2: SPAN 1184 Introductory Spanish 2 (3 + lab) and SPAN 1262 Intermediate Spanish Grammar 2 (3 + lab)	
Or Option 3: SPAN 1280 Spanish for Native Speakers (3) and 3 credit hours from Spanish courses numbered at the 2000-level	
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Spanish degree and related careers

- [Spanish program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

THEATRE

GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
THTR 1220 Introduction to Theatre	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Theatre degree and related careers

- [Theatre program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

THEATRE

ADV.

FIRST YEAR COURSES	CREDIT HOURS
THTR 1220 Introduction to Theatre	6
ENGL 1200 (W) Representative Literary Works (6) or both ENGL 1340 (W) Introduction to Literary Analysis (3) and ENGL 1400 (W) Thematic Approaches to the Study of Literature (3)	6
Other courses (see Arts first year courses chart)	18
Total Credit Hours	30

Review these resources to learn more about the Theatre degree and related careers

- [Theatre program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

[Co-op Education Program](#) available for the Theatre Single Advanced Major.

AVAILABLE DEGREE OPTIONS

UKRAINIAN

GEN.

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours from: UKRN 1312 Introductory Ukrainian 1 (3 + lab) and UKRN 1314 Introductory Ukrainian 2 (3 + lab), or both UKRN 2722 Intermediate Ukrainian 1 (3) and UKRN 2724 Intermediate Ukrainian 2 (3)	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Ukrainian degree and related careers

- [Ukrainian program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

UKRAINIAN

MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours of Ukrainian (UKRN) courses	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Ukrainian minor and related careers

- [Ukrainian program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

UKRAINIAN CANADIAN HERITAGE STUDIES

ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours from List A found in the Ukrainian Canadian Heritage Studies section of the Academic Calendar	6
Other courses (see Arts first year courses chart)	24
Total Credit Hours	30

Review these resources to learn more about the Ukrainian Canadian Heritage Studies and related careers

- [Ukrainian Canadian Heritage Studies program page](#)
- [Academic Calendar](#)

WOMEN'S AND GENDER STUDIES

HONS. ADV. GEN. MINOR

FIRST YEAR COURSES	CREDIT HOURS
WOMN 1500 (W) Introduction to Women's and Gender Studies in the Humanities or WOMN 1600 (W) Introduction to Women's and Gender Studies in the Social Sciences	3
Other courses (see Arts first year courses chart)	27
Total Credit Hours	30

Review these resources to learn more about the Women's and Gender Studies degree and related careers

- [Women's and Gender Studies program page](#)
- [Career Compass](#)
- [Academic Calendar](#)

All recognized minors in other faculties and schools are acceptable for credit in the Faculty of Arts. Please see the appropriate faculty or school sections of the Academic Calendar for details.

ASPER SCHOOL OF BUSINESS

BACHELOR OF COMMERCE (HONOURS)

FIRST YEAR COURSES	CREDIT HOURS
ECON 1010 Introduction to Microeconomic Principles	3
ECON 1020 Introduction to Macroeconomic Principles	3
MATH 1524 (M) Mathematics for Management and Social Sciences (<i>see Tips for Choosing Courses</i>)	3 + lab
STAT 1000 (M) Basic Statistical Analysis 1 or STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Written (W) course (<i>excluding ARTS 1110 (W), GMGT 1010 (W), and GMGT 2010 (W)</i>)	3
GMGT 1010 (W) Business and Society	3
Non-Business electives (<i>see Tips for Choosing Courses</i>)	6
Total Credit Hours	24



MINIMUM ADMISSION REQUIREMENTS

Admission to the Asper School of Business under Track 1 requires 24 graded credit hours of university-level courses listed in the chart above.

Admission to the Asper School of Business under Track 2 requires 24 graded credit hours of courses.

- Track 2 is intended for students who are missing one or more of the courses listed in the chart above, but who have completed a minimum of 24 graded credit hours of university-level courses.
- Admission under Track 2 is limited and more competitive than admission under Track 1.

Minimum requirements are outlined in the Asper School of Business **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- MATH 1524 (M) is the preferred MATH course for Asper students; if MATH 1524 (M) is not chosen, then students must present:
 - MATH 1230 (M), or MATH 1500 (M), or MATH 1510 (M), **and one of**
 - MATH 1300 (M), or MATH 1210 (M), or MATH 1220 (M)
- Choose your **Written (W) course** from the **Recommended Introductory Courses List**.
- In the Asper School of Business, a Non-Business elective is any course at the 1000-level or higher, taught in a faculty other than Asper. Choose your Non-Business elective(s) from the **Recommended Introductory Courses List**.
- Students taking a full course load (30 credit hours) are recommended to also take the following 6 credit hours of core courses:
 - GMGT 2070 Introduction to Organizational Behaviour (3)
 - MKT 2210 Fundamentals of Marketing (3)
- Students interested in Actuarial Mathematics should complete MATH 1700 (M) as a Non-Business elective.
- Students interested in Finance should complete STAT 1150 (M) in their first year.
- Students interested in Indigenous Business Studies should complete INDG 1220 and/or INDG 1240 as Non-Business elective(s).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.

HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 60% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional term(s).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**AVAILABLE
MAJORS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

FACULTY OF EDUCATION

BACHELOR OF EDUCATION, B.Ed. (AFTER DEGREE)



TIPS FOR CHOOSING COURSES

- Students must complete an undergraduate degree, including stream-specific requirements (if applicable), before applying to the Faculty of Education. Browse the **Faculties and Programs List** to see undergraduate degrees available at UM.
- Use the steps below to help plan your course selection based on your intended degree, teaching stream, teachable subjects, and any specializations you may wish to pursue.

Step 1: Decide which grade levels you want to teach

Choose your teaching stream based on the age group you're most interested in:

- Early Years:** Kindergarten to Grade 4 | **Middle Years:** Grades 5 to 8 | **Senior Years:** Grades 9 to 12
- Your choice will influence your teachable subjects and course selection.

Step 2: Choose your teachable subject(s)

Early or Middle Years don't require specific subjects, but you can add an optional specialization (18 credit hours).

For **Senior Years** you need two teachable subjects:

- First teachable subject: 24 credit hours (or 30 credit hours for specializations)
- Second teachable subject: 15 credit hours (or 18 credit hours for specializations)

Step 3: Consider a specialization (optional)

You can focus on an optional specialization in one of the following areas:

- Art | Human Ecology (Home Economics) | Music Education | Physical Education
- Each specialization requires specific coursework (18–30 credit hours). Check the Planning Chart for more details.

Step 4: Choose courses for your first year

To apply to the B.Ed. Program, you need to complete a first degree with at least 90 credit hours. When choosing first year courses, be sure to:

- Follow the requirements of your **intended first degree**.
- Choose courses that match your teachable subject(s) or specializations (if applicable), reflect your interests and academic strengths, and help you meet B.Ed. admission requirements.
- Consider taking EDUA 1790 / EDUB 1790: Introduction to Education.
- Choose courses from the **Recommended Introductory Courses List** to help you get started.

EARLY AND MIDDLE YEARS PLANNING CHART

There are no required courses for Early and Middle Years, but you may choose an optional specialization. If you select a specialization and your first degree isn't in that area, you'll need 18 credit hours of specific coursework, as outlined below.

EARLY AND MIDDLE YEARS SPECIALIZATIONS (OPTIONAL)	18 CREDIT HOURS
Art (Middle Years Only) An Art specialization requires 18 credit hours of studio (STDO) courses.	✓
Human Ecology (Home Economics) (Middle Years Only) A Human Ecology specialization requires courses from any combination of the following areas: foods and nutrition (HNSC) and family studies (FMLY). For more information, please contact bachelor.education@umanitoba.ca .	✓
Music Education For Music Education specialization course requirements, refer to Appendix 4: Music Education Specialization .	✓
Physical Education For Physical Education specialization course requirements, refer to Appendix 5: Physical Education Specialization .	✓



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

FACULTY
WEBSITE

IMPORTANT
DATES

SENIOR YEARS PLANNING CHART

Senior Years requires a first and second teachable subject.

SENIOR YEARS TEACHABLE SUBJECT	First Teachable Subject 24 CREDIT HOURS (Except specializations)	Second Teachable Subject 15 CREDIT HOURS (Except specializations)
Art	See specializations below	See specializations below
Biology	✓	✓
Chemistry	✓	✓
Computer Science	✓	✓
Drama/Theatre	✓	✓
English (Language Arts)	✓	✓
French	✓	✓
General Science*	✓	✓
Geography	✓	✓
History	✓	✓
Human Ecology (Home Economics)	See specializations below	See specializations below
Indigenous Studies*	✓	✓
Math*	✓	✓
Music Education <i>If you are not pursuing a Bachelor of Music (Music Education) refer to Senior Years specializations below.</i>	See specializations below	See specializations below
Physical Education <i>If you are not pursuing a Bachelor of Physical Education refer to Senior Years Specializations below.</i>	See specializations below	See specializations below
Physics	✓	✓
Second Language (other than French or English)	✓	✓

* Review the specific additional requirements for teachable major/minor in the [2026-2027 admission requirements](#).

In the Senior Years stream, you may choose a specialization (listed below) as one or both of your teachable subjects.

SENIOR YEARS SPECIALIZATIONS	First Teachable Subject 30 CREDIT HOURS	Second Teachable Subject 18 CREDIT HOURS
Art An Art specialization requires 18 credit hours of studio (STDO) courses for a first teachable subject or 12 credit hours of studio (STDO) courses for a second teachable subject.	✓	✓
Human Ecology (Home Economics) A Human Ecology specialization requires courses from any combination of the following areas: foods and nutrition (HNSC) and family studies (FMLY). For more information, please contact bachelor.education@umanitoba.ca .	✓	✓
Music Education For Music Education specialization course requirements, refer to Appendix 4: Music Education Specialization .	✓	✓
Physical Education For Physical Education specialization course requirements, refer to Appendix 5: Physical Education Specialization .	✓	✓



HOW TO APPLY

Please refer to the [Admissions](#) page to:

- Review the [2026-2027 Advanced Entry admission requirements](#), which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 5 years - Completion of a first degree (minimum 90 credit hours) plus 2 years (60 credit hours) in Education.

PRICE FACULTY OF ENGINEERING

ENGINEERING, B.Sc.

Biosystems, Civil, Computer, Electrical, and Mechanical Engineering are available.

PRELIMINARY YEAR COURSES	CREDIT HOURS
ENG 1430 Design in Engineering	3 + lab
ENG 1440 Introduction to Statics	3 + lab
ENG 1450 Introduction to Electrical and Computer Engineering	3 + lab
ENG 1460 Introduction to Thermal Sciences	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1510 (M) Applied Calculus 1 or MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus	3 + lab
MATH 1710 (M) Applied Calculus 2 or MATH 1700 (M) Calculus 2 or MATH 1232 (M) Integral Calculus	3 + lab
PHYS 1050 Physics 1: Mechanics	3 + lab
PHIL 1290 Critical Thinking or Complementary Studies elective (<i>see Tips for Choosing Courses</i>)	3-0
Price Faculty of Engineering Written (W) course (<i>see Tips for Choosing Courses</i>)	3-6



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Engineering departments requires at least 8 courses (24 graded credit hours of university-level courses) selected from the Preliminary Year Courses chart. All courses must be at the 1000-level or higher.

Minimum requirements are outlined in the Price Faculty of Engineering **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- Students intending to obtain a degree in Engineering are strongly advised to complete MATH 1510 (M) and MATH 1710 (M). However, MATH 1500 (M) or MATH 1230 (M) may be taken in lieu of MATH 1510 (M); MATH 1700 (M) or MATH 1232 (M) may be taken in lieu of MATH 1710 (M).
- PHIL 1290 is the recommended Complementary Studies elective. Students may, however, select any course from the Faculty of Arts or Asper School of Business at the 1000-level or higher, except ARTS 1110 (W). Choose your Complementary Studies elective from the **Recommended Introductory Courses List**.
- The Written (W) course must be chosen from the **Price Faculty of Engineering Written (W) Course list**. Note that a 6 credit hour Written (W) course from the list will satisfy both the Written (W) course requirement, as well as the 3 credit hour Complementary Studies elective.
- Note: ARTS 1110 (W) cannot be used as the Complementary Studies elective or the Written (W) course for Engineering.
- Registration in CHEM 1122 is restricted to Price Faculty of Engineering students. Students transferring in from any non-engineering faculty who have previously completed CHEM 1120 will be given credit for CHEM 1122 and CHEM 1126. CHEM 1120 cannot be used for admission to Engineering.
- If you are interested in Engineering or are already in Engineering, please contact the Engineering Advisor at **eng.info@umanitoba.ca**.



TIPS FOR CHOOSING COURSES CONTINUED

- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 60% required in:

- Chemistry 40S
- Math 40S (Pre-Calculus)
- Physics 40S

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (153.5-167 credit hours), **Co-op** and minors may extend your studies by an additional term(s).



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

PROGRAMS
OFFERED

ENGINEERING
WRITTEN (W) LIST

PRELIMINARY
YEAR

CLAYTON H. RIDDELL FACULTY OF ENVIRONMENT, EARTH, AND RESOURCES

ENVIRONMENTAL SCIENCE, B.Env.Sc.

This program is accredited to the National Standard of Environmental Programs in Canada by **ECO Canada**. Honours, Major, and General degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
ENVR 1000 Environmental Science 1: Concepts	3
ENVR 2000 Environmental Science 2: Issues	3
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
CHEM 1120 Introduction to Chemistry Techniques	3
ECON 1010 Introduction to Microeconomic Principles	3
MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1230 (M) Differential Calculus	3 + lab
STAT 1000 (M) Basic Statistical Analysis 1 (<i>see Tips for Choosing Courses</i>) or STAT 1150 (M) Introduction to Statistics and Computing (<i>see Tips for Choosing Courses</i>)	3 + lab
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Environmental Science requires 24 graded credit hours, including at least 12 credit hours of the following courses:

- ENVR 1000 • BIOL 1030 • MATH 1500 (M) or • STAT 1000 (M) or • GEOL 1340 or • PHYS 1030 (M) or
- ENVR 2000 • CHEM 1100 • MATH 1510 (M) • STAT 1150 (M) • GEOG 1290 • PHYS 1070 or
- BIOL 1020 • CHEM 1110 • STAT 2000 (M) or • PHYS 1020 (M) or • MATH 1300 (M) or
- STAT 2150 (M) • PHYS 1050 • MATH 1700 (M)

Minimum requirements are outlined in the Clayton H. Riddell Faculty of Environment, Earth, and Resources **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- ENVR 1000, ENVR 2000, BIOL 1020, BIOL 1030, and ECON 1010 are prerequisites for upper level courses in the program. It is recommended to complete these in first year, before admission.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by ENVR 2810 (W) in Year 2 of the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by MATH 1500 (M) (or substitutes listed in the chart).
- If you intend to take STAT 2000 (M) in the future, take STAT 1000 (M) as the prerequisite. If you intend to take STAT 2150 (M) in the future, take STAT 1150 (M) as the prerequisite.



TIPS FOR CHOOSING COURSES CONTINUED

- Students interested in Environmental Science are encouraged to meet with an **Academic Advisor in the Clayton H. Riddell Faculty of Environment, Earth, and Resources** early on.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S
- Physics 40S

Minimum 60% required in

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission** requirements, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- Honours/Major: 4 years (120 credit hours), **Co-op** may extend your studies by an additional term(s).
- General: 3 years (90 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**AVAILABLE
FOCUS AREAS**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

CLAYTON H. RIDDELL FACULTY OF ENVIRONMENT, EARTH, AND RESOURCES

ENVIRONMENTAL STUDIES, B.Env.St.

Honours, Major, and General degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
ENVR 1000 Environmental Science 1: Concepts	3
ENVR 2000 Environmental Science 2: Issues	3
BIOL 1010 Biological Diversity and Interaction (3), or both BIOL 1020 Biology 1: Principles and Themes (3 + lab) and BIOL 1030 Biology 2: Biological Diversity, Function and Interaction (3 + lab) (see <i>Tips for Choosing Courses</i>)	3-6
ECON 1010 Introduction to Microeconomic Principles	3
GEOG 1280 Introduction to Human Geography	3
GEOG 1290 Introduction to Physical Geography	3
Choose one of the following: INDG 1220 Indigenous Peoples in Canada, Part 1 INDG 1240 Indigenous Peoples in Canada, Part 2 INDG 2020 (W) / HIST 2020 (W) The Métis in Canada INDG 2080 Inuit Society and Culture (see <i>Tips for Choosing Courses</i>)	3
STAT 1000 (M) Basic Statistical Analysis 1	3 + lab
Elective(s) (see <i>Tips for Choosing Courses</i>)	6-3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Environmental Studies requires 24 graded credit hours, including at least 12 credit hours of the following courses:

- ENVR 1000 • BIOL 1010 or BIOL 1030 • GEOG 1290 • INDG 1220, INDG 1240, INDG 2020 (W) /
- ENVR 2000 • GEOG 1280 • STAT 1000 (M) HIST 2020 (W), or INDG 2080

Minimum requirements are outlined in the Clayton H. Riddell Faculty of Environment, Earth, and Resources **Advanced Entry admission requirements.**



TIPS FOR CHOOSING COURSES

- ENVR 1000, ENVR 2000, BIOL 1010 (or BIOL 1020 and BIOL 1030), and ECON 1010 are prerequisites for required second year courses in the program. It is recommended to complete these in first year, before admission.
- Completing BIOL 1020 and BIOL 1030 is recommended for students with an interest in the Conservation and Biodiversity, Natural Resource Management, Toxicology, Water Resources, and Wildlife Management focus areas.
- EVDS 1680 is a recommended elective for students with an interest in the Sustainable Building focus area.
- The **Written (W) course** is not required for admission.
- **The Mathematics (M) course** are not required for admission. The Mathematics (M) course requirement will be met by STAT 1000 (M).
- Choose electives from the **Recommended Introductory Courses List.**
- If you are considering taking INDG 2080, please be aware that the prerequisites for this class are INDG 1200; INDG 1220 and INDG 1240; or written consent of the Indigenous Studies Department Head.



TIPS FOR CHOOSING COURSES CONTINUED

- Students interested in Environmental Studies are encouraged to meet with an **Academic Advisor in the Clayton H. Riddell Faculty of Environment, Earth, and Resources** early on.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Math 40S
- Biology 40S – if taking BIOL 1020
- Chemistry 40S or Physics 40S – if taking BIOL 1020

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission** requirements, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- Honours/Major: 4 years (120 credit hours), **Co-op** may extend your studies by an additional term(s).
- General: 3 years (90 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**AVAILABLE
FOCUS AREAS**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

CLAYTON H. RIDDELL

FACULTY OF ENVIRONMENT, EARTH, AND RESOURCES

GEOGRAPHY, B.A.

Honours, Advanced, and General degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
Choose 6 credit hours from the following: GEOG 1280 Introduction to Human Geography GEOG 1290 Introduction to Physical Geography GEOG 1700 / GPE 1700 Social Justice in the 21st Century: Global Political Economy and Environmental Change	6
Course(s) in 2nd subject field	6
Course(s) in 3rd subject field	6
Course(s) in 4th subject field	6
Course(s) in 5th subject field or Electives (see <i>Tips for Choosing Courses</i>)	6
Total Credit Hours	30
From the courses selected above, have you fulfilled:	
• 6 credit hours of Humanities courses (see <i>Tips for Choosing Courses</i>)	
• 6 credit hours of Science courses (see <i>Science Courses for B.A. Geography chart</i>)	
• Written (W) course (see <i>Tips for Choosing Courses</i>)	
• Mathematics (M) course (see <i>Tips for Choosing Courses</i>)	



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Geography requires 24 graded credit hours, including at least 6 credit hours of the following courses:

- GEOG 1280 • GEOG 1290 • GEOG 1700 / GPE 1700

Minimum requirements are outlined in the Clayton H. Riddell Faculty of Environment, Earth, and Resources **Advanced Entry admission requirements**.

SCIENCE COURSES FOR B.A. GEOGRAPHY

Clayton H. Riddell Faculty of Environment, Earth, and Resources

- Environment - ENVR 1000, ENVR 2000
- Geography - GEOG 1290
- Geological Sciences - GEOL 1340, GEOL 1400, GEOL 1410, GEOL 1420

Faculty of Science

See the **Recommended Introductory Courses List** for specific courses.

- Astronomy (ASTR)
- Biological Sciences (BIOL)
- Chemistry (CHEM)
- Computer Science (COMP)
- Mathematics (MATH)
- Microbiology (MBIO)
- Physics (PHYS)
- Statistics (STAT)

Faculty of Agricultural and Food Sciences

- Agriculture - AGRI 1600
 - Entomology - ENTM 1000
 - Plant Science - PLNT 1000
- Some additional upper-level courses in ENTM, PLNT, and SOIL may also be used.



TIPS FOR CHOOSING COURSES

- It is recommended to start working on the subject field, elective, Humanities, and Science courses requirements in first year.
- A subject field is comprised of six credit hours in one subject and may be completed by two 3-credit hour courses in a subject (ex., ENVR 1000 (3) and ENVR 2000 (3)) or by one 6-credit hour course in a subject (ex. INDG 1200 (6)).
- Choose courses to fulfill the subject field, elective, and Humanities course requirements from the **Recommended Introductory Courses List**. Humanities courses are marked with **H**.
- Choose courses to fulfill the Science course requirement from the Science Courses for B.A. Geography chart.
- A minor is required in the Advanced and General Major degrees. See the **Academic Calendar** for information on accepted minors. Consider choosing courses that will work toward your intended minor.
- The **Written (W) course** is not required for admission. Once in the degree, students will have the option to fulfill the Written (W) course with ENVR 2810 (W).
- The **Mathematics (M) course** is not required for admission.
- Students interested in Geography are encouraged to meet with an **Academic Advisor in the Clayton H. Riddell Faculty of Environment, Earth, and Resources** early on.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Math 40S
- Additional 40S courses may be required, depending on the Science courses you choose.

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission** requirements, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- Honours/Advanced: 4 years (120 credit hours).
- General: 3 years (90 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

CLAYTON H. RIDDELL FACULTY OF ENVIRONMENT, EARTH, AND RESOURCES

EARTH SCIENCES, B.Sc. GENERAL

General degree is available. Major or Honours are available in Geology, Geophysics, and Environmental Geoscience.

FIRST YEAR COURSES	CREDIT HOURS
GEOL 1340 The Dynamic Earth	3 + lab
GEOL 1400 Time-Trekker's Travelog: Our Evolving Earth or GEOL 1410 Natural Disasters and Global Change or GEOL 1420 Exploring the Planets	3
Introductory course(s) in intended Minor (<i>see Tips for Choosing Courses</i>)	6
Electives (<i>see Tips for Choosing Courses</i>)	18
Total Credit Hours	30
From the courses selected above, have you fulfilled:	
• 6 credit hours of Faculty of Arts course(s) (<i>see Tips for Choosing Courses</i>)	
• Written (W) course (<i>see Tips for Choosing Courses</i>)	
• Mathematics (M) course (<i>see Tips for Choosing Courses</i>)	



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Earth Sciences (General) requires 24 graded credit hours, including GEOL 1340.

Minimum requirements are outlined in the Clayton H. Riddell Faculty of Environment, Earth, and Resources **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- Students are recommended to take GEOL 1400, but the listed substitutions are permitted.
- Consider choosing courses in your first year that will work toward your intended minor, as a minor is required in this degree. See the **Academic Calendar** for information on accepted minors.
- You are recommended to complete the 6 credit hours of Faculty of Arts course(s) requirement in first year.
- Choose Faculty of Arts courses, electives, and courses for your minor from the **Recommended Introductory Courses List**.
- The **Written (W) course** is not required for admission.
- The **Mathematics (M) course** is not required for admission.
- Students interested in Earth Sciences (General) are encouraged to meet with an **Academic Advisor in the Clayton H. Riddell Faculty of Environment, Earth, and Resources** early on.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

For Year 2 courses, minimum 50% required in:

- Chemistry 40S
- Math 40S
- Physics 40S

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission** requirements, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 3 years (90 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

CLAYTON H. RIDDELL

FACULTY OF ENVIRONMENT, EARTH, AND RESOURCES

ENVIRONMENTAL GEOSCIENCE, B.Sc.

Honours and Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
GEOL 1340 The Dynamic Earth	3 + lab
GEOL 1400 Time-Trekker's Travelog: Our Evolving Earth	3
ENVR 1000 Environmental Science 1: Concepts	3
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1120 Introduction to Chemistry Techniques	3
MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1230 (M) Differential Calculus	3 + lab
PHYS 1020 (M) General Physics 1 or PHYS 1050 Physics 1: Mechanics	3 + lab
STAT 1000 (M) Basic Statistical Analysis 1 (<i>see Tips for Choosing Courses</i>) or STAT 1150 (M) Introduction to Statistics and Computing (<i>see Tips for Choosing Courses</i>)	3 + lab
Faculty of Arts course(s) (<i>see Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Environmental Geoscience requires 24 graded credit hours, including GEOL 1340.

Minimum requirements are outlined in the Clayton H. Riddell Faculty of Environment, Earth, and Resources

Advanced Entry admission requirements.



TIPS FOR CHOOSING COURSES

- CHEM 1100, CHEM 1120, PHYS 1020 (M), and MATH 1500 (M) (or substitutes listed in the chart) are prerequisites for upper level courses in the program. It is recommended to complete these in first year, before admission.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by GEOL 3130 (W) in Year 3 of the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by MATH 1500 (M) (or substitutes listed in the chart).
- Choose your Faculty of Arts course from the **Recommended Introductory Courses List.**
- Students interested in Environmental Geoscience are encouraged to meet with an **Academic Advisor in the Clayton H. Riddell Faculty of Environment, Earth, and Resources** early to learn about minimum grades and GPA requirements.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Chemistry 40S
- Physics 40S

Minimum 60% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to upgrade your high school course.



HOW TO APPLY

Please refer to the [Admissions](#) page to:

- Review the 2026-2027 Advanced Entry admission requirements, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit your application for admission to the **Earth Sciences (General) program**, and consult with an **Academic Advisor in the faculty** to enter the Environmental Geoscience (Major or Honours) program.
- For complete admission details and deadlines, consult with an **Academic Advisor in the faculty**.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- Honours/Major: 4 years (120 credit hours).



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

CLAYTON H. RIDDELL FACULTY OF ENVIRONMENT, EARTH, AND RESOURCES

GEOLOGY, B.Sc.

Honours and Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
GEOL 1340 The Dynamic Earth	3 + lab
GEOL 1400 Time-Trekker's Travelog: Our Evolving Earth	3
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1120 Introduction to Chemistry Techniques	3
MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1230 (M) Differential Calculus	3 + lab
PHYS 1020 (M) General Physics 1 or PHYS 1050 Physics 1: Mechanics	3 + lab
Faculty of Arts course(s) (see <i>Tips for Choosing Courses</i>)	6
Electives (see <i>Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Geology requires 24 graded credit hours, including GEOL 1340.

Minimum requirements are outlined in the Clayton H. Riddell Faculty of Environment, Earth, and Resources **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- CHEM 1100, CHEM 1120, PHYS 1020 (M), and MATH 1500 (M) (or substitutes listed in the chart) are prerequisites for upper level courses in the program. It is recommended to complete these in first year, before admission.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by GEOL 3130 (W) in Year 3 of the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by MATH 1500 (M) (or substitutes listed in the chart).
- Choose Faculty of Arts courses and electives from the **Recommended Introductory Courses List**.
- Students interested in Geology are encouraged to meet with an **Academic Advisor in the Clayton H. Riddell Faculty of Environment, Earth, and Resources** early to learn about minimum grades and GPA requirements.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Chemistry 40S
- Physics 40S

Minimum 60% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission** requirements, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit your application for admission to the **Earth Sciences (General) program**, and consult with an **Academic Advisor in the faculty** to enter the Geology (Major or Honours) program.
- For complete admission details and deadlines, consult with an **Academic Advisor in the faculty**.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- Honours/Major: 4 years (120 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

CLAYTON H. RIDDELL

FACULTY OF ENVIRONMENT, EARTH, AND RESOURCES

GEOPHYSICS, B.Sc.

Honours and Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
GEOL 1340 The Dynamic Earth	3 + lab
GEOL 1400 Time-Trekker's Travelog: Our Evolving Earth or GEOL 1410 Natural Disasters and Global Change or GEOL 1420 Exploring the Planets	3
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1120 Introduction to Chemistry Techniques	3
MATH 1210 (M) Techniques of Classical and Linear Algebra or MATH 1300 (M) Vector Geometry and Linear Algebra	3 + lab
MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1230 (M) Differential Calculus	3 + lab
MATH 1710 (M) Applied Calculus 2 or MATH 1700 (M) Calculus 2	3 + lab
PHYS 1050 Physics 1: Mechanics or PHYS 1020 (M) General Physics 1	3 + lab
PHYS 1070 Physics 1: Waves and Modern Physics or PHYS 1030 (M) General Physics 2	3 + lab
Faculty of Arts course (see <i>Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Geophysics requires 24 graded credit hours, including GEOL 1340.

Minimum requirements are outlined in the Clayton H. Riddell Faculty of Environment, Earth, and Resources **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- Students are recommended to take GEOL 1400, but the listed substitutions are permitted.
- PHYS 1050, PHYS 1070, MATH 1510 (M) and MATH 1710 (M) (or substitutes listed in the chart) are prerequisites for upper level courses in the program. It is recommended to complete these in first year, before admission.
- The **Written (W) course** is not required for admissions. The Written (W) course requirement will be met by GEOL 3130 (W) in Year 3 of the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by MATH courses in the chart.
- Choose your Faculty of Arts course from the **Recommended Introductory Courses List**.
- Students interested in Geophysics are encouraged to meet with an **Academic Advisor in the Clayton H. Riddell Faculty of Environment, Earth, and Resources** early to learn about minimum grades and GPA requirements.



TIPS FOR CHOOSING COURSES CONTINUED

- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Chemistry 40S
- Physics 40S

Minimum 60% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission** requirements, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit your application for admission to the **Earth Sciences (General) program**, and consult with an **Academic Advisor in the faculty** to enter the Geophysics (Major or Honours) program.
- For complete admission details and deadlines, consult with an **Academic Advisor in the faculty**.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- Honours/Major: 4 years (120 credit hours).



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

CLAYTON H. RIDDELL

FACULTY OF ENVIRONMENT, EARTH, AND RESOURCES

PHYSICAL GEOGRAPHY, B.Sc.

Physical Geography offers streams in Atmospheric Science, Geomatics, and General Physics.

Honours and Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
GEOG 1290 Introduction to Physical Geography	3
MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1230 (M) Differential Calculus	3 + lab
PHYS 1020 (M) General Physics 1 or PHYS 1050 Physics 1: Mechanics	3 + lab
12 credit hours from the following: GEOL 1340 The Dynamic Earth MATH 1300 (M) Vector Geometry and Linear Algebra PHYS 1030 (M) General Physics 2 or PHYS 1070 Physics 2: Waves and Modern Physics BIOL 1020 Biology 1: Principles and Themes BIOL 1030 Biology 2: Biological Diversity, Function and Interaction or both BIOL 1000 Foundations of Life (3) and BIOL 1010 Biological Diversity and Interactions (3) CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties CHEM 1120 Introduction to Chemistry Techniques COMP 1012 Computer Programming for Scientists and Engineers MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2 or MATH 1232 (M) Integral Calculus STAT 1000 (M) Basic Statistical Analysis 1 or STAT 1150 (M) Introduction to Statistics and Computing STAT 2000 (M) Basic Statistical Analysis 2	12 + lab
Faculty of Arts course(s) (see <i>Tips for Choosing Courses</i>)	6
Elective (see <i>Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Physical Geography requires 24 graded credit hours, including GEOG 1290 and at least 6 credit hours of the following courses:

- GEOL 1340
- MATH 1500 (M) or MATH 1510 (M) or MATH 1230 (M)
- PHYS 1030 (M) or PHYS 1070
- MATH 1300 (M)
- PHYS 1020 (M) or PHYS 1050

Minimum requirements are outlined in the Clayton H. Riddell Faculty of Environment, Earth, and Resources

Advanced Entry admission requirements.



TIPS FOR CHOOSING COURSES

- MATH 1500 (M) and PHYS 1020 (M) (or substitutes listed in the chart) are prerequisites for required second year courses in the program. It is recommended to complete these in first year, before admission.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by ENVR 2810 (W) once in the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by MATH 1500 (M) (or substitutes listed in the chart).
- Choose Faculty of Arts courses and the elective from the **Recommended Introductory Courses List**. When choosing the elective, consider taking additional courses from the First Year Courses chart.
- Students interested in Physical Geography are encouraged to meet with an **Academic Advisor in the Clayton H. Riddell Faculty of Environment, Earth, and Resources** early on.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Physics 40S
- Biology 40S – if taking BIOL 1020
- Chemistry 40S – if taking CHEM 1100

Minimum 60% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission** requirements, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- Honours/Major: 4 years (120 credit hours), **Co-op** may extend your studies by an additional term(s).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**PROGRAM
STREAMS**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

RADY FACULTY OF HEALTH SCIENCES

HEALTH SCIENCES, B.H.Sc.

FIRST YEAR COURSES	CREDIT HOURS
BIOL 1410 Anatomy of the Human Body	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
CHEM 1120 Introduction to Chemistry Techniques	3
HEAL 1500 Foundations of Human Biology 1	3
HEAL 1502 Foundations of Human Biology 2	3
INDG 1220 Indigenous Peoples in Canada, Part 1 or INDG 1240 Indigenous Peoples in Canada, Part 2	3
PSYC 1200 Introduction to Psychology (6) or SOC 1000 Introduction to Sociology (3)	3-6
STAT 1000 (M) Basic Statistical Analysis 1	3 + lab
Elective (<i>If taking SOC 1000, see Tips for Choosing Courses</i>)	0-3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but are not required for admission.

Admission to Health Sciences requires 24 graded credit hours of university-level courses, including:

- 6 credit hours from the Faculty of Arts
- 6 credit hours from the Faculty of Science

Minimum requirements are outlined in the Interdisciplinary Health Program **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- HEAL 1500, HEAL 1502, CHEM 1100, CHEM 1110, CHEM 1120, PSYC 1200 or SOC 1000, and STAT 1000 (M) are prerequisites for required second year courses in the program. It is recommended to complete these in your first year, before admission.
- For your 6 credit hours of Faculty of Arts courses, consider taking INDG 1220 or INDG 1240, PSYC 1200 (or SOC 1000), as they are required in the degree. See the Faculty of Arts section of the **Recommended Introductory Courses List** for additional courses.
- For your 6 credit hours of Faculty of Science courses, consider taking BIOL 1410, CHEM 1100, CHEM 1110, CHEM 1120, or STAT 1000, as they are all required in the degree. See the Faculty of Science section of the **Recommended Introductory Courses List** for additional courses.
- The **Written (W) course** is not required for admission. The Written (W) course requirement may be met by HNSC 2000 (W) in Year 2 of the program or by another Written (W) elective which must be taken within your first 60 credit hours.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by STAT 1000 (M).
- Choose an elective from the **Recommended Introductory Courses List**.
- Students interested in learning more about Health Sciences, are encouraged to connect with an Academic Advisor in the Interdisciplinary Health Program by emailing **IHP.Advisors@umanitoba.ca**.



TIPS FOR CHOOSING COURSES CONTINUED

- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S
- Math 40S (Pre-calculus or Applied)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission** requirements, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

RADY FACULTY OF HEALTH SCIENCES

HEALTH STUDIES, B.H.St.

Students will choose a concentration in one of the three following areas: Health Policy, Planning and Evaluation, or Health Promotion and Education, or Family Health.

FIRST YEAR COURSES	CREDIT HOURS
ANTH 1210 Ancient Peoples and Places or ANTH 1220 Socio-Cultural Anthropology	3
FMLY 1012 Introduction to Social Development	3
HEAL 1500 Foundations of Human Biology 1	3
HEAL 1502 Foundations of Human Biology 2	3
PSYC 1200 Introduction to Psychology	6
SOC 1000 Introduction to Sociology	3
STAT 1000 (M) Basic Statistical Analysis 1	3 + lab
Concentration Elective from the approved list (see <i>Tips for Choosing Courses</i>)	3
Elective (see <i>Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but are not required for admission.

Admission to Health Studies requires any 24 graded credit hours of university-level courses.

Minimum requirements are outlined in the Interdisciplinary Health Program **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- HEAL 1500 and HEAL 1502 are required as part of the degree program, either before or after admission.
- Either PSYC 1200 or SOC 1000, along with STAT 1000 (M), are prerequisites for required second year courses in the program. It is recommended to complete these in first year, before admission.
- Choose your concentration elective from the **B.H.St. Concentration Electives** list.
- Choose your elective from the **Recommended Introductory Courses List**.
- The following courses (required later in the program) may be taken in your first year:
 - ECON 1210 or ECON 1220 HNSC 1210
 - GMGT 1010 (W) or GMGT 2070 INDG 1220 or INDG 1240
- The **Written (W) course** is not required for admission. The Written (W) course requirement may be met by HNSC 2000 (W) or GMGT 1010 (W) in Year 2 of the program, or by another Written (W) elective which must be taken within your first 60 credit hours.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by STAT 1000 (M).
- Students interested in learning more about Health Studies, are encouraged to connect with an Academic Advisor in the Interdisciplinary Health Program by emailing **IHP.Advisors@umanitoba.ca**.
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S or Chemistry 40S
- Math 40S (Pre-Calculus or Applied recommended)
- Additional 40S courses may be required, depending on the concentration and program electives you choose.

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission** requirements, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

CONCENTRATIONS

RADY FACULTY OF HEALTH SCIENCES

DR. GERALD NIZNICK COLLEGE OF DENTISTRY

SCHOOL OF DENTAL HYGIENE

DENTAL HYGIENE, DIPLOMA

REQUIRED COURSES	CREDIT HOURS
BIOL 1410 Anatomy of the Human Body	3 + lab
BIOL 1412 Physiology of the Human Body	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
CHEM 1120 Introduction to Chemistry Techniques	3
ENGL course at the 1000-level or higher (<i>see Tips for Choosing Courses</i>)	3
PSYC 1200 Introduction to Psychology	6
STAT 1000 (M) Basic Statistical Analysis 1	3 + lab
Elective (<i>see Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

Admission to Dental Hygiene requires all 30 graded credit hours of university-level courses listed in the Required Courses chart. All courses must be at the 1000-level or higher.

Minimum requirements are outlined in the School of Dental Hygiene [**Advanced Entry admission requirements**](#).



Open to Canadian citizens and Permanent Residents only.



TIPS FOR CHOOSING COURSES

- Consider taking SOC 1000 or HEAL 1600 as the 3 credit hour elective.
- Choose your elective and your ENGL course from the [**Recommended Introductory Courses List**](#). Your elective and ENGL course must be at the 1000-level or higher.
- Minimum grades in required courses are outlined in the [**Academic Calendar**](#).
- [**Advanced Placement \(AP\) or International Baccalaureate \(IB\)**](#) credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an [**Academic Advisor**](#) in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Chemistry 40S
- Math 40S (Pre-Calculus or Applied)

Minimum 50% recommended in:

- Biology 40S

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 3 years (101 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

RADY FACULTY OF HEALTH SCIENCES

DR. GERALD NIZNICK COLLEGE OF DENTISTRY

DENTAL MEDICINE, D.M.D.

YEAR 1	CREDIT HOURS
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
CHEM 1120 Introduction to Chemistry Techniques	3
PHYS 1020 (M) General Physics 1 or PHYS 1050 Physics 1: Mechanics	3 + lab
PHYS 1030 (M) General Physics 2 or PHYS 1070 Physics 2: Waves and Modern Physics	3 + lab
Choose 6 credit hours from the following: ENGL 1200 (W) Representative Literary Works (6) ENGL 1340 (W) Introduction to Literary Analysis (3) ENGL 1400 (W) Thematic Approaches to the Study of Literature (3) ENGL 0930 (W) English Composition (3) ENGL 0940 (W) Writing About Literature (3)	6
Humanities or Social Sciences electives (<i>see Tips for Choosing Courses</i>)	6

YEAR 2	CREDIT HOURS
CHEM 2100 Organic Chemistry 1: Foundations of Organic Chemistry	3
CHEM 2110 Organic Chemistry 2: Foundations of Organic Synthesis	3
CHEM 2122 Experimental Organic Chemistry	3
CHEM 2700 / MBIO 2700 Biochemistry 1: Biomolecules and an Introduction to Metabolic Energy	3
CHEM 2710 / MBIO 2710 Biochemistry 2: Catabolism, Synthesis, and Information Pathways	3
CHEM 2720 Principles and Practices of the Modern Biochemistry Laboratory	3
Electives (<i>see Tips for Choosing Courses</i>)	18



MINIMUM ADMISSION REQUIREMENTS

Admission to Dentistry requires the above graded credit hours of university-level courses listed in the charts and at least 2 regular sessions (i.e., September-April) with at least 24 new graded credit hours of university-level courses. Repeated courses, transfer credit, and AP or IB credit do not count towards these 24 new graded credit hours.

Minimum requirements are outlined in the Rady Faculty of Health Sciences Dr. Gerald Niznick College of Dentistry **Advanced Entry admission requirements**.



Open to Canadian citizens and Permanent Residents only.



TIPS FOR CHOOSING COURSES

- BIOL 1020, BIOL 1030, CHEM 1100, CHEM 1110 and CHEM 1120 are prerequisites for required second year courses and should be completed in first year.
- If choosing PHYS 1050: MATH 1500 (M) (or MATH 1510, MATH 1524, MATH 1230) is a co-requisite. If choosing PHYS 1070: MATH 1700 (M) (or MATH 1710, MATH 1232) is a co-requisite. MATH 1500 (M) and MATH 1700 (M) (or substitutions listed) will count towards electives.
- Consider taking HEAL 1600 Health and Health Professions as an elective.
- Choose electives and Humanities or Social Sciences from the **Recommended Introductory Courses List**. Humanities courses are marked with **H**, and Social Sciences courses are marked with **SS**.
- The following courses can be taken in either Year 1 or Year 2:
 - 6 credit hours of ENGL courses from the approved list
 - Humanities and Social Sciences electives
 - Electives
- If you plan on completing all the courses in the chart in your first two years of university studies, you must take courses during the Summer Term between your first and second year.
- Students may use **Advanced Placement (AP) or International Baccalaureate (IB)** credit for required courses. However, students must still complete at least two regular sessions (September-April) with 24 new graded credit hours of university-level courses in each regular session. AP or IB credit will not count towards these 24 new graded credit hours.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S
- Math 40S (Pre-Calculus) or 70% in Math 40S (Applied)
- Physics 40S

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

- All applicants must complete the **Canadian English Dental Aptitude Test (DAT)**.

MINIMUM TIME TO GRADUATION

- 6 years - 2 years of university study (all prerequisites as listed in the charts), plus 4 years in Dentistry.



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

RADY FACULTY OF HEALTH SCIENCES

MAX RADY COLLEGE OF MEDICINE

DOCTOR OF MEDICINE (M.D.)

A Doctor of Medicine (M.D.) at the University of Manitoba is an after-degree program. Students must complete an undergraduate degree before applying to the Max Rady College of Medicine. Please browse the **Faculties and Programs List** to see undergraduate degrees available at UM.



MINIMUM ADMISSION REQUIREMENTS

Admission to Medicine requires an undergraduate degree and a 3 credit hour course that fulfills the Indigenous Content Requirement (*see Tips for Choosing Courses*).

Minimum requirements are outlined in the Max Rady College of Medicine **Advanced Entry admission requirements**.



Open to Canadian citizens and Permanent Residents only.



TIPS FOR CHOOSING COURSES

- The Association of American Medical Colleges (AAMC) recommends that students consider taking courses in the following disciplines: biology, chemistry, organic chemistry, physics, psychology, sociology, biochemistry, microbiology, and research methods. Refer to the **Association of American Medical Colleges (AAMC)** website for complete details on preparation and writing the MCAT exam.
- Plan to write the MCAT at the end of Year 2 and/or before the beginning of Year 3 studies. Refer to **Section 3: Application Process & Deadlines** in the Max Rady College of Medicine applicant admission requirements.
- Courses that fill the Indigenous Content Requirement are marked with **ICR** in the **Recommended Introductory Courses List**. A current list of approved courses may also be found in **Appendix 1: Approved Indigenous Course List**.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum grades in specific 40S courses may be required, depending on which courses you choose in your first degree.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

- View **previous admission statistics** online
- All applicants must complete the **Medical College Admission Test (MCAT)** and the **English Casper® test** (online, open-response situational judgment test).

MINIMUM TIME TO GRADUATION

- 7-8 years — Completion of a first degree (minimum 90 credit hours), plus 4 years in Medicine.
- M.D. graduates may then complete 3 – 5 years of residency training, which is the final stage of medical education.



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

RADY FACULTY OF HEALTH SCIENCES

COLLEGE OF NURSING

MIDWIFERY, B.MID.

FIRST YEAR COURSES	CREDIT HOURS
BIOL 1410 Anatomy of the Human Body	3 + lab
BIOL 1412 Physiology of the Human Body	3 + lab
MBIO 1220 Essentials of Microbiology	3
STAT 1000 (M) Basic Statistical Analysis or STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
Faculty of Science elective (see <i>Tips for Choosing Courses</i>)	3
INDG 1200 Indigenous Peoples in Canada (6), or both INDG 1220 Indigenous Peoples in Canada, Part 1 (3) and INDG 1240 Indigenous Peoples in Canada, Part 2 (3)	6
Humanities or Social Sciences Written (W) elective (see <i>Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

Admission to Midwifery requires all 30 graded credit hours of university-level courses listed in the First Year Courses chart. All courses must be at the 1000-level or higher. Minimum requirements are outlined in the College of Nursing Bachelor of Midwifery **Advanced Entry admission requirements**.



Open to Canadian citizens and Permanent Residents only.



TIPS FOR CHOOSING COURSES

- Choose your Science elective from the Faculty of Science section of the **Recommended Introductory Courses List**. If you do not have a strong background in Science or you are not interested in taking upper-level Science courses, consider taking a Science Interest Course, marked with **SCI**.
- Make sure that your Humanities **H** or Social Sciences **SS** elective is marked with a (W) in the **Recommended Introductory Courses List**, to ensure that it satisfies the **Written (W) course** requirement. Consider taking WOMN 1500 (W) or WOMN 1600 (W) to fulfill your Written (W) course, or choose from the **Recommended Introductory Courses List**.
 - Note: While ARTS 1110 (W) fulfills the **Written (W) course** requirement, it does not count as a Humanities or Social Science elective.
- Once admitted to Midwifery, students attend courses three (3) terms per year (Fall, Winter, and Summer). This program is full-time study only.
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.

FACULTY OF SCIENCE ELECTIVES FOR MIDWIFERY

See the Faculty of Science section in the **Recommended Introductory Courses List** for specific courses.

- Astronomy (ASTR)
- Biological Sciences (BIOL)
- Chemistry (CHEM)
- Computer Science (COMP)
- Mathematics (MATH)
- Microbiology (MBIO)
- Physics (PHYS)
- Statistics (STAT)

HUMANITIES AND SOCIAL SCIENCES ELECTIVES FOR MIDWIFERY

- | | | |
|---|---|--|
| • American Sign Language (ASLL) | • German (GRMN) | • Philosophy (PHIL) |
| • Anthropology (ANTH) | • Global Political Economy (GPE) | • Polish (POL) |
| • Arabic (ARA) | • Greek (GRK) | • Political Science (POLS) |
| • Arts Interdisciplinary: ARTS 1160
<i>excluding</i> ARTS 1110 | • Hebrew (HEB) | • Psychology (PSYC) |
| • Asian Studies (ASIA) Korean, Chinese, Japanese | • History (HIST) | • Religion (RLGN) |
| • Canadian Studies (CDN) | • Hungarian (HUNG) | • Russian (RUSN) |
| • Catholic Studies (CATH) | • Icelandic (ICEL) | • Sociology (SOC) |
| • Classical Studies (CLAS) | • Indigenous Languages (INDG)
Cree, Ojibway, Inuktitut | • Spanish (SPAN) |
| • Economics (ECON) | • Indigenous Studies (INDG) | • Theatre (THTR) |
| • English (ENGL) <i>excluding</i> ENGL 0930, ENGL 0940, ENGL 2001 | • Italian (ITLN) | • Ukrainian (UKRN) |
| • Film Studies (FILM) | • Judaic Civilization (JUD) | • Ukrainian Canadian Heritage Studies (UCHS) |
| • French (FREN) | • Labour Studies (LABR) | • Women's & Gender Studies (WOMN) |
| | • Latin (LATN) | • Yiddish (YDSH) |
| | • Linguistics (LING) | |



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Chemistry 40S
- Math 40S (Applied or Pre-Calculus)

Minimum 50% recommended in:

- Biology 40S
- Additional 40S courses may be required, depending on the Faculty of Science elective you choose.

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

- All applicants must complete the **English Casper® test** (online, open-response situational judgment test).

MINIMUM TIME TO GRADUATION

- 4 Years (130 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

RADY FACULTY OF HEALTH SCIENCES

COLLEGE OF NURSING

NURSING, B.N.

FIRST YEAR COURSES	CREDIT HOURS
BIOL 1410 Anatomy of the Human Body	3 + lab
BIOL 1412 Physiology of the Human Body	3 + lab
MBIO 1220 Essentials of Microbiology	3
Faculty of Science electives, including a Mathematics (M) course (see <i>Tips for Choosing Courses</i>)	9
Humanities or Social Sciences electives, including a Written (W) course (See <i>Tips for Choosing Courses</i>)	12
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

Admission to Nursing requires all 30 graded credit hours of university-level courses listed in the First Year Courses chart. All courses must be at the 1000-level or higher. Minimum requirements are outlined in the College of Nursing Bachelor of Nursing **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- Choose your Science electives from the Faculty of Science section of the **Recommended Introductory Courses List**. If you do not have a strong background in Science or you are not interested in taking upper-level Science courses, consider taking a Science Interest Course, marked with **SCI**.
- Make sure that at least one of your Faculty of Science courses is marked with an (M), which indicates that it fulfills the **Mathematics (M) course** requirement.
- Choose your Humanities **H** or Social Sciences **SS** electives from the **Recommended Introductory Courses List**. Humanities courses are marked with **H**, and Social Sciences courses are marked with **SS**.
- Make sure that at least one of your Humanities or Social Sciences electives is marked with a (W), which indicates that it fulfills the **Written (W) course** requirement.
- Your Humanities or Social Sciences electives, including the **Written (W) course**, must be at the 1000-level or higher. Consider taking PHIL 1290 to fulfill a Humanities elective, or choose from the **Recommended Introductory Courses List**.
- Note: While ARTS 1110 (W) fulfills the **Written (W) course** requirement, it does not count as a Humanities or Social Science elective.
- Once admitted to Nursing, students attend courses three (3) terms per year (Fall, Winter, and Summer), as this is an accelerated degree program.
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.

FACULTY OF SCIENCE ELECTIVES FOR NURSING

See the Faculty of Science section in the **Recommended Introductory Courses List** for specific courses.

- Astronomy (ASTR)
- Biological Sciences (BIOL)
- Chemistry (CHEM)
- Computer Science (COMP)
- Mathematics (MATH)
- Microbiology (MBIO)
- Physics (PHYS)
- Statistics (STAT)

HUMANITIES AND SOCIAL SCIENCES ELECTIVES FOR NURSING

- | | | |
|--|---|---|
| • American Sign Language (ASLL) | • German (GRMN) | • Philosophy (PHIL) |
| • Anthropology (ANTH) | • Global Political Economy (GPE) | • Polish (POL) |
| • Arabic (ARA) | • Greek (GRK) | • Political Science (POLS) |
| • Arts Interdisciplinary: ARTS 1160
<i>excluding</i> ARTS 1110 | • Hebrew (HEB) | • Psychology (PSYC) |
| • Asian Studies (ASIA) Korean,
Chinese, Japanese | • History (HIST) | • Religion (RLGN) |
| • Canadian Studies (CDN) | • Hungarian (HUNG) | • Russian (RUSN) |
| • Catholic Studies (CATH) | • Icelandic (ICEL) | • Sociology (SOC) |
| • Classical Studies (CLAS) | • Indigenous Languages (INDG)
Cree, Ojibway, Inuktitut | • Spanish (SPAN) |
| • Economics (ECON) | • Indigenous Studies (INDG) | • Theatre (THTR) |
| • English (ENGL) <i>excluding</i> ENGL
0930, ENGL 0940, ENGL 2001 | • Italian (ITLN) | • Ukrainian (UKRN) |
| • Film Studies (FILM) | • Judaic Civilization (JUD) | • Ukrainian Canadian Heritage
Studies (UCHS) |
| • French (FREN) | • Labour Studies (LABR) | • Women's & Gender Studies
(WOMN) |
| | • Latin (LATN) | • Yiddish (YDSH) |
| | • Linguistics (LING) | |



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% recommended in:

- Biology 40S
- Math 40S
- Additional 40S courses may be required, depending on the Faculty of Science electives you choose.

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 3.5 Years (127 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

RADY FACULTY OF HEALTH SCIENCES

COLLEGE OF PHARMACY

PHARMACY, Pharm.D.

YEAR 1	CREDIT HOURS
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
CHEM 1120 Introduction to Chemistry Techniques	3
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus	3 + lab
STAT 1000 (M) Basic Statistical Analysis 1 or STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Humanities or Social Sciences Written (W) elective (<i>see Tips for Choosing Courses</i>)	3
Total Credit Hours	24

YEAR 2	CREDIT HOURS
MBIO 1010 Microbiology 1	3 + lab
BIOL 2410 Human Physiology 1	3
BIOL 2420 Human Physiology 2	3
CHEM 2100 Organic Chemistry 1: Foundations of Organic Chemistry	3
CHEM 2700 / MBIO 2700 Biochemistry 1: Biomolecules and an Introduction to Metabolic Energy	3
Humanities or Social Sciences electives (<i>see Tips for Choosing Courses</i>)	9
Total Credit Hours	24



MINIMUM ADMISSION REQUIREMENTS

Admission to Pharmacy requires all 48 graded credit hours of university-level courses listed in the charts. Students must complete at least one regular session (i.e., September-April) with at least 24 new graded credit hours of university-level courses. Repeated courses, transfer credit, and AP or IB credit do not count towards these 24 new graded credit hours.

Applicants must have 48 graded credit hours completed at the 1000-level or higher.

Minimum requirements are outlined in the College of Pharmacy [**Advanced Entry admission requirements**](#).



Open to Canadian citizens and Permanent Residents only.



TIPS FOR CHOOSING COURSES

- BIOL 1020, BIOL 1030, CHEM 1100, CHEM 1110 and CHEM 1120 are prerequisites for required second year courses and should be completed in first year.
- Choose your Humanities or Social Sciences electives from the **Recommended Introductory Courses List**. Humanities courses are marked with **H**, and Social Sciences courses are marked with **SS**.
- Make sure that at least one of your Humanities or Social Sciences electives is marked with a (W), which indicates that it fulfills the **Written (W) course** requirement.
- Your Humanities and Social Sciences electives, including the **Written (W) course**, must be at the 1000-level or higher.
- The following courses can be taken in either Year 1 or Year 2:
 - MATH 1500 (M) (or substitute listed)
 - STAT 1000 (M) (or substitute listed)
 - Humanities and Social Sciences electives, including the **Written (W) course**
- Students may use **Advanced Placement (AP) or International Baccalaureate (IB)** credit for required courses. However, students must still complete at least one regular session (September-April) with 24 new graded credit hours of university-level courses. AP or IB credit will not count towards these 24 new graded credit hours.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S

Minimum 60% required in:

- Math 40S (Pre-calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

- All applicants must complete the **Casper® test** (online, open-response situational judgment test).

MINIMUM TIME TO GRADUATION

- 6 years — 2 years of university study (48 credit hours), plus 4 years in Pharmacy.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

RADY FACULTY OF HEALTH SCIENCES

COLLEGE OF REHABILITATION SCIENCES

RESPIRATORY THERAPY, B.R.T.

FIRST YEAR COURSES	CREDIT HOURS
BIOL 1020 Biology 1: Principles and Themes (3 + lab) and BIOL 1030 Biology 2: Biological Diversity, Function and Interaction (3 + lab), or both BIOL 1000 Foundations of Life (3) and BIOL 1010 Biological Diversity and Interactions (3)	6 + lab
STAT 1000 (M) Basic Statistical Analysis 1 or STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Humanities or Social Sciences electives (<i>See Tips for Choosing Courses</i>)	6
Electives, including a Written (W) course (<i>see Tips for Choosing Courses</i>)	9
Total Credit Hours	24



MINIMUM ADMISSION REQUIREMENTS

Admission to Respiratory Therapy requires all 24 graded credit hours of university-level courses listed in the First Year Courses chart.

Students will apply to Respiratory Therapy under Category 1 if they:

- Have completed at least one regular session (i.e. September-April) with at least 24 graded credit hours of university-level courses
- Minimum requirements for Category 1 are outlined in the College of Rehabilitation Sciences: Respiratory Therapy **Advanced Entry admission requirements**.

Students will apply to Respiratory Therapy under Category 2 if they:

- Have completed fewer than 24 graded credit hours of university-level courses in a regular session (i.e. September-April)
- But still have at least 24 graded credit hours of university-level courses overall
- Minimum requirements for Category 1 are outlined in the College of Rehabilitation Sciences: Respiratory Therapy **Advanced Entry admission requirements**.

Category 1 applicants receive priority admission over Category 2 applicants.



Open to Canadian citizens and Permanent Residents only.



TIPS FOR CHOOSING COURSES

- Choose electives, including the **Written (W) course**, and Humanities or Social Sciences from the **Recommended Introductory Courses List**. Humanities courses are marked with **H**, and Social Sciences courses are marked with **SS**.
- Consider taking HEAL 1600 as an elective.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit can be used to fulfill core course requirements, but will not contribute to the 24 credit hour course load requirement for Category 1 admission.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S if taking BIOL 1020
- Chemistry 40S or Physics 40S if taking BIOL 1020
- Math 40S (Pre-Calculus or Applied recommended)

Recommended:

- Chemistry 40S
- English 40S
- Physics 30S and/or 40S

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (136 credit hours)



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

RADY FACULTY OF HEALTH SCIENCES

COLLEGE OF REHABILITATION SCIENCES

OCCUPATIONAL THERAPY, M.O.T.

The Master of Occupational Therapy at the University of Manitoba is a graduate program following the completion of an undergraduate degree. Students must complete an undergraduate degree, including specific courses in the chart below, before applying to the College of Rehabilitation Sciences. Please browse the [Faculties and Programs List](#) to see undergraduate degrees available at UM.

COURSES REQUIRED IN FIRST DEGREE	CREDIT HOURS
BIOL 1410 Anatomy of the Human Body	3 + lab
BIOL 1412 Physiology of the Human Body	3 + lab
Minimum 3 credit hours of Psychology (PSYC) at the 1000-level or higher	3
Indigenous Content Course requirement - choose one of the following:	
INDG 1200 Indigenous Peoples in Canada (6)	3-6
INDG 1220 Indigenous Peoples in Canada, Part I (3)	
INDG 1240 Indigenous Peoples in Canada, Part 2 (3)	
INDG 2012 (W) / HIST 2010 (W) Indigenous History in Canada (6)	
INDG 2020 (W) / HIST 2020 (W) The Métis in Canada (3)	
INDG 2080 Inuit Society and Culture (3)	



MINIMUM ADMISSION REQUIREMENTS

Students must complete an undergraduate degree, including the required courses listed in this chart, before admission to Occupational Therapy.

Minimum requirements are outlined in the Master of Occupational Therapy [admission requirements](#).

When choosing courses for first year, please also reference the requirements of your intended first degree, as outlined in this guide.



TIPS FOR CHOOSING COURSES

- Other courses may be considered to fulfill the course requirements listed in the chart. Refer to the [Occupational Therapy admission requirements](#) for the most up-to-date information.
- BIOL 1410, BIOL 1412 are recommended to take in your first year as this is the best opportunity to obtain space in introductory level courses. Plan to take PSYC 1200 in first or second year, as PSYC 1200 is the prerequisite to PSYC 2290 and PSYC 3070, which are recommended.
- Consider taking HEAL 1600 as an elective in your first degree.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Recommended:

- Math 40S
- Biology 40S
- Physics 30S and/or 40S



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

- All applicants must complete the **English Casper® test** (online, open-response situational judgment test).

MINIMUM TIME TO GRADUATION

- 5 years – completion of first degree (minimum 90 credit hours) plus 2 years in Occupational Therapy.



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

RADY FACULTY OF HEALTH SCIENCES

COLLEGE OF REHABILITATION SCIENCES

PHYSICAL THERAPY, M.P.T.

The Master of Physical Therapy at the University of Manitoba is a graduate program. Students must complete an undergraduate degree, including specific courses in the chart below, before applying to the College of Rehabilitation Sciences. Please browse the [Faculties and Programs List](#) to see undergraduate degrees available at UM.

COURSES REQUIRED IN FIRST DEGREE	CREDIT HOURS
BIOL 1410 Anatomy of the Human Body	3 + lab
BIOL 1412 Physiology of the Human Body	3 + lab
STAT 1000 (M) Basic Statistical Analysis 1 or PSYC 2250 Introduction to Psychological Research	3 + lab
Minimum 3 credit hours of Indigenous Studies (INDG) Choose one of the following: INDG 1200 Indigenous Peoples in Canada (6) INDG 1220 Indigenous Peoples in Canada, Part 1 (3) INDG 1240 Indigenous Peoples in Canada, Part 2 (3) HIST 2010 (W) Indigenous History in Canada (6) INDG 2020 (W) / HIST 2020 (W) The Métis in Canada (3) INDG 2080 Inuit Society and Culture (3)	3
Minimum 3 credit hours of Psychology (PSYC) at the 1000-level or higher	3
Minimum 3 credit hours of English Literature (ENGL) at the 1000-level or higher	3



MINIMUM ADMISSION REQUIREMENTS

Students must complete an undergraduate degree, including the required courses listed in this chart, before admission to Physical Therapy.

Minimum requirements are outlined in the Master of Physical Therapy [admission requirements](#).

When choosing courses for first year, please also reference the requirements of your intended first degree, as outlined in this guide.



TIPS FOR CHOOSING COURSES

- Other courses may be considered to fulfill the course requirements listed in the chart. Refer to the [Physical Therapy admission requirements](#) for the most up-to-date information. If you feel your courses may qualify contact the Physical Therapy Chair of Admissions.
- Statistical analysis and research courses from departments other than Statistics may be considered on an individual basis instead of STAT 1000 (M).
- Choose your Indigenous Studies (INDG), Psychology (PSYC) and English Literature (ENGL) courses from the [Recommended Introductory Courses List](#). These courses must be at the 1000-level or higher.
- Consider taking HEAL 1600 as an elective in your first degree.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Math 40S (Pre-Calculus or Applied recommended)

Recommended:

- Biology 40S
- Chemistry 40S
- English 40S
- Physics 30S and/or 40S

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

- All applicants must complete the **English Casper® test** (online, open-response situational judgment test).

MINIMUM TIME TO GRADUATION

- 5 years – completion of first degree (minimum 90 credit hours) plus 2 years in Physical Therapy.



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

FACULTY OF KINESIOLOGY AND RECREATION MANAGEMENT

KINESIOLOGY, B.KIN.

FIRST YEAR COURSES	CREDIT HOURS
KPER 1200 Physical Activity, Health and Wellness	3
KPER 1500 Foundations of Physical Education and Kinesiology	3
BIOL 1410 Anatomy of the Human Body	3 + lab
BIOL 1412 Physiology of the Human Body	3 + lab
PSYC 1200 Introduction to Psychology	6
STAT 1000 (M) Basic Statistical Analysis 1 or STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Science electives from list (see next page)	6 + lab
Elective (see <i>Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Kinesiology requires 24 credit hours of university-level courses, including:

- BIOL 1410
- BIOL 1412
- KPER 1500

Minimum requirements are outlined in the Faculty of Kinesiology and Recreation Management **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- KPER 1200 and STAT 1000 (M) are additionally recommended in your first year, before admission, as they are prerequisites for second year courses in the program.
- Choose 6 credit hours of Science electives from the Science Electives Chart below. Note that all listed courses include a lab. It is recommended to complete 6 credit hours of these courses in your first year as a foundation for the lab work required in upper year courses.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by KPER 2120 (W) in Year 2 of the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by STAT 1000 (M).
- Choose your elective from the **Recommended Introductory Courses List**.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.

FACULTY OF KINESIOLOGY LIST OF SCIENCE ELECTIVES

Choose 6 credit hours from the following courses:

- ASTR 1810
- CHEM 1120
- MATH 1240 (M)
- MBIO 1010
- BIOL 1020
- COMP 1010
- MATH 1300 (M) (or equivalent)
- PHYS 1020 (M) (or equivalent)
- BIOL 1030
- COMP 1020
- MATH 1500 (M) (or equivalent)
- PHYS 1030 (M) (or equivalent)
- MATH 1700 (M) (or equivalent)
- STAT 2000 (M) (or equivalent)



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Math 40S
- Additional 40S courses may be required, depending on the Science electives you choose.

Recommended:

- Biology 40S

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours).



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF KINESIOLOGY AND RECREATION MANAGEMENT

ATHLETIC THERAPY, B.KIN.

FIRST YEAR COURSES	CREDIT HOURS
KPER 1200 Physical Activity, Health and Wellness	3
KPER 1500 Foundations of Physical Education and Kinesiology	3
BIOL 1410 Anatomy of the Human Body	3 + lab
BIOL 1412 Physiology of the Human Body	3 + lab
HNSC 1210 Nutrition for Health and Changing Lifestyles	3
PSYC 1200 Introduction to Psychology	6
STAT 1000 (M) Basic Statistical Analysis 1 or STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Science electives from list (see next page)	6 + lab
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Athletic Therapy requires 24 credit hours of university-level courses, including:

- BIOL 1410
- BIOL 1412
- KPER 1500

Minimum requirements are outlined in the Faculty of Kinesiology and Recreation Management [**Advanced Entry admission requirements**](#).



TIPS FOR CHOOSING COURSES

- KPER 1200 and STAT 1000 (M) are additionally recommended in your first year, before admission, as they are prerequisites for second year courses in the program.
- Choose 6 credit hours of Science electives from the Science Electives Chart below. Note that all listed courses include a lab. It is recommended to complete 6 credit hours of these courses in first year as a foundation for the lab work required in upper year courses.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by KPER 2120 (W) in Year 2 of the program.
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement will be met by STAT 1000 (M).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.

FACULTY OF KINESIOLOGY LIST OF SCIENCE ELECTIVES

Choose 6 credit hours from the following courses:

- ASTR 1810
- CHEM 1120
- MATH 1240 (M)
- MBIO 1010
- BIOL 1020
- COMP 1010
- MATH 1300 (M) (or equivalent)
- PHYS 1020 (M) (or equivalent)
- BIOL 1030
- COMP 1020
- MATH 1500 (M) (or equivalent)
- PHYS 1030 (M) (or equivalent)
- MATH 1700 (M) (or equivalent)
- STAT 2000 (M) (or equivalent)



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Math 40S
- Additional 40S courses may be required, depending on the Science electives you choose.

Recommended:

- Biology 40S

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours).



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF KINESIOLOGY AND RECREATION MANAGEMENT

PHYSICAL EDUCATION, B.P.E.

FIRST YEAR COURSES	CREDIT HOURS
KPER 1200 Physical Activity, Health and Wellness	3
KPER 1500 Foundations of Physical Education and Kinesiology	3
BIOL 1410 Anatomy of the Human Body	3 + lab
BIOL 1412 Physiology of the Human Body	3 + lab
ENGL 1200 (W) Representative Literary Works	6
Mathematics (M) course from the Mathematics or Statistics departments	3
Electives/Teaching Minor (<i>see Tips for Choosing Courses</i>)	9
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but may not be required for admission.

Admission to Physical Education requires 24 credit hours of university-level courses, including:

- BIOL 1410
- BIOL 1412
- KPER 1500

Minimum requirements are outlined in the Faculty of Kinesiology and Recreation Management **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- KPER 1200 is additionally recommended in your first year, before admission, as it is a prerequisite for second year courses in the program.
- B.P.E. students who are planning to enter the Faculty of Education should choose courses toward their teachable subject or minor when choosing elective courses. Refer to the **Education** page of this guide for more information on teachable subject areas.
- B.P.E. students who do not plan to enter the Faculty of Education may choose electives from the **Recommended Introductory Courses List**.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by ENGL 1200 (W).
- ENGL 1340 (W) and ENGL 1400 (W) can be used instead of ENGL 1200 (W).
- The **Mathematics (M) course** is not required for admission. The Mathematics (M) course requirement must be met with a course from the Math or Statistics department.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Recommended:

- Biology 40S
- Math 40S
- Additional 40S courses may be required, depending on the teachable minor or subject you choose. See the [Education](#) page for more information.

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the [Admissions](#) page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 3 years (102 credit hours). B.Ed. - An additional 2 years (60 credit hours) in Education.



NEED MORE INFORMATION?

[PROGRAM
OVERVIEW](#)[CAREER
COMPASS](#)[ACADEMIC
CALENDAR](#)[UM
ACHIEVE](#)[FACULTY
WEBSITE](#)[IMPORTANT
DATES](#)

FACULTY OF KINESIOLOGY AND RECREATION MANAGEMENT

RECREATION MANAGEMENT AND COMMUNITY DEVELOPMENT, B.R.M.C.D.

FIRST YEAR COURSES	CREDIT HOURS
KPER 1200 Physical Activity, Health and Wellness	3
KPER 1400 Concepts of Recreation and Leisure	3
PSYC 1200 Introduction to Psychology	6
SOC 1000 Introduction to Sociology	3
STAT 1000 (M) Basic Statistical Analysis 1 or STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Electives (<i>see Tips for Choosing Courses</i>)	12
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the chart are required in the degree program, but are not required for admission.

Admission to Recreation Management and Community Development requires any 24 credit hours of university-level courses.

Minimum requirements are outlined in the Faculty of Kinesiology and Recreation Management **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- KPER 1200, KPER 1400, and STAT 1000 (M) are recommended in your first year, before admission, as they are prerequisites for second year courses in the program.
- Consider taking REC 2100 in your first or second year towards the faculty elective requirement in the program.
- The **Written (W) course** is not required for admission. The Written (W) course requirement will be met by KPER 2120 (W) in Year 2 of the program.
- The **Mathematics (M) course** are not required for admission. The Mathematics (M) course requirement will be met by STAT 1000 (M).
- Choose your electives from the **Recommended Introductory Courses List**.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.
- Contact an **Academic Advisor** in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree program.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Math 40S

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

FACULTY OF LAW

JURIS DOCTOR, J.D.

Students must complete at least 60 credit hours before applying to the Faculty of Law, but many students choose to complete an undergraduate degree before applying. Please browse the [Faculties and Programs List](#) to see undergraduate degrees available at UM.

YEAR 1 (30 CREDIT HOURS)	CREDIT HOURS
Courses of interest and that may be suitable for a degree in another faculty	30
Total Credit Hours	30

YEAR 2 (30 CREDIT HOURS)	CREDIT HOURS
Courses of interest and that may be suitable for a degree in another faculty	30
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

There are no prerequisites or preferred courses for admission to Law. Any 60 graded credit hours of university-level courses will be accepted for admission. Choose courses in which you have personal interest to increase the likelihood of achieving strong grades, as Law admission is competitive. You may choose your courses from the [Recommended Introductory Courses List](#).

Minimum requirements are outlined in the Faculty of Law [Advanced Entry admission requirements](#).



TIPS FOR CHOOSING COURSES

- When choosing your first year courses, consider which faculty or program you want to enter in Year 2. As many students complete a first degree before their admission into law school, it is a good idea to keep the degree requirements of your second year faculty in mind when choosing courses.
- The [Law School Admission Test \(LSAT\)](#) does not presuppose any specialized knowledge, but is designed to measure your abilities to read, understand and reason. Choose courses that assist in the development of these skills.
- You are strongly recommended to register for courses that have a writing component. This will help you to develop writing and research skills at the post-secondary level.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

- None



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

- View **previous admission statistics** online.

MINIMUM TIME TO GRADUATION

- 5 years - 2 years of University study (60 credit hours), plus 3 years in Law.



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

DESAUTELS FACULTY OF MUSIC

MUSIC, B.Mus.

General, Composition, History, Music Education, and Performance programs are available.

MUSIC, B.Jazz, Jazz Studies

PREPARATORY WORK FOR A MUSIC DEGREE

- Students must audition to be accepted into the Desautels Faculty of Music. While most students enter directly from high school, all applicants should prepare for the audition by taking private lessons on their instrument/voice and continue to study music theory (either **MUSC 1930** or private study).
- The Desautels Faculty of Music **Prep Studies** program offers private instruction in a variety of instruments and group theory classes.
- Minimum requirements are outlined in the Desautels Faculty of Music **Advanced Entry admission requirements**.



TIPS FOR CHOOSING COURSES

- MUSC 1020, MUSC 1040, MUSC 1110, MUSC 1120, MUSC 1030, and MUSC 1930 are **Recommended Introductory Courses**.
 - Please note, MUSC 1010 and MUSC 1930 cannot be used towards the B.Mus. and B.Jazz degrees. However, MUSC 1930 may be required as a prerequisite for 1st year courses once you enter the degree.
- MUSC 1930 Rudiments of Music can be used to fulfill the Theory entrance exam requirement for admission to the Desautels Faculty of Music. A grade of 70% or higher is required for admission to the Desautels Faculty of Music.
- The **Written (W) course** is not required for admission.
- The **Mathematics (M) course** are not required for admission. Consider taking MUSC 3230 (M): Acoustics of Music to meet the Mathematics (M) course requirement. Consult with an academic advisor in the Faculty of Music if you plan to take this course in your first year.
- There is room for up to 24 credit hours of non-music elective courses in the Music degree, including the **Written (W) course** and **Mathematics (M) course**. Choose electives from the **Recommended Introductory Courses List**.
- Ensembles are open to students in faculties outside of Music. Ensemble auditions are held each year at the end of August. Visit the **Ensemble Audition information** page in July for specific details.
- If you are interested in a Bachelor of Music or a Bachelor of Jazz Studies, please contact the Music Advisor at **dfom.advising@umanitoba.ca**.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Recommended:

- Music 40S
- Private lessons in your instrument
- Formal instruction in music theory



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- B.Mus.: 5 years from University 1 or 4 years if Direct Entry from high school (126 credit hours).
- B.Jazz: 5 years from University 1 or 4 years if Direct Entry from high school (126 credit hours).
- B.Mus (Education): 5 years from University 1 or 4 years if Direct Entry from high school (132 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

FACULTY OF SCIENCE

DEGREES OFFERED IN THE FACULTY OF SCIENCE

B.Sc. GENERAL – (90 CREDIT HOURS)

A three year (90 credit hour) general program provides students with general training in a number of diverse Science disciplines. General programs are intended for:

- Students who are looking for a general education in the natural and/or mathematical sciences
- Students who are planning to enter a program that requires a first degree such as Education, Occupational Therapy, or Medicine

B.Sc. MAJOR – (120 CREDIT HOURS)

A four year (120 credit hour) major program provides students with in-depth study in a specific Science discipline and prepare students for a career in that discipline.

Major programs are not intended for students who wish to pursue graduate studies (ex. Master's or PhD). However, if a student completes a Major program and wishes to pursue graduate studies, they can usually do so without difficulty.

B.Sc. HONOURS – (120 CREDIT HOURS)

A four year (120 credit hour) honours program provides students with extensive and rigorous study in a specific Science discipline. Students are required to pursue this degree full-time, and there are higher grade requirements compared to General and Major programs.

Honours programs are intended for students who wish to pursue graduate studies (ex. Master's or PhD). Students who are interested in an Honours program should connect with **advisors in the Faculty of Science**.

CO-OPERATIVE EDUCATION (CO-OP)

Co-operative education is a form of experiential learning which integrates academic, classroom-based learning and relevant, paid work experience. Most Honours and Major programs in the Faculty of Science have Co-op options. For more information, review the **Science Co-op Program page**.

MINOR (18 CREDIT HOURS)

Your major is your main area of study within your degree program. Most of the courses in your degree program will focus on your major.

In contrast, your minor is a second, smaller area of study. A minor takes up 18 credit hours of your degree program, and can be in an area that is unrelated to your major. For example, you can major in Biology and minor in Philosophy.

Students in the General program do not have the option of declaring a minor. Students in Honours and Major programs have the option of declaring a minor.

PREPARING FOR A HEALTH-RELATED PROFESSION IN THE FACULTY OF SCIENCE

Science degrees offer in-depth knowledge of the Science disciplines that help us understand bigger picture concepts. Science degrees also offer opportunities to take the courses you need to apply to professional health-related programs.

In general, taking introductory courses in Biological Sciences, Chemistry, Microbiology, Physics, Statistics, and Mathematics can lead to degree programs in the Life Sciences and are great preparation for admission into professional health-related programs. In addition to specific courses, many programs require entrance exams/tests and interviews.

If you are planning on applying for programs at the University of Manitoba, please see their **program pages** in the First Year Planning Guide for further details:

- **Dentistry**
- **Pharmacy**
- **Physical Therapy**
- **Nursing**
- **Medicine**
- **Occupational Therapy**
- **Respiratory Therapy**

If you are planning on applying for a program outside of the University of Manitoba, you are encouraged to consult with each individual school's website and admissions information as requirements vary from school to school. A few programs commonly identified are the **Western College of Veterinary Medicine** at the University of Saskatchewan and the **School of Optometry & Vision Science** at the University of Waterloo.

SCIENCE DEGREES AND PROGRAMS

	MINOR	MAJOR	HONOURS	CO-OP
ACTUARIAL MATHEMATICS Alternatively offered through the Asper School of Business			✓	
BIOCHEMISTRY		✓	✓	✓
BIOLOGICAL SCIENCES	✓	✓	✓	✓
Ecology and Evolutionary Biology		✓	✓	✓
Molecular, Cellular, and Systems Biology		✓	✓	✓
CHEMISTRY	✓	✓	✓	✓
Chemistry – Physics Joint Program			✓	
COMPUTER SCIENCE	✓	✓	✓	✓
Computer Science – Mathematics Joint Program			✓	✓
Computer Science – Physics and Astronomy Joint Program			✓	✓
Computer Science – Statistics Joint Program			✓	✓
DATA SCIENCE		✓		✓
GENETICS		✓	✓	✓
MATHEMATICS Alternatively offered through the Faculty of Arts	✓	✓	✓	✓
Applied Mathematics		✓		✓
Mathematics – Physics and Astronomy Joint Program			✓	✓
Mathematics – Economics Joint Program Alternatively offered through the Faculty of Arts			✓	
MICROBIOLOGY	✓	✓	✓	✓
PHYSICS AND ASTRONOMY	✓	✓	✓	✓
Astronomy and Astrophysics option			✓	✓
Physics option			✓	✓
Medical and Biological Physics option			✓	✓
PSYCHOLOGY Alternatively offered through the Faculty of Arts	✓	✓	✓	✓
STATISTICS	✓	✓	✓	✓
Statistics – Actuarial Mathematics Joint Program			✓	
Statistics – Mathematics Joint Program			✓	✓
Statistics – Economics Joint Program Alternatively offered through the Faculty of Arts			✓	
GENERAL SCIENCE				

 You can click on any subject in the chart ex. **Genetics** to view the Introductory Course Requirements.

FACULTY OF SCIENCE

COMPUTER SCIENCE

COMPUTER SCIENCE, B.C.Sc./B.Sc.

Honours and Four Year Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
COMP 1010 Introductory Computer Science 1 or COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
COMP 1020 Introductory Computer Science 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1220 (M) Linear Algebra 1 or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1700 (M) Calculus 2 or MATH 1232 (M) Integral Calculus or MATH 1710 (M) Applied Calculus 2	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Faculty of Arts course(s), including a Written (W) course (<i>see Tips for Choosing Courses</i>)	6
Elective (<i>see Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Computer Science Honours or Major program, students must complete 24 credit hours, including:

- COMP 1020 • MATH 1300 (M) • MATH 1700 (M)
- MATH 1240 (M) • MATH 1500 (M) • or substitutes listed in the chart

Minimum GPA and grades in required courses are outlined in the [Academic Calendar Computer Science Honours](#) and [Four Year Major Degree Requirements](#).



TIPS FOR CHOOSING COURSES

- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1010 (or COMP 1012).
- COMP 1000 or COMP 1600 is recommended as an elective in your first year.
If you choose to take COMP 1000 or COMP 1600 as an elective, it must be taken before declaring your major.
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [Recommended Introductory Courses List](#).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

COMPUTER SCIENCE

COMPUTER SCIENCE–MATHEMATICS JOINT, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
COMP 1010 Introductory Computer Science 1 or COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
COMP 1020 Introductory Computer Science 2	3 + lab
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Faculty of Arts course(s), including a Written (W) course (<i>see Tips for Choosing Courses</i>)	6
Elective (<i>see Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Computer Science-Mathematics Joint Honours program, students must complete 24 credit hours, including COMP 1020 and MATH 1232 (M) (or substitutes listed in the chart).

Minimum GPA and grades in required courses are outlined in the [**Academic Calendar Computer Science–Mathematics Joint Honours Degree Requirements**](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but **higher grades are required**.
- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1010 (or COMP 1012).
- STAT 2150 is recommended as an elective in your first year, but not required.
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [**Recommended Introductory Courses List**](#).
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

COMPUTER SCIENCE

COMPUTER SCIENCE–PHYSICS AND ASTRONOMY JOINT, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
COMP 1010 Introductory Computer Science 1 or COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
COMP 1020 Introductory Computer Science 2	3 + lab
PHYS 1050 Physics 1: Mechanics or PHYS 1020 (M) General Physics 1	3 + lab
PHYS 1070 Physics 2: Waves and Modern Physics or PHYS 1030 (M) General Physics 2	3 + lab
MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1220 (M) Linear Algebra 1	3 + lab
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1700 (M) Calculus 2 or MATH 1232 (M) Integral Calculus or MATH 1710 (M) Applied Calculus 2	3 + lab
Faculty of Arts course(s), including a Written (W) course (<i>see Tips for Choosing Courses</i>)	6
Elective (<i>see Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Computer Science-Physics and Astronomy Joint Honours program, students must complete 24 credit hours, including:

- COMP 1020 • MATH 1300 (M) • or substitutes listed in the chart
- PHYS 1070 • MATH 1700 (M)

Minimum GPA and grades in required courses are outlined in the **Academic Calendar Computer Science–Physics and Astronomy Joint Honours Degree Requirements**.



TIPS FOR CHOOSING COURSES

- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1010 (or COMP 1012).
- COMP 1000 or COMP 1600 is recommended as an elective in your first year.
If you choose to take COMP 1000 or COMP 1600 as an elective, it must be taken before declaring your major.
- PHYS 1020 (M) and PHYS 1030 (M) may be used as a substitute for PHYS 1050 and PHYS 1070, but **higher grades are required**.
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the **Recommended Introductory Courses List**.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 60% required in:

- Math 40S (Pre-Calculus)
- Physics 40S

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

COMPUTER SCIENCE

COMPUTER SCIENCE—STATISTICS JOINT, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
COMP 1010 Introductory Computer Science 1 or COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
COMP 1020 Introductory Computer Science 2	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
STAT 2150 (M) Statistics and Computing	3 + lab
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Computer Science-Statistics Joint Honours program, students must complete 24 credit hours, including COMP 1020 and STAT 2150 (M).

Minimum GPA and grades in required courses are outlined in the [Academic Calendar Computer Science–Statistics Joint Honours Degree Requirements](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but **higher grades are required**.
- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1010 (or COMP 1012).
- Include a **Written (W) course** as part of the Faculty of Arts course(s); choose from the **Recommended Introductory Courses List**.
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

DATA SCIENCE

DATA SCIENCE, B.Sc. MAJOR

FIRST YEAR COURSES	CREDIT HOURS
COMP 1012 Computer Programming for Scientists and Engineers or COMP 1010 Introductory Computer Science 1	3 + lab
COMP 1020 Introductory Computer Science 2	3 + lab
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Faculty of Arts course(s), including a Written (W) course (<i>see Tips for Choosing Courses</i>)	6
Elective (<i>see Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Data Science Major program, students must complete 24 credit hours, including:

- COMP 1020
- MATH 1232 (M) (or substitutes listed in chart)
- STAT 1150 (M)

Minimum GPA and grades in required courses are outlined in the [**Academic Calendar Data Science Degree Requirements**](#).



TIPS FOR CHOOSING COURSES

- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1012 (or COMP 1010).
- Students are strongly advised to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but **higher grades are required**.
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [**Recommended Introductory Courses List**](#).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

LIFE SCIENCES

BIOCHEMISTRY, B.Sc.

Honours and Four Year Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
CHEM 1120 Introduction to Chemistry Techniques	3
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing or STAT 1000 (M) Basic Statistical Analysis 1	3 + lab
PHYS 1050 Physics 1: Mechanics or PHYS 1020 (M) General Physics 1	3 + lab
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Biochemistry Joint Honours or Major program, students must complete 24 credit hours, including:

- BIOL 1020
- CHEM 1110
- CHEM 1120

Minimum GPA and grades in required courses are outlined in the [**Academic Calendar Biochemistry Joint Honours**](#) and [**Four Year Major Degree Requirements**](#).



TIPS FOR CHOOSING COURSES

- Include a **Written (W) course** as part of the Faculty of Arts course(s); choose from the [**Recommended Introductory Courses List**](#).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S
- Physics 40S - if taking PHYS 1020 (M)

Minimum 60% required in:

- Math 40S (Pre-Calculus)
- Physics 40S - if taking PHYS 1050

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

LIFE SCIENCES

BIOLOGICAL SCIENCES, B.Sc.

Honours and Four Year Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1120 Introduction to Chemistry Techniques	3
STAT 1150 (M) Introduction to Statistics and Computing or STAT 1000 (M) Basic Statistical Analysis 1	3 + lab
Choose two of the following:	
MATH 1240 (M) Elementary Discrete Mathematics	6 + lab
MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra or MATH 1220 (M) Linear Algebra 1	
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1524 (M) Mathematics for Management and Social Sciences	
MATH 1700 (M) Calculus 2 or MATH 1232 (M) Integral Calculus or MATH 1710 (M) Applied Calculus 2	
PHYS 1020 (M) General Physics 1 or PHYS 1050 Physics 1: Mechanics	
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	
Elective (see <i>Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Biological Sciences Honours or Major program, students must complete 24 credit hours, including BIOL 1030.

Minimum GPA and grades in required courses are outlined in the [**Academic Calendar Biological Sciences Honours and Four Year Major Degree Requirements**](#).



TIPS FOR CHOOSING COURSES

- Students interested in focusing their studies in a particular biology discipline can choose to declare a concentration in either **Ecology and Evolutionary Biology** or **Molecular, Cellular, and Systems Biology**.
- Students interested in doing the Molecular, Cellular and Systems concentration should consider taking CHEM 1110 in their first year, as it is a prerequisite for second year courses in the program.
- STAT 1150 (M) is strongly recommended over STAT 1000 (M).
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [**Recommended Introductory Courses List**](#).
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S
- Physics 40S - if taking PHYS 1020 (M)

Minimum 60% required in:

- Math 40S (Pre-Calculus) or 70% in Math 40S (Applied)
- Physics 40S - if taking PHYS 1050

Students who do not have Pre-Calculus Math 40S (60%) can alternatively use both Applied Math 40S (70%) and Physics 40S.

Some courses have higher grade prerequisites. Please select the course code ex. **MATH 1220** to read the course description which lists the specific prerequisites.

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

LIFE SCIENCES

GENETICS, B.Sc.

Honours and Four Year Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
CHEM 1120 Introduction to Chemistry Techniques	3
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing or STAT 1000 (M) Basic Statistical Analysis 1	3 + lab
Choose one of the following: MATH 1210 (M) Techniques of Classical and Linear Algebra MATH 1220 (M) Linear Algebra 1 MATH 1232 (M) Integral Calculus MATH 1240 (M) Elementary Discrete Mathematics MATH 1300 (M) Vector Geometry and Linear Algebra MATH 1700 (M) Calculus 2 MATH 1710 (M) Applied Calculus 2	3 + lab
Faculty of Arts course(s), including a Written (W) course (see Tips for Choosing Courses)	3
Elective (see Tips for Choosing Courses)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Genetics Honours or Major program, students must complete 24 credit hours, including BIOL 1030 and CHEM 1110.

Minimum GPA and grades in required courses are outlined in the [**Academic Calendar Genetics Honours and Four Year Major Degree Requirements**](#).



TIPS FOR CHOOSING COURSES

- STAT 1150 (M) is strongly recommended over STAT 1000 (M).
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [**Recommended Introductory Courses List**](#).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S

Minimum 60% required in:

- Math 40S (Pre-Calculus)

Some courses have higher grade prerequisites. Please select the course code ex. **MATH 1220** to read the course description which lists the specific prerequisites.

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to upgrade your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can transit on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a Science Advisor.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), Co-op may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

LIFE SCIENCES

MICROBIOLOGY, B.Sc.

Honours and Four Year Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
MBIO 1010 Microbiology 1	3 + lab
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
CHEM 1120 Introduction to Chemistry Techniques	3
STAT 1150 (M) Introduction to Statistics and Computing or STAT 1000 (M) Basic Statistical Analysis 1	3 + lab
Choose one of the following:	
MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1220 (M) Linear Algebra 1	
MATH 1230 (M) Differential Calculus	
MATH 1240 (M) Elementary Discrete Mathematics	
MATH 1300 (M) Vector Geometry and Linear Algebra	
MATH 1500 (M) Introduction to Calculus	
MATH 1510 (M) Applied Calculus 1	
MATH 1524 (M) Mathematics for Management and Social Sciences	
PHYS 1020 (M) General Physics 1	
PHYS 1050 Physics 1: Mechanics	
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Microbiology Honours or Major program, students must complete 24 credit hours, including MBIO 1010 and CHEM 1110.

Minimum GPA and grades in required courses are outlined in the [Academic Calendar Microbiology Honours](#) and [Four Year Major Degree Requirements](#).



TIPS FOR CHOOSING COURSES

- STAT 1150 (M) is strongly recommended over STAT 1000 (M).
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the **Recommended Introductory Courses List**.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S
- Physics 40S - if taking PHYS 1020 (M)

Minimum 60% required in:

- Math 40S (Pre-Calculus) or 70% in Math 40S (Applied)
- Physics 40S - if taking PHYS 1050

Some courses have higher grade prerequisites. Please select the course code ex. **MATH 1220** to read the course description which lists the specific prerequisites.

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

MATHEMATICAL SCIENCES

ACTUARIAL MATHEMATICS, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
ECON 1010 Introduction to Microeconomic Principles	3
ECON 1020 Introduction to Macroeconomic Principles	3
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
STAT 2150 (M) Statistics and Computing	3 + lab
Electives (<i>see Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

All courses listed in the First Year Courses chart are program requirements and students are strongly encouraged to take these in first year.

Minimum GPA and grades in required courses are outlined in the [Academic Calendar Actuarial Mathematics Honours Degree Requirements](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but **higher grades are required**.
- Choose electives from the [Recommended Introductory Courses List](#).
- The **Written (W) course** requirement will be met by GMGT 2010 (W) in Year 2 of the program.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours).



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

MATHEMATICAL SCIENCES

APPLIED MATHEMATICS, B.Sc. MAJOR

Applied Mathematics has options in Computer Science, Economics, or Statistics.

FIRST YEAR COURSES	CREDIT HOURS
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
6 credit hours from one of the options, below:	
Computer Science Option COMP 1010 Introductory Computer Science 1 (3 + lab) or COMP 1012 Computer Programming for Scientists and Engineers (3 + lab) COMP 1020 Introductory Computer Science 2 (3 + lab)	
Economics Option ECON 1010 Introduction to Microeconomic Principles (3) and ECON 1020 Introduction to Macroeconomic Principles (3), or both ECON 1210 Introduction to Canadian Economic Issues and Policies (3) and ECON 1220 Introduction to Global Environmental Economic Issues and Policies (3)	6
Statistics Option STAT 1150 (M) Introduction to Statistics and Computing (3 + lab) and STAT 2150 (M) Statistics and Computing (3 + lab)	
Electives - If 6 credit hours are chosen from the Computer Science or Statistics Option, then 6 credit hours of electives must be from the Faculty of Arts, including a Written (W) course. (See <i>Tips for Choosing Courses</i>)	12
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Applied Mathematics Major program, students must complete 24 credit hours, including MATH 1232 (M) (or substitutes listed in the chart).

Minimum GPA and grades in required courses are outlined in the following Academic Calendar Applied Mathematics Degree Requirements:

- **Computer Science Option**
- **Economics Option**
- **Statistics Option**



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but have **higher grade requirements**.
- Choose 6 credit hours from the Computer Science, Economics, or Statistics option to determine which is the best option for your degree overall.
- Include a **Written (W) course** as part of your electives; choose from the **Recommended Introductory Courses List**.
- Include 6 credit hours from the Faculty of Arts if pursuing the Computer Science or Statistics option.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

MATHEMATICAL SCIENCES

MATHEMATICS, B.Sc.

Honours and Four Year Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
COMP 1010 Introductory Computer Science 1 or COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Electives (see <i>Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Mathematics Honours or Major program, students must complete 24 credit hours, including MATH 1232 (M) (or substitutes listed in the chart).

Minimum GPA and grades in required courses are outlined in the [Academic Calendar Mathematics Honours](#) and [Four Year Major Degree Requirements](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but **higher grades are required**.
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [Recommended Introductory Courses List](#).
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

MATHEMATICAL SCIENCES

MATHEMATICS–ECONOMICS JOINT, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
ECON 1010 Introduction to Microeconomic Principles and ECON 1020 Introduction to Macroeconomic Principles, or both ECON 1210 Canadian Economic Issues and Policies and ECON 1220 Global Environmental Economic Issues and Policies	6
COMP 1010 Introductory Computer Science 1 or COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Electives, including a Written (W) course (<i>see Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Mathematics-Economics Joint Honours program, students must complete 24 credit hours, including:

- ECON 1010 • MATH 1232 (M)
- ECON 1020 • or substitutes listed in the chart

Minimum GPA and grades in required courses are outlined in the [**Academic Calendar Mathematics–Economics Joint Honours Degree Requirements**](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but **higher grades are required**.
- Include a **Written (W) course** as part of your electives; choose from the [**Recommended Introductory Courses List**](#).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours).



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

MATHEMATICAL SCIENCES

STATISTICS, B.Sc.

Honours and Four Year Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
STAT 2150 (M) Statistics and Computing	3 + lab
COMP 1010 Introductory Computer Science 1 or COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
COMP 1020 Introductory Computer Science 2	3 + lab
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Statistics Honours or Major program, students must complete 24 credit hours, including STAT 2150 (M).

Minimum GPA and grades in required courses are outlined in the [Academic Calendar Statistics Honours](#) and [Four Year Major Degree Requirements](#).



TIPS FOR CHOOSING COURSES

- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1010 (or COMP 1012).
- Students are strongly advised to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but **higher grades are required**.
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [Recommended Introductory Courses List](#).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

MATHEMATICAL SCIENCES

STATISTICS–ACTUARIAL MATHEMATICS JOINT, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
STAT 2150 (M) Statistics and Computing	3 + lab
ECON 1010 Introduction to Microeconomic Principles	3
ECON 1020 Introduction to Macroeconomic Principles	3
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
Electives, including a Written (W) course (<i>see Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Statistics-Actuarial Mathematics Joint Honours program, students must complete 24 credit hours, including STAT 2150 (M).

Minimum GPA and grades in required courses are outlined in the [**Academic Calendar Statistics–Actuarial Mathematics Joint Honours Degree Requirements**](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but **higher grades are required**.
- Choose electives, including a **Written (W) course**, from the [**Recommended Introductory Courses List**](#).
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours).



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

MATHEMATICAL SCIENCES

STATISTICS–ECONOMICS JOINT, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
ECON 1010 Introduction to Microeconomic Principles and ECON 1020 Introduction to Macroeconomic Principles, or both ECON 1210 Canadian Economic Issues and Policies and ECON 1220 Global Environmental Economic Issues and Policies	6
COMP 1010 Introductory Computer Science 1 or COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
Electives, including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Statistics-Economics Joint Honours program, students must complete 24 credit hours, including:

- ECON 1010 • STAT 2150 (M)
- ECON 1020 • or substitutes listed in the chart

Minimum GPA and grades in required courses are outlined in the [Academic Calendar Statistics–Economics Joint Honours Degree Requirements](#).



TIPS FOR CHOOSING COURSES

- Students will normally take STAT 2150 in Year 2 and enter the Joint Honours program in Year 3. If you would like to enter the Joint Honours program in Year 2, consider taking STAT 2150 (M) in your first year.
- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1010 (or COMP 1012).
- Students are strongly advised to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but **higher grades are required**.
- Include a **Written (W) course** as part of your electives; choose from the [Recommended Introductory Courses List](#).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours).



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

MATHEMATICAL SCIENCES

STATISTICS–MATHEMATICS JOINT, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
STAT 2150 (M) Statistics and Computing	3 + lab
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
COMP 1010 Introductory Computer Science 1 or COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Elective (see <i>Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Statistics-Mathematics Joint Honours program, students must complete 24 credit hours, including:

- MATH 1232 (M)
- STAT 2150 (M)
- or substitutes listed in the chart

Minimum GPA and grades in required courses are outlined in the [**Academic Calendar Statistics–Mathematics Joint Honours Degree Requirements**](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but **higher grades are required**.
- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1010 (or COMP 1012).
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [**Recommended Introductory Courses List**](#).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours).



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

PHYSICAL SCIENCES

CHEMISTRY, B.Sc.

Honours and Four Year Major degrees are available.

FIRST YEAR COURSES	CREDIT HOURS
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
CHEM 1120 Introduction to Chemistry Techniques	3
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
MATH 1700 (M) Calculus 2 or MATH 1232 (M) Integral Calculus or MATH 1710 (M) Applied Calculus 2	3 + lab
PHYS 1020 (M) General Physics 1 or PHYS 1050 Physics 1: Mechanics	3 + lab
PHYS 1030 (M) General Physics 2 or PHYS 1070 Physics 2: Waves and Modern Physics	3 + lab
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Electives (see <i>Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Chemistry Honours or Major program, students must complete 24 credit hours, including CHEM 1110. Minimum GPA and grades in required courses are outlined in the [Academic Calendar Chemistry Honours](#) and [Four Year Major Degree Requirements](#).



TIPS FOR CHOOSING COURSES

- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [Recommended Introductory Courses List](#).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Chemistry 40S

Minimum 60% required in:

- Math 40S (Pre-Calculus)
- Physics 40S

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

PHYSICAL SCIENCES

ASTRONOMY AND ASTROPHYSICS, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
PHYS 1050 Physics 1: Mechanics or PHYS 1020 (M) General Physics 1	3 + lab
PHYS 1070 Physics 2: Waves and Modern Physics or PHYS 1030 (M) General Physics 2	3 + lab
MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1220 (M) Linear Algebra 1 or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
MATH 1700 (M) Calculus 2 or MATH 1232 (M) Integral Calculus or MATH 1710 (M) Applied Calculus 2	3 + lab
COMP 1012 Computer Programming for Scientists and Engineers or COMP 1010 Introductory Computer Science 1	3 + lab
ASTR 1810 Introduction to Astronomy: The Magnificent Universe	3 + lab
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Elective (see <i>Tips for Choosing Courses</i>)	3
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Astronomy and Astrophysics Honours program, students must complete 24 credit hours, including PHYS 1070 (or substitutes listed in the chart).

Minimum GPA and grades in required courses are outlined in the [Academic Calendar Astronomy and Astrophysics Degree Requirements](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take PHYS 1050 and PHYS 1070. The listed substitutions are allowed, but **higher grades are required**.
- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1012 (or COMP 1010).
- ASTR 1830 is recommended as an elective in your first year.
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [Recommended Introductory Courses List](#).
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Physics 40S - if taking PHYS 1020 (M)

Minimum 60% required in:

- Math 40S (Pre-Calculus)
- Physics 40S - if taking PHYS 1050

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

PHYSICAL SCIENCES

MEDICAL AND BIOLOGICAL PHYSICS, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
PHYS 1050 Physics 1: Mechanics or PHYS 1020 (M) General Physics 1	3 + lab
PHYS 1070 Physics 2: Waves and Modern Physics or PHYS 1030 (M) General Physics 2	3 + lab
BIOL 1020 Biology 1: Principles and Themes	3 + lab
BIOL 1030 Biology 2: Biological Diversity, Function and Interactions	3 + lab
MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1220 (M) Linear Algebra 1 or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
MATH 1700 (M) Calculus 2 or MATH 1232 (M) Integral Calculus or MATH 1710 (M) Applied Calculus 2	3 + lab
COMP 1012 Computer Programming for Scientists and Engineers or COMP 1010 Introductory Computer Science 1	3 + lab
Faculty of Arts course(s), including a Written (W) course (<i>see Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Medical and Biological Physics Honours program, students must complete 24 credit hours, including PHYS 1070 (or substitutes listed in the chart).

Minimum GPA and grades in required courses are outlined in the [Academic Calendar Medical and Biological Physics Degree Requirements](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take PHYS 1050 and PHYS 1070. The listed substitutions are allowed, but **higher grades are required**.
- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1012 (or COMP 1010).
- Include a **Written (W) course** as part of the Faculty of Arts course(s); choose from the [Recommended Introductory Courses List](#).
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Biology 40S
- Chemistry 40S **or** Physics 40S - if taking PHYS 1020

Minimum 60% required in:

- Math 40S (Pre-Calculus)
- Physics 40S - if taking PHYS 1050

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

PHYSICAL SCIENCES

PHYSICS, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
PHYS 1050 Physics 1: Mechanics or PHYS 1020 (M) General Physics 1	3 + lab
PHYS 1070 Physics 2: Waves and Modern Physics or PHYS 1030 (M) General Physics 2	3 + lab
MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1220 (M) Linear Algebra 1 or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
MATH 1700 (M) Calculus 2 or MATH 1232 (M) Integral Calculus or MATH 1710 (M) Applied Calculus 2	3 + lab
COMP 1012 Computer Programming for Scientists and Engineers or COMP 1010 Introductory Computer Science 1	3 + lab
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Electives (see <i>Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Physics Honours program, students must complete 24 credit hours, including PHYS 1070 (or substitutes listed in the chart).

Minimum GPA and grades in required courses are outlined in the [Academic Calendar Physics Degree Requirements](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take PHYS 1050 and PHYS 1070. The listed substitutions are allowed, but **higher grades are required**.
- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1012 (or COMP 1010).
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [Recommended Introductory Courses List](#).
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Physics 40S - if taking PHYS 1020 (M)

Minimum 60% required in:

- Math 40S (Pre-Calculus)
- Physics 40S - if taking PHYS 1050

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

PHYSICAL SCIENCES

PHYSICS AND ASTRONOMY, B.Sc. MAJOR

FIRST YEAR COURSES	CREDIT HOURS
PHYS 1050 Physics 1: Mechanics or PHYS 1020 (M) General Physics 1	3 + lab
PHYS 1070 Physics 2: Waves and Modern Physics or PHYS 1030 (M) General Physics 2	3 + lab
MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1220 (M) Linear Algebra 1 or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
MATH 1700 (M) Calculus 2 or MATH 1232 (M) Integral Calculus or MATH 1710 (M) Applied Calculus 2	3 + lab
COMP 1012 Computer Programming for Scientists and Engineers or COMP 1010 Introductory Computer Science 1	3 + lab
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Electives (see <i>Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Physics and Astronomy Major program, students must complete 24 credit hours, including PHYS 1050 (or substitute listed in the chart).

Minimum GPA and grades in required courses are outlined in the [**Academic Calendar Physics and Astronomy Four Year Major Degree Requirements**](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take PHYS 1050 and PHYS 1070. The listed substitutions are allowed, but **higher grades are required**.
- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1012 (or COMP 1010).
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [**Recommended Introductory Courses List**](#).
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Physics 40S - if taking PHYS 1020 (M)

Minimum 60% required in:

- Math 40S (Pre-Calculus)
- Physics 40S - if taking PHYS 1050

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

PHYSICAL SCIENCES

CHEMISTRY–PHYSICS JOINT, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics	3
CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
CHEM 1120 Introduction to Chemistry Techniques	3
PHYS 1050 Physics 1: Mechanics or PHYS 1020 (M) General Physics 1	3 + lab
PHYS 1070 Physics 2: Waves and Modern Physics or PHYS 1030 (M) General Physics 2	3 + lab
MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1220 (M) Linear Algebra 1	3 + lab
MATH 1500 (M) Introduction to Calculus or MATH 1230 (M) Differential Calculus or MATH 1510 (M) Applied Calculus 1 or MATH 1524 (M) Mathematics for Management and Social Sciences	3 + lab
MATH 1700 (M) Calculus 2 or MATH 1232 (M) Integral Calculus or MATH 1710 (M) Applied Calculus 2	3 + lab
Faculty of Arts course(s), including a Written (W) course (<i>see Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Chemistry-Physics Joint Honours program, students must complete 24 credit hours, including:

- CHEM 1100 • PHYS 1050 • MATH 1500 (M) • or substitutes listed in the chart
- CHEM 1110 • PHYS 1070 • MATH 1700 (M)

Minimum GPA and grades in required courses are outlined in the [**Academic Calendar Chemistry–Physics Joint Honours Degree Requirements**](#).



TIPS FOR CHOOSING COURSES

- Students are strongly encouraged to take PHYS 1050 and PHYS 1070. The listed substitutions are allowed but **higher grades are required**.
- Include a **Written (W) course** as part of the Faculty of Arts course(s) or as part of your electives; choose from the [**Recommended Introductory Courses List**](#).
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Chemistry 40S
- Physics 40S - if taking PHYS 1020 (M)

Minimum 60% required in:

- Math 40S (Pre-Calculus)
- Physics 40S - if taking PHYS 1050

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours).



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

PHYSICAL SCIENCES

MATHEMATICS–PHYSICS AND ASTRONOMY JOINT, B.Sc. HONOURS

FIRST YEAR COURSES	CREDIT HOURS
MATH 1220 (M) Linear Algebra 1 or MATH 1300 (M) Vector Geometry and Linear Algebra or MATH 1210 (M) Techniques of Classical and Linear Algebra	3 + lab
MATH 1230 (M) Differential Calculus or MATH 1500 (M) Introduction to Calculus or MATH 1510 (M) Applied Calculus 1	3 + lab
MATH 1232 (M) Integral Calculus or MATH 1700 (M) Calculus 2 or MATH 1710 (M) Applied Calculus 2	3 + lab
MATH 1240 (M) Elementary Discrete Mathematics	3 + lab
PHYS 1050 Physics 1: Mechanics or PHYS 1020 (M) General Physics 1	3 + lab
PHYS 1070 Physics 2: Waves and Modern Physics or PHYS 1030 (M) General Physics 2	3 + lab
COMP 1012 Computer Programming for Scientists and Engineers	3 + lab
STAT 1150 (M) Introduction to Statistics and Computing	3 + lab
Faculty of Arts course(s), including a Written (W) course (<i>see Tips for Choosing Courses</i>)	6
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Mathematics-Physics and Astronomy Joint Honours program, students must complete 24 credit hours, including:

- MATH 1232 (M)
- PHYS 1070
- PHYS 1050
- or substitutes listed in the chart

Minimum GPA and grades in required courses are outlined in the [**Academic Calendar Mathematics–Physics and Astronomy Joint Honours Degree Requirements**](#).



TIPS FOR CHOOSING COURSES

- Students are strongly advised to take PHYS 1050 and PHYS 1070. The listed substitutions are allowed, but **higher grades are required**.
- Students are strongly encouraged to take MATH 1220 (M), MATH 1230 (M), and MATH 1232 (M). The listed substitutions are allowed, but **higher grades are required**.
- If you do not have any previous programming experience and/or you did not take Computer Science 40S in high school, you're strongly encouraged to take the elective COMP 1000 before COMP 1012.
- Include a **Written (W) course** as part of the Faculty of Arts course(s); choose from the **Recommended Introductory Courses List**.
- Students should complete their Written (W) course in their first year, as there are no electives in their second year. If a student does not complete their Written (W) course in their second year, they must take it in their second year along with their required second year courses.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Physics 40S - if taking PHYS 1020 (M)

Minimum 60% required in:

- Physics 40S - if taking PHYS 1050

Minimum 70% required in:

- Math 40S (Pre-Calculus)

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year.



NEED MORE INFORMATION?

PROGRAM
OVERVIEW

CAREER
COMPASS

ACADEMIC
CALENDAR

UM
ACHIEVE

FACULTY
WEBSITE

IMPORTANT
DATES

FACULTY OF SCIENCE

PSYCHOLOGY

PSYCHOLOGY, B.Sc.

Honours and Four Year Major degrees are available.

The Honours and Major programs are comprised of courses in Psychology with related courses in Science. The Honours and Four Year Major Psychology degrees are also offered through the **Faculty of Arts**.

FIRST YEAR COURSES	CREDIT HOURS
PSYC 1200 Introduction to Psychology	6
Written (W) course (<i>see Tips for Choosing Courses</i>)	3
6 credit hours of Introductory Faculty of Science courses Choose Introductory Science Courses from the list below in the subject areas you want to pursue beyond the first year.	
Biological Sciences BIOL 1020 and BIOL 1030	
Chemistry CHEM 1100 and CHEM 1110	
Statistics STAT 1000 (M) and STAT 2000 (M), or STAT 1150 (M) and STAT 2150 (M)	
Computer Science COMP 1010 or COMP 1012 COMP 1020	6
Mathematics Choose 2 courses from: MATH 1500 (M) (or MATH 1510 (M), MATH 1524 (M), MATH 1230 (M)) MATH 1700 (M), MATH 1710 (M), or MATH 1232 (M) MATH 1300 (M) or MATH 1220 (M) MATH 1240 (M)	
Microbiology MBIO 1010 and MBIO 2020	
Physics PHYS 1020 (M) and PHYS 1030 (M), or PHYS 1050 and PHYS 1070	
15 credit hours of Faculty of Science courses (choose from above) or Electives (<i>see Tips for Choosing Courses</i>)	15
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

To enter the Psychology Major in the Faculty of Science, students must complete 24 credit hours, including PSYC 1200 and at least 6 credit hours of Introductory Faculty of Science courses.

Minimum GPA and grades in required courses are outlined in the **Academic Calendar Psychology Honours and Four Year Major Degree Requirements**.



TIPS FOR CHOOSING COURSES

- When choosing Intro Science Courses from the list in the chart, consider the subject areas you want to pursue beyond the first year.
- If you are interested in taking upper-level Chemistry courses later in your degree, take CHEM 1120 in addition to CHEM 1100 and CHEM 1110.
- For your 15 credit hours of Faculty of Science courses or electives, you are strongly encouraged to choose courses from the chart. This will ensure you have the prerequisites for upper-level Science courses required later in your degree.
- Alternately, you may choose your 15 credit hours of Faculty of Science courses or electives from the **Recommended Introductory Courses List**.
- If you want to take Computer Science as part of your Introductory Science courses, and you do not have any previous programming experience, you're strongly encouraged to take the elective COMP 1000 before COMP 1010 (or COMP 1012).
- Choose your **Written (W) course** from the **Recommended Introductory Courses List**.
- The **Mathematics (M) course** will be met by PSYC 2260 (M) in Year 2 of the program.
- If you are interested in Psychology and want to know what degree may be right for you, please contact the Psychology Undergraduate Advisor at psychugadvisor@umanitoba.ca.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Introductory science courses in Biology, Chemistry, Computer Science, Mathematics, and Statistics have 40S level prerequisites. Click the course code for a specific course ex. **BIOL 1020** to view more detailed prerequisites.

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to **upgrade** your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can **transit** on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.
- After you transit to Science, use the Declarations menu in Aurora to declare your major. To enter an Honours program, you must consult with a **Science Advisor**.

MINIMUM TIME TO GRADUATION

- 4 years (120 credit hours), **Co-op** may extend your studies by an additional year. Co-op is only available for the major, not the Honours program.



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

FACULTY OF SCIENCE

GENERAL

GENERAL B.Sc.

The B.Sc. General provides students with diversified training in Science.

FIRST YEAR COURSES	CREDIT HOURS
Choose 9 credit hours from Computer Science, Mathematics, or Statistics COMP 1010 Introductory Computer Science 1 (3 + lab) or COMP 1012 Computer Programming for Scientists and Engineers (3 + lab) COMP 1020 Introductory Computer Science 2 (3 + lab) MATH 1220 (M) Linear Algebra 1 (3 + lab) or MATH 1300 (M) Vector Geometry and Linear Algebra (3 + lab) or MATH 1210 (M) Techniques of Classical and Linear Algebra (3 + lab) MATH 1230 (M) Differential Calculus (3 + lab) or MATH 1500 (M) Introduction to Calculus (3 + lab) or MATH 1524 (M) Mathematics for Management and Social Sciences (3 + lab) MATH 1232 (M) Integral Calculus (3 + lab) or MATH 1700 (M) Calculus 2 (3 + lab) (or equivalent) MATH 1240 (M) Elementary Discrete Mathematics (3 + lab) STAT 1000 (M) Basic Statistical Analysis (3 + lab) or STAT 1150 (M) Introduction to Statistics and Computing (3 + lab) STAT 2000 (M) Basic Statistical Analysis 2 (3 + lab) or STAT 2150 (M) Statistics and Computing (3 + lab)	9
Choose 6 credit hours from Astronomy, Chemistry, or Physics ASTR 1810 Introduction to Astronomy: The Magnificent Universe (3 + lab) ASTR 1830 Life in the Universe (3) CHEM 1100 Introductory Chemistry 1: Atomic and Molecular Structure and Energetics (3) CHEM 1110 Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties (3) CHEM 1120 Introduction to Chemistry Techniques (3) PHYS 1020 (M) General Physics 1 (3 + lab) or PHYS 1050 Physics 1: Mechanics (3 + lab) PHYS 1030 (M) General Physics 2 (3 + lab) or PHYS 1070 Physics 2: Waves and Modern Physics (3 + lab)	6
Choose 6 credit hours from Biology or Microbiology BIOL 1020 Biology 1: Principles and Themes (3 + lab) BIOL 1030 Biology 2: Biological Diversity, Function and Interaction (3 + lab) BIOL 1410 Anatomy of the Human Body (3 + lab) BIOL 1412 Physiology of the Human Body (3 + lab) MBIO 1010 Microbiology 1 (3 + lab) MBIO 1220 Essentials of Microbiology (3)	6
Faculty of Arts course(s), including a Written (W) course (see <i>Tips for Choosing Courses</i>)	6
Elective (see <i>Tips for Choosing Courses</i>)	3
Total Credit Hours	30



TIPS FOR CHOOSING COURSES

- If you are deciding between a 3-year General Science Degree or a 4-year degree (Honours or Major), consult the [program planning page](#) for the specific 4-year degree for more course planning information.
- When choosing first year Science courses, consider what upper-level Science subjects you would like to focus on later in your degree.

Biology	If you intend to take upper-level Biology courses, take BIOL 1020 and BIOL 1030. Note: BIOL 1410 and BIOL 1412 are not prerequisites for most upper-level Biology courses. BIOL 1410 and BIOL 1412 are intended for students targeting health-related programs.
Chemistry	If you plan on taking upper-level Chemistry courses, take CHEM 1100, CHEM 1110, and CHEM 1120.
Mathematics	If you plan on taking upper-level Math courses, take MATH 1220 (M), MATH 1230 (M), MATH 1232 (M), and MATH 1240 (M) (or substitutes listed).
Microbiology	If you plan on taking upper-level Microbiology courses, take BIOL 1020, BIOL 1030, MBIO 1010, CHEM 1100, CHEM 1110, and CHEM 1120. Note: MBIO 1220 is intended for students targeting Nursing, and is not a prerequisite for upper-level MBIO courses.
Statistics	If you plan on taking upper-level Statistics courses, take STAT 1150 (M), STAT 2150 (M), MATH 1230 (M), and MATH 1232 (M) (or substitutes listed).

- If you want to take Computer Science as part of your Introductory Science courses, and do not have any previous programming experience, you're strongly encouraged to take the elective COMP 1000 before COMP 1010 (or COMP 1012).
- Choose your Faculty of Arts courses and your elective from the [Recommended Introductory Courses List](#). Make sure that at least one of these courses is a Written (W) course.
- **Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to reduce the first year course load and to meet prerequisites for 2000-level courses, where applicable.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

Minimum 50% required in:

- Math 40S (Pre-Calculus) or 70% in Math 40S (Applied)
- Chemistry 40S or Physics 40S

Introductory science courses in Astronomy, Biology, Chemistry, Computer Science, Mathematics, Microbiology, Physics, and Statistics have 40S level prerequisites. Click the course code for a specific course ex. **BIOL 1020** to view more detailed prerequisites.

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to [upgrade](#) your high school course.



HOW TO APPLY

- To move from University 1 to the Faculty of Science, U1 students can [transit](#) on the Aurora registration system. U1 students must complete 24 credit hours to transit, and transit is open once a year in June.

MINIMUM TIME TO GRADUATION

- 3 years (90 credit hours)
- B.Sc. General Degree students can participate in the [General Science Internship Program](#), which may extend your studies.



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**CAREER
COMPASS**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

FACULTY OF SOCIAL WORK

SOCIAL WORK, B.S.W.

FIRST YEAR COURSES	CREDIT HOURS
6 credit hours of Indigenous Studies (INDG) at the 1000-level or higher	6
3 credit hours of Women's and Gender Studies (WOMN) at the 1000-level or higher	3
Choose 12 credit hours from the following: (see <i>Tips for Choosing Courses</i>) Humanities Social Sciences Family Social Sciences	12
Non-Social Work electives (see <i>Tips for Choosing Courses</i>)	9
Total Credit Hours	30



MINIMUM ADMISSION REQUIREMENTS

Admission to Social Work requires 30 graded credit hours of university-level courses listed in the First Year Courses chart. All courses must be at the 1000-level or higher.

Minimum requirements are outlined in the Faculty of Social Work [**Advanced Entry admission requirements**](#).



TIPS FOR CHOOSING COURSES

- For your 6 credit hours of Indigenous Studies (INDG), see the Faculty of Arts section of the [**Recommended Introductory Courses List**](#) for course options.
- In the Faculty of Social Work, a non-Social Work elective is any course taught in a faculty other than Social Work. Choose your non-Social Work elective from the [**Recommended Introductory Courses List**](#).
- Choose your Humanities or Social Sciences from the Faculty of Arts section in the [**Recommended Introductory Courses List**](#). Humanities courses are marked with **H**, and Social Sciences courses are marked with **SS**.
- Psychology (PSYC), Sociology (SOC), and Family Social Sciences (FMLY) are strongly recommended.
- Choose your Family Social Sciences (FMLY) from the Rady Faculty of Health Sciences section in the [**Recommended Introductory Courses List**](#).
- The **Written (W) course** is not required for admission.
- The **Mathematics (M) course** is not required for admission.
- Choose courses that can enhance your learning and foundational knowledge in the field of social work, while increasing your academic satisfaction and potential for competitive grades. Choose courses from the [**Recommended Introductory Courses List**](#).
- Advanced Placement (AP) or International Baccalaureate (IB)** credit may be used to meet prerequisites for 2000-level courses, where applicable. Students seeking admission to the Faculty of Social Work must complete at least 30 credit hours at the university-level, in addition to the courses transferred from AP or IB programs. Students may receive credit for applicable AP or IB courses once they are admitted to the B.S.W. Program. Contact an [**Academic Advisor**](#) in the First Year Centre for information and possible permission to register in upper level courses.
- Contact an [**Academic Advisor**](#) in the First Year Centre to find out if you can use the Summer Term to complete the admission requirements for your target degree.



HIGH SCHOOL PREREQUISITES FOR UNIVERSITY-LEVEL COURSES

- None



HOW TO APPLY

Please refer to the **Admissions** page to:

- Review the **2026-2027 Advanced Entry admission requirements**, which outline detailed application information, deadlines, and minimum requirements that students must meet to apply to this program.
- Submit and pay your application for admission.

Admission requirements may change from year to year. We encourage you to regularly review the Advanced Entry admission requirements for your target degree program to ensure that you are getting the most current admission information.

MINIMUM TIME TO GRADUATION

- 4 years (123 credit hours).



NEED MORE INFORMATION?

**PROGRAM
OVERVIEW**

**ACADEMIC
CALENDAR**

**UM
ACHIEVE**

**FACULTY
WEBSITE**

**IMPORTANT
DATES**

RECOMMENDED INTRODUCTORY COURSES

The **Recommended Introductory Courses List** is a list of courses open to first year students. Click on the course number to view the course description and to get additional information.

Courses that fulfill certain degree requirements or are offered in specialized formats are indicated with the icons listed below:

(W) Written course—indicates courses that meet the University of Manitoba’s W requirement, as these courses have significant content in written English.

(M) Mathematics course—indicates courses that meet the University of Manitoba’s M requirement, as these courses have significant content in mathematics.

H Humanities—indicates courses that are classified as humanities subjects. Humanities subjects generally focus on the study of human culture.

ICR Indigenous Content Requirement—indicates courses that meet the Indigenous Content Requirement in the Faculty of Arts.

SS Social Sciences—indicates courses that are classified as social science subjects. Social Science subjects generally focus on the study of society, social relationships and behaviour.

SCI Science Interest Course—indicates a good choice for students who don’t have a strong science background. Although these courses are not intended to lead to advanced-level studies, they may meet the science requirement of a degree program.

QUICK LINKS TO COURSES BY FACULTY

FACULTY OF AGRICULTURAL AND FOOD SCIENCES

FACULTY OF ARCHITECTURE

SCHOOL OF ART

ASPER SCHOOL OF BUSINESS

FACULTY OF ARTS

FACULTY OF EDUCATION

PRICE FACULTY OF ENGINEERING

CLAYTON H. RIDDELL FACULTY OF ENVIRONMENT, EARTH, AND RESOURCES

RADY FACULTY OF HEALTH SCIENCES

FACULTY OF KINESIOLOGY AND RECREATION MANAGEMENT

DESAUTELS FACULTY OF MUSIC

FACULTY OF SCIENCE

FACULTY OF SOCIAL WORK

FACULTY OF AGRICULTURAL AND FOOD SCIENCES

CREDIT
HOURS

AGRIBUSINESS

ABIZ 1000	Introduction to Agribusiness Management	3
ABIZ 1010	Economics of World Food Issues and Policies	3

AGRICULTURE

AGRI 1600	Introduction to Agrifood Systems	3 + lab
-----------	----------------------------------	---------

ENTOMOLOGY

ENTM 1000	World of Bugs	3
-----------	---------------	---

FOOD SCIENCE

FOOD 1000	Food Safety Today and Tomorrow	3
-----------	--------------------------------	---

HUMAN NUTRITIONAL SCIENCES

HNSC 1200	Food: Facts and Fallacies	3
HNSC 1210	Nutrition for Health and Changing Lifestyles	3

PLANT SCIENCE

PLNT 1000	Urban Agriculture	3
-----------	-------------------	---

FACULTY OF ARCHITECTURE

ENVIRONMENTAL DESIGN

EVDS 1600	Introduction to Environmental Design	3
EVDS 1602	Visual Literacy	3
EVDS 1660	History of Culture, Ideas and Environment 1 May not be held with FAAH 1030.	3
EVDS 1670	History of Culture, Ideas and Environment 2 Prerequisite: EVDS 1660 (C). May not be held with FAAH 1040.	3


 If you are interested in taking a specific course, click on its course code ex. **ABIZ 1000** to view essential information such as a course description, prerequisites, and restrictions.

RECOMMENDED INTRODUCTORY COURSES

SCHOOL OF ART

CREDIT
HOURS

FINE ART, GENERAL

	FA 1020 (M)	Mathematics in Art Also offered as MATH 1020 (M). A good course to choose if you don't have a strong mathematics background and you need a Mathematics (M) course .	3
---	-------------	---	---

FINE ART, ART HISTORY

FAAH 1030	Introduction to Art 1A May not be held with EVDS 1660.	3
FAAH 1040	Introduction to Art 2A May not be held with EVDS 1670.	3

FINE ART, STUDIO

STDO 1210	Drawing: Studio 1	3
STDO 1240	Figure Study 1	3
STDO 1250	Drawing: Studio 2 Prerequisite: STDO 1210 (C).	3
STDO 1410	Visual Language	3
STDO 1470	Materials Studio Prerequisite: STDO 1410 (C).	3
STDO 1510	Art Now	3

ASPER SCHOOL OF BUSINESS

GENERAL MANAGEMENT

GMGT 1010 (W)	Business and Society	3
GMGT 2060	Management and Organizational Theory Prerequisite: GMGT 1010 (D).	3
GMGT 2070	Introduction to Organizational Behaviour	3

ENTREPRENEURSHIP / SMALL BUSINESS

ENTR 2020	Starting a New Business	3
-----------	--------------------------------	---

MARKETING

MKT 2210	Fundamentals of Marketing	3
----------	----------------------------------	---

FACULTY OF ARTS

**CREDIT
HOURS**

AMERICAN SIGN LANGUAGE

H	ASLL 1000	American Sign Language 1	3 + lab
----------	-----------	--------------------------	---------

ANTHROPOLOGY

SS	ANTH 1210	Ancient Peoples and Places	3
SS	ANTH 1220	Socio-Cultural Anthropology	3

ARABIC

H	ARA 1000	Elementary Arabic Prerequisite: written consent of instructor.	6 + lab
----------	----------	---	---------

ARTS INTERDISCIPLINARY

	ARTS 1110 (W)	Introduction to University	3
SS	ARTS 1160	Leadership: An Interdisciplinary Approach	3

ASIAN STUDIES

H	ASIA 1420 (W)	Asian Civilizations to 1500 Also offered as HIST 1420 (W).	3
H	ASIA 1430 (W)	Asian Civilizations from 1500 Also offered as HIST 1430 (W).	3
H	ASIA 1750	Introduction to Korean Students who have received all or a portion of their elementary or secondary education in the Korean language may not normally enrol.	6 + lab
H	ASIA 1760	Introduction to Chinese (Mandarin) Students who have received all or a portion of their elementary or secondary education in the Chinese language may not normally enrol.	6 + lab
H	ASIA 1770	Introduction to Japanese This course is intended for students with no prior knowledge of Japanese. Students with prior knowledge of the language are required to take a placement test or to meet with the Program Director or designate for an interview.	6 + lab
H	ASIA 2750	Intermediate Korean Prerequisite: ASIA 1750 (C) or written consent of instructor.	6 + lab
H	ASIA 2760	Intermediate Chinese (Mandarin) Prerequisite: ASIA 1760 (C) or written consent of instructor.	6 + lab
H	ASIA 2770	Intermediate Japanese Prerequisite: ASIA 1770 (C) or written consent of instructor.	6 + lab

RECOMMENDED INTRODUCTORY COURSES

FACULTY OF ARTS

CREDIT
HOURS

CANADIAN STUDIES

H	CDN 1000	Introduction to Canada	3
----------	----------	------------------------	---

CATHOLIC STUDIES

H	CATH 1190 (W)	Introduction to Catholic Studies	3
----------	---------------	----------------------------------	---

CLASSICAL STUDIES

H	CLAS 1270	Introduction to Ancient Greek Culture	3
H	CLAS 1280	Introduction to Ancient Roman Culture	3
H	CLAS 1520	Greek and Roman Mythology	3

ECONOMICS

SS	ECON 1010	Introduction to Microeconomic Principles	3
SS	ECON 1020	Introduction to Macroeconomic Principles	3
SS	ECON 1210	Introduction to Canadian Economic Issues and Policies	3
SS	ECON 1220	Introduction to Global Environmental Economic Issues and Policies	3

ENGLISH

	ENGL 0930 (W)	English Composition	3
	ENGL 0940 (W)	Writing About Literature	3
H	ENGL 1200 (W)	Representative Literary Works	6
H	ENGL 1340 (W)	Introduction to Literary Analysis	3
H	ENGL 1400 (W)	Thematic Approaches to the Study of Literature	3

FILM STUDIES

H	FILM 1290	The Art of the Film 1	3
H	FILM 1310	Film History Prerequisite: FILM 1290 (C) or written consent of instructor.	3

FACULTY OF ARTS

**CREDIT
HOURS**

FRENCH

H	FREN 1152	Introductory French 1 For students with no prior knowledge of French or who have studied French up to and including Grade 11 or its equivalent.	3 + lab
H	FREN 1154	Introductory French 2 For students with limited prior knowledge of French or who have studied French up to and including Grade 11 or its equivalent or who have successfully completed Introductory French 1.	3 + lab
H	FREN 1192	Français pour bilingues et francophones 1 Prerequisite: Senior 4 French or written consent of department head.	3
H	FREN 1194	Français pour bilingues et francophones 2 Prerequisite: FREN 1192 (C) or written consent of department head.	3
H	FREN 1202	Intermediate French 1 Prerequisite: FREN 1154 (C) or Senior 4 French.	3
H	FREN 1204	Intermediate French 2 Prerequisite: FREN 1202 (C) or written consent of department head.	3
H	FREN 1252	Français Oral 1 Prerequisite: Senior 4 French or FREN 1154 (B) or written consent of department head.	3
H	FSIE 2100	Exploration of Contemporary French and Francophone Cultures	3

GERMAN

H	GRMN 1122	Introductory German 1 For students with limited or no prior knowledge of German. Students with Grade 12 German or its equivalent may not normally take the course for credit.	3 + lab
H	GRMN 1124	Introductory German 2 For students with some basic knowledge of German. Prerequisite: GRMN 1122 (C) or written consent of department head.	3 + lab
H	GRMN 1300 (W)	Masterpieces of German Literature in English Translation	3
H	GRMN 1310 (W)	Love in German Culture in English Translation	3
H	GRMN 2102	Intermediate German 1 Prerequisite: German 40S or GRMN 1124 (C) or written consent of department head.	3
H	GRMN 2104	Intermediate German 2 Prerequisite: GRMN 2102 (C) or written consent of department head.	3
H	GRMN 2120 (W)	Introduction to German Culture from 1918 to the Present	3

i If you are interested in taking a specific course, click on its course code ex. **ECON 1010** to view essential information such as a course description, prerequisites, and restrictions.

RECOMMENDED INTRODUCTORY COURSES

FACULTY OF ARTS

CREDIT
HOURS

GLOBAL POLITICAL ECONOMY

SS	GPE 1700	Social Justice in the 21st Century: Global Political Economy and Environmental Change	3
-----------	----------	---	---

GREEK

H	GRK 1010	Introduction to the Reading of Ancient Greek 1	3
H	GRK 1020	Introduction to the Reading of Ancient Greek 2 Prerequisite: GRK 1010 (C).	3

HEBREW

H	HEB 1250	Hebrew 1 Prerequisite: written consent of program coordinator.	6 + lab
H	HEB 1260	Hebrew 2 Prerequisite: HEB 1250 (C) or written consent of program coordinator.	3 + lab

HISTORY

H	HIST 1200 (W)	An Introduction to the History of Western Civilization	6
H	HIST 1270 (W)	New Directions in History: Inquiries into the Power Relations of the Modern World	3
H	HIST 1350 (W)	An Introduction to the History of Western Civilization to 1500	3
H	HIST 1360 (W)	An Introduction to the History of Western Civilization from 1500	3
H	HIST 1370 (W)	An Introduction to Modern World History: 1500-1800	3
H	HIST 1380 (W)	An Introduction to Modern World History: 1800-Present	3
H	HIST 1390 (W)	History of Colonial Canada: 1500-1885	3
H	HIST 1400 (W)	History of Canadian Nation since 1867	3
H	HIST 1420 (W)	Asian Civilizations to 1500	3
H	HIST 1430 (W)	Asian Civilizations from 1500	3
H ICR	HIST 2010 (W)	Indigenous History in Canada	6

FACULTY OF ARTS

CREDIT
HOURS

HISTORY (CONTINUED)

H	HIST 2150 (W)	Independent Latin America	3
H	HIST 2240 (W)	History of Antisemitism and the Holocaust	6
H	HIST 2230 (W)	History of the United States from 1607	6
H	HIST 2282 (W)	Inventing Canada	3
H	HIST 2286 (W)	Modern Canada	3
H	HIST 2350 (W)	Europe 1789-1870	3
H	HIST 2360 (W)	Europe 1870 to the Present	3
H	HIST 2400 (W)	History of Human Rights and Social Justice in the Modern World	3
H	HIST 2420 (W)	The Medieval World	6
H	HIST 2500 (W)	History of Africa	6
H	HIST 2530 (W)	History of the Modern Middle East	3
H	HIST 2540 (W)	History of the Islamic World	3
H	HIST 2600 (W)	Introduction to Ukraine	3
H	HIST 2610 (W)	Making of Modern Ukraine	3
H	HIST 2670 (W)	History of Capitalism	3
H	HIST 2680 (W)	A History of Socialism from the French Revolution to the Present	3
H	HIST 2730 (W)	Independent Latin America	3
H	HIST 2732 (W)	Modern World History, 1945-1992: The Age of Three Worlds	3

HUNGARIAN

H	HUNG 1000	Introduction to Hungarian 1	3 + lab
H	HUNG 1002	Introduction to Hungarian 2 Prerequisite: HUNG 1000 (C) or written consent of the department head.	3 + lab



i If you are interested in taking a specific course, click on its course code ex. **GRK 1010** to view essential information such as a course description, prerequisites, and restrictions.

RECOMMENDED INTRODUCTORY COURSES

FACULTY OF ARTS

CREDIT
HOURS









ICELANDIC

	ICEL 1202	Introductory Icelandic 1	3 + lab
	ICEL 1204	Introductory Icelandic 2 Prerequisite: ICEL 1202 (C) or written consent of the department head.	3 + lab

INDIGENOUS STUDIES

 	INDG 1200	Indigenous Peoples in Canada	6
 	INDG 1220	Indigenous Peoples in Canada, Part 1	3
 	INDG 1240	Indigenous Peoples in Canada, Part 2	3
 	INDG 2012 (W)	Indigenous History in Canada	6
 	INDG 2020 (W)	The Métis in Canada	3

INDIGENOUS LANGUAGES

	INDG 1250	Introductory Cree 1 Practical course intended for students who are not fluent in Cree.	3 + lab
	INDG 1252	Introductory Cree 1 - Pass/Fail Option Practical course intended for students who are not fluent in Cree.	3 + lab
	INDG 1260	Introductory Cree 2 Prerequisite: INDG 1250 (C).	3 + lab
	INDG 1262	Introductory Cree 2 - Pass/Fail Option Practical course intended for students who are not fluent in Cree.	3 + lab
	INDG 1270	Introductory Anishinaabemowin (Ojibway) 1 Practical course intended for students who are not fluent in Anishinaabe (Ojibwe).	3
	INDG 1272	Introductory Anishinaabemowin (Ojibwe) 1 - Pass/Fail Option Practical course intended for students who are not fluent in Anishinaabemowin (Ojibwe).	3 + lab
	INDG 1280	Introductory Anishinaabemowin (Ojibway) 2 Prerequisite: INDG 1270 (C).	3
	INDG 1282	Introductory Anishinaabemowin (Ojibwe) 2 - Pass/Fail Option Practical course intended for students who are not fluent in Anishinaabemowin (Ojibwe).	3 + lab

ITALIAN

H	ITLN 1080	Introductory Italian An introduction to the Italian language for students with little or no knowledge of Italian.	6 + lab
----------	-----------	---	---------

FACULTY OF ARTS

**CREDIT
HOURS**

LABOUR STUDIES

SS	LABR 1260 (W)	Working for a Living	3
SS	LABR 1290 (W)	Labour Unions and Workers' Rights in Canada	3

LATIN

H	LATN 1080	Introduction to the Reading of Latin 1	3
H	LATN 1090	Introduction to the Reading of Latin 2 Prerequisite: LATN 1080 (C).	3

LINGUISTICS

SS	LING 1000	Introduction to Linguistics 1: Foundations of Language	3
SS	LING 1010	Introduction to Linguistics 2: Language in Context Prerequisite: LING 1000 (C) or written consent of instructor.	3

PHILOSOPHY

H	PHIL 1200	Introduction to Philosophy	6
H	PHIL 1290	Critical Thinking	3
H	PHIL 1300 (M)	Introduction to Logic	3
H	PHIL 1520	Goodness, Beauty, and Justice	3

i If you are interested in taking a specific course, click on its course code ex. **PHIL 1290** to view essential information such as a course description, prerequisites, and restrictions.

RECOMMENDED INTRODUCTORY COURSES

POLISH

H	POL 1892	Introductory Polish 1 Intended for students with little or no previous knowledge of Polish.	3 + lab
H	POL 1894	Introductory Polish 2 Prerequisite: POL 1892 (C) or written consent of department head.	3 + lab
H	POL 1900 (W)	Love, Heroes and Patriotism in Contemporary Poland	3
H	POL 2892	Intermediate Polish 1 Prerequisite: POL 1894 (C) or written consent of department head.	3
H	POL 2894	Intermediate Polish 2 Prerequisite: POL 2892 (C) or written consent of department head.	3

FACULTY OF ARTS

**CREDIT
HOURS**

POLITICAL SCIENCE

SS	POLS 1502 (W)	Introduction to Political Science	3 + lab
-----------	---------------	--	---------

PSYCHOLOGY

SS	PSYC 1200	Introduction to Psychology	6
-----------	-----------	-----------------------------------	---

RELIGION

H	RLGN 1322	Introduction to Eastern Religions	3
H	RLGN 1324	Introduction to Western Religions	3
H	RLGN 1410	Death and Concepts of the Future	3
H	RLGN 1420	Ethics in World Religions	3
H	RLGN 1424	Religion and Sexuality	3
H	RLGN 1440 (W)	Evil in World Religions	3
H	RLGN 1450	Religion and the Media	3

i If you are interested in taking a specific course, click on its course code ex. **UKRN 1312** to view essential information such as a course description, prerequisites, and restrictions.

RUSSIAN

H	RUSN 1302	Introductory Russian 1 Not open to native speakers and students with high school Russian 41G credit.	3 + lab
H	RUSN 1304	Introductory Russian 2 Prerequisite: RUSN 1302 (C) or written consent of department head.	3 + lab
H	RUSN 1400 (W)	Masterpieces of Russian Literature in Translation	3
H	RUSN 2812	Intermediate Russian 1 Prerequisite: Russian 41G or RUSN 1304 (C) or written consent of department head.	3
H	RUSN 2814	Intermediate Russian 2 Prerequisite: RUSN 2812 (C) or written consent of the department head.	3

SOCIOLOGY & CRIMINOLOGY

SS	SOC 1000	Introduction to Sociology	3
-----------	----------	----------------------------------	---

FACULTY OF ARTS

**CREDIT
HOURS**

SPANISH

H	FSIE 2600	Explorations of Hispanic Pop Culture	3
H	SPAN 1182	Introductory Spanish 1 The course is not open to students who have taken Senior 4 Spanish, students with native or near-native proficiency. Students with a proficiency level beyond this course will be directed to a higher-level course.	3 + lab
H	SPAN 1184	Introductory Spanish 2 Prerequisite: SPAN 1182 (C) or written permission of department head. The course is not open to students who have taken Senior 4 Spanish, students with native or near-native proficiency. Students with a proficiency level beyond this course will be directed to a higher-level course.	3 + lab
H	SPAN 1262	Intermediate Spanish Grammar and Conversation 1 Prerequisite: SPAN 1182 (C) and SPAN 1184 (C) or written consent of department head.	3 + lab
H	SPAN 1272	Intermediate Spanish Grammar and Conversation 2 Prerequisite: SPAN 1262 (C) or written consent of instructor or department head.	3 + lab
H	SPAN 1280	Spanish for Native Speakers Prerequisite: Written consent of instructor or department head.	3

THEATRE

H	THTR 1220	Introduction to Theatre	6
----------	-----------	--------------------------------	---

RECOMMENDED INTRODUCTORY COURSES

UKRAINIAN

H	UKRN 1312	Introductory Ukrainian 1 Not open to native speakers and students with Ukrainian 40S credit.	3 + lab
H	UKRN 1314	Introductory Ukrainian 2 Prerequisite: UKRN 1312 (C) or written consent of the department head.	3 + lab
H	UKRN 2722	Intermediate Ukrainian 1 Prerequisite: Ukrainian 40S or UKRN 1314 (C) or written consent of department head.	3
H	UKRN 2724	Intermediate Ukrainian 2 Prerequisite: UKRN 2722 (C) or written consent of the department head.	3
H	UKRN 2780 (W)	Ukrainian Culture until 1900 to the Present	3

FACULTY OF ARTS

**CREDIT
HOURS**

WOMEN'S AND GENDER STUDIES

H	WOMN 1500 (W)	Introduction to Women's and Gender Studies in the Humanities	3
SS	WOMN 1600 (W)	Introduction to Women's and Gender Studies in the Social Sciences	3

FACULTY OF EDUCATION

EDUCATION

	EDUA 1790	Introduction to Education: What does it mean to Teach? This course is restricted to Access students.	3
	EDUB 1790	Introduction to Education: What does it mean to Teach?	3

PRICE FACULTY OF ENGINEERING

ENGINEERING

	ENG 1430	Design in Engineering Prerequisites: <ul style="list-style-type: none"> 60% in Pre-Calculus Mathematics 40S or MATH 1018 (M) (C) or MSKL 0100 (C) 60% in Physics 40S or PHYS 1018 (C) or PSKL 0100 (P) 60% in Chemistry 40S or CHEM 1018 (C) 	3 + lab
	ENG 1440	Introduction to Statics Prerequisites: <ul style="list-style-type: none"> 60% in Pre-Calculus Mathematics 40S or MATH 1018 (M) (C) or MSKL 0100 (C) 60% in Physics 40S or PHYS 1018 (C) or PSKL 0100 (P) 60% in Chemistry 40S or CHEM 1018 (C) 	3 + lab

PRICE FACULTY OF ENGINEERING CONTINUED

ENG 1450	Introduction to Electrical and Computer Engineering Prerequisites: <ul style="list-style-type: none"> 60% in Pre-Calculus Mathematics 40S or MATH 1018 (M) (C) or MSKL 0100 (C) 60% in Physics 40S or PHYS 1018 (C) or PSKL 0100 (P) 60% in Chemistry 40S or CHEM 1018 (C) 	3 + lab
ENG 1460	Introduction to Thermal Sciences Prerequisites: <ul style="list-style-type: none"> 60% in Pre-Calculus Mathematics 40S or MATH 1018 (M) (C) or MSKL 0100 (C) 60% in Physics 40S or PHYS 1018 (C) or PSKL 0100 (P) 60% in Chemistry 40S or CHEM 1018 (C) 	3 + lab

CLAYTON H. RIDDELL FACULTY OF ENVIRONMENT, EARTH, AND RESOURCES

CREDIT HOURS

ENVIRONMENT, EARTH, AND RESOURCES (GENERAL FACULTY)

EER 1000	Earth: A User's Guide	3
----------	-----------------------	---

ENVIRONMENTAL SCIENCE

ENVR 1000	Environmental Science 1: Concepts May not be held with BIOL 1340.	3
ENVR 2000	Environmental Science 2: Issues Prerequisite: ENVR 1000 (C) or BIOL 1340 (C).	3

GEOGRAPHY

GEOG 1280	Introduction to Human Geography	3
GEOG 1290	Introduction to Physical Geography	3
GEOG 1700	Social Justice in the 21st Century: Global Political Economy and Environmental Change	3

GEOLOGICAL SCIENCE

GEOL 1340	The Dynamic Earth	3 + lab
GEOL 1400	Time-Trekker's Travelog: Our Evolving Earth	3
GEOL 1410	Natural Disasters and Global Change	3
GEOL 1420	Exploring the Planets	3

 If you are interested in taking a specific course, click on its course code ex. **ENVR 1000** to view essential information such as a course description, prerequisites, and restrictions.

RECOMMENDED INTRODUCTORY COURSES

RADY FACULTY OF HEALTH SCIENCES MAX RADY COLLEGE OF MEDICINE

FAMILY SOCIAL SCIENCES

FMLY 1000	Families in Contemporary Canadian Society	3
FMLY 1010	Human Development in the Family	3
FMLY 1012	Introduction to Social Development	3
FMLY 1420	Family Management Principles	3

HEALTH STUDIES

HEAL 1600	Health and Health Professions	3
-----------	-------------------------------	---

FACULTY OF KINESIOLOGY AND RECREATION MANAGEMENT

CREDIT
HOURS

KINESIOLOGY, PHYSICAL EDUCATION, AND RECREATION

KPER 1200	Physical Activity, Health and Wellness	3
KPER 1400	Concepts of Recreation and Leisure	3
KPER 1500	Foundations of Physical Education and Kinesiology	3
REC 2100	Introduction to Leisure Travel	3

DESAUTELS FACULTY OF MUSIC


MUSIC

MUSC 1010	Music Matters: Excursions in Western Musical Culture	3
MUSC 1020	Introduction to Popular Music	3
MUSC 1030	History of Musical Theatre	3
MUSC 1040	Discovering Jazz	3
MUSC 1110	Music Theory 1 Prerequisite: MUSC 1930 (C).	3
MUSC 1120	Music Theory 2 Prerequisite: MUSC 1110 (C).	3
MUSC 1930	Rudiments of Music	3

 If you are interested in taking a specific course, click on its course code ex. **KPER 1200** to view essential information such as a course description, prerequisites, and restrictions.



FACULTY OF SCIENCE

ASTRONOMY

	ASTR 1810	Introduction to Astronomy: The Magnificent Universe Prerequisites: <ul style="list-style-type: none"> • 50% in Physics 40S or PHYS 1018 (C) • 70% in Pre-calculus Mathematics 40S or Applied Mathematics 40S It is strongly recommended that students attain a minimum of 70% as the average of their marks in Physics 40S and Pre-calculus Mathematics 40S.	3 + lab
	ASTR 1830	Life in the Universe	3

FACULTY OF SCIENCE

BIOLOGICAL SCIENCES

	BIOL 1000	Biology: Foundations of Life Prerequisite: 50% in any 40S Mathematics course or MATH 1018 (M) (C) or MSKL 0100 (C). BIOL 1000 (C) can be used as the prerequisite for BIOL 1020. However, if a student takes BIOL 1020 after taking BIOL 1000, they will lose credit for BIOL 1000.	3
	BIOL 1010	Biology: Biological Diversity and Interaction Prerequisite: 50% in any 40S Mathematics course or MATH 1018 (M) (C) or MSKL 0100 (C). If a student takes BIOL 1030 after taking BIOL 1010, they will lose credit for BIOL 1010.	3
	BIOL 1020	Biology 1: Principles and Themes Prerequisites: <ul style="list-style-type: none"> • 50% in Biology 40S • 50% in any 40S Mathematics course or MATH 1018 (M) (C) or MSKL 0100 (C) • 50% in Chemistry 40S or CHEM 1018 (C) or 50% in Physics 40S or PHYS 1018 (C) or PSKL 0100 (P) BIOL 1000 (C) can be used as the prerequisite for BIOL 1020. However, if a student takes BIOL 1020 after taking BIOL 1000, they will lose credit for BIOL 1000.	3 + lab
	BIOL 1030	Biology 2: Biological Diversity, Function and Interactions Prerequisite: BIOL 1020 (C). If a student takes BIOL 1030 after taking BIOL 1010, they will lose credit for BIOL 1010.	3 + lab
	BIOL 1410	Anatomy of the Human Body	3 + lab
	BIOL 1412	Physiology of the Human Body Prerequisite: BIOL 1410 (C) or BIOL 1030 (C).	3 + lab



RECOMMENDED INTRODUCTORY COURSES

FACULTY OF SCIENCE

CHEMISTRY


	CHEM 1018	Chemistry - The Central Science This course is intended primarily for students who do not have credit for Chemistry 40S and wish to continue in a subsequent course in Chemistry.	3
	CHEM 1100	Introductory Chemistry 1: Atomic and Molecular Structure and Energetics Prerequisites: <ul style="list-style-type: none"> 50% in Chemistry 40S or CHEM 1018 (C) 50% in Pre-Calculus Mathematics 40S or MATH 1018 (M) (C) or 50% in Applied Mathematics or MSKL 0100 (C) 	3
	CHEM 1110	Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties Prerequisite: CHEM 1100 (C).	3
	CHEM 1120	Introduction to Chemistry Techniques Prerequisites: <ul style="list-style-type: none"> 70% in Chemistry 40S or CHEM 1018 (C) and one of: <ul style="list-style-type: none"> 70% in Pre-Calculus Mathematics 40S or 70% in Applied Mathematics 40S or MATH 1018 (M) (C) or MSKL 0100 (B) Or <ul style="list-style-type: none"> CHEM 1100 (C) 	3
	CHEM 1130	Introduction to Organic Chemistry Prerequisite: CHEM 1100 (C).	3

COMPUTER SCIENCE

	COMP 1000	Introductory Programming: Think Like a Computer Prerequisite: 50% in any 40S Mathematics course or MATH 1018 (M) (C) or MSKL 0100 (C).	3 + lab
	COMP 1010	Introductory Computer Science 1 Prerequisite: 50% in any 40S Mathematics course or MATH 1018 (M) (C) or MSKL 0100 (D). May not be held for credit with COMP 1012.	3 + lab
	COMP 1012	Computer Programming for Scientists and Engineers Prerequisite: 50% in any 40S Mathematics course or MATH 1018 (M) (C) or MSKL 0100 (C). Co-requisite: MATH 1230 (M) or MATH 1500 (M) (or equivalent). May not be held for credit with COMP 1010.	3 + lab
	COMP 1020	Introductory Computer Science 2 Prerequisite: COMP 1010 (C) or COMP 1012 (C) or 75 % in Computer Science 40S and 50% in any 40S Mathematics course.	3 + lab
	COMP 1600	Navigating Your Digital World	3

FACULTY OF SCIENCE

MATHEMATICS

	MATH 1010 (M)	Applied Finite Mathematics A good course to choose if you don't have a strong mathematics background and you need a Mathematics (M) course .	3 + lab
	MATH 1018 (M)	Pre-Calculus in Practice This course is intended primarily for students who do not have credit for Pre-calculus Mathematics 40S (60%) and wish to continue in a subsequent course in Mathematics.	3 + lab
	MATH 1020 (M)	Mathematics in Art Also offered as FA 1020 (M). A good course to choose if you don't have a strong mathematics background and you need a Mathematics (M) course .	3
	MATH 1080 (M)	Fundamentals of Mathematical Reasoning Prerequisite: 50% in Pre-Calculus Mathematics 40S or 65% in Applied Mathematics 40S or MATH 1018 (M) (C+) or MSKL 0100 (C).	3 + lab
	MATH 1210 (M)	Techniques of Classical and Linear Algebra Prerequisite: 60% in Pre-calculus Mathematics 40S or MATH 1018 (M) (C+) or MSKL 0100 (C).	3 + lab
	MATH 1220 (M)	Linear Algebra 1 Prerequisite: 70% in Pre-calculus Mathematics 40S or MATH 1018 (M) (B) or MSKL 0100 (B).	3 + lab
	MATH 1230 (M)	Differential Calculus Prerequisite: 70% in Pre-calculus Mathematics 40S or MATH 1018 (M) (B) or MSKL 0100 (B).	3 + lab
	MATH 1232 (M)	Integral Calculus Prerequisite: MATH 1230 (M) (C) or MATH 1500 (M) (B).	3 + lab
	MATH 1240 (M)	Elementary Discrete Mathematics Prerequisite: 60% in Pre-calculus Mathematics 40S or MATH 1018 (M) (B) or MSKL 0100 (C).	3 + lab
	MATH 1300 (M)	Vector Geometry and Linear Algebra Prerequisite: 60% in Pre-calculus Mathematics 40S or 70% in Applied Mathematics 40S or MATH 1018 (M) (C+) or MSKL 0100 (C).	3 + lab
	MATH 1500 (M)	Introduction to Calculus Prerequisite: 60% in Pre-calculus Mathematics 40S or MATH 1018 (M) (C+) or MSKL 0100 (C).	3 + lab
	MATH 1510 (M)	Applied Calculus 1 Prerequisites: <ul style="list-style-type: none"> 60% in Pre-Calculus Mathematics 40S or MATH 1018 (M) (C+) or MSKL 0100 (C) 50% in Physics 40S or PHYS 1018 (C) or PSKL 0100 (P) 	3 + lab

RECOMMENDED INTRODUCTORY COURSES

FACULTY OF SCIENCE

MATHEMATICS (CONTINUED)

MATH 1524 (M)	Mathematics for Management and Social Sciences Prerequisite: 60% in Pre-calculus Mathematics 40S or MATH 1018 (M) (C+) or MSKL 0100 (C).	3 + lab
MATH 1700 (M)	Calculus 2 Prerequisite: MATH 1500 (M) (C) or equivalent.	3 + lab
MATH 1710 (M)	Applied Calculus 2 Prerequisite: MATH 1510 (M) (C) or equivalent. Prerequisite or co-requisite requirement: PHYS 1050 (C).	3 + lab

MICROBIOLOGY

MBIO 1010	Microbiology 1 Prerequisites: BIOL 1020 (C) and CHEM 1100 (C).	3 + lab
MBIO 1220	Essentials of Microbiology	3

PHYSICS

PHYS 1018	The Mechanics of Nature This course is intended primarily for students who do not have credit for Physics 40S and wish to continue in a subsequent course in Physics. Prerequisite or co-requisite: 50% in Pre-Calculus Mathematics 40S or 50% in Applied Mathematics or MATH 1018 (M) (C) or MSKL 0100 (C).	3
PHYS 1020 (M)	General Physics 1 Prerequisites: <ul style="list-style-type: none"> 50% in Physics 40S or PHYS 1018 (C) or PSKL 0100 (P) 50% in Pre-Calculus Mathematics 40S or 70% in Applied Mathematics 40S or MATH 1018 (M) (C) or MSKL 0100 (C) It is strongly recommended that students attain a minimum of 70% as the average of their marks in Physics 40S and Pre-calculus Mathematics 40S.	3 + lab
PHYS 1030 (M)	General Physics 2 Prerequisite: PHYS 1020 (M) (C) or PHYS 1050 (C).	3 + lab
PHYS 1050	Physics 1: Mechanics Prerequisite: 60% in Physics 40S or PHYS 1018 (C) or PSKL 0100 (P). Prerequisite or co-requisite: MATH 1500 (M) (D) or equivalent.	3 + lab
PHYS 1070	Physics 2: Waves and Modern Physics Prerequisites: <ul style="list-style-type: none"> PHYS 1050 (C) or PHYS 1020 (M) (B) MATH 1500 (M) (C) or equivalent Prerequisite or co-requisite: MATH 1700 (M) (C) or equivalent.	3 + lab

FACULTY OF SCIENCE

STATISTICS

STAT 1000 (M)	Basic Statistical Analysis 1 Prerequisite: 50% in any 40S Mathematics course or MATH 1018 (M) (C) or MSKL 0100 (C).	3 + lab
STAT 1150 (M)	Introduction to Statistics and Computing Prerequisite: 70% in Pre-calculus Mathematics 40S or MATH 1018 (M) (B) or MSKL 0100 (B).	3 + lab
STAT 2000 (M)	Basic Statistical Analysis 2 Prerequisite: STAT 1000 (M) (C).	3 + lab
STAT 2150 (M)	Statistics and Computing Prerequisites: <ul style="list-style-type: none"> STAT 1150 (M) (C) or STAT 2000 (M) (B) MATH 1500 (M) (C) or equivalent 	3 + lab

FACULTY OF SOCIAL WORK

SOCIAL WORK

SWRK 1200	Introduction to Canadian Social Welfare	3
SWRK 1220	Social Justice, Diversity and Human Rights	3
SWRK 1230	Community Health and Well-Being: Imagination for Social Work Practice	3
SWRK 1240	Social Work and Professional Identity	3
SWRK 2030	Communication and Relational Skills in Social Work	3

 If you are interested in taking a specific course, click on its course code ex. **MBIO 1010** to view essential information such as a course description, prerequisites, and restrictions.

This page is intentionally left blank.

UM COURSE OPTIONS FOR UPGRADING

If you are missing a high school prerequisite or did not achieve a sufficient grade for prerequisite purposes, you have the option to upgrade your high school courses through the University of Manitoba. You may take these upgrading courses simultaneously with other university courses, as long as they do not require the course you are upgrading as a prerequisite.

Some upgrading courses are not worth university credit and will not count in your overall course load. Be mindful of this when considering the minimum course load required for admission to a program, your financial aid (ex. Student loans, bursaries, scholarships), your study permits, etc.

BIOLOGY 40S

	Biology: Foundations of Life
BIOL 1000	<ul style="list-style-type: none">Prerequisite: 50% in any 40S Mathematics course or MATH 1018 (M) (C) or MSKL 0100 (C).This course counts for university credit. BIOL 1000 (C) can be used as the prerequisite for BIOL 1020. However, if a student takes BIOL 1020 after taking BIOL 1000, they will lose credit for BIOL 1000.Register through Aurora.

CHEMISTRY 40S

CHEM 1018	Chemistry - The Central Science <ul style="list-style-type: none">Register through Aurora.
-----------	--

MATH 40S

	Mathematical Skills
MSKL 0100	<ul style="list-style-type: none">This course does not count for university credit. However, it can be used as a prerequisite for university-level courses that require any Mathematics 40S course.Register through Extended Education.
MATH 1018 (M)	Pre-Calculus in Practice <ul style="list-style-type: none">Register through Aurora.

PHYSICS 40S

	The Mechanics of Nature
PHYS 1018	<ul style="list-style-type: none">Prerequisite or co-requisite: 50% in Pre-Calculus Mathematics 40S or 50% in Applied Mathematics or MATH 1018 (M) (C) or MSKL 0100 (C).Register through Aurora.

EXTERNAL UPGRADING OPTIONS

You also have the option to upgrade your high school courses outside of the University of Manitoba, through an **Adult Education Centre**. Typically, external upgrading courses will not be worth university credit and will not count in your overall course load.

IMPORTANT DATES

INITIAL REGISTRATION PERIOD

June 27, 2025	Confirm your Initial Registration Time in Aurora
July 8-14, 2025	Initial Registration Times begin for new students. Returning students are assigned an Initial Registration Time between July 17-August 5. Students can continue to make changes to course registration prior to the Course Add & Course Drop deadlines for each term.

FALL TERM 2025

September 2, 2025	Welcome Day
September 3, 2025	First day of classes • Attend first classes to get important course information
September 16, 2025	Course Drop Date • The last day to drop Fall Term 2025 and Fall 2025-Winter 2026 spanned courses and not be assessed a Voluntary Withdrawal (VW) • Last day to receive a tuition fee refund for dropped Fall Term 2025 courses • Last day to receive a tuition fee refund for dropped Fall 2025-Winter 2026 spanned courses
September 17, 2025	Course Add Date • The last day to add Fall Term 2025 and Fall 2025-Winter 2026 spanned courses
October 1, 2025	Fall Term 2025 fees are due by 4:30 pm (CST/CDT)
November 10-14, 2025	Fall Term break
November 18, 2025	Voluntary Withdrawal (VW) Deadline • Last day to Voluntarily Withdraw (VW) from Fall Term 2025 courses • After this date, Fall Term 2025 courses cannot be dropped
TBA	Registration for Winter 2026-Summer 2026 spanned courses opens in Aurora
December 8, 2025	Last day of classes
December 9-20, 2025	December exam period
December 24, 2025-January 2, 2026	University closed for Winter holidays

WINTER TERM 2026

January 5, 2026	University reopens
January 5, 2026	Winter Welcome Day
January 6, 2026	First day of classes <ul style="list-style-type: none"> • Attend first classes to get important course information
January 16, 2026	Voluntary Withdrawal (VW) Deadline <ul style="list-style-type: none"> • Last day to Voluntarily Withdraw (VW) from Fall 2025-Winter 2026 spanned courses with a refund for the Winter Term fees • After this date, spanned Fall 2025-Winter 2026 courses cannot be dropped
January 19, 2026	Course Drop Date <ul style="list-style-type: none"> • Last day to drop Winter Term 2026 and Winter 2026-Summer 2026 spanned courses and not be assessed a Voluntary Withdrawal (VW) • Last day to receive a tuition fee refund for dropped Winter Term 2026 courses • Last day to receive a tuition fee refund for dropped Winter 2026-Summer 2026 spanned courses
January 20, 2026	Course Add Date <ul style="list-style-type: none"> • Last day to add Winter Term 2026 courses and Winter 2026-Summer 2026 spanned courses
February 4, 2026	Winter Term fees are due by 4:30 pm (CST/CDT)
February 16-20, 2026	Winter Term break
March 19, 2026	Voluntary Withdrawal (VW) Deadline <ul style="list-style-type: none"> • Last day to Voluntarily Withdraw (VW) from Winter Term 2026 courses • After this date, Winter Term 2026 courses cannot be dropped
April 9, 2026	Last day of classes
April 11-25, 2026	April exam period
May 14, 2026	Voluntary Withdrawal (VW) Deadline <ul style="list-style-type: none"> • Voluntary Withdrawal (VW) Deadline for Winter 2026-Summer 2026 spanned courses with a refund for the Summer Term fees • After this date, spanned Winter 2026-Summer 2026 courses cannot be dropped

IMPORTANT DATES AND DEADLINES

View the [Important Dates and Deadlines](#) from the Registrar's Office for a complete list of academic dates.

CONTACT US

FIRST YEAR CENTRE

📞 1-204-474-6209

✉️ fycentre@umanitoba.ca

📷 [umfirstyearcentre](#)

🕒 Monday-Friday, 8:30 am to 4:30 pm (CST/CDT)

📍 205 Tier Building

