



UNIVERSITY  
OF MANITOBA



# Your Pathway to Science

Winter 2019



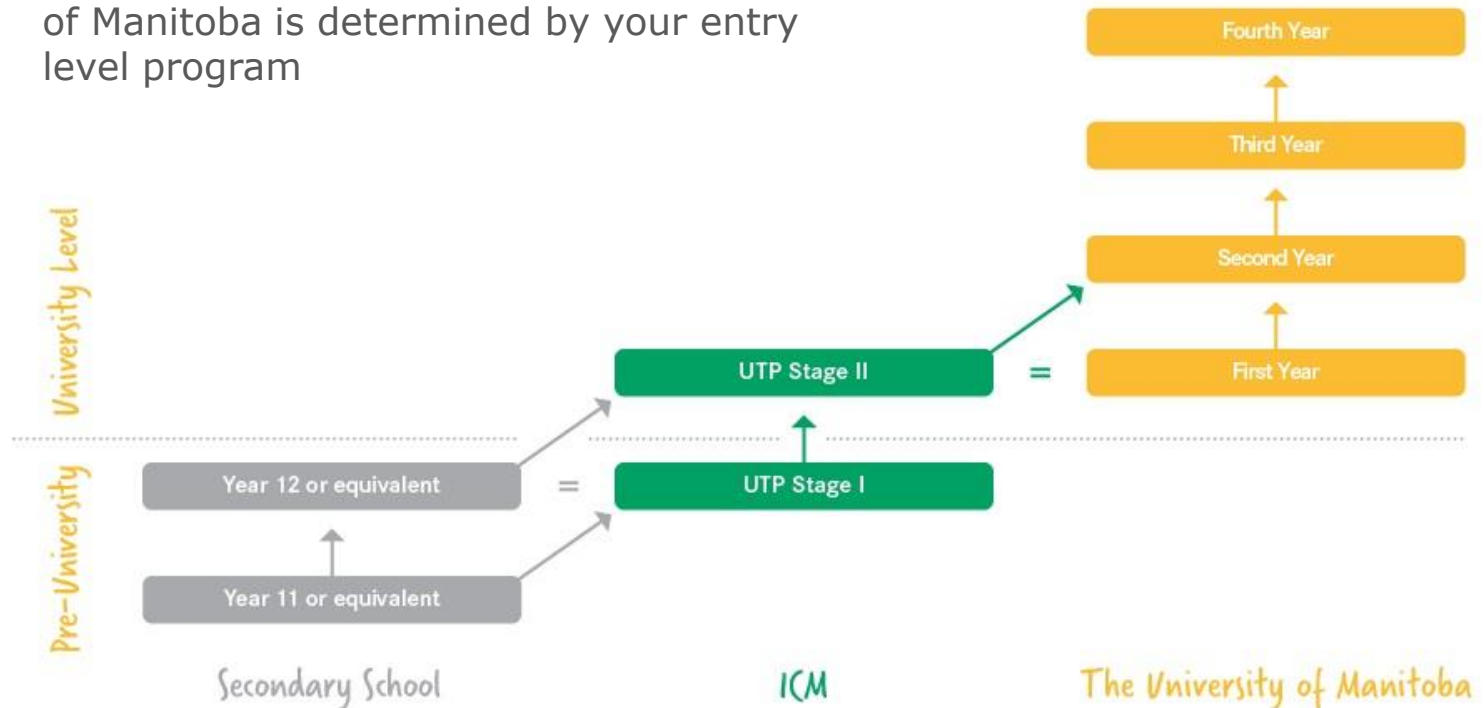
UNIVERSITY  
OF MANITOBA



## Your ICM Pathway to SCIENCE

Your Pathway to Science at the University of Manitoba is determined by your entry level program

### U of M Bachelor of Science



Entry into UTP Stage II is dependent upon successful completion of UTP Stage I or satisfactory completion of Year 12 or equivalent.

Entry into second year of your university degree is dependent upon successful completion of UTP Stage II with the specified Grade Point Average (GPA).

## Your Pathway to Science: Entry Level Program

Name of Program	Type of program	Program details
UTP Stage I	Pre-University level	This program is designed for students who require additional courses before starting a full university degree equivalent program (UTP Stage II). You will be required to study eight courses over two terms (four courses per term).
UTP Stage II	University level	This program is equivalent to first year of selected University of Manitoba degree programs. You will be required to complete 10 courses (equal to 30 credit hours) with the specified GPA to progress to second year at the University of Manitoba. These programs will normally be completed in three academic terms. If you do not meet the required GPA to transfers to the University of Manitoba, you can continue to study at ICM to improve your GPA.
Mixed program UTPI	Academic English and UTP I (pre-university level)	The first term of this program requires you to study 15 hours of English per week and a maximum of two academic courses. In the second and third terms you will study the remaining UTP Stage I academic courses.
Mixed program UTPII	Academic English and UTP II (university level)	The first term of this program requires you to study 15 hours of English per week and a maximum of two academic courses. In the second and third terms you will study the remaining UTP Stage II academic courses.
The University of Manitoba English language program	Academic English	If you do not meet ICM's minimum English language entry criterion, you may need to attend the University of Manitoba English language program. ICM staff will discuss such arrangements with you as required.

## Science degree options after 2<sup>nd</sup> Year entry to the U of M

- **Computing Sciences**

- Computer Science
- Computer Science / Mathematics
- Computer Science / Physics and Astronomy

- **Life Sciences**

- Biochemistry
- Biological Sciences
- Biotechnology
- Genetics
- Microbiology

- **Psychology**

- **Physical Sciences**

- Chemistry
- Physics
- Astronomy

- **Mathematical Sciences**

- Actuarial Mathematics
- Mathematics
- Statistics

[...and more!](#)

## Your Pathway to Science

- To successfully transfer to second year studies with the Faculty of Science, students must:
  - Complete **30 credit hours** at ICM
  - Present a minimum cumulative grade point average (CGPA) of 2.0 (C) or better
  - Have received a Letter of Acceptance from the Faculty of Science (students can apply in their final term at ICM)

## Your Pathway to Science

### Recommended Credit Courses to be Completed at ICM\*

ARTS 1110 – Introduction to University or ENGL 1400 - Thematic Approaches to the Study of Literature  
(to meet Written English requirement)

MATH 1300 – Vector Geometry and Linear Algebra and/or MATH 1500 – Introduction to Calculus and/or STAT 1000 – Basic Statistical Analysis 1 (each U of M Science Major or Honours program requires one or more of these Math courses)

### Faculty Of Science Core Courses (Requirements depend on choice of specific program)\*

BIOL 1000 – Biology: Foundations of Life (cannot use credit for both BIOL 1000 and 1020. Please read the important notes in Course Descriptions file)

BIOL 1020 – Biology 1: Principles and Themes (cannot use credit for both BIOL 1000 and 1020. Please read the important notes in Course Descriptions file)

BIOL 1030 – Biology 2: Biological Diversity, Function and Interactions (must complete BIOL 1020 first with min. 'C')

CHEM 1300 – University 1 Chemistry: Structure and Modeling in Chemistry

CHEM 1310 – University 1 Chemistry: An Introduction to Physical Chemistry (must complete CHEM 1300 first with min. 'C')

COMP 1012 – Computer Programming for Scientists and Engineers (Note: students must take MATH 1500 before, or at the same time as, COMP 1012) OR COMP 1010 – Introductory Computer Science 1

COMP 1020 – Introductory Computer Science 2

MATH 1210 – Techniques in Classical & Linear Algebra (not to be taken with MATH 1300)

MATH 1700 – Calculus 2 (must complete MATH 1500 first with min. 'C')

MBIO 1220-Essentials of Microbiology

PHYS 1050 – Physics 1: Mechanics (Note: students must take MATH 1500 prior to, or at the same time as, PHYS 1050) (See course titles on list below)

\*Please consult the U of M Course Calendar for specific requirements for your chosen program.

## Course selection for UTP II (Direct) Students

**In the first term, students in the UTP II Science (Direct) program must take:** ILS 100 + a minimum of three UTP Stage II courses (maximum 4)

- To select the best courses for your planned major, review the U of M course guide at <http://umanitoba.ca/faculties/science/undergrad/entry/Programs%20in%20Science%20.html>
- Students with UTP Stage I Math/Physics/Chemistry/Biology conditions may wish to substitute some UTP Stage II courses for UTP Stage I courses in their first semester



## Course Restrictions/Conditions

- Note: Students who are **required to take UTP I Math cannot register** in UTP II MATH classes or BIOL 1020, CHEM 1300, COMP 1012, or PHYS 1050. These students should consult a Student Advisor once they are registered.
- Note: You may not be able to choose all science courses on your Student Portal Enrolment screen. This may be due to one of the following reasons:
  - You did not complete Grade 12 Math, Chemistry, Physics, or Biology
  - You scored less than 60% (or equivalent) in grade 12 Math, Chemistry, Physics, or Biology
  - The course you want to register in requires you to complete a pre-requisite course with ICM
- If there's a recommended course you wish to take that isn't displayed in which you need further clarification, please contact a Student Advisor at [advisor@learning.icmanitoba.ca](mailto:advisor@learning.icmanitoba.ca).

## Course selection for UTP II (Mixed) students

**In the first term, students in the UTP II Science (Mixed) program must take:**  
AES100 Academic English + a minimum of one UTP Stage II course (maximum 2)

**Choose a minimum of 1 or a maximum of 2 of the following UTP II courses:**

- **MATH 1500** – Introduction to Calculus
- **MATH 1300** – Vector Geometry & Linear Algebra
- **MBIO 1220**– Essentials of Microbiology
- **BIOL 1020** – Biology 1: Principles and Themes
- **CHEM 1300** – Structure and Modelling in Chemistry
- **PHYS 1050** – Physics 1: Mechanics
- **STAT 1000** – Basic Statistical Analysis

Notes:

- Students **may not** register for ARTS 1110, ENGL 1400 or PHIL 1290 until a **passing grade** in AES 100 is obtained. It is recommended that students **not** register for PSYC 1199 until their second term.
- Students with UTP Stage I Math/Physics/Chemistry/Biology conditions may wish to substitute some UTP Stage II courses for UTP Stage I courses in their first semester
- Students who are required to take UTP I Math **cannot** register in UTP II Math classes or BIOL 1020, CHEM 1300, COMP 1012, PHYS 1050. These students should consult a Student Advisor once they are registered.

Check out the UTP II Science Program Planning Guide on the ICM Website for more information about planning your course:

<https://www.icmanitoba.ca/pre-arrival-and-registration-information>

# THANK YOU



Email: [advisor@learning.icmanitoba.ca](mailto:advisor@learning.icmanitoba.ca)

Please remember to send your questions from your ICM portal email address, not your personal email account and indicate your ICM student ID.