



# **MATHEMATICS REQUIREMENTS FOR POST SECONDARY**

**A RESEARCH PROJECT  
DR. RICHELLE MARYNOWSKI  
LANDRY FORAND**

## **OUR QUESTION**

What are the expectations of universities in Alberta with respect to secondary mathematics?

## **THE GOAL**

To provide a better understanding for students and teachers on each streams purpose, and potential paths.

# WHAT WE DID

**Part 1:** Information was gathered from 5 major Alberta Universities on their prerequisites for programs and degrees.

**Part 2:** Professors from each of the university's Mathematics Departments were given an opportunity to take a survey on this topic.



# WHAT TO KNOW BEFORE WE START WITH THE 3 STREAMS

Math “-1” This course sequence is designed to provide students with the mathematical understandings and critical-thinking skills identified **for entry into post-secondary** programs that **require the study of calculus**.

Math “-2” This course sequence is designed to provide students with the mathematical understandings and critical-thinking skills identified **for post-secondary** studies in programs that **do not require the study of calculus**.

Math “-3” This course sequence is designed to provide students with the mathematical understandings and critical-thinking skills identified for entry into the majority of trades and for direct entry into the work force.

# FROM OUR GUIDE TO EDUCATION

***High school mathematics course sequences are designed based on content rather than level of difficulty.***

A student may not initiate a course challenge for a course in a lower-level sequence if the student has been awarded credits in a course in a higher-level sequence. For example, a student who has earned credits for Science 30 may not challenge Science 24.



**Not the case for the Math sequences!**

[https://education.alberta.ca/media/1626501/guide\\_to\\_education\\_2015.pdf](https://education.alberta.ca/media/1626501/guide_to_education_2015.pdf)

Pg 115

# MATHEMATICS REQUIREMENTS FOR ADMISSION TO POST-SECONDARY EDUCATION

## UNIVERSITY OF LETHBRIDGE

### FACULTY OF ARTS AND SCIENCE

AGRICULTURE AND BIOTECHNOLOGY	MATH 30-1		
APPLIED STATISTICS	MATH 30-1		
CHEMISTRY	MATH 30-1		
BIOCHEMISTRY	MATH 30-1		
ENVIRONMENTAL SCIENCE	MATH 30-1		
KINESIOLOGY	MATH 30-1		
NEUROSCIENCE	MATH 30-1		
PHYSICS	MATH 30-1		
REMOTE SENSING	MATH 30-1		
AGRICULTURE STUDIES	MATH 30-1	OR	MATH 30-2
ARCHAEOLOGY AND GEOGRAPHY WITH GIS	MATH 30-1	OR	MATH 30-2
COMPUTER SCIENCE	MATH 30-1	OR	MATH 30-2
ECONOMICS	MATH 30-1	OR	MATH 30-2
GEOGRAPHY	MATH 30-1	OR	MATH 30-2
SOCIOLOGY	MATH 30-1	OR	MATH 30-2
URBAN AND REGIONAL STUDIES			MATH 30-2*

### FACULTY OF MANAGEMENT

ACCOUNTING	MATH 30-1		
ECONOMICS	MATH 30-1		
FINANCE	MATH 30-1		
COMPUTER SCIENCE	MATH 30-1	OR	MATH 30-2
FIRST NATIONS GOVERNANCE	MATH 30-1	OR	MATH 30-2
HUMAN RESOURCE AND LABOUR RELATIONS	MATH 30-1	OR	MATH 30-2
INTERNATIONAL MARKETING	MATH 30-1	OR	MATH 30-2
MARKETING	MATH 30-1	OR	MATH 30-2
POLITICAL SCIENCE (MARKETING)	MATH 30-1	OR	MATH 30-2

### FACULTY OF HEALTH SCIENCES

ABORIGINAL HEALTH	MATH 30-1	OR	MATH 30-2
NURSING	MATH 30-1	OR	MATH 30-2
PUBLIC HEALTH	MATH 30-1	OR	MATH 30-2

## MACEWAN UNIVERSITY

BACHELOR OF SCIENCE	MATH 30-1		
BACHELOR OF SCIENCE IN NURSING	MATH 30-1	OR	MATH 30-2
BACHELOR OF COMMERCE	MATH 30-1	OR	MATH 30-2
ASIA PACIFIC MANAGEMENT***	MATH 30-1	OR	MATH 30-2
BUSINESS MANAGEMENT***	MATH 30-1	OR	MATH 30-2
PSYCHIATRIC NURSING***	MATH 30-1	OR	MATH 30-2

## UNIVERSITY OF ALBERTA

FACULTY OF EDUCATION: SECONDARY (MATH & SCIENCE)	MATH 30-1		
FACULTY OF ENGINEERING**	MATH 30-1		
FACULTY OF MEDICINE & DENTISTRY	MATH 30-1		
FACULTY OF SCIENCE	MATH 30-1		
FACULTY OF EDUCATION: ELEMENTARY (MATH & SCIENCE)	MATH 30-1	OR	MATH 30-2
FACULTY OF NATIVE STUDIES	MATH 30-1	OR	MATH 30-2
FACULTY OF NURSING	MATH 30-1	OR	MATH 30-2
FACULTY OF PHYSICAL EDUCATION & RECREATION	MATH 30-1	OR	MATH 30-2

## UNIVERSITY OF CALGARY

FACULTY OF BUSINESS	MATH 20-1	OR	MATH 30-1
FACULTY OF EDUCATION (MATH & SCIENCE)	MATH 20-1	OR	MATH 30-1
FACULTY OF ENGINEERING**	MATH 20-1	OR	MATH 30-1
FACULTY OF KINESIOLOGY	MATH 20-1	OR	MATH 30-1
FACULTY OF MEDICINE (BHSC)	MATH 20-1	OR	MATH 30-1
FACULTY OF SCIENCE	MATH 20-1	OR	MATH 30-1
FACULTY OF NURSING	MATH 20-1 OR 20-2	OR	MATH 30-1 OR MATH 30-2*

## MOUNT ROYAL UNIVERSITY

### FACULTY OF BUSINESS

AVIATION	MATH 30-1		
ACCOUNTING	MATH 30-1	OR	MATH 30-2
GENERAL MANAGEMENT	MATH 30-1	OR	MATH 30-2
HUMAN RESOURCES	MATH 30-1	OR	MATH 30-2
MARKETING	MATH 30-1	OR	MATH 30-2

### FACULTY OF SCIENCE & TECHNOLOGY

CELLULAR AND MOLECULAR BIOLOGY	MATH 30-1		
COMPUTER INFORMATION SYSTEMS	MATH 30-1		
ENVIRONMENTAL SCIENCE	MATH 30-1		
GENERAL SCIENCE	MATH 30-1		
GEOLOGY	MATH 30-1		
HEALTH SCIENCE	MATH 30-1	OR	MATH 30-2

### FACULTY OF HEALTH, COMMUNICATION, AND EDUCATION

HEALTH AND PHYSICAL EDUCATION	MATH 30-1	OR	MATH 30-2
MIDWIFERY	MATH 30-1	OR	MATH 30-2
NURSING	MATH 30-1	OR	MATH 30-2

### FACULTY OF ARTS

INTERIOR DESIGN	MATH 30-1	OR	MATH 30-2
POLICY STUDIES	MATH 30-1	OR	MATH 30-2
PSYCHOLOGY	MATH 30-1	OR	MATH 30-2
CRIMINAL JUSTICE	MATH 30-1	OR	MATH 30-2

- \* Math 30-2 preferred over other courses
- \*\* Engineering programs requiring Math 31, in addition to other prerequisites.
- \*\*\* Certificates and Diploma programs that require math for admission



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**FACULTY OF EDUCATION: SECONDARY (MATH & SCIENCE)**

MATH 30-1

**FACULTY OF ENGINEERING\*\***

MATH 30-1

**FACULTY OF MEDICINE & DENTISTRY**

MATH 30-1

**FACULTY OF SCIENCE**

MATH 30-1

**FACULTY OF EDUCATION: ELEMENTARY (MATH & SCIENCE)**

MATH 30-1

OR

MATH 30-2

**FACULTY OF NATIVE STUDIES**

MATH 30-1

OR

MATH 30-2

**FACULTY OF NURSING**

MATH 30-1

OR

MATH 30-2

**FACULTY OF PHYSICAL EDUCATION & RECREATION**

MATH 30-1

OR

MATH 30-2

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MATH 20-1

OR

MATH 30-1

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MATH 20-1

OR

MATH 30-1

**FACULTY OF ENGINEERING\*\***

MATH 20-1

OR

MATH 30-1

**FACULTY OF KINESIOLOGY**

MATH 20-1

OR

MATH 30-1

**FACULTY OF MEDICINE (BHSC)**

MATH 20-1

OR

MATH 30-1

**FACULTY OF SCIENCE**

MATH 20-1

OR

MATH 30-1

**FACULTY OF NURSING**

MATH 20-1 OR 20-2

OR

MATH 30-1

OR

MATH 30-2\*



# MACEWAN UNIVERSITY

**BACHELOR OF SCIENCE**

**MATH 30-1**

**BACHELOR OF SCIENCE IN NURSING**

**MATH 30-1**

**OR**

**MATH 30-2**

**BACHELOR OF COMMERCE**

**MATH 30-1**

**OR**

**MATH 30-2**

**ASIA PACIFIC MANAGEMENT\*\*\***

**MATH 30-1**

**OR**

**MATH 30-2**

**BUSINESS MANAGEMENT\*\*\***

**MATH 30-1**

**OR**

**MATH 30-2**

**PSYCHIATRIC NURSING\*\*\***

**MATH 30-1**

**OR**

**MATH 30-2**



University of  
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- \* Math 30-2 preferred over other courses
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- \*\*\* Certificates and Diploma programs that require math for admission



# **NOW A LOOK AT POST SECONDARY PREREQUISITES FOR COURSES**

**THIS DATA WAS TAKEN FROM EACH  
INSTITUTIONS WEBSITE IN THE SUMMER OF  
2016**



# University of Lethbridge

Math 31



Math 30-1

Math 30-2

Math 1010  
Introduction to Calculus

Math 1510  
Calculus for Management and Social Science

Math 1560  
Calculus I

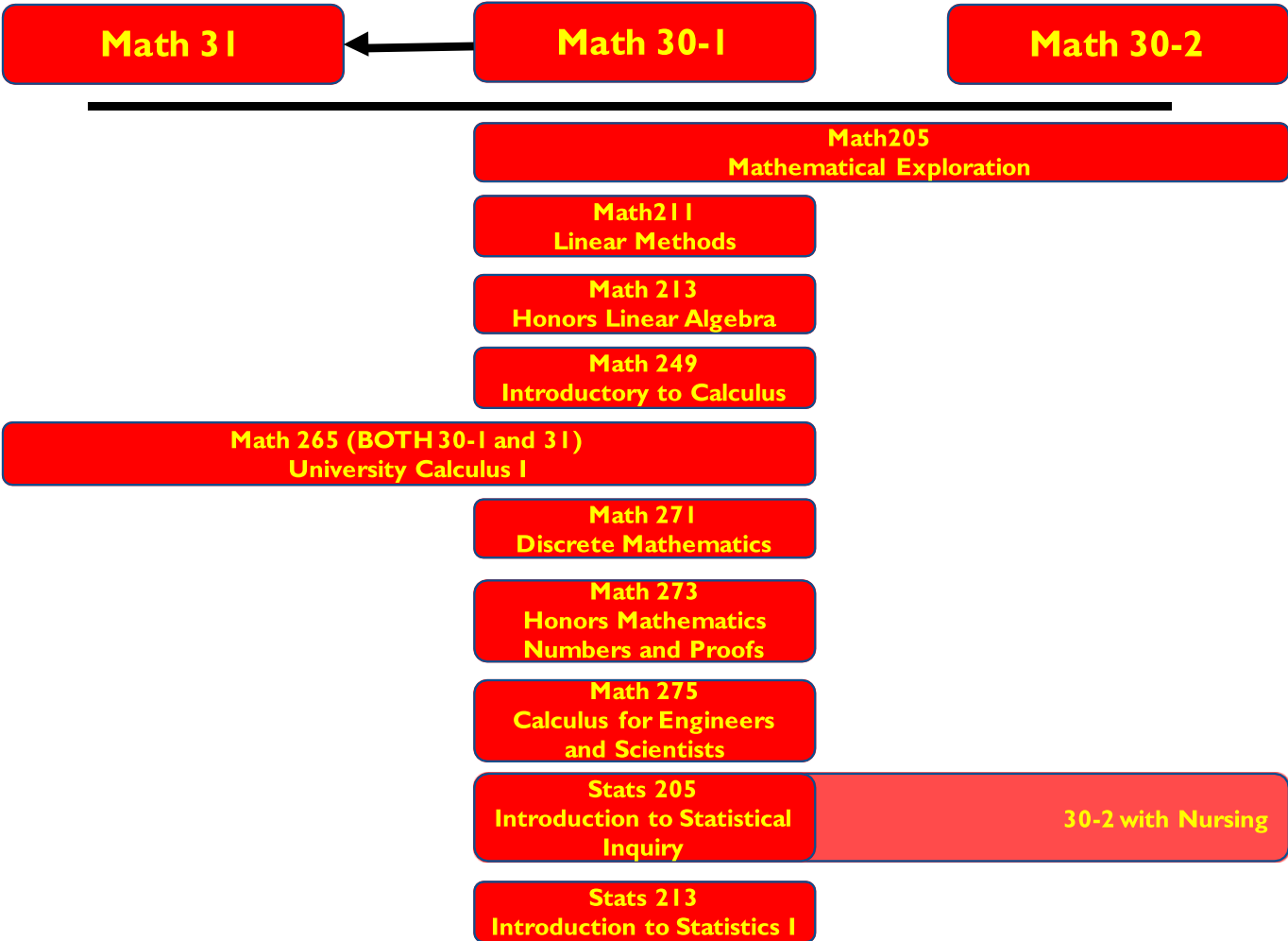
Math 1410  
Elementary Linear Algebra

Math 2000  
Mathematical Concepts

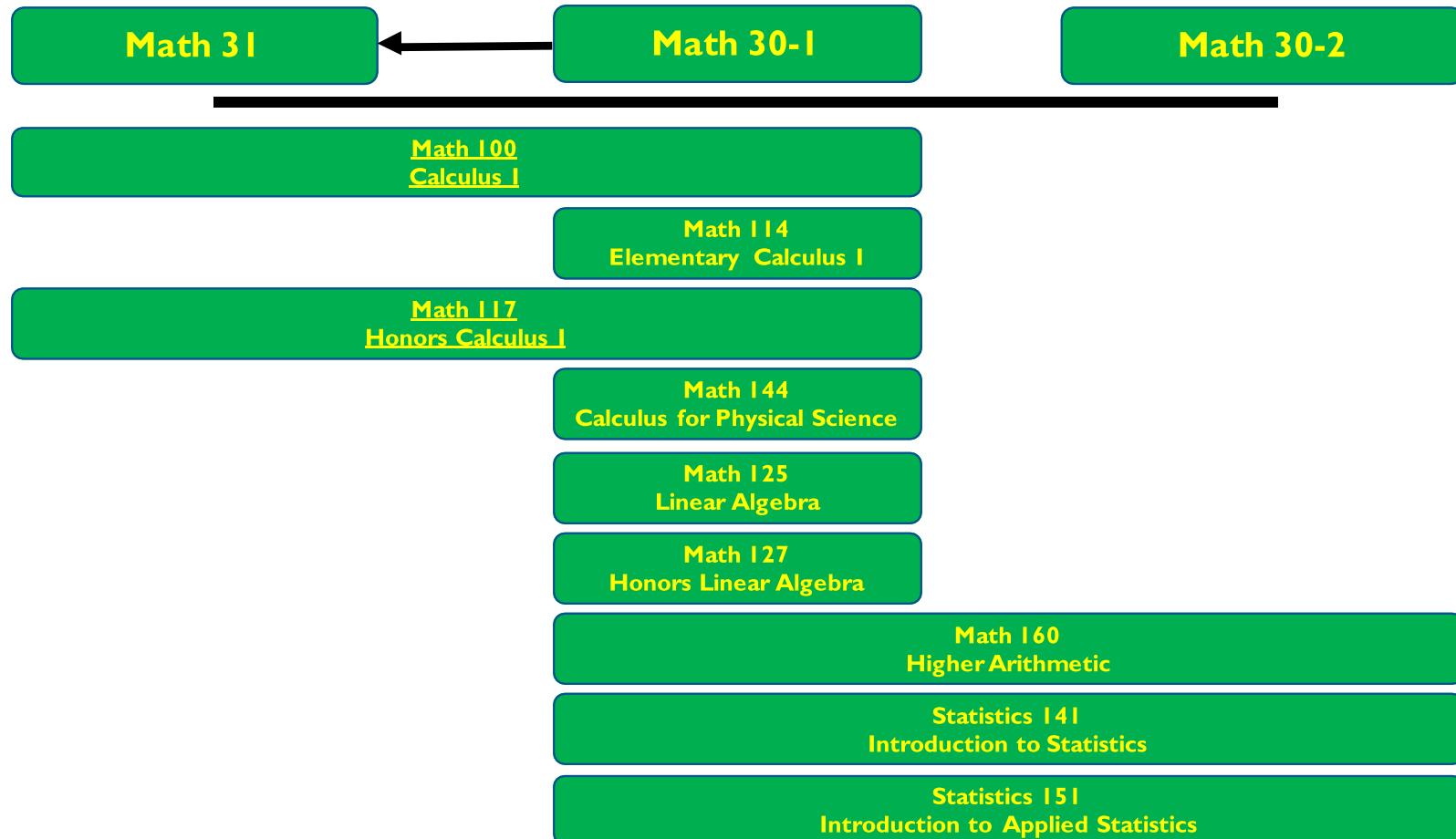
CPSC 1620  
Fundamentals of Programming

Stats 1770  
Introduction to Probability and Statistics

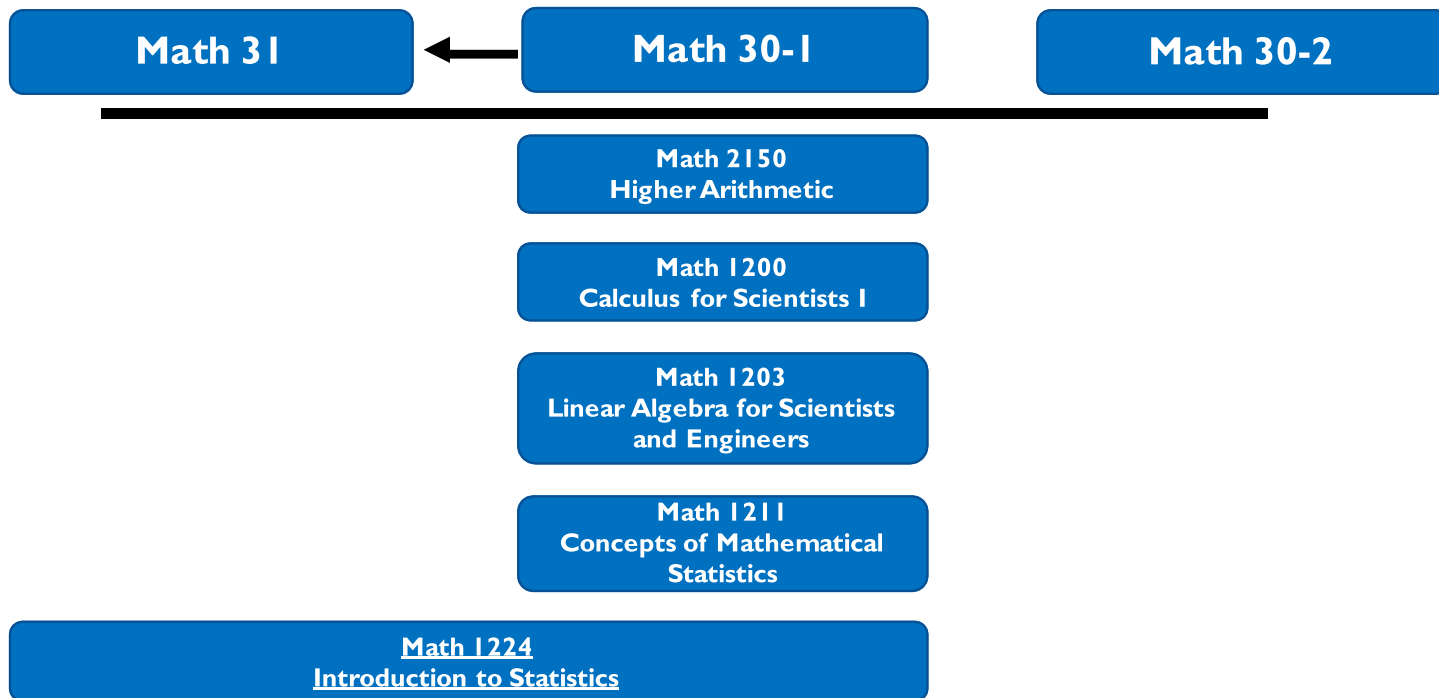
# THE UNIVERSITY OF CALGARY



# UNIVERSITY OF ALBERTA



# MOUNT ROYAL UNIVERSITY



# MACEWAN UNIVERSITY

