

## **YEAR 1: MATH & STATS**

Why can't I find MATH 114 and 115 in BearTracks?
 MATH 114 and 115 no longer exist and have only been retained for transfer credit.

New equivalents have been created in their place and you should choose the stream that most interests you or aligns with your major. All are considered equal, they are just taught from different perspectives. Feel free to explore and mix things up. For example, you could take MATH 134 in the Fall semester and then register for MATH 156 in the Winter.

MATH 114 = 134/144/154 or 117 MATH 115 = 136/146/156 or 118

• If MATH 114 and 115 are no longer offered, will I still receive transfer credit? What Math course will my AP and IB courses transfer to?

Yes, you will receive credit for MATH 114 when transferring to UofA and it will work as a prerequisite for any course requiring MATH 134/144/154. Visit <a href="mailto:uab.ca/AP">uab.ca/AP</a> or <a href="mailto:uab.ca/AP">uab.ca/AP</a> for transfer credit information.

 How impactful will high school Calculus be in regards to our courses and overall grade? (For example, AP Calculus, MATH 31 or equivalent)

It is a good idea to take calculus in high school. It will provide a sense of familiarity to the concepts taught in 134/135/136 (limits, differentiation, integration). However, the instructors of these courses do not assume that the students have studied calculus before. With hard work it is definitely possible for a student who has never studied calculus to obtain an A in these courses.



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 What is the difference between the first year math courses, and which one should I take?

MATH 134/136 = Calculus for the Life Sciences I

(If majoring or minoring in Biological Sciences)

MATH 144/146 = Calculus for the Physical Sciences I

(If majoring or minoring in Physics, co-requisite PHYS 144)

MATH 154/156 = Calculus for Business and Economics I (If majoring or minoring in social sciences)

MATH 117/118 = Honors versions of first year calculus, must have Math 30-1 & Math 31 (for those who want a challenge and excel in Math)

\*Note: These courses are considered equivalent so register in the math course that interests you most. You are also able to mix and match. See the Department of Math here for a full explanation.

## How do MATH labs work?

You do not have to go to a lab, but you are assigned lab reports. You will work with a group of students, analyse data and write a report.

What does a MATH final exam look like?

Mostly solving long answer problems. However there may be a few multiple choice questions to test whether you have learned some of the theory behind the major concepts of the course. Your instructor will likely post a few past (practice) exams on the eClass site for the course so you have an idea of what your exams will look like.



## **YEAR 1: MATH & STATS**

- Are there labs in first year Statistics courses?
   There is no physical lab for Stat 151. You just finish the labs on your own time and usually have about a week to hand in assignments.
- What skills from high school math are most relevant for first year statistics?

You should be able to calculate the mean, median, and mode of a set of numbers. You should be able to manipulate equations. For example, solve for y in the equation z=(y-m)/s. It would be helpful if you knew a little bit about the normal (bell) curve and z-scores, but the instructors do not assume that you have been introduced to this before.

What kind of calculator is allowed for Math and Statistics courses?

We have a great student FAQ page with a section devoted to <u>calculators</u>. Every instructor will determine the type of calculator required and this will be indicated on the course syllabus. The UofA Bookstore is a great option to purchase a calculator.

- What is the difference between STAT 151 and 161?
   The software used will differ, STAT 151 uses Statcrunch while STAT 161 uses Excel. STAT 161 is a new course as of Fall 2020 and we suspect it will be a very relevant and popular course.
- Why is STATS required in a psychology major?
  Statistics is very important for psychology, it allows us to collect and analyze numerical data in large quantities. By taking statistics courses psychology students will learn how to organize their data, describe the information that has been gathered and make inferences based upon that data.

\*Note: If you also need a Math course, 134 is the most applicable, but MATH 154 however might be the most practical since it covers topics like taxes and finances.