UBC MBA Academic Preparation – list of suggested free online resources

Where to begin: Please review each section and complete those areas with which you are not currently comfortable. Most tutorials include quizzes and practice tests, so completing these is a good way to quickly review if you are comfortable with the content.

If you would like to track your learning progress you can sign up for a user account with Khan Academy, but this is not required.

Completion times: We have estimated the times to complete each section based on the length of videos and allocating time for the practice questions. It may take you a longer or shorter time than we have indicated, and after a few sections, you will begin to get an idea of your speed compared to our estimates.

Disclaimer: These tutorials have not been vetted in-depth. They have been selected based on the concepts included and tutorial descriptions. Students are encouraged to explore the content and cover concepts with which they are unfamiliar. The aim is to ensure that you have foundational proficiency in these topics, but not all concepts may apply directly to course work.

All resources below are from Khan Academy unless otherwise indicated.

If you have feedback about these academic prep materials, please send it to askpmba@sauder.ubc.ca.

Statistics – 11 hours 40 mins approximate study time

(Statistics/Operations)

Displaying & Describing Data (approx. 6 hours 50 mins total) (only sections indicated below)

- Statistics overview (20 mins)
- Categorical data displays (20 mins)
- Two-way tables for categorical data (35 mins)
- Histograms (15 mins)
- Line graphs (6 mins)
- Mean and median: The basics (45 mins)
- Range, Interquartile range (IQR) - just Range & IQR (no MAD) (15 mins)

  - Range and Mid-range
  - Interquartile Range (IQR)
  - Practice
  - Comparing range and interquartile range (IQR)
  - Interquartile range review

- Population variance and standard deviation (1 hour 15 mins)
- Sample variance and standard deviation (1 hour 45 mins)
- Practice test (30 mins)

Modelling Distributions of Data (approx. 2 hours 40 mins total)
- Describing location in a distribution (28 mins)
- Normal distributions (2 hours 10 mins)

Probability (approx. 1 hour 25 mins total) (only sections below)
- Basic theoretical probability (50 mins)
- Probability using sample spaces (20 mins)
- Quiz #1 (15 mins)

Probability Distributions
- Constructing a Probability Distribution (7 mins)

Sample Means (approx. 35 mins total) (only sections below)
- Central limit theorem (10 mins)
- Sampling distribution of the sample mean (11 mins)
- Sampling distribution of the sample mean 2 (14 mins)