

General Instructions for IA Project

The document will be written at a level that is understandable for any student taking the course. It will address the following question.

Question: What should one know about this probability distribution?

The document will satisfy the following characteristics.

- Written using \LaTeX (format article)
- At least 25 pages long (not including title page or table of contents)
- Title page with SLC logo (to be sent later)

Here is a list of recommended topics.

- History of the distribution
- Origin of the formula for the density or distribution function
- Characteristics of the distribution (when relevant):
 - Distribution function
 - Graph of density and distribution functions
 - Expected value
 - Variance
 - Mode
 - Median
 - Inflection points
 - Moment generating function
- Characteristics proper to the distribution
- Applications
- Simulations

Include as many proofs involving as many different techniques as possible.