



FLORIDA GULF COAST UNIVERSITY
DEPARTMENT OF MATHEMATICS

M A T H E M A T I C S S E M I N A R

FRIDAY

DECEMBER 1ST, 2017

FLORIDA GULF COAST UNIVERSITY

ROOM 100

MARIEB HALL

11:30 AM– 12:30 PM

NORMAL REFERENCE INTERVAL

G U E S T S P E A K E R :



RICHARD GOLDSTEIN, PHD
PROFESSOR OF MATHEMATICS (RETIRED)
PROVIDENCE COLLEGE

ABSTRACT:

The normal reference interval or range is among the most widely used medical decision-making tools used to determine whether an individual is healthy or not. Both low and high extremes are often warning signs of disease.

The distributions are often skewed which requires statistical analysis, locating various percentiles, curve fitting, transformations, elimination of outliers, and dissecting mixed data.

Various skewed distributions are considered using Gram-Charlier expansions, the Pearson family of distributions as well as the Johnson family of distributions. Real patient data such as Creatinine, A1C/Glycated Hemoglobin, Lactate Dehydrogenase (LDH), and Cholesterol are used as examples.

R E F R E S H M E N T S S P O N S O R E D B Y

