

Dear Medical School Admissions Committee,

I am writing this letter to clarify the statistical topics covered in the course BIOE 2365 - Bioengineering Measurement, Experimentation, and Statistics. This course instructs students in the following topics:

- The Engineering Method and Statistical Thinking
- Data Summary and Presentation (Histogram, Box Plot, Time Series, Multivariate)
- Random Variables and Probability Distributions (Distributions - Normal, Lognormal, Gamma, Weibull, Beta, Binomial, Poisson; Continuous and Discrete Random Variables; Central Limit Theorem)
- Decision Making for a Single Sample (Hypothesis Testing – Known Variance, Unknown Variance, and Normal Populations)
- Decision Making for Two Samples (Hypothesis Testing – Known Variance, Unknown Variance, and Normal Populations; Paired t-test)
- Decision Making for More than Two Samples (ANOVA)
- Nonparametric Statistics
- Linear Models
- Design of experimentation

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This is a rigorous, math-based course that will prepare physicians to thrive in an environment that requires evidenced-based decision making.

Best regards,



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