Numerous dietitians and nutritionists from all over the world consider breakfast to be the most important meal of the day. This research study will primarily focus on the role of the introduction of a mandatory breakfast meal for the football student-athletes in the Sells Family Dining Hall facility at the University of Missouri. Repeated measures ANOVA analysis is employed to determine if there is a significant difference in the change in muscle mass percentage and body fat percentage from a year long period before breakfast was provided to the first full year that breakfast was provided and mandated for football student-athletes.

From a total population of 116 football student-athletes on the roster, results from a total of 34 football student-athletes were recorded. It was discovered that there was some change, but not enough to be significant, in body fat percentage among football student-athletes and there was a significant decrease in lean muscle mass (mean=0.03134, t=4.389, df=33, p value=.000). Accompanying the compared means t-test results, a repeated measures ANOVA technique is engaged to supplement and solidify the statistical findings. A significant decrease in lean muscle mass after breakfast was mandated is shown from the significant p value of diet ($\lambda=.514$, $F=31.184$, $p \leq .05$) and the interaction between diet and time ($\lambda=.634$, $F=19.022$, $p \leq .05$).