During 2015 the Commission on Accreditation of Athletic Training Education (CAATE) first publically identified they believe strong foundational scientific knowledge produces the best health care providers. Next, in May 2016 a set of proposed accreditation standards were published. One standard delineated that all AT programs must include: anatomy, biology, chemistry, physics, physiology, and psychology as prerequisite knowledge. No studies to date have examined the relationship of foundational scientific knowledge course inclusion in AT curricula as a predictor of BOC pass-rates. This study was conducted to determine if there is a significant relationship between foundational scientific knowledge courses and 3-year aggregate first-attempt Board of Certification (BOC) pass-rates among CAATE accredited professional Athletic Training (AT) programs. All CAATE accredited professional programs in the United States were evaluated and three hundred and forty-nine (n=349) programs were used in this study. AT programs electronically published required science courses for degree completion and 3-year aggregate first-attempt program BOC pass-rates were utilized. Descriptive statistics, independent sample t-tests, and regression analyses were used to evaluate inclusion of science courses in AT curricula as predictors of BOC pass-rates. Results indicated that physics I was most significant, compared to the other courses, when predicting BOC pass-rates, accounting for 6% variance. The difference between the means was statistically significant (t (204.85) = -5.103, r² = 0.06, p = .000). AT programs that include physics and chemistry demonstrate a significant difference in BOC pass-rate means when compared to programs that do not. The difference between the means was found to be statistically significant with a small effect size (t (347)= -2.179, r² = .014, p=.030).