

**A Comparative Study on the Physical Fitness Profiles of First Year BSE Students
Across Five Sections at Paranaque City College**

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Abstract

This comparative study examines the physical fitness profiles of 247 first-year Bachelor of Science in Entrepreneurship students across five sections at Paranaque City College. Using standardized PathFit assessments, the study evaluates muscular strength and endurance, flexibility, agility, speed, coordination, reaction time, balance, power, and cardiorespiratory endurance. Descriptive comparisons reveal notable differences across sections, with Section 1G showing stronger curl-up performance and Section 1A demonstrating greater variability across fitness components. Data-cleaning procedures address inconsistencies in measurement units, time formats, and extreme values. Findings indicate section-specific fitness patterns that support targeted interventions, including strength and endurance development for Sections 1B and 1C, speed and agility enhancement for Section 1F, and injury-prevention and pacing strategies for Sections 1A and 1G. The study emphasizes modular physical education programs, continuous fitness monitoring, and improved data governance to strengthen evidence-based student wellness initiatives.

Keywords: cardiorespiratory endurance, fitness patterns, muscular strength, entrepreneurship