Abstract: Over the past two decades, the Kingdom of Bahrain has seen an increase in weight in a growing number of people. Experts in the field determined that it is due to a lack of exercise and poor dietary habits. The problem has reached extremely high records of obesity; 37% for females and 30% for males. The statistics were based on a cross-sectional study of 414 volunteers at a local shopping mall. The goal of this primary data analysis was to determine the current prevalence of weight abnormalities. The findings were used to predict the trend of such abnormalities among the sub-population of university students in the Kingdom of Bahrain. The analysis, done in 2018, was based on 1,100 surveys collected from subjects in the central universities in the Kingdom of Bahrain including the University of Bahrain, Ahlia University, University of Bahrain, Arabian Gulf University, Applied Science University, AMM International University, Arab Open University, and Bahrain Polytechnic. The research was conducted over a period of several months. The authors developed surveys in both Arabic and English and randomly selected participants aged between eighteen and twenty-five among full-time students from major universities in the Kingdom of Bahrain. The standards of these weight issues, including obesity, overweight and underweight issues were determined with the use of the International Classification Index, a diagnostic tool used for health management. It is managed and prescribed by the World Health Organization. Based on the Chi-square test, the results strongly depended on the gender, age, and the extent of exercise performed on a weekly basis. As a result, a multinomial logistic regression involving these factors was used to compare the trends and predict the highest and lowest probabilities of each abnormal weight. For example, the male students, aged twenty-two or older who exercise less than one hour a week, were the most likely to be obese and overweight; about 20% and 42% chance, respectively. However, the students most probable to be underweight (about 11%) were those females; aged eighteen or nineteen who exercise less than one hour a week.