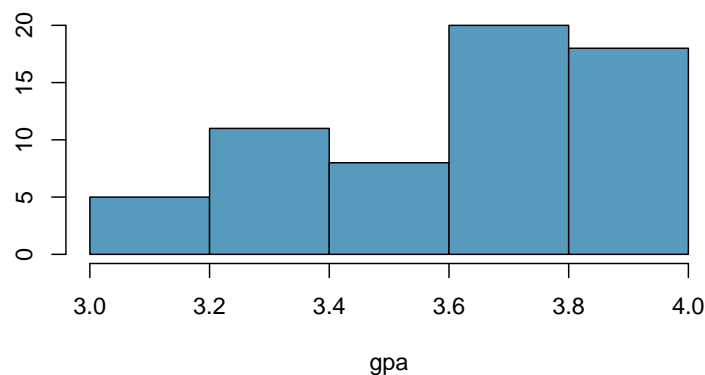# Application exercise 3.2: Grade inflation

Team name: _____

Lab section: 8:30   10:05   11:45   1:25   3:05

Write your responses in the spaces provided below. WRITE LEGIBLY and SHOW ALL WORK! Only one submission per team is required. One team will be randomly selected and their responses will be discussed and graded. Concise and coherent are best!

In 2001 the average GPA of students at Duke University was 3.37. Last semester 63 Sta 101 students responded to the question on GPA on the class survey. The mean was 3.58, and the standard deviation 0.53. A histogram of the data is shown below.

Assuming that this sample is random and representative of all Duke students (bit of a leap of faith? you can discuss that when checking the conditions), do these data provide convincing evidence that the average GPA of Duke students has **changed** over the last decade and a half?

Make sure to check conditions, note any assumptions you make, and show all your work.