

# Lecture 10 - Capacitance

Mainly chapter 30 - Tuesday February 14th

- 1st period: review of the exam
- Capacitors and capacitance
- Capacitors in series and parallel
- Calculating the capacitance
- Energy stored in an electric field
- Capacitor with dielectric (if time)

Reading: pages 679 thru 690 (chapter 30) in HRK

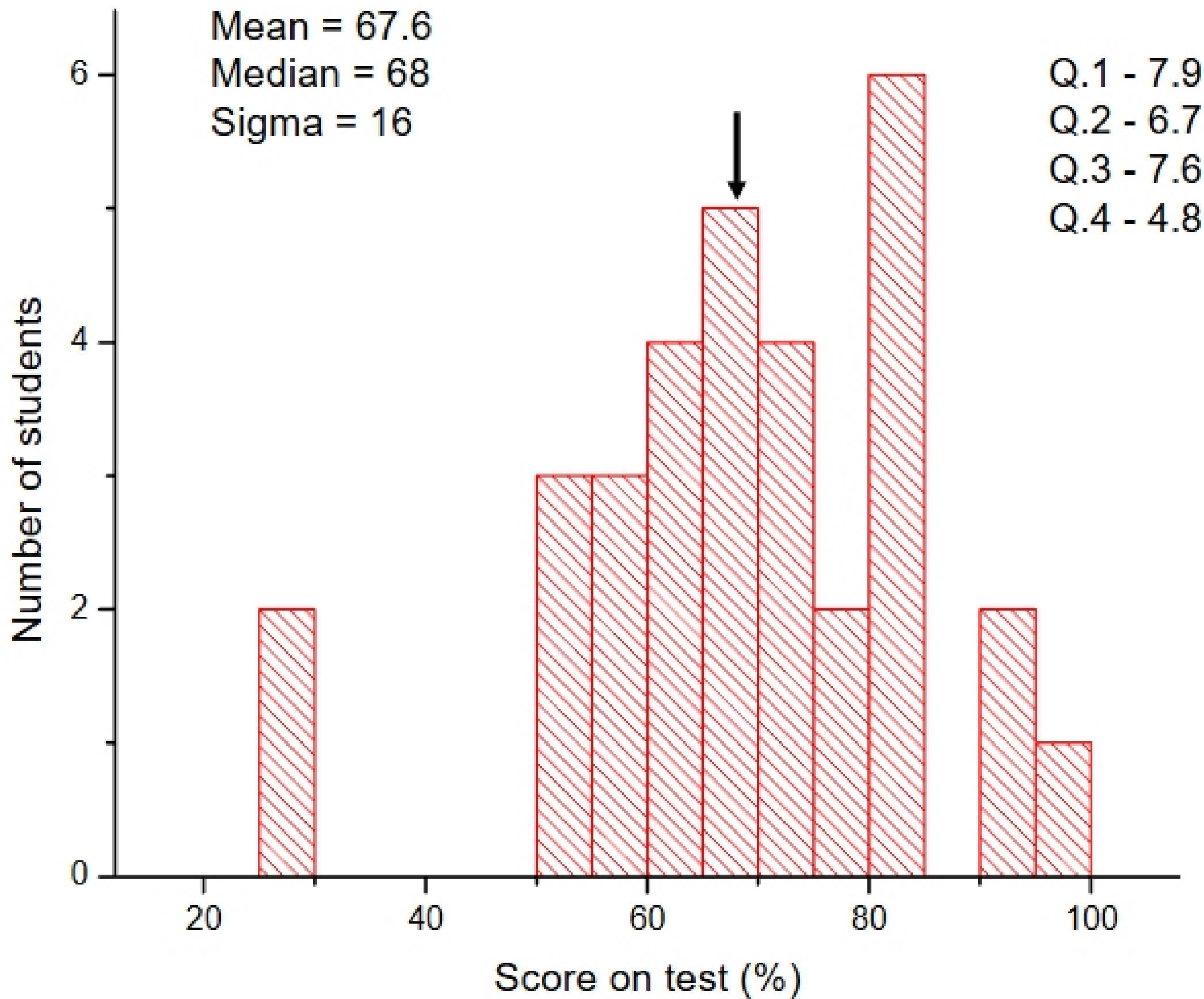
Read and understand the sample problems

WebAssign: deadline Fri. Feb. 17th at 11:59pm

Graded problems (Ch.29) – P. 6, 10; (Ch.30) – E. 7, 12, 23, P. 9, 20

Practice problems (Ch. 30): Ex. 25, 35, 37, 39; Prob. 13, 23

# Exam 1 Statistics



# Capacitors

- Used to store energy in electromagnetic fields [in contrast to batteries (chemical cells) that store chemical energy].
- Capacitors can release electromagnetic energy much, much faster than chemical cells. They are thus very useful for applications requiring very rapid responses.

