

# ENGR 310

Lecture 24

21 April 2008



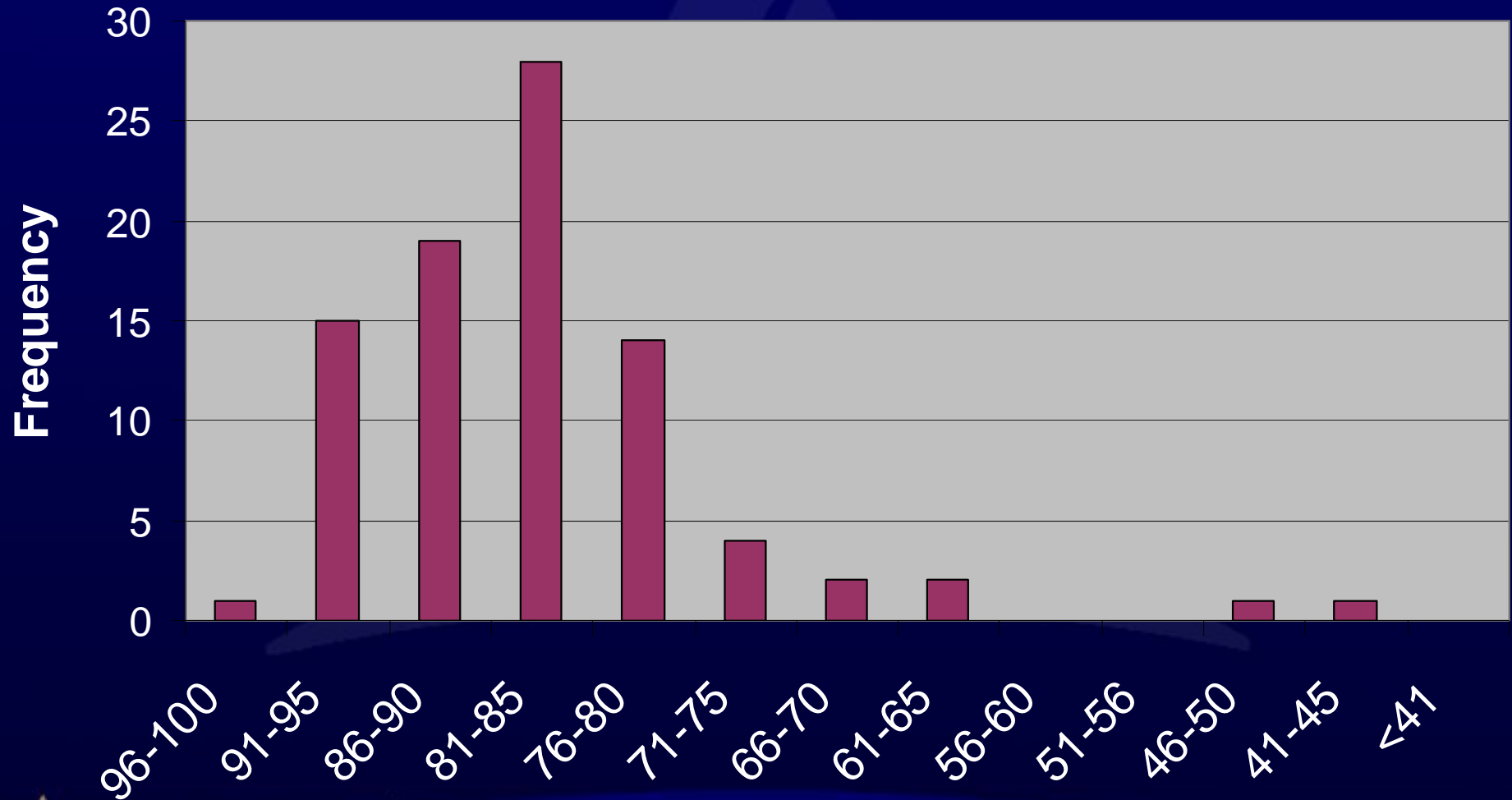
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# Exam Results

mean = 83, s.d. = 9



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# Exam Results

- Scores posted outside my office
- You will be able to view your graded exam in recitation this week
- I would like to keep the exam papers so that I can improve the test
  - Thank you!



# Posters

- Dr. Plumb will lead a class on effective poster design on April 25.
- Design Fair on May 1.
- Poster Design Awards in class on May 2.



# Design Fair

- 12:00 – 6:00 p.m., Thursday, May 1.
- By Thursday, email me with:
  - Project title
  - Schedule for who will attend your poster, when
  - Time when entire team will be present
  - Whether you need electrical power
  - Any other special needs
- Room opens at 7:00 a.m. for set-up



# Know-How

- Good design engineers must:
  - acquire deep and broad technical understanding
  - develop ability to apply it
- How?
  - Research
  - Modeling
  - Experimentation



**You must become domain  
experts in your project topic  
areas.**



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# Intellectual Property

- ownership of ideas, concepts and other intangibles





# IP Protection

- Trade secrets
  - no time limit
  - “stealing” is legally protected
  - but, reverse engineering is also legal
- Trademarks
  - names, logos, symbols used to identify a good
  - unlimited renewals



# IP Protection, cont.

- Copyright
  - artwork, books, articles, music
  - protects form of expression, but not idea
  - for 50 years after owner's death
- Patents
  - 20 years of protection in exchange for sharing the idea.



# 3 kinds of Patents

- Utility
  - products, processes, machines, materials, chemical compounds, etc.
- Plant
- Design
  - Form and shape



# Patent Award Criteria

- Novelty
- Usefulness
- Non-obviousness



# Patent Award Criteria

- Novelty
  - First to invent (not first to apply)
  - demonstrably different than prior technology
  - diligence to reduce to practice without a period of abandonment
  - prior disclosure < 1yr.
- Usefulness
- Non-obviousness



# Patent Award Criteria

- Novelty
- Usefulness
  - practical utility
  - specific
  - demonstrable
  - substantial
- Non-obviousness



# Patent Award Criteria

- Novelty
- Usefulness
- Non-obviousness
  - more than addition/duplication of components
  - more than “ordinary skill” required



# Applying for a Patent

- Called a “patent disclosure”
- [www.uspto.gov](http://www.uspto.gov)

