

Textbook Topics Covered:

Chapter 1.3 – 1.6

Chapter 1.4 The Engineering Disciplines





















Helicopter Design must address:

- **1. Basic aerodynamics of vertical flight:** (Established in the early 1920's)
- 2. Powerplant (engine)
- 3. Minimizing structural weight and engine weight.
- 4. Counteracting rotor torque reaction: Providing stability and properly controlling the machine.
- 5. Problem of high vibrations.







Mechanical Engineering Mechanical Engineers design and develop: Machines, Moving Structures, Equipment













Chapter 2 Engineering Education

UNLV – MEG Curriculum See: http://me.unlv.edu/ The Mechanical Engineering program at UNLV see: http://www.me.unlv.edu/Undergr aduate/MECH08-10.pdf



Chapter 2
Engineering Education
UNLV – MEG Curriculum
See: http://www.me.unlv.edu/
Degree Requirements
Mechanical Engineering Pre-Major:
English Comp. ENG 101 and 102 6
credits
Mathematics MAT 181 and 182 8
credits
Social Sciences/Humanities
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Chapter 2
Engineering Education
Degree Requirements Mechanical Engineering Pre-Major, cont'd:
Engineering MEG 100, 100L, CEE 241; MEG 120 and 207 10 credits
Social Sciences/Humanities
EGG 307 (Engineering Economics), and six additional elective credits in the appropriate fields.







How Did the Robot End Up With My Job?

• Here is a typical evening at a major cable TV network: arrive at Washington studio and be asked to sign in by a contract security guard. Be met by either a young employee who appears to still be in college or an older person who seems to have hung on with tenure. Have your nose powdered by that person. Have your microphone attached by that person.

Source: Thomas Friedman, NYtimes, Sept. 2011

How Did the Robot End Up With My Job?

Or: Be positioned in the studio chair by that person, and then look directly into a robotic camera being manipulated by someone in a control room in New York and speak to whoever the host is wherever he or she is. That's it: one employee, a robot and you.

Source: Thomas Friedman, NYtimes, Sept. 2011

How Did the Robot End Up With My Job?

Think of how many jobs — makeup artist, receptionist, camera person, producerdirector — have been collapsed into one.

Source: Thomas Friedman, NYtimes, Sept. 2011

How Did the Robot End Up With My Job?

In the last decade, we have gone from a connected world (thanks to the end of the cold war, globalization and the Internet) to a hyperconnected world (thanks to those same forces expanding even faster). And it matters. The connected world was a **challenge to blue-collar workers** in the industrialized West. They had to compete with a bigger pool of cheap labor.

Source: Thomas Friedman, NYtimes, Sept. 2011

How Did the Robot End Up With My Job?

The hyperconnected world is now a challenge to white-collar workers. They have to compete with a bigger pool of cheap geniuses — some of whom are people and some are now robots, microchips and software-guided machines.

Source: Thomas Friedman, NYtimes, Sept. 2011