

# EE 605 Error Correcting Codes

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# Course Details

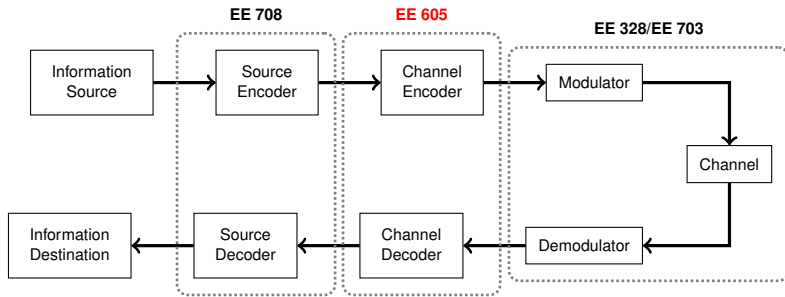
**Instructor** Saravanan Vijayakumaran

**Office** EE 122B

**Webpage** <https://www.ee.iitb.ac.in/~sarva/courses/EE605/Autumn2015.html>

**Piazza** [https://piazza.com/iit\\_bombay/fall2015/ee605](https://piazza.com/iit_bombay/fall2015/ee605)

# Digital Communication Systems



EE 708 Information Theory and Coding

EE 605 Error Correcting Codes

EE 328 Digital Communication

EE 703 Digital Message Transmission

# Prerequisites

- Probability Theory
- Linear Algebra
- Digital Communication

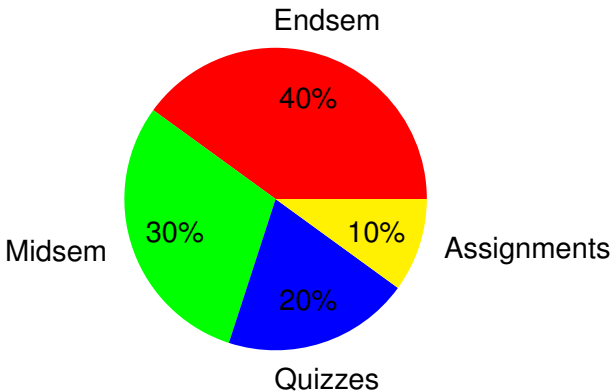
# Syllabus

- Linear block codes
- Cyclic codes
  - BCH codes
  - Reed-Solomon codes
- Convolutional codes

## Reference Books

- *Error Control Coding*, S. Lin and D. J. Costello, Second Edition, Prentice Hall, 2004.
- *Error Control Systems for Digital Communication and Storage*, S. B. Wicker, Prentice Hall, 1995.
- *The Theory of Error Correcting Codes*, F. J. MacWilliams and N. J. A. Sloane, 1977
- *Fundamentals of Convolutional Coding*, R. Johannesson and K. Sh. Zigangirov, Wiley-IEEE Press, 1999.

# Grading Policy



- Quizzes (Best two out of three)
- Relative grading
- For AU, score  $\geq$  CC

## Attendance Requirement

- 80% attendance required
- DX grade deadline: October 30 (Friday)
- Number of lectures upto deadline = 26
- $26 \times 0.8 = 20.8 \approx 21$
- You can miss at most 5 lectures



Questions?