

Course announcement

Essential Coding Theory (MIT 6.440)

Prereq: 6.006, 6.045.

Time: MW 11-12:30

Location: 26-204 [**NOTE THE CHANGE** as of **2/4/2013**]

3-0-9 H-Level Grad Credit

Homepage: <http://people.csail.mit.edu/madhu/ST13/>

Introduces essential elements the theory of error-correcting codes. Focuses on the basic results in the area, taught from first principles. Special focus will be given on results of asymptotic or algorithmic significance. Principal topics include

- Construction and existence results for error-correcting codes;
- Limitations on the combinatorial performance of error-correcting codes;
- Decoding algorithms
- Applications to other areas of mathematics and computer science.

Lecture notes for this course from previous offerings give further details on the material covered. These may be found at <http://people.csail.mit.edu/madhu/FT01>.

Instructor: [Madhu Sudan](#)