



Statistics 419

Information Theory and Error Control Codes

(see Course Descriptions for the applicable academic year: <http://www.ucalgary.ca/pubs/calendar/>)

## *Syllabus*

### Topics

Brief introduction to information theory, source coding including the Huffman Method, and Shannon's theorems.

Error detection methods. Error correcting codes -- primarily linear codes including Hamming codes, Golay codes, Reed-Muller codes, cyclic codes, as well as convolutional codes. Topics discussed will include coding and decoding, dual codes, and perfect codes. (The particular types of codes covered may vary.)

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