CMSC 442/653: Introduction to Coding Theory
Tentative Syllabus

Instructor: Professor Samuel J. Lomonaco
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Optional Text:
Error-Correcting Codes
by W. Wesley Peterson and E.J. Weldon, Jr.
MIT Press (1996)
ISBN 0-262-16-039-0 (harcover)

Course Topics:
• Overview of Coding Theory
• Finite (Galois) fields
• Linear Codes
• Polynomial Rings
• Cyclic Codes
• Linear Switching Circuits
• BCH Codes
• Convolutional Codes
• Quantum Error Correcting Codes (if time permits)

Method of Evaluation:

Homework: 25% ; Exam I: 25% ; Exam II: 25%; Exam III: 25%.

All exams will be closed books, closed notes, and open mind.

Late homework will not be accepted. Exams will be given only at the scheduled times.
No make up exams. Exceptions to this policy may be made in cases of extreme hardship.

Academic Conduct:
By enrolling in this course, each student assumes the responsibilities of an active participant in
UMBC's scholarly community in which everyone's academic work and behavior are held to the
highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these
acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in
disciplinary action that may include, but is not limited to, suspension or dismissal.

To read the full Student Academic Conduct Policy, consult the UMBC Student Handbook, the Faculty
Handbook, or the UMBC Policies section of the UMBC Directory.