

ECSE 521. DIGITAL COMMUNICATIONS 1.

Credits: 3

Offered by: Electrical & Computer Engr (Faculty of Engineering)

Terms offered: Fall 2025

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Description

Transmission over AWGN channels: optimum receiver design, digital modulation techniques, coherent, noncoherent and differentially coherent detection. Signal design for bandlimited AWGN channels. Channel capacity. Channel coding: block codes, convolutional codes, coded modulation techniques, turbo codes. Transmission over AWGN and ISI channels: MLSE, linear equalization, decision-feedback equalization, precoding, multi-carrier transmission.

- (3-0-6)
- Prerequisite: ECSE 408
- Corequisite: ECSE 509

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