

## Exam2 Topics

- LaPlace and Z-Transforms
  - Focus on Z-Transforms (Digital)
  - Using the transform sum to find the Z-Transform
  - Applying a filter in the z-domain to find the Z-Transform of the output
  - Using partial fractions to find the inverse Z-Transform (aka the time sample sequence)
- Discrete Convolution – be prepared to actually compute the convolution of two pulse sequences
  - Flip, shift and add, repeat till done
  - Express one of the sequences as a sum of shifted pulses, find the shifted output sequence to each one, and add up the results at each sample time
- Biomedical signals and signal Processing (The multiple choice section)
  - Signals
    - ECG
    - EEG
    - Ultrasonic imaging
    - Tomography (CAT scans)
  - Noise and noise reduction