

BMEN4370 - Biomedical Image Processing

[BMEN 4370](#) Biomedical Image Processing (3 semester credit hours) This course covers basic digital image processing techniques used for the analysis of biomedical images. Topics include a general introduction to the various biomedical imaging modalities, digital image fundamentals, intensity transformations, spatial and frequency domain filtering, image restoration and reconstruction, color image processing, image segmentation, and 3D data visualization. A large percentage of the course grade is based on laboratory exercises, which require students to program image processing techniques using MATLAB and apply them to digital images. Prerequisites: [BMEN 3402](#) and experience with MATLAB Programming. (3-0) Y