Electrical Engineering: Biomedical Applications of Electrical Engineering

**EEBM 6373** (BMEN 6373) Anatomy and Human Physiology for Engineers (3 semester hours) This course provides an introduction to anatomy and human physiology for engineers and other non-life-scientists. Topics include nervous system, muscle and cardiac function, digestive system, and immune system. (3-0) Y

**EEBM 6374** (BMEN 6374) Genes, Proteins and Cell Biology for Engineers (3 semester hours) This course provides an introduction to principles of modern molecular and cellular biology for engineers and other non-life scientists. Topics include genes, protein structure and function, organization of cells and cellular trafficking. (3-0) Y

**EEBM 6376** (BMEN 6376) Lecture Course in Biomedical Applications of Electrical Engineering (3 semester hours) This course provides an introduction to different areas of biomedical applications of electrical engineering. A special emphasis will be placed on research topics that are actively pursued at UTD. (3-0) Y

**EEBM 6380** (BMEN 6380) Introduction to Cellular Microscopy (3 semester hours) Image formation, diffraction, labeling techniques, fluorescence and image processing techniques will be introduced. (3-0) Y

**EEBM 6381** (BMEN 6381) Advanced Concepts in Microscopy (3 semester hours) Continuation of **EEBM 6380**, with emphasis on advanced approaches such as vectorial diffraction, stochastic aspects of image formation and analysis. Prerequisites: **EEBM 6380** or **BMEN 6380** or by instructor permission. (3-0) Y

**EEBM 7v87** Special Topics in Biomedical Applications of Electrical Engineering (1-6 semester hours) For letter grade credit only. (May be repeated to a maximum of 9 hours.) ([1-6]-0) R