**Electrical Engineering: Biomedical Applications of Electrical Engineering**

**EEBM 6373 (BMEN 6373)** Anatomy and Human Physiology for Engineers (3 semester credit 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 credit 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 credit 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 UT Dallas. (3-0) Y

**EEBM 6380 (BMEN 6380)** Introduction to Cellular Microscopy (3 semester credit 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 credit hours) Continuation of EEBM 6380, with emphasis on advanced approaches such as vectorial diffraction, stochastic aspects of image formation and analysis. Prerequisite: BMEN 6380 or EEBM 6380 or instructor consent required. (3-0) Y

**EEBM 7V87** Special Topics in Biomedical Applications of Electrical Engineering (1-6 semester credit hours) May be repeated for credit as topics vary (9 semester credit hours maximum). ([1-6]-0) R