Introduction to Biomedical Instrumentation Systems Anatomy and Physiology Bio-Signal and Noise Biomedical Electronics: Analog Biomedical Electronics: Digital Biomedical Electrodes, Sensors and Transducers Instrumentation in Diagnostic Cardiology Defibrillators and Pacemakers Instrumentation in Blood Circulation Instrumentation in Extracorporeal Circulation and Assist Devices Instrumentation in Respiration Electroencephalography & EMG Instrumentation Artifacts and Noise in Medical Instrumentation Instrumentation in Medical Ultrasound Instrumentation in Medical Imaging Fiber Optics and Lasers in Bioinstrumentation Instruments in ICU / CCU Instrumentation in the Operating Room Biomedical Laboratory Instrumentation Medical Safety Regulation & Standards Preventative Maintenance Computers and Telemedicine New Technologies in Medical Instrumentation