Biomedical Technology

A: HEALTH CARE TERMINOLOGY
BT01.00 Interpret biomedical prefixes. Suffixes, root words and abbreviations
BT01.01 Identify biomedical words, prefixes, suffixes and abbreviations
BT01.02 Combine word elements to form word commonly used in biomedical technology

B: BIOMEDICAL ETHICS AND LEGAL PRINCIPLES
BT02.00 Analyze biomedical ethics and legal principles.
BT02.01 Summarize legal principles of biomedical technology
BT02.02 Analyze the ethical principles of biomedical technology
BT02.03 Examine patient’s rights as presented by the American Hospital Association

C: TECHNOLOGY IN MEDICINE
BT03.00 Analyze the use of technology in medicine
BT03.01 Describe the use of computers in health care
BT03.02 Discuss radiology and digital imaging
BT03.03 Investigate telemedicine applications

D: MEDICAL MATHEMATICS
BT04.00 Analyze mathematical concepts in health care
BT04.01 Calculate weights, heights and volume in metric units of measure
BT04.02 Convert among metric measures and standard measures

E: FORENSIC MEDICINE
BT05.00 Analyze the use of forensic medicine in criminal science
BT05.01 Discuss the application of forensic medicine
BT05.02 Describe the use of an autopsy in determining time and cause of death
BT05.03 Discuss the use of DNA typing and forensic anthropology in identification
BT05.04 Discuss uses of odontology and serology in forensic medicine

F: INFECTIOUS DISEASES
BT06.00 Analyze issues of public health, infectious diseases and bioterrorism.
BT06.01 Discuss the infectious disease process
BT06.02 Analyze the role of public health in the prevention of infectious diseases
BT06.03 Investigate the treatment of infectious diseases
BT06.04 Analyze emerging and re-emerging infectious diseases as a public health issue
BT06.05 Examine the containment of bioterrorism agents

G: ORGAN TRANSPLANTS
BT07.00 Examine organ transplantation
BT07.01 Describe basic facts and organizations related to organ transplantation
BT07.02 Analyze bioethical issues associated with organ transplants
**H: CELL BIOLOGY AND CANCER**
BT08.00 Analyze cell biology and cancer
BT08.01 Summarize cancer types, incidence, predisposition and risk factors
BT08.01 Outline causes and development of cancer
BT08.03 Discuss genetic damage and mutation
BT08.04 Apply knowledge of cancer to improve personal and public health

**I: CAREERS IN BIOMEDICAL TECHNOLOGY**
BT09.00 Evaluate careers and techniques that use biomedical technology
BT09.01 Investigate laboratory careers
BT09.02 Discuss imaging careers and technology
BT09.03 Describe environmental careers, resources and hazards
BT09.04 Outline biotechnology careers and genetics
BT09.05 Evaluate the importance of biomedical technology in a chosen health career

**J: BIOMEDICAL RESEARCH**
BT10.00 Analyze biomedical research
BT10.01 Discuss biomedical research
BT10.02 Outline biomedical research methods
BT10.03 Analyze the benefits of biomedical research

**K: CHALLENGES TO BIOMEDICAL RESEARCH**
BT11.00 Analyze challenges to biomedical research
BT11.01 Interpret personal beliefs about biomedical research
BT11.02 Analyze the role of transgenic animals
BT11.03 Evaluate therapeutic vs. reproductive cloning
BT11.04 Debate pros and cons of animal research and animal rights

**L: CURRENT ISSUES IN BIOMEDICAL TECHNOLOGY**
BT12.00 Analyze current issues in biomedical technology