BIOMEDICAL PHYSICS

Medicine is about diagnosing diseases and treating patients, while biomedial physics is about research into the next generation of life saving advancements and technologies. Biomedical physicists apply physics concepts, theories and methods to make new discoveries in biology and improve medicine and healthcare.

WHERE CAN BIOMEDICAL PHYSICS TAKE YOU?

- You can discover what causes neurodegenerative diseases such as Parkinson’s and Alzheimer’s.
- You can prevent heart failure, muscular dystrophy and help develop exoskeletons for patients with brain and spinal injuries.
- You can guide the development of a new generation of pacemakers.
- You can develop optical tools and super-resolution microscopes.
- You can work with neurologists to understand brain function and neuronal networks using electromagnetism.
- You can create new treatments for cancer with physics at the nanoscale.
- You can help treat patients with radiation and develop new nuclear physics diagnostic tools.
- You can construct, evaluate and certify the safety and accuracy of devices including MRI, CAT, bone density scanners, and X-ray machines.
- You can create software for medical equipment and imaging systems.
- You can design new ultrasensitive detectors of disease markers.
- You can discover the structure and function of biological systems (tissues, cells and cellular components down to single molecule level – DNA, RNA, lipids and proteins).

#1
fastest growing >$100k STEM job is Physicist. 19.8% growth last decade.

28%
growth last decade for biophysicists, more than 5x growth of all occupations.

50.1%
of Nebraska jobs growth next decade will be in health-related fields

$120k
median salary for medical scientists, such as biomedical physicists.

∞
options with a flexible physics degree: medical, scientific, technical, and engineering careers.