Biomedical Engineer

**Industry Demand of Biomedical Engineer**

* Biomedical Engineering as a field is growing due to the increase in demand of new and improved medical technology. Apart from that, as the average world population is ageing, there will also be increased demand for new medical technology to accommodate the ageing population.
* Needed in several industries like industries that manufacture medical technology, hospitals to train medical technicians on how to use medical technology, and research firms on researching new medical technologies.

**Average Salary**

* Entry Level Salary in the United States: $ 60,000/Year
* Mid Career Salary in the United States: $ 77,000/Year
* Average Salary in Indonesia: Rp 133.000.000,00/Year

**Core Tasks**

* Research, develop, and produce new medical technology for use in the market
* Evaluate the safety, efficiency, and eligibility of existing medical equipments
* Research the engineering aspect of the Human body in order to better create new technology for medical uses

**Working Conditions**

* Working conditions for Biomedical Engineers depend on the workplace.
  + Working in the medical technology industry will involve a lot of designing new technology (e.g. prosthetics, artificial tissues, and diagnosis machines)
  + Working in hospitals will involve working a lot with hospital staff, evaluating and providing technical support on medical equipment, and training new staff on usage of said medical equipment.
  + Working in research firms will involve a lot of research on the engineering aspects of the human body for medical purposes. Working here will involve collaborations with medical scientists, chemists, and medical doctors.

**Skills Required**

* Matlab
* RStudio
* Autocad

**Career progression data**

* Pathways :
  + Earn a bachelor degree in Chemical/Bioengineering/Biomedical Engineering
  + Earn a masters degree in related degree which does not necessarily have to be engineering (Business, Math etc)
  + Can be promoted further to Head of Research
  + Can become an independent consultant further in the career
* To become a biomedical engineer, a bachelor’s degree is enough though further education (masters) can increase pay.

**Possible University Major**

* Chemical Engineering
* Biomedical Engineering
* Bioengineering

**School subjects required**

* Math
* Physics
* Chemistry
* Biology