Materials Engineer

**Industry Demand of Materials Engineer**

* There will always be a demand for materials that are more durable, cost effective, and easily produced.
* New growing fields like nanotechnology and tissue engineering need expertise in materials which drives demand for materials engineering.
* Most manufacturing industries involve materials thus work for Materials Engineers can be found in a wide range of industries.

**Average Salary**

* Entry Level Salary in the United States: $ 61,000/Year
* Mid Career Salary in the United States: $ 94,000/Year
* Average Salary in Indonesia: Rp 136.000.000,00/Year

**Core Tasks**

* Designing, assessing, and selecting materials for use in products.
* Perform quality control on the materials produced by the particular industry.
* Research on emerging materials.
* Assisting production team on manufacturing of a new product

**Working Conditions**

* Most of the work will be primarily in either the office, laboratory and factories.
* Will also involve liaising and communicating with numerous suppliers, clients, and technicians
* You will be involved in new development of materials which directly impact the competitiveness of your company as the improved materials will improve the company’s product.

**Skills Required**

* Matlab
* RStudio
* Autocad

**Career progression data**

* Pathways :
  + Earn a bachelor degree in Chemical/Mechanical/Materials Engineering
  + Earn a masters degree in related degree which does not necessarily have to be engineering (Business, Math etc)
  + Further progression might involve more research based or managerial work
  + Can become an independent consultant further in the career
* To become a materials engineer, a bachelor’s degree is enough though further education (masters) can increase pay.

**Possible University Major**

* Chemical Engineering
* Mechanical Engineering
* Materials Engineering/Science

**School subjects required**

* Math (Calculus)
* Physics (Newtonian Mechanics)
* Chemistry (General Chemistry)