

THE BASICS

What is materials science?

Materials science combines engineering, physics, and chemistry principles to solve real-world problems.

What do materials scientists do?

Materials scientists analyze and discover different materials in order to improve new or existing products that we use every day. They work with materials ranging from metals, polymers, ceramics, glass, composites, and more.

What real-world problems do materials scientists solve?

Materials scientists design new materials that are used in different kinds of transportation, create better medical devices like biomedical implants, create renewable energy sources, and so much more!



CAREERS







Aerospace

- Develops and improves materials used in aircraft and space vehicles
- SpaceX, NASA, Lockheed Martin, Boeing





• Amazon, Intel, Google, BOSCH, National Security Agency



Environment, sustainability & energy

- Helps create renewable energy sources for harvesting devices
- General Electric Company, Siemens, Panasonic, American Elements



Health & medicine

- Creates better medical devices like biomedical implants or heart valves
- Pfizer, Abbott Laboratories, Johnson & Johnson, Avantor



Infrastructure, transportation & society

- Designs new materials used in transportation, like cars, buses, trains, and ships.
- Tesla, Amtrak, Bechtel, Parsons Corporation



Robotics & manufacturing

- Improves manufacturing of cars, aircraft, laptops, refrigerators, and more
- Applied Materials, Inc, Boston Dynamics, iRobot, Raytheon