



RESEARCH & INNOVATION

This sector focuses on developing new technologies, processes, and products through scientific research and innovation, driving societal and economic progress

KEY AREAS

Scientific research, technology development, product innovation, artificial intelligence, sustainability solutions

Popular Careers

Space Exploration and Astrobiology Researchers, Genetic Research Scientist, Artificial Intelligence Research Scientist, Biotech Research Specialist, Augmented Reality (AR) Researcher, Autonomous Systems Developer

Skills needed

Analytical thinking, creativity, technical expertise, collaboration, and project management

Why it matters

Research and innovation drive economic growth, solve critical problems, and lead to technological and medical breakthroughs

Future look

The future focuses on sustainable technologies, AI integration, and cross-disciplinary innovation to tackle global challenges

SPACE EXPLORATION AND ASTROBIOLOGY RESEARCHERS



They study planetary environments, search for extraterrestrial life, and develop space exploration strategies. Their work combines biology, chemistry, and astronomy to understand how life might exist beyond Earth

Working conditions

Work in laboratories or space research centers. Some fieldwork may be conducted in extreme environments (e.g., deep-sea or desert simulations). Long hours and strict project deadlines are common.

Tasks

Analyze planetary data, design experiments simulating extraterrestrial conditions, research microbial life in extreme environments, and contribute to space mission planning. They may also develop life-detection technologies and publish scientific findings

Skills

Scientific research, data analysis, problem-solving, critical thinking, and laboratory skills

Education

Degree in astrobiology, planetary science, microbiology, or a related field

Opportunities

Careers in space agencies (NASA, ESA), research institutions, universities, and aerospace industries

GENETIC RESEARCH SCIENTIST



They study genes and DNA to understand genetic disorders, develop treatments, and improve biotechnological applications such as gene therapy, agriculture, and forensic science

Working conditions

Work in laboratories, research institutions, or biotech companies, often conducting experiments in sterile environments. The job may involve handling hazardous chemicals and biological samples. Long hours may be required for research projects

Skills

Analytical thinking, laboratory techniques, problem-solving, bioinformatics, and attention to detail.

Education

Degree in genetics, molecular biology, or biotechnology

Tasks

Analyze DNA sequences, conduct genetic experiments, research hereditary diseases, develop genetic therapies, and collaborate with medical professionals to advance precision medicine. They also write scientific reports and apply for research funding

Opportunities

Work in biotech firms, pharmaceutical companies, research labs, and forensic science agencies