

Career Opportunities in STEM

What is STEM?

The acronym STEM is blowing the minds of people with the new technologies and sciences developing over time. The STEM fields are blasting with more and more students picking them and desiring to pursue their careers in it. STEM incorporates research-intensive and practical subjects like science, maths, technology, and engineering. STEM careers are often considered high-tech profiles with utmost dignity and satisfaction associated with them. STEM careers are imploring because they furnish more growth potentials, excellent pay, and a diversified skill set. Some of the skills are listed below:

- Advanced Mathematics and calculus
- Engineering-Design Thinking
- Creativity and ability to innovate
- Problem-solving and inquiry skills
- Attention to detail
- Analysis and researching skills
- Leadership and communication

Why is STEM emerging?

STEM is emerging because it makes students more inclined to research and practical knowledge, and thus, the employability chances increase. Not only do they get employed but they get job security, excellent pay, and wide prospects for their growth - both personal and professional. Additionally, parents want their kids to play with codes, become technology proficient. So, yes, STEM is escalating on a greater scale, along with it, the opportunities are also gaining momentum.

How to build a career in STEM?

To build a flourishing career in the domains of STEM, you need to pursue your education in any of these disciplines. While some careers can just work with associate degree education but some elevated profile jobs mandate even a doctoral education.

Associate Degrees - Such degrees deliver education through online or offline or hybrid mode and focus on teaching the fundamentals of STEM disciplines to the students. Associate degrees can be as short as 1 year and as long as 2 years. Examples of some associate degrees are -

- Calculus and geometry
- Cellular biology
- Agricultural sciences
- Computer Applications

- Inorganic chemistry

Bachelor Degrees - Such degrees offer in-depth knowledge and specialization over any discipline of STEM. The duration of bachelor's degrees is 3 years in some nations like India and 4 years in the USA, Canada, etc. In some countries, students who have an associate degree can complete a bachelor's degree in 2 years as well. Examples of some bachelor degrees are -

- Health Sciences
- Earth Sciences
- General Physics
- Information technology
- Mathematics
- Astronomy

Master Degrees - Such degrees cover more technical and avant-garde knowledge in the STEM disciplines. A Master's degree means a master specialization in any of the STEM disciplines incorporated with research work. The students with master degrees are generally offered very high job profiles as they mandate technical expertise. Examples of some master degrees are -

- Aerospace
- Mechanical Engineering
- Artificial Intelligence
- Biochemical sciences
- Automotive Engineering
- Astronomy

Doctoral Degrees - Such a degree is the topmost level degree that any student can pursue in his life. This degree is most about the application of whatever you have comprehended so far in your extensive research and present it as a project. The duration of doctoral degrees can vary and generally range between 4-6 years. Examples of some doctoral degrees are -

- Biomedical Science
- Civil Engineering
- Electrical Engineering
- Engineering Management
- Environmental Science
- Industrial & Mechanical Engineering
- Mathematics & Statistics

Top Careers in STEM

Careers in STEM are typically classified as -

- Careers in Science like archeologists, environmental scientists, anthropologists, astronauts, biochemists, doctors, dentists, psychologists, and medical scientists.
- Careers in Technology like computer programmers, Front end and back-end developers, software systems developers, computer network architects, and computer systems analysts.
- Careers in Engineering like civil engineers, mechanical engineers, environmental engineers, aerospace engineers, and chemical engineers.
- Careers in Mathematics like Mathematician, Statistician, Data Analyst, Actuary, and Database Administrator.

The top 5 jobs in STEM with median salaries (with experience up to 2-4 years) are listed below:

- 1) Medical Professionals (Doctors & Surgeons)
Median salary - 20 lakhs p.a.
- 2) Data Scientist
Median salary - 12 lakhs p.a.
- 3) Blockchain developer
Median salary - 9 lakhs p.a.
- 4) Machine Learning Programmers
Median salary - 7 lakhs p.a.
- 5) Full Stack Software Developer
Median salary - 6 lakhs p.a.