

NUCLEAR ENGINEER

Nuclear energy is a form of energy released from the core of atoms, made up of protons and neutrons. Nuclear Engineers deal with this power and radiation. They conduct research and develop projects to address problems related to its release and control. Nuclear Engineers also determine the use of nuclear energy and handle safe nuclear waste disposal.

PERSONAL COMPETENCIES

- You enjoy science
- You like to do experiments
- You like to analyze things (problems/situations)
- You enjoy figuring out how things work



SCHOLARSHIPS

- Merit-cum-Means based Scholarship - About 20,000 such engineering scholarships are awarded by the Ministry of Minority Affairs every year. The full course fees of awardees is directly paid to their institutions under this scheme.*
 - Indian Oil Educational Scholarship- The IOC Ltd offers 300 scholarships every year to eligible students. Students need to be enrolled in an undergraduate course. The scholarship particularly focuses on students with physical disabilities, women and students from North East and J&K.*
 - "Ishan Uday" Special Scholarship Scheme - For promoting higher education and for encouraging children belonging to economically weaker section of the NE region, the UGC has launched "Ishan Uday" Special Scholarship Scheme for North Eastern Region students.
 - Visit www.scholarships.gov.in the National Scholarship Portal. Under this portal there are other central government schemes offered by different departments, UGC/AICTE Schemes and State Schemes.*
 - Visit www.buddy4study.com a gateway to scholarships starting from Class XI.*
 - Scholarships are also available in institutes based on merit.*
- *(Availability of these scholarships vary from time to time)

LOANS

- VidyaLakshmi, www.vidyalakshmi.co.in, is a portal for students seeking education loan. This portal has been developed under the guidance of the Department of Financial Services, (Ministry of Finance), Department of Higher Education (Ministry of Human Resource Development) and Indian Banks Association (IBA). Students can view, apply and track the education loan applications on the website.
- Some States have student credit cards with low interest rates, for instance, West Bengal, Odisha, Bihar, etc.
- All banks give education loans.



The approx. course fee ranges between **INR 20,000 -11,35,000*** for the full course.

*(The above mentioned figures are approximate numbers. This will vary from Institute to Institute)



ENTRY PATHWAY

1. Complete 10 + 2 in the Science stream (Physics, Chemistry, Biology)
2. Complete Bachelor's degree (B.Tech/B.Sc.) in Nuclear Engineering

OR

Complete Bachelor's degree and follow it up with Master's in the same or allied field

OR

Complete Bachelor's degree and follow it up with an online course related to the field

For admissions, you must qualify entrance examination conducted at national level (JEE Main, JEE Advanced etc.) or state level (WBJEE, AP EAMCET etc.) or institute level (VET, IP etc.)

Please check the duration of the course during enrolment



EXPECTED INCOME

The figures are indicative & subject to change

The approx. salary of a Nuclear Engineer ranges between **INR 8,250 - 166,667*** per month.

Source: https://www.payscale.com/research/IN/Job=Nuclear_Engineer/Salary

WHERE WILL YOU WORK

Places of Work: Government agencies, National laboratories, Engineering and construction firms, Electric utility industry, Health and medical research institutes, Transportation, Food and water safety sector, etc.

Work Environment: You will be working in an office set up. You will likely have to supervise a team of engineers, plant floor workers and technicians. You might have to travel as part of the job. You will work 5 to 6 days a week and 8 to 9 hours every day. This may vary from organization to organization.

Opportunities for differently abled exist in this field

EXPECTED GROWTH PATH



Nuclear Engineer → Senior Engineer → Associate Manager/Nuclear Engineering Operations → Plant Manager → General Manager

Search keywords...



nuclear engineer, maintenance engineer, engineer nuclear

WHERE WILL YOU STUDY?

The course is offered by the Department of Engineering. *This list of institutes is indicative only.*

GOVERNMENT INSTITUTES

1. IIT Madras
2. IIT Bombay
3. IIT Kanpur
4. Homi Bhabha National Institute
5. Jadavpur University
6. Delhi Technological University
7. OPJS University
8. Jawaharlal Nehru Technological University (JNTU) College of Engineering, Kakinada

PRIVATE INSTITUTES

(Please check if institute is affiliated and accredited with UGC and AICTE before applying)

1. Amity University, Noida
2. Mody University, Sikar
3. Amity School of Engineering and Technology, Noida
4. Pandit Deendayal Petroleum University
5. SRM University
6. Annai Mathammal Sheela Engineering College, Namakkal
7. University of Petroleum and Energy Studies (UPES), Knowledge Acres, Dehradun
8. Manipal Institute of Technology, Manipal

Information on the institute rankings can be found at - <https://www.nirfindia.org/2022/Ranking.html>

ONLINE COURSES

NPTEL* Swayam - <https://nptel.ac.in/courses/115102017>

*NPTEL - National Programme in Technology Enhanced Learning. It is by the Government of India and offers a variety of courses in an audio - video form.



EXAMPLE FROM THE FIELD

Nilofar Khan works at the control room of 220 MWe fifth unit of the Rajasthan Atomic Power Station (RAPS-5) at Rawatbhatta. Hailing from Ujjain, Khan joined RAPS-5 in 2008 after completing her engineering from a private college in her home city and training at Nuclear Power Corporation of India Limited.*

Source: <https://www.deccanherald.com/content/430929/women-engineers-nuke-plant-stro ngrooms.html>

**The above information is for training purposes only and will not be used for any commercial gains*