INFORMED CAREER CHOICES

Career choice is knowing about the opportunities which align with your interest and making a conscious choice of subjects towards a career. These choices could be altered based on your learning interests and inclinations. It also means that you explore your interest, passion and your strengths. Your transferable skills are very important while exploring career options. These skills are acquired through internships, volunteer work, everyday activities and team building activities. A few examples are communication skills, dependability, time management, collaboration and so on. Making informed career choices requires interest exploration, research, gaining practical experience through internships, projects and self assessment.

One of the most important aspects of informed career exploration is education which should spark curiosity to learn, critical thinking and exploration. It is important that the education institute should give a platform to students to achieve and explore giving students a choice to analyze in detail into their interest and practical knowledge. A career counsellor can help students gain clarity on the various options available and the practical aspects of each career path.

This helps students make informed career choices.

INTERNSHIPS IN HIGHSCHOOL

The evolving demands of the global workforce have led to a paradigm shift where experiential learning is highly valued. Internships is crucial initiative for career readiness. The job market is increasingly competitive, with employers seeking candidates who not only possess theoretical knowledge but also demonstrate practical skills and work experience. This need for a more dynamic and adaptable workforce has contributed to the rising emphasis on internships, which allow individuals to gain real-world exposure and develop industry-specific competencies before fully transitioning into the workforce. Consequently, internships have evolved from optional opportunities into vital stepping stones, providing tangible advantages in securing employment and enhancing professional development.

"Education is the key that unlocks the golden door to freedom."

—**George Washington Carver**

THE VALUE OF INTERNSHIPS

Academic institutions are often adept at providing foundational knowledge and critical thinking skills; however, the direct applicability of these concepts in real-world contexts is frequently limited to case studies and classroom simulations. Internships serve as a vital mechanism to address this shortfall by offering students the opportunity to apply theoretical frameworks, methodologies, and principles in a professional environment. Engaging in work activities that reflect the actual demands of their chosen industry enables students to transition from passive recipients of information to active participants in complex problem-solving processes. This synthesis of knowledge and action allows interns to gain a nuanced understanding of the intricacies of their field, enhancing their ability to critically evaluate situations, make informed decisions, and adapt academic concepts to practical challenges. Such experiences not only consolidate their academic learning but also prepare them to navigate the multifaceted realities of the professional world with greater confidence and competence.

-Synopsis from Paper published by **Marcin Majka**

Aligning with the changing scenario of workforce requirements of the future, at Gatik we are committed to provide students with a platform to explore, empower, get information and practical understanding of career choices. We provide them with an opportunity to connect with industry experts and have practical understanding of the professional world. Our industry partners mentor and guide our students.

"The aim of education is the knowledge, not of facts, but of values."

—**William S. Burroughs**

Apollo HOSPITALS

CADFEM

abjayon
Bring IT On

ThermoFisher
SCIENTIFIC

Meld tudios

DWI
DOC WEB INDIA

aiden ai

गूंज..
GOONJ.. a voice, an effort
www.goonj.org

METALIKA
INDUSTRIES

ADVOCATE
NIHAL

EMERGING CAREERS IN FOCUS:
Semiconductor Industry:

The semiconductor industry experienced strong growth in 2024, posting a 19% increase in sales, driven by demand for logic and memory chips in data centers, servers, and storage. Despite macroeconomic challenges, semiconductor companies bounced back. This momentum is expected to continue into 2025, with market projections reaching approximately $697 billion — a 11% year-over-year increase, according to World Semiconductor Trade Statistics (WSTS). Beyond 2025, the semiconductor market is expected to grow at an annual rate of 7%–9%, reaching a $1 trillion valuation by 2030. This expansion will be fueled by rising demand for high-performance computing, memory, and artificial intelligence (AI)-driven technologies.

Educational and research institutions are crucial in addressing these demands, often in collaboration with industry partners and government initiatives like the India Semiconductor Mission (ISM). Institutions are integrating industry requirements into their academic programs, creating new curricula for VLSI design, IC manufacturing, and semiconductor technology to ensure graduates are job-ready.

Career in Bioinformatics:

Bioinformatics is an interdisciplinary field that develops methods and software tools for understanding biological data. As an interdisciplinary field of science, bioinformatics combines computer science, statistics, mathematics, and engineering to analyze and interpret biological data. It is a new emerging field that helps in collecting, linking, and manipulating different types of biological information to discover new biological insight. This programme is targeted towards imparting theoretical as well as practical knowledge of bioinformatics to its participants. After completion of the programme participant is expected to have in-depth knowledge and better understanding of sequence analysis, prediction of protein structure, genome annotation, comparative genomics, health and drug discovery, microarray profiling. The modules have been compiled to introduce the attendee to various aspects of bioinformatics, its need and benefits in biological research.

For 12th grade, the essential subjects needed for a bioinformatics degree are Physics, Chemistry, and Biology (PCB), with some universities also requiring or recommending Mathematics.

> "Start by doing what is necessary, then what is possible, & suddenly you are doing the impossible."
>
> **—William S. Burroughs**

ACTUARIAL SCIENCES

Actuarial Science is the discipline that applies mathematical and statistical methods to the systematic observation of natural events to assess the risk of events occurring and help formulate policies that minimize this risk and its financial impact on companies and clients.

Key subjects include mathematics, probability, statistics, economics, and computer science, with applications in life, health, and property insurance, as well as banking, pensions, and newer fields like data science.

What do Actuaries do?

Analyze risk: They use quantitative techniques to analyze the financial risks of future events.

Predict future events: They build models to forecast the probability and financial impact of events like accidents, natural disasters, or health issues.

Manage risk: They help companies develop strategies to mitigate or manage the potential financial impact of these risks.

Design financial products: They are involved in designing insurance plans and calculating premiums.

The Institute of Actuaries of India (IAI) is a statutory body established by an Act of Parliament, viz. The Actuaries Act, 2006 for regulating the profession of Actuaries in India. The nodal ministry for the Institute is Department of Financial Services, Ministry of Finance.

Institutions:

The Institute of Actuaries of India, Mumbai

Institute of Actuarial and Quantitative studies, Mumbai

Christ University, Bangalore

Bishop Heber College, Tiruchirappalli

NEW COURSES INTRODUCED BY UNIVERSITIES

Colleges focusing on new courses include **IITs and BITS Pilani** for programs like "AI and Ethics," while **Plaksha University** is noted for courses in robotics and biological systems engineering. Other institutions highlighted for new and emerging fields include Jawaharlal Nehru University (JNU) and Vellore Institute of Technology (VIT).

Data Science & Analytics

Data science and analytics have become critical as organizations increasingly rely on data-driven decision-making. The ability to analyze large datasets to extract meaningful insights is a highly sought-after skill in various industries, including finance, healthcare, marketing, and technology.

Leading Institutions

Indian Institute of Technology (IIT) Bombay
Indian Institute of Technology (IIT) Delhi
Indian School of Business (ISB), Hyderabad
Indian Statistical Institute (ISI), Kolkata

Biotechnology

Biotechnology is at the forefront of medical and agricultural advancements, driving innovation in drug development, genetic engineering, and sustainable agriculture. The field combines biology with technology to solve some of the world's most pressing challenges.

Leading Institutions

Indian Institute of Technology (IIT) Roorkee
National Institute of Technology (NIT) Warangal
Vellore Institute of Technology (VIT), Vellore
Jawaharlal Nehru University (JNU), New Delhi

Fintech

Fintech, or financial technology, is reshaping the financial industry by introducing innovative solutions for banking, investment, and financial management. This field combines finance with technology to improve financial services.

Leading Institutions

Indian Institute of Technology (IIT) Bombay
National Institute of Securities Markets (NISM), Mumbai
Indian Institute of Management (IIM) Calcutta
XLRI – Xavier School of Management, Jamshedpur

VLSI Design & Technology

Several engineering colleges and universities in India offer specialized undergraduate (UG) programs, such as B.E. or B.Tech. in Electronics Engineering (VLSI Design and Technology). These 4-year programs are designed to meet the growing demand for skilled professionals in the semiconductor industry, often aligning with national initiatives like the India Semiconductor Mission.

Leading Institute

IIT Hyderabad
Vellore Institute of Technology (VIT)
Mahindra University
Manipal University Jaipur & Bengaluru campuses
SRM Institute of Science & Technology, Kattankulathur campus

Important Examinations & Colleges for Engineering UG

S No	Exams/Applications	Exam Schedule/Website
1	JEE Mains	https://jeemain.nta.ac.in/
2	TS- EAPCET	https://eapcet.tsche.ac.in/
3	AP- EAPCET	https://cets.apsche.ap.gov.in/EAPCET/Eapcet/
4	BITS Pilani	https://www.bits-pilani.ac.in/admissions/
5	VITEEE	https://viteee.vit.ac.in/
	VIT-AP	
6	SRMJEEE	https://srmap.edu.in/
7	KIITEE	https://kiitee.kiit.ac.in/
	Kalinga Institute	
8	Manipal MET	https://manipal.edu/mu/
9	Amrita Vishwa Vidyapeetham	https://www.amrita.edu/program/
	AEEE	
10	Mahindra University	https://www.mahindrauniversity.edu.in/
11	Shiv Nadar University	https://snu.edu.in/
12	Amity University (All branches)	https://www.amity.edu/
13	KL University	https://www.kluniversity.in/
14	Symbiosis Institute of Technology, Pune & Hyderabad	https://www.sitpune.edu.in/
15	National Defence Academy (NDA)	https://upsc.gov.in/examinations/
16	IISc, Indian Institute of Science, Bangalore	https://bs-ug.iisc.ac.in/index.html
17	Indian Institute of Science Education and Research, Pune(needs Biology too)	http://www.iiseradmission.in/
18	Plaksha University, Chandigar	

Important Design Exams & Institutes for UG

S No	Exams/Colleges	Dates/Website
1	NID	https://www.nid.edu/academics/programmes
2	NIFT	https://www.nift.ac.in/admission
3	UID Karnavati University United World Institute of Design	https://admissions.uid.edu.in/
4	MIT Design	https://www.mitid.edu.in/
5	Symbiosis Institute of Design Via SEED - 2024	https://dm.sid.edu.in/
6	IIT B.Design Via UCEED	https://www.uceed.iitb.ac.in
7	SMEAT - Srishti Manipal Institute of Art, Design, & Technology	https://srishtimanipalinstitute.in/
8	Anant National University (B.Des)	https://anu.edu.in/
9	World University of Design, Sonipat, Haryana	https://worlduniversityofdesign.nopaperforms.com/
10	Pearl Academy	https://admission.pearlacademy.com/admission/
11	FDDI (Footwear Design & Development Institute)	https://fddiindia.com/

Important Architecture Exams

S No	Exams/Colleges	Dates
1	**JEE Paper 2**	https://jeemain.nta.ac.in/
2	**NATA**	https://www.nata.in/
3	Manipal School of Architecture and Planning, MAHE-Manipal	https://www.manipal.edu/foa/program-list/barch.html
4	Department of Architecture & Planning, Birla Institute of Technology - Ranchi	www.bitmesra.ac.in/Show_Department_Section?cid=1&deptid=49
5	RV College of Architecture, Bangalore	NATA scores accepted https://rvca.edu.in/
6	CEPT University	NATA Scores are required https://admissions.cept.ac.in/
7	BMS College of Architecture, Bangalore	NATA and JEE PAPER-2 scores accepted
8	Institute of Architecture & Planning, NIRMA University, Ahmedabad	Direct enquiry based https://architecture.nirmauni.ac.in/
9	School of Architecture, Vellore Institute of Technology, Vellore (VIT)	NATA scores required https://vit.ac.in/all-courses/ug/b.arch
10	Amity School of Architecture and Planning, Noida	Accepts JEE Paper-2 or NATA https://www.amity.edu/asap/study.asp?id=1
11	SSPAD, Symbiosis School of Planning Architecture and Design, Nagpur	Accepts JEE Paper-2 or NATA https://www.sspad.edu.in/barch-admission.php

Important Entrance Examinations & Colleges for Management UG & Integrated Programs

S No	Exams/Colleges	Dates/Website
1	IIndore IPMAT (Integrated Program)	https://iimidr.ac.in/programmes/academic-programmes/five-year-integrated-programme-in-management-ipm/ipm-admissions-details/
2	Nirma University of Management, Ahmedabad, Integrated Program 5 years program	Takes IPMAT scores only https://management.nirmauni.ac.in/admission-aid/undergraduate/bba-mba-five-year-integrated/
3	NICMAR University, Pune, Integrated Program 5 years program	Valid scores of UGAT / IPMAT (IIM Indore) / CUET UG https://www.nicmar.ac.in/pune/admissions#schedule
4	IIM Rothak (Integrated Program)	https://www.iimrohtak.ac.in/ipm-important-date.php
5	IIM Ranchi (Integrated Program)	https://iimranchi.ac.in/ipm/ Accepts only IPMAT Indore scores
6	IIM Jammu (Integrated Program)	https://www.iimj.ac.in/programs/ipm/IPM_at_a_glance.php
7	IIM Bodh Gaya (Integrated Program)	https://iimbg.ac.in/programs/ipm/
8	IIM Shilong (Integrated Program)	https://iimamritsar.ac.in/academics/ipm/admission-process Accepts only IPMAT Indore scores
9	IIM Amritsar (Integrated Program)	https://iimamritsar.ac.in/academics/ipm/admission-process Accepts only IPMAT Indore scores
10	CUET (Common University Entrance Test)	https://cuet.samarth.ac.in/ (Many colleges from DU and other Central university colleges can be applied to)
11	Symbiosis University (SET)	https://www.set-test.org/blog/slat.html#application-form
12	Christ Deemed to be University	https://christuniversity.in/our-programmes/UGP/1
13	NMIMS (NPAT)	https://nmimsnpat.in/
14	OP Jindal	https://admissions.jgu.edu.in/
15	S P Jain Institute of Management and Research	https://www.spjimr.org/executive-education

16	S P Jain school of Global Management (January and September intake)	https://www.spjain.org/programs/undergraduate/bba IELTS and other English language test is must.
17	T. A. Pai Management Institute	https://www.tapmi.edu.in/ (Takes IPMAT, SAT)
18	Flames University, Pune	https://www.flame.edu.in/academics/ug
19	Krea University, Sri City, AP	https://krea.edu.in/
20	AIMA - UGAT (Undergraduate Aptitute Test)	https://www.aima.in/content/testing-and-assessment/ugat/information-to-candidates-for-ugat
21	Mahindra University, Hyderabad	https://www.mahindrauniversity.edu.in/under-graduate-programs/

Law Exams & colleges UG & Integrated programs

CLAT Accepting Colleges	
26 NLUs (National Law Universities)	https://consortiumofnlus.ac.in/
BITS Law School, Mumbai	https://www.bitslawschool.edu.in/
Institute of Law, Nirma University, Ahmedabad	https://law.nirmauni.ac.in/
Bennett University, Greater Noida	https://www.bennett.edu.in/programs/ballb/
Jindal Global Law School (JGLS), Sonipeth	https://jgu.edu.in/jgls/
Faculty of Law, Adamas University, Kolkata	https://law.adamasuniversity.ac.in/
IFIM Bangalore - IFIM Law School, Bangalore	https://ifim.edu.in/
IIL Indore - Indore Institute of Law, Indore	https://indoreinstituteoflaw.org/
ITM University, Raipur	itmuniversity.org/under-graduate-program/
KLU College of Law, Guntur	https://www.kluniversity.in/
Amity Law School, New Delhi	https://www.amity.edu/als/
Alliance School of Law, Bangalore	https://www.alliance.edu.in/school/school-of-law
Auro University, Surat	https://www.alliance.edu.in/school/school-of-law (accepts CLAT scored)
Other independent Law exam colleges:	
Symbiosis Law College (SLAT)	https://www.slat-test.org/
School of Law, Christ University (SLCU), Bengaluru	https://christuniversity.in/admission-ug
KIIT School of Law, Bhubaneshwar. Odisha	https://law.kiit.ac.in/undergraduate-program/
All India Law Entrance Test (AILET)	https://nationallawuniversitydelhi.in/

Courses and Colleges for BiPC

S No	College Name	College Name	Courses Offered
1	NEET	https://neet.nta.nic.in/	MBBS, BDS, BVSc, AH, BAMS, BITMS, and BSMS
2	EAPCET (Telangana & Andhra Pradesh) National Forensic Sciences University (NFSC)	https://eapcet.tgche.ac.in/ https://cets.apsche.ap.gov.in/EAPCET/ Eapcet/EAPCET_HomePage	BSc Agriculture, B. Pharma, Allied courses
2	National Forensic Sciences University (NFSC)	https://www.nfsu.ac.in/programs	BSc + MSc Forensic science (5year program) Can apply directly
3	Institute of Genetic Engineering, Kolkota	https://ige-india.com/bsc-microbiology-course.html	BSc in Biotechnology, genetics, Microbiology, Lab technology. Entrance test
3	Sri Ramchandra Institute of Higher Education and research	https://www.sriramachandra.edu.in/university/admissions	Biomedical sciences courses, allied health Sciences, Pharmacy. Has its own entrance test
4	Christ University, Bangaluru	https://m.christuniversity.in/courses/main-campus/school-of-sciences/life-sciences/bsc-(biotechnology,-forensic-science--honours--honours-with-research)	B Sc. Forensic Science. Has Entrance and interview
5	St. Xavier' s College Tamil Nadu	http://stxavierstn.edu.in/s2course.php	Bsc Criminology and forensic science (Direct admission based n 12th marks and interview)
6	LPU University, Punjab	https://www.lpu.in/schools/bioengineering-and-biosciences/	B.Sc Forensic Sciences, Bsc Biotechnology, Bsc Microbiology, (entrance & interview)
7	Woxen University	https://woxsen.edu.in/academics/programs/b-sc-hons/	BSc Agriculture, BioTec (entrance and interview)
8	Apollo University, Chittor	https://apollouniversity.edu.in/course/bsc-genetics-and-molecular-biology/	B Sc Genetics & molecular biology, Bio medical sciences (12th marks and entrance)
9	The Oxford college of science	https://theoxfordscience.org/ug-courses.htm#	B Sc Biotechnology, Microbioloy, genetics (Direct Admission)