DIRECTORATE OF HIGHER SECONDARY EDUCATION

GOVERNMENT OF KERALA

This part contains 291 pages (from Art Education to Scolarships)
Total: 45 articles

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ART EDUCATION

Introduction

Cultural life is the unique characteristics of human life. Let us express culture in different way. Each expression reflects the culture of an individual and her/his culture. It is influenced by several features like geographical specialties, climate, historical events, artistic skills, ways of life and so on. Art is the back bone of cultural expressions. Indian life is blessed with plenty of art forms. Most of them are transferred traditionally. Still we have formal education institutions to teach and propagate the art forms. While we discuss art in general, it includes varieties of forms. Let us try to categorise the art forms as fine arts, music and performing arts.

Fine Arts

Fine art is the first form of artistic expressions. The history of fine arts begins with cave paintings by nomadic artists. It throws light on the historians to make assumptions regarding pre-historic human life. The same art form has relevance in post modern, hi-tech world. Each and every development in social, political, cultural and scientific life is reflected in art. So we have different schools of thought in fine art. Several institutions offer courses in fine arts and art history.

Content

Under graduate, post graduate and diploma courses are popular in art education. In Kerala we have BFA courses offered by Govt. fine arts colleges. During the study, the learners will study painting, sculpture and applied arts. After introductory sessions, the learner can specialize in one of the areas.

Eligibility

UG.

Higher Secondary Education and (Entrance) Aptitude Test.

PG.

Degree and Entrance test.

Personal Traits

- Observation.
- Ability to draw or sculpture.
- Artistic talent.
- visual sense

Job Prospects

Artists, illustrators, designers, graphic design, advertisement art work, background scene setters, layout artists, art educator

Trend

Art education becomes a fashion among the elite groups. Almost all media houses utilize the assets of artists.

Branches

There will be three branches in fine arts education. They are painting, sculpture and applied arts. For mural painting, there are unique courses.

Specialisation

Institutes in Kerala

BFA

Fine Arts College, Thiruvananthapuram

Fine Arts College, Thrissur

Ravi Varma Institute of Fine Arts, Mavelikkara

RLV College of Music and Institute of Fine Arts, Tripunitura

Sree Sankaracharya Sanskrit University, Kalady

Two years Diploma in Mural Paintings

Vasthuvidya Gurukulam, Guruvayoor

Premier Institutes in India

Kala Bhavan (Institute of Fine Arts), Santiniketan

MS University, Baroda

National Institute of Design, Ahmedabad

Faculty of Music & Fine Arts, University of Delhi, Delhi

Sir J.J Institute of Applied Arts, Mumbai

Faculty of Visual Arts, Banaras Hindu University, Varanasi

Department of Fine Arts, Kurukshetra University

University College of Fine Arts, University of Mysore, Mysore

Department of Fine Arts, Aligarh Muslim University, Aligarh

Future Career Options

Music

Music is a magical remedy for mental hygiene. It influences human life in deep. The

world of Music can broadly be classified into two namely, Classical and Folk. Classical music falls into two kinds namely Karnatic and Hindustani.

Content

Under - Graduate and Post - Graduate and Diploma courses are popular in music education.

Eligibility

UG.

Higher secondary Education and (Entrance) Aptitude Test .

PG.

Degree and Entrance test.

Personal Traits

- Musical intelligence.
- Musical aptitude.

Job Prospects

Musician, music director, singer, music composer

Trend Branches

Karnatic music, Hindustani music

Specialization

Vocal, instruments

Institutes in Kerala

1. BPA in Vocal Music, Veena, Violin, Mridangam
2. Sri Swathi Thirunal College of Music, Thiruvanathapuram
3. BA in Vocal Music, Veena, Violin, Kathakali sangeetham, Mridangam, Chenda, Maddalam
4. RLV College of Music and Fine Arts, Tripunithura, Ernakulam
5. BA in Vocal Music, Veena, Violon, Mridangam
6. Chembai Memorial Govt. Music College, Palakkad
7. BA Karnatic Music
8. Lasya College of Fine Arts, Pilathara, Kannur
9. MPA in Vocal Music, Veena, Violin, Mridangam
10. Sri Swathi Thirunal College of Music, Thiruvanathapuram
11. MA in Vocal Music, Veena, Violin, Kathakali sangeetham, Mridangam, Chenda, Maddalam

12. RLV College of Music and Fine Arts, Tripunithura, Ernakulam

13. MA in Vocal Music

14. Chembai Memorial Govt. Music College, Palakkad

15. MA Music

16. School of Visual and Fine Arts, Department of Music, Swami Anand Thertha Campus, Kannur University, Edat, Payyannur, Kannur

17. Basic course in Karnatic Music, Violin,Tabala,Mrithangam,Keyboard

18. Lasya College of Fine Arts, Plilathara, Kannur

Premier Institutes in India

Future career options

Dance and Theatre

Content

Under - graduate and Post - graduate and Diploma courses are popular in dance education.

Eligibility

UG

Higher secondary Education and (Entrance) Aptitude Test .

PG

Degree and entrance test

Personal traits

- Musical and kinesthetic intelligence.
- Musical and kinesthetic aptitude.
- Sense of space.

Job prospects

Actor, director, dancer, choreographer

Trend

Branches

Actor, Director, Mohiniyattom, Bharatnatyam, Kathakali, Kuchupudi, Koodiyattom etc

Specialization

Actor, Director, Mohiniyattom, Bharatnatyam, Kathakali, Kuchupudi, Koodiyattom etc

Institutes in Kerala

1. BPA in dance
2. Sri Swathi Thirunal College of Music, Thiruvanathapuram
3. BA in Bharathanatyam, Mohiniyattam, Kadhakali vesham
4. RLV College of Music and Fine Arts, Tripunithura, Ernakulam
5. BTA
6. School of Drama, Thrissur
7. BTA and MTA
8. Sree Sankaracharya University, Kaladi
9. BA Bharathanatyam
10. Lasya College of Fine Arts, Pilathara, Kannur
11. MPA in dance
12. Sri Swathi Thirunal College of Music, Thiruvanathapuram
13. MA in Bharathanatyam, Mohiniyattam, Kadhakali vesham
14. RLV College of Music and Fine Arts, Tripunithura, Ernakulam
15. MA Bharathanatyam and Basic course in Bharathanatyam
16. Lasya College of Fine Arts, Plilathara, Kannur
17. Premier institutes in India
18. Kalakshetra,Adayar
19. National School of Drama, Delhi

ITI COURSES

Introduction

ITI Courses are meant to create skilled manpower for those who complete 10th Standard and Plus Two. Those who pass out from these institutes are absorbed by various industries and technical institutes in and outside Kerala including Middle East Countries. The courses in these institutes are affiliated to either NCVT or SCVT. For jobs in Government Departments and corporations NCVT or SCVT affiliation is mandatory.

Content

In Kerala there are two types of ITI s, one under the Government of Kerala and the other one under private managements. Content of the course mainly consists of theoretical and practical aspects of the respective trades.

Eligibility

Minimum qualification for the admission is SSLC pass and for non metric trade it is 10 th standard pass or fail.

Ncvt Trades

A. Non Metric Trades (Engineering)

Sl.No:	Trade	Duration	Eligibility
1.	Sheet Metal Worker	1 year	10th Pass or Fail
2.	Wielder	1 year	10th Pass or Fail
3.	Foundry man	1 year	10th Pass or Fail
4.	Plumber	1 year	10th Pass or Fail
5.	Carpenter	1 year	10th Pass or Fail
6.	Wireman	2 years	10th Pass or Fail
7.	Painter General	2 years	10th Pass or Fail
8.	Mechanic Tractor	1 year	10th Pass or Fail
9.	Mechanic Agricultural Machinery	2 years	10th Pass or Fail

B. Metric Trades (Engineering)

Sl. No:	Trade	Duration	Eligibility
1.	Sanitary Hardware Fitter	6 months	10th Pass
2.	Mechanic Auto Electrical and Electronics	6 months	10th Pass
3.	Surveyor	2 Years	10th Pass
4.	Interior Decoration and Designing	1 Year	10th Pass
5.	Plastic Processing Operator	1 Year	10th Pass
6.	Mechanic Diesel	1 Year	10th Pass
7.	Architectural Assistant	1 Year	10th Pass
8.	Draughtsman Civil	2 Years	10th Pass
9.	Draughtsman Mechanic	2 Years	10th Pass
10.	Mechanic Radio and Television	2 Years	10th Pass
11.	Electrician	2 Years	10th Pass
12.	Electronics Mechanic	2 Years	10th Pass
13.	Instrument Mechanic	2 Years	10th Pass
14.	Mechanic Refrigeration and AC	2 Years	10th Pass
15.	Fitter	2 Years	10th Pass
16.	Turner	2 Years	10th Pass
17.	Machinist	2 Years	10th Pass
18.	Mechanic Motor Vehicle	2 Years	10th Pass
19.	Mechanic Computer Hardware	2 Years	10th Pass
20.	Electro plater	2 Years	10th Pass
21.	Mechanic Machine tool and maintenance	2 Years	10th Pass
22.	Attendant Operator chemical plant	2 Years	10th Pass
23.	Laboratory Assistant Chemical Plant	2 Years	10th Pass
24.	Instrument Mechanic Chemical Plant	2 Years	10th Pass
25.	Maintenance Mechanic Chemical Plant	2 Years	10th Pass
26.	Tool and Dye maker (Press Tools Jigs and Fixtures)	1 Year	Plus two in Science with Maths
27.	Tool and Dye maker (Dyes and Moulds)	1 Year	Plus two in Science with Maths

C. Metric Trades (Non Engineering)

Sl. No:	Trade	Duration	Eligibility
1.	Date Entry Operator	6 months	10th Pass
2.	Dress making	1 Year	10th Pass
3.	Stewards	1 Year	`10th Pass
4.	Crafts men Food production(General)	1 Year	10th Pass
5.	Crafts men Food production(Vegetarian)	1 Year	10th Pass
6.	Dairying	1 Year	10th Pass
7.	Horticulture	1 Year	10th Pass
8. `	Network Technician	6 months	10th Pass
9.	Tourist Guide	6 months	10th Pass
10.	Hospital House Keeping	1 Year	Plus Two Science
11.	Fashion Technology	1 Year	10th Pass
12.	Health Sanitary Inspector	1 Year	10th Pass
13.	Driver cum Mechanic	6 months	10th Pass (18 years completed)
14.	Front Officer Assistant	1 Year	10th Pass
15.	COPA	1 Year	10th Pass
16.	DTP	1 Year	10th Pass
17.	Secretarial Practice	1 Year	10th Pass
18.	Stenography English	1 Year	10th Pass
19.	Stenography Hindi	1 Year	10th Pass with Hindi

A. Metric Trades (Engineering)

Sl. No:	Trade	Duration	Eligibility
1.	Sanitary Hardware Fitter	6 months	10th Pass
2.	Mechanic Auto Electrical and Electronics	6 months	10th Pass
3.	Surveyor	2 Years	10th Pass
4.	Interior Decoration and Designing	1 Year	10th Pass
5.	Plastic Processing Operator	1 Year	10th Pass
6.	Mechanic Diesel	1 Year	10th Pass
7.	Architectural Assistant	1 Year	10th Pass
8. `	Draughtsman Civil	2 Years	10th Pass
9.	Draughtsman Mechanic	2 Years	10th Pass
10.	Mechanic Radio and Television	2 Years	10th Pass
11.	Electrician	2 Years	10th Pass
12.	Electronics Mechanic	2 Years	10th Pass
13.	Instrument Mechanic	2 Years	10th Pass
14.	Mechanic Refrigeration and AC	2 Years	10th Pass
15.	Fitter	2 Years	10th Pass
16.	Turner	2 Years	10th Pass
17.	Machinist	2 Years	10th Pass
18.	Mechanic Motor Vehicle	2 Years	10th Pass
19.	Mechanic Computer Hardware	2 Years	10th Pass
20.	Electro Plater	2 Years	10th Pass
21.	Mechanic Machine tool and maintenance	2 Years	10th Pass
22.	Attendant Operator chemical plant	2 Years	10th Pass
23.	Laboratory Assistant Chemical Plant	2 Years	10th Pass
24.	Instrument Mechanic Chemical Plant	2 Years	10th Pass
25.	Maintenance Mechanic Chemical Plant	2 Years	10th Pass
26.	Tool and Dye maker (Press Tools Jigs and Fixtures)	1 Year	Plus two in Science with Maths
27.	Tool and Dye maker (Dyes and Moulds)	1 Year	Plus two in Science with Maths

B. Metric Trades (Non Engineering)

Sl. No:	Trade	Duration	Eligibility
1.	Date Entry Operator	6 months	10th Pass
2.	Dress making	1 Year	10th Pass
3.	Stewards	1 Year	`10th Pass
4.	Crafts men Food production(General)	1 Year	10th Pass
5.	Crafts men Food production(Vegetarian)	1 Year	10th Pass
6.	Dairying	1 Year	10th Pass
7.	Horticulture	1 Year	10th Pass
8. `	Network Technician	6 months	10th Pass
9.	Tourist Guide	6 months	10th Pass
10.	Hospital House Keeping	1 Year	Plus Two Science
11.	Fashion Technology	1 Year	10th Pass
12.	Health Sanitary Inspector	1 Year	10th Pass
13.	Driver cum Mechanic	6 months	10th Pass (18 years completed)
14.	Front Officer Assistant	1 Year	10th Pass
15.	COPA	1 Year	10th Pass
16.	DTP	1 Year	10th Pass
17.	Secretarial Practice	1 Year	10th Pass
18.	Stenography English	1 Year	10th Pass
19.	Stenography Hindi	1 Year	10th Pass with Hindi

LIST OF ITIS IN KERALA

SL.NO:	NAME OF GOVT. ITI	DOMAIN NAME
I	**THIRUVANANTHAPURAM**	
1	GOVT. ITI DHANUVACHAPURAM	itidhanuvachapuram.kerala.gov.in
2	GOVT. ITI ARYANAD	itiaryanad.kerala.gov.in
3	GOVT. WOMEN ITI KAZHAKUTTOM	womenitikazhakuttom.kerala.gov.in
4	GOVT. ITI CHACKAI	itichackai.kerala.gov.in
5	GOVT. ITI ATTINGAL	itiattingal.kerala.gov.in
6	GOVT. WOMEN ITI PARASALA	womenitiparasala.kerala.gov.in
7	GOVT. ITI MALAYINKEEZHU	itimalayinkeezhu.kerala.gov.in
II	**KOLLAM**	
8	GOVT. ITI CHANDANATHOPE, KOLLAM	itichandanathope.kerala.gov.in
9	GOVT. WOMEN ITI KOLLAM	womenitikollam.kerala.gov.in
10	GOVT. ITI CHATHANOOR, KOLLAM	itichathanoor.kerala.gov.in
11	GOVT. ITI ELAMADU, KOLLAM	itielamadu.kerala.gov.in
12	BASIC TRAINING CENTRE, KOLLAM	basictrainingcentrekollam.kerala.gov.in
13	GOVT. ITI THEVALAKKARA, KOLLAM	itithevalakkara.kerala.gov.in
III	**PATHANAMTHITTA**	
14	GOVT. ITI CHENNERKKARA	itichenneerkara.kerala.gov.in
15	GOVT. WOMEN ITI MEZHUVELI	womenitimezhuveli.kerala.gov.in
16	GOVT. ITI RANNI, PATHANAMTHITTA	itiranni.kerala.gov.in
IV	**ALAPPUZHA**	
17	GOVT. ITI CHENGANNUR	itichengannur.kerala.gov.in
18	GOVT. WOMEN ITI CHENGANNUR	womenitichengannur.kerala.gov.in
19	GOVT. ITI PURAKKAD	itipurakkad.kerala.gov.in
20	GOVT. ITI KAYAMKULAM	itikayamkulam.kerala.gov.in
21	GOVT. ITI VAYALAR	itivayalar.kerala.gov.in
22	GOVT. ITI PALLIPPAD	itipallippad.kerala.gov.in
V	**KOTTAYAM**	
23	GOVT. ITI ETTUMANOOR	itiettumanoor.kerala.gov.in
24	GOVT. ITI PALLICKATHODE	itipallickathode.kerala.gov.in
25	GOVT. ITI PERUVA	itiperuva.kerala.gov.in
26	GOVT. ITI THIRUVARPU	itithiruvarpu.kerala.gov.in
27	GOVT. WOMEN ITI CHANGANACHERRY	womenitichanganacherry.kerala.gov.in
VI	**IDUKKI**	
28	GOVT.ITI KATTAPPANA	itikattappana.kerala.gov.in
29	GOVT. ITI RAJAKAD	itirajakad.kerala.gov.in
30	GOVT. WOMEN ITI THALLAKKANAM	womenitithallakkanam.kerala.gov.in
VII	**ERNAKULAM**	

31	GOVT. WOMEN ITI KALAMASSERY	womenitikalamassery.kerala.gov.in
32	GOVT. ITI KALAMASSERY	itikalamassery.kerala.gov.in
33	GOVT. ITI ARAKKUZHA	itiarakkuzha.kerala.gov.in
34	GOVT. ITI MANEED	itimaneed.kerala.gov.in
35	GOVT. ITI MARADU,	itimaradu.kerala.gov.in
36	GOVT. ITI VENGOOR	itivengoor.kerala.gov.in
VIII	**THRISSUR**	
37	GOVT. ITI CHALAKUDY	itichalakudy.kerala.gov.in
38	GOVT. WOMEN ITI CHALAKKUDY	womenitichalakudy.kerala.gov.in
39	GOVT. ITI MALA	itimala.kerala.gov.in
40	GOVT. ITI ERIYAD	itieriyad.kerala.gov.in
41	GOVT. ITI CHELAKKARA	itidesamangalam.kerala.gov.in
42	GOVT. ITI CHERPPU	iticherppu.kerala.gov.in
43	GOVT. ITI MANALOOR	itimanaloor.kerala.gov.in
IX	**PALAKKAD**	
44	GOVT.ITI MALAMPUZHA	itimalampuzha.kerala.gov.in
45	GOVT. WOMEN ITI MALAMPUZHA	womenitimalampuzha.kerala.gov.in
46	GOVT. ITI KUZHALMANNAM	itikuzhalmannam.kerala.gov.in
47	GOVT. ITIATTAPADI,	itiattapadi.kerala.gov.in
48	GOVT. ITI VANIYAMKULAM	itivaniyamkulam.kerala.gov.in
49	GOVT. ITI NENMARA	itinenmara.kerala.gov.in
X	**MALAPPURAM**	
50	GOVT. ITI AREACODE	itiareacode.kerala.gov.in
51	GOVT. ITI NILAMBUR	itinilambur.kerala.gov.in
52	GOVT. ITI MARANCHERY	itimaranchery.kerala.gov.in
53	GOVT. ITI PUZHAKKATTIRI	itipuzhakkattiri.kerala.gov.in
54	GOVT. ITI CHERIYAMUNDAM	iticheriyamundam.kerala.gov.in
55	GOVT. WOMEN ITI THAZHEKKODE	womenitithazhekkode.kerala.gov.in
XI	**KOZHIKKODE**	
56	GOVT. ITI KOZHIKODE	itikozhikode.kerala.gov.in
57	GOVT. WOMEN ITI KOZHIKODE	womenitikozhikode.kerala.gov.in
58	GOVT. ITI QUILANDY	itiquilandy.kerala.gov.in
59	GOVT. ITI VALAYAM	itivalayam.kerala.gov.in
60	GOVT. ITI BEYPORE	itibeypore.kerala.gov.in
61	GOVT. ITI THIRUVAMBADI	itithiruvambadi.kerala.gov.in
62	GOVT. ITI MANIYOOR	itimaniyoor.kerala.gov.in
63	GOVT. ITI VADAKARA	itivadakara.kerala.gov.in
XII	**WAYANAD**	
64	GOVT. ITI KALPETTA	itikalpetta.kerala.gov.in

65	GOVT. WOMEN ITI NENMENI	womenitinenmeni.kerala.gov.in
XIII	**KANNUR**	
66	GOVT. ITI KANNUR	itikannur.kerala.gov.in
67	GOVT. WOMEN ITI KANNUR	womenitikannur.kerala.gov.in
68	GOVT.. ITI MADAYI	itimadayi.kerala.gov.in
69	GOVT. ITI PERAVOOR	itiperavoor.kerala.gov.in
70	GOVT. ITI KURUMATHOOR	itikurumathoor.kerala.gov.in
71	GOVT. ITI PERINGOME	itiperingom.kerala.gov.in
XIV	**KASARAGOD**	
72	GOVT. ITI KASARAGOD	itikasaragod.kerala.gov.in
73	GOVT. ITI KAYYUR	itikayyur.kerala.gov.in
74	GOVT. ITI PULLUR	itipullur.kerala.gov.in
75	GOVT. ITI MADIKKAI	itimadikkai.kerala.gov.in
76	GOVT. ITI SEETHAMGOLI	itiseethamgoli.kerala.gov.in
77	GOVT. WOMEN ITI WEST ELARI	womenitiwesteleri.kerala.gov.in

Besides these Govt. Institutes there are many private ITIs in the State, and one should ensure that these institutes and their courses are affiliated to either NCVT or SCVT

Personal Traits

As ITI courses are meant to create skilled manpower the job usually involves manual labour. So those who are physically challenged should see that they are selecting fit andsuitable courses for them.

Nature of Work

Generally the work involves physical and mental labour

Opportunities After It Courses

People of engineering trade can go for higher studies like diploma in engineering. There are also specialised short term courses in Advanced Training Institute (ATI) which enhances the skills of candidates. ITI qualified persons can set up their own garage, motor/generator/transformer winding shops or fabrication shops depending upon trade opted. Also candidates can apply for jobs in private sector and public sectors. Government organisations like Indian Army, Navy, Airforce and also paramilitary forces like BSF, CRPF provide opportunities for ITI passed candidates of different trades.

GENARAL OPENINGS AFTER ITI COURSES

1. Indian railway.
2. DRDO.
3. BSNL .
4. MTNL.
5. Electricity board.
6. NTPC.
7. SAIL.
8. Vocational Teacher.
9. Railway Exam

Trends

Recently IITs in Kerala are giving soft skill training to the students to cater to the increased demand from middle east and private sector from in and outside Kerala. Those students who go for value addition courses like Communicative English, various Computer Courses like COPA conducted by C-dit, C-apt etc are finding easy to get jobs abroad,they are also advised to undergo training in RI centres in the State and also in Institutes like FACT Cochin.

Competitive Exams

Those who finish ITI courses can appear for PSC,,Railway,Cochin Refinary,DRDO, SSC and similar exams.

Higher Study Options After ITI

Those who complete ITI courses successfully can go for poly diploma courses, 5% of the seats available in all branches are reserved for ITI certificate holders. ITI ,KGCE holders will be considered for these seats as a single block (candidate will be ranked on the basis of marks/grades obtained in the SSLC or equivalent examination) for Diploma programmes related to their trade in ITI/KGCE course. After diploma they can go for B.Tech through Lateral Entry Test.

JOURNALISM AND MASS COMMUNICATION

Introduction

We are living in a media driven society. Developments in science and technology along with social changes influenced media and vice versa. Though the instances of media education could be seen in 1940s, media education is comparatively a new discipline based on practical lessons. Now we have at least three universities which are fully dedicated for Mass Communication and allied areas of learning. The Indian scene of media education and industrial out puts are fascinating ones.

Content

Academic programmes for the study of mass media are usually referred to as Mass Communication programmes. Media courses being offered by several universities/ colleges as well as private media schools at the undergraduate level are in great demand. In Kerala we have journalism as an optional subject at the Higher Secondary Level. The course will impart some of the basics of mass communication to those aspiring to pursue a career in the information/ communication /entertainment industry, and equip them with skills required for fundamental jobs in the media industry.

Several young learners at the school level would be aspiring to take up Mass Communication as a career option. There is a need to groom such learners by accelerating their level of awareness. A basic understanding of the subject may equip them better while choosing mass communication as a career option. Let us try to familiarize some of the avenues.

Eligibility

Degree Course   : Higher Secondary (Any Group)

Post Graduate Degree : Any Degree with Entrance Test

PG Diploma: Any Degree

Personal traits

Research and information-gathering skills

 Stress and time management skills

Observation, analytical ability and writing skill

Flexibility, versatility, and adaptability

 Interviewing and people skills

Technical skills in various forms of electronic media

TV, radio, and public affairs reporting skills

Editing and design

Accepting responsibility

Willingness to go above and beyond

Representing others

Job Prospects

In India, we have Indian Information Service which comes under the Civil Services. Those who successfully complete the training will be appointed in Press Information Bureau and allied Departments. Other prospects are:

Journalist	Dubbing Editor	
Advertising Director	Editorial Assistant	
Announcer	Electronic Specialist	
Audio/Video Specialist	Events Planner	
Author	Feature Writer	
Media educator	Filmmaker/Documentary	News Anchor
Book Editor	Freelance Reporter	Photojournalist/Photographer
Broadcast Supervisor/Technician		Press Secretary
Camera Operator		
Campaign Manager		
Children's Author/Illustrator		
	Human administrator	
Communications Specialist	Illustrator	Reporter
Copy Editor/Writer		Speechwriter
		Sportscaster/Promoter
		Station Manager
		Teacher
		Technical Writer

Trend

Today, Mass Communication is a good career choice with immense potential for growth offering plenty of opportunities for aspiring professionals in diverse fields such as newspapers, magazines, radio, television, advertising, public relations, new media etc.

Branches

Print Journalism, Photo Journalism, Radio Journalism and Production, Television Journalism and Production, Film journalism and Production, Online Journalism, Public Relations, Advertisement

Specialization

Agriculture, Business, Crime, Development, Education, Environment, Film, Health, Science and Technology, Sports, Tourism and Women

Institutes in Kerala

1. MCJ
2. University of Calicut, Thenjipalam, Malappuram
3. Kerala University, Thiruvananthapuram
4. Mahatma Gandhi University, Kottayam
5. Kannur University, Kannur
6. Malayalam University, Thirur
7. Donbosco, Angadippuram, Kannur
8. SAFI, Vazhayoor,Malappuram
9. Farooq College, Kozhikode
10. Media Village, Changanassery, Kottayam
11. St. Teresas College, Ernakulam
12. BA Journalism: Govt. College, Kalpetta, Wayanad
13. Pazhassiraja College, pulpally, Wayanad
14. BVMC: Amrutha Viswa Vidyalaya, Cochin
15. Mar Ivanoius College, Nalanchira, Thiruvanathapuram
16. AJ College, Kazhakoottam, Thiruvananthapuram

Diploma courses

Press Academy, Kakanad, Ernakulam Diploma in Journalism, Diploma in Advertisement and Public Relations, Diploma in Television Journalism, Certificate course in Video editing.

Indian Institute of Mass Communication, Kottayam Diploma in Journalism.

School of Communication and Management Studies, Cochin University of Science and Technology, Cochin Diploma in Advertisement.

CDIT, Thiruvananthapuram

Press Clubs, Thiruvanathapuram, Kozhikode and Kottayam

Manorama school of communication, Kottayam

Bharathiya Vidyabhavan, Thiruvananthapuram, Kottayam, Ernakulam, Thrisur and Kozhikode

Premier institutes in India

Indian Institute of Mass communication, Delhi. The institute has branches at Dhenkanal (Orissa), Amaravathi (Maharashtra), Aizawl(Mizoram), Jammu (Jammu & Kashmir) and Kottayam (Kerala). Courses offered: PG Diploma in English, Hindi and Oriya Journalism, Radio & Television journalism and Advertisement & Public Relations.

1. Indian Institute of Film and Television, Pune
2. Jamia Milia Islamia University, Delhi
3. Banaras Hindu University, Banaras
4. Assam University, Silchar,Assam
5. Manipal Institute of Mass Communication
6. Mudra Instiute of communication, Ahmedabad
7. Asian College of Journalism, Chennai
8. IGNOU, New Delhi, Delhi (Distance Mode) one year diploma, BJMC

Future Career Options

Critical media literacy and education is the upcoming area of discourse in India. We have a few ventures to promote the area. Central Institute for Educational Technology, Delhi began media literacy programmes by introducing media clubs in schools. In Kerala Media Analysis and Research Center, Kozhikode work in this regard by offering short term orientation programmes.

LAW

Introduction

Qualifications in law offer attractive career avenues today.The legal profession has always been held at a high esteem in our country. With the increasing awareness among the mass about their rights and subjects like environment and human rights gaining prominence, the profession has become even more sought after and glamorous lately. Economic liberalization has also created its own demand in the legal profession. Specialists in Patent Law, Tax Law and Corporate Law are in great demand nowadays.Moreover a Law graduate can achieve even the powerful post of Chief justice of Supreme Court/ High Court or Judges of Supreme Court/ High Court.

LLB is the basic degree in legal education. A law graduate, after clearing All India Bar Exam(AIBE) can get himself/herself enlisted in the local/ state/ Central bar councils to start private practice.

Content

Various kinds of law like Criminal Law, Corporate Law, Civil Law, Patent Law, Constitutional Law Labour Law, Tax Law etc.

Eligibility

 Candidates interested in pursuing Law can either opt for a three-year law course after graduation, or a five-year course after 10+2 leading to B.A. LL.B., B.Sc. LL.B., B.B.A. LL.B., B.S.W. LL.B., B.Com. LL.B. (Hons). Degrees.

B.A. L.L.B/ BBA. LLB, BSc. LLB/ B.Com. LLB, BSW. LLB: These are 5-year courses and the students can pursue this course after passing any Plus Two. L.L.B: This is a 3-year course, open for any graduate.

L.L.M: This is a postgraduate course in Law. The duration of the course is 2years. Students can pursue this course after completing B.A. L.L.B. or L.L.B.

Personality Traits

Communication skills, Judgment, Logical thinking, Self-control, Adaptability, Competitiveness, Analytical Skills , Open mindedness, Ethical.

Nature of work

Lawyers serve as both advocates and advisers. As advocates, they speak for their clients in court by presenting supportive evidence. As advisers, they counsel their clients on their legal rights and obligations. Lawyers-also called attorneys and counselors-can interpret laws, apply laws to specific situations, and draft new laws.

Job Prospects

Advocate in a court of law, work with corporate firm, Judge, Attorney General, Solicitor General, Advocate General, Public Prosecutor, Legal Adviser for various organizations

Teaching in college's, working with NGOs, Paralegals, Mediators, Secretaries, Consultants, working as a reporter for newspapers and television channels are other attractive options.

Different Roles, Different Names

Criminal Lawyer: Specializes in Crimina Llaws CrPC, IPC, Evidence Act and various other penal laws.

Civil Litigation Lawyer: Specializes in Civil Laws e.g. Taxation Laws, Excise Laws.

Legal Analyst: Works for corporate Firms or Law Firms and analyses laws pertaining to the sphere of the company and its operation.

Document Drafting Lawyer: Specializes in drafting various documents containing agreements, terms and conditions, case material, etc.

Legal Journalist: Covers crime beats, legal proceedings in courts, arbitration courts, international courts and arbitration events.

Legal Advisor: Offers consultancy to corporate firms regarding their legal obligations, duties, legal relations with other firms.

Government Lawyer: Works for the government and in close coordination with the police.

Judge

Offers judgment after conducting the court proceedings and hearing al the concerned parties.

Trend

E-Discovery (The discovery of electronically stored information (ESI)) Multigenerational workforce (legal professionals work beyond retirement age, many law firms and legal departments are trying to balance a generation gap of more than 50 years between the oldest and youngest employees).

Social networking (Social media tools such as Facebook, Twitter and YouTube are also key marketing tools, helping lawyers and legal professionals reach a broad audience and accomplish branding, advertising and client development goals).

Legal outsourcing (both onshore and offshore, is transforming law practice as law firms and corporate legal departments seek to minimize costs, increase flexibility and expand their in-house capabilities).

Globalization and Eco- consciousness (new methods of trade and green law initiatives are impacting the practice of law).

Virtual law (offices provide an alternative method of practicing law that permit flexible work hours and foster a better work/life balance for legal professionals.)

Specialized Branches
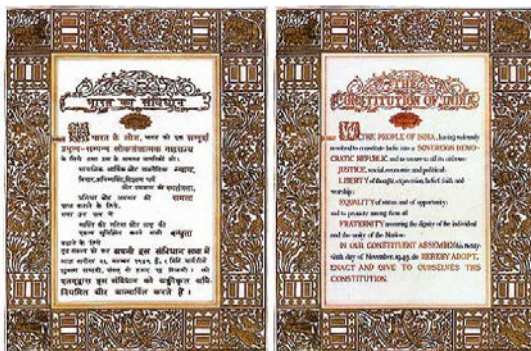
Civil Law
  ➢ Criminal law
  ➢ Corporate law
  ➢ Administration Law
  ➢ Cyber law
  ➢ Labour Law
  ➢ Constitutional Law
  ➢ Patent Law

Law Institutes in Kerala

1. National University of Advanced Legal Studies, Kochi (NUALS)
2. School of Legal Studies - Cochin University of Science and Technology
3. Govt. Law College, Calicut
4. Govt. Law College, Ayyanthole, Thrissur
5. Govt. Law College, Kunnumkuzhi,TVM
6. Govt Law College, Ernakulam.
7. School of Indian Legal Thought, MG university
8. Kerala Law Academy Law College, TVM
9. Centre for Legal Studies, Logans Road Thalassery.

National Institutes

1. Symbiosis Society's Law College (SSLC), Pune - www.symlaw.ac.in.
2. Faculty of Law, University of Delhi - www.lawfaculty@vsnl.net.in.
3. Amity Law School -www.amity.edu.
4. ILS Law College Pune- www.ilslaw.edu.
5. Government Law College, Mumbai- www.glc.edu.
6. Tamil Nadu Dr.Ambedkar Law University, Chennai - www.tndalu.org.
7. Aligarh Muslim University, Aligarh – www.amu.ac.in.
8. Banaras Hindu University, Varanasi – www.bhu.ac.in.
9. Dr. B.R. Ambedkar College of Law, Andhra University,Vishakapatanam- *www. andhrauniversity.edu.in*
10. Osmania University College of Law, Osmania University, Hyderabad *www. osmania.ac.in*

Premier Law Colleges in India Under the CLAT

❖ National Law School of India University Bangalore(NLSIU)- www.nls.ac.in/
❖ Gujarat National Law University, Gandhunagar (GNLU)- www.gnlu.ac.in.
❖ National Law University, Jodhpur- www.nlujodhpur.ac.in.
❖ NALSAR University of Law, Hyderabad- www.nalsarlawuniv.ac.in
❖ National Law Institute University, Bhopal (NLIU) -www.nliu.com
❖ Hidayatullah National Law University (HNLU), Raipur . -www.hnlu.ac.in
❖ The West Bengal National University of Juridical Sciences , Kolkata (NUJS) - www.nujs.edu.

- ❖ Dr. Ram Manohar Lohia National Law University Lucknow -www.rmlnlu.ac.in.
- ❖ Chanakya National Law UniversityPatna. -www.cnlu.ac.in
- ❖ National University of Advanced Legal Studies Kochi (NUALS)-www.nuals.ac.in.
- ❖ National University of Study and Research in Law Ranchi -wwwnusrlranchi.com
- ❖ National Law University, Odisha Cuttack- www.nluo.ac.in.
- ❖ National Law University and Judicial Academy, Assam, Guwahati. – www.nluassam.ac.in.
- ❖ Rajiv Gandhi National University of Law, Patiala - www.rgnul.ac.i

Distance Education in Law

There are many universities which offer law degrees by correspondence. Normally such degrees are called BGL (Bachelor of General Laws), BAL (Bachelor of Academic Law) or even LLB (Academic). But such degrees do not entitle anyone to practice in any court of law and such law graduates may be eligible for doing legal and related work in the corporate sector.

Centers

For Distance Education, Indira Gandhi National Open University (Delhi), Annamalai University (Tamil Nadu), National Law School of India University (Bangalore), The Dr. Ambedkar Law University (TN), Kakatiya University (Warangal), Kurukshetra University (Haryana), Madurai Kamraj University (Madurai), Mahatma Gandhi University (Kottayam), SNDT Women's University (Mumbai) etc.

Entrance Test

Common Law Admission Test (CLAT) is a centralised test for admission to prominent National Law Universities in India. The test is taken after the Higher Secondary Examination (with not less than 45% marks in aggregate (40% in case of SC and ST candidates) and should be below 20 years of age (22 years in case of SC and ST candidates and Persons with Disability (PWD) candidates) for admission to integrated under graduation programmes in Law. Candidates are awaiting results are also eligible to appear in the test. However, such candidates are required to have passed the qualifying examination at the time of their admission.

The two-hour admission test consists of objective type covering questions on English,

General Knowledge, Basic Mathematics, besides legal and logical reasoning.

To be eligible for appearing in CLAT for admission in master degree, a candidate should have obtained an LL.B/B. L. Degree or an equivalent degree from a recognized University with not less than 55% marks in aggregate (50% in case of SC and ST candidates)

Future Career Options

The spheres of business and law are no longer distinct – each one is complementary to other. The global need is for lawyers who understand business and businessman who understand law –this can drive sustainable business.

Corporate Lawyer, Litigator, Diplomat and Human Right Specialist in International organization, Social Worker, Administrator etc. are future career options of a Lawyer.

LIBRARY& INFORMATION SCIENCE

Introduction

Librarians also called information managers / scientists anticipate the information needs of their clients. Libraries are thus the reservoirs of knowledge and agencies of communicating information. Units of information are found in reading materials ,manuscripts, books, papers and in non traditional documents like audio-visual aids ,films, tapes, Sound recordings and so on. A librarian today has to deal with a wide range of sources far beyond books and other printed material. It is the librarian's responsibility to ensure that a person can get a required information in the least amount of time with as little effort as possible.

Content

Undergraduate studies in Library Science include both theoretical papers and practical training in subjects that include literature, library science and management, classification/cataloguing system, bibliography, reference services, research methodology, computer application, information storage and retrieval.

Eligibility

➢ Certificate Course: Duration: 3 to 6 months. Eligibility: SSLC/ Higher Secondary

➢ Diploma Course: Duration: 6 months to 1 year. Eligibility: Higher Secondary (some institutions admit only graduates)

➢ Bachelor of Library Science/Bachelor of Library and Information Science Course: Open to graduates. Admission is based on academic merit and/an entrance examination. Duration: one year

➢ Master of Library and Information Science: Duration: 1 or 2 year course. Open to BLISc graduates.

➢ M.Phil / Ph.D in Library Science:-Eligibility M.Lib.Sc

Personal Traits

➢ Good communication skill.
➢ Curiosity.
➢ Interest in variety of topics.
➢ Retentive memory.

- ➢ Interest in electronic information system.
- ➢ Ability to anticipate user's needs.
- ➢ Computer literacy is a must for all librarian's today.

Nature of Work

Common basic purpose of work in any library is to ensure that relevant information is available and used effectively. All library activities centre on the acquiring, organizing and dissemination of information .In general wide range of tasks included are.

Acquiring, Organising, Dissemination

Job Prospects

Trained library professionals can find considerable opportunity for employment in Government Public Library Services, Departmental Libraries, Universities and other Academic Institutions, National Archives, Cultural and Educational Institutions, Teaching Library and Information Science, Information Officer positions in Professional Libraries, Printing and Publishing, Corporate or Freelance Consultancy.

A few of the job opportunities and their eligibility are listed below

Library attendants

Should have a matriculation and a certificate in library science

Library Assistants

Should have a Bachelor's degree in Library science

Junior Librarian/Professional Assistant

Should have a Master's in Library science

Assistant Librarian

Should have M.Phil in Library Science

Deputy Librarian

Should have Ph.D in Library Science

Librarian

Should have Ph.D in Library Science

Trends

Conventional library set-up are increasingly being hired by organisations to set up information on the internet. The librarians working in these settings as System Analysts, Database Specialists and Trainers to Government agencies, Corporations, Law firms, Advertising Agencies, museums, professional associations ,medical Centres, Hospitals, Religious Organisations and Research Laboratories.

Specialisation

Three specialized aspects to work –User services, Technical services, Administrative services.

User service- work with the public to help them find information they need such as in reference and children's libraries

Technical service- Do not deal directly with the public .They are acquisition, cataloguing, acquiring and preparing materials for use

Administrative services- Management and Planning of libraries.

COURSES &INSTITUTES

Certificate Courses (1 year)

- Annamalai University, Chennai.
- Jamia Milia Islamia, New Delhi

Diploma Courses (1 or 2 year)

- Jai Narain Vyas University
- University Of Rajasthan, Rajasthan
- Nalanda Open University, Patna, Bihar.
- Medical Library Association of India (MLAI), AIIMS, New Delhi (Medical Librarianship)

Bachelor of Library & Information sciences

- U.P. Rajarshi Tandon Open University, Allahabad, U.P.
- Yashwantrao Chavan Maharashtra Open University, Nashik, Maharashtra.
- Kota Open University, Kota, Rajasthan.
- Indira Gandhi National Open University, New Delhi.

Master's in Library Science (1 year)

- Dr. B.R. Ambedkar Open University, Hyderabad, Andhra Pradesh.
- Indira Gandhi National Open University, New Delhi.

Master's in Library Science Integrated 5 Year course

- Calcutta University

Online Courses

Online programs are conducted by certain foreign universities in Library & Information science.

- Certificate in Competitive Intelligence.

- Certificate in Database Technology.

- Certificate in Digital Information.

- Masters of Science in Information systems.

- Master of Science (Library & Information systems)

INSTITUTES IN KERALA

- Rajagiri School of Library and Information Sciences, Kochi (Kerala), Rajagiri. P.O, Kalamassery, Kochi.

- Farook College, Feroke.

- MG University, Kottayam.

- Presentation College of Applied Sciences, Kochi , Manancherikunnu, Puthenvelikkara P.O. , Kochi.

- Ilahia College of Arts and Science, Muvattupuzha.

- Government Womens College, Thiruvananthapuram.

- University of Calicut, Kozhikode.

- University of Kerala, Thiruvananthapuram .

Special Institutes

- Documentation Research Training Centre-Indian Statistical Institute offers 2 year Master of Science in Library & Inf. Sc. (MS-LISc):-Bachelor's Degree holders in any discipline can apply.

- INSDOC- Associate ship in Information Science is a 2 year programme equivalent to MS-LISc: - Master's degree/BE/MBBS/B.Lib.Sc with one year relevant experience can apply.

Competitive Examination

Staff Selection Commission (SSC) conducts Library and Information Assistants' Examination- openings are in Ministries, Government Departments, Subordinate Officers of Government and All India Radio Stations Qualification **:-** B.Lib.Sc.

Further Career Options

There are more than 656 universities and 35500 colleges in India which require the services of librarians in addition to thousands of schools, organizations, institutions and other public and private sector libraries. So the need for proper well trained professionals is an urgent need. The minimum professional staff required to manage this network is 7, 00000

people at various levels of qualification and positions. With the Internet and digitalization having taken over the libraries, computer literate and software professionals are in great demand along with regular library professionals.

Related Careers

Archivist, in Museums and Art galleries, in Publishing and Teaching, ,in Book selling, Information officer, Webmaster

Linguistics

Malayalam

Language is the prime tool that people use in their daily life to express, create and interpret meanings. It helps to establish and maintain relationships. Social and interpersonal relationships rely on the usage of language in day to day life. All languages have its own importance and relevance in human life. It denotes the cultural aspects of life. Malayalam is one of the twenty two scheduled languages of India and declared as a Classical Language by the Government of India in 2013. It belongs to Dravidian linguistic tradition. By learning Malayalam the learner gets an opportunity to familiarize Kerala's own traditions and culture. It enhances one to acquire professional skills to interpret the socio cultural aspects of the 'God's own Country'. Moreover it provides plenty of opportunities in cultural organizations and mass media. There are many opportunities to learn Malayalam.

Eligibility

B.A.Higher Secondary pass with 45% marks.

M.A B.A. with Malayalam Language and Literature Part III with 45% marks OR 50% marks in Part II Malayalam.

M.Phil M.A.Malayalam with a minimum of 55% marks.

Ph.D M.A. Malayalm with 55% marks & NET or M.Phil or Pass in Entrance Test conducted by the Universities.

B.Ed 50% marks in B.A. Malayalam

Contents

Sanskrit, Kerala Culture, Folklore, Journalism

Personal Traits

➢ Ability to work hard
➢ Pleasant personality
➢ Immense patience

Job Prospects

Career	Qualification
Teacher (HSA)	B.A. Malayalam, B.Ed Malayalam
Teacher (HSST)	M.A. Malayalam, B.Ed. Malayalam, SET
Faculty in Higher Education, (Asst. Professor)	M.A. Malayalam, NET
Lecturer in Training College	M.A. Malayalam, M.Ed, NET
Journalist	B.A. Malayalam, Diploma in Journalism
Manuscript Reader	M.A.Manuscript
Linguistic Expert	M.A. Linguistics
Proof Reader	M.A.Malayalam
Translators	M.A. Malayalam

Institutions

We have educational opportunities in Kerala. Alighar Muslim University, Alighar, Uttar Pradesh and Madras University, Chennai offer Post Graduate courses in Malayalam.

1. Bishop More College, Mavelikkara
2. Milad-e-sherif Memmorial College, Kayamkulam
3. NSS College Cherthala
4. Sanathana Dharma College, Alappuzha
5. Sree Narayana College, Cherthala
6. Devaswom Board College,Sasthamcottah
7. Fathima Matha National College, Kollam
8. NSS College, Nilamel
9. Sree Narayana College, Kollam
10. Sree Narayana College for women, Kollam
11. St. John's College, Anchal
12. NSS College Pandalam
13. Govt. College for Women, Thiruvananthapuram.
14. HHMSPBNSS College for women, Neeramankara
15. Mahatma Gandhi College, Thiruvananthapuram
16. Sree Narayana College,Sivagiri, Varkala
17. University College, Thiruvananthapuram
18. VTMNSS College, Dhanuvachapuram.

MG University

1. Assumption College, Changanacherry
2. Baselius College, Kottayam
3. Bishop Kurialacherry College for Women, Amalagiri, Kottayam
4. CMS College, Kottayam
5. Devamatha College, Kuruvilangad
6. DB College, Thalayolaparambu
7. NSS Hindu College, Changanacherry
8. SB College, Changanacherry
9. St. Thomas College, Pala
10. DB College, Keezhoor(B.A.Malayalam with copywriting)
11. Bharath Matha College, Thrikkakkara
12. Govt. College, Manimalakkunnu, Koothattukulam(B.A. Malayalam copywriting M III)
13. Maharajas College, Ernakulam
14. Nirmala College, Moovattupuzha
15. SNM College, Maliankara
16. St. Peter's College, Kolencherry
17. St. Xavior's College for women, Aluva
18. UC College, Aluva
19. Catholicate College, Pathanamthitta
20. St. Thomas College, Kozhencherry

Kannur University

1. Govt. Brennen College, Thalassery
2. Payyannur College, Payyannur
3. Co-operative Arts and Science College, Pazhayannur
4. Sree Narayana Collge, Thottada
5. Govt. College, Kasaragod

Branches

B.A. Malayalam with Mass Communication

1. St. Xavier's College, Thumba, Thiruvananthapuram
2. Nirmalagiri College, Kuthuparamba

B.A. Mass Communication & Video Production

1. Mar Ivanios College, Thiruvananthapuram
2. A.J. College of Science and Technology, Thonnackal, Thiruvananthapuram.

M.A. Malayalam Kerala University

1. Dept. of Malayalam, University of Kerala, Kariavattom
2. University College, Thiruvananthapuram
3. Govt. College for Women, Thiruvananthapuram
4. NSS College for women, Thiruvananthapuram
5. MG College, Thiruvananthapuram.
6. SN College, Kollam.
7. FMN College, Kollam
8. NSS College, Nilamel

MG University

1. Devamatha College, Kuruvilangad
2. DB College, Thalayolaparambu
3. NSS Hindu College, Changanacherry
4. SB College Changanacherry
5. St. Thomas College, Pala
6. Maharajas College, Ernakulam
7. Nirmala College, Moovattupuzha
8. UC College, Aluva
9. Catholicate College, Pathanamthitta

Kannur University

1. Govt. Brennen College, Thalassery

Sree Sankaracharya University of Sanskrit

1. University, Kalady
2. Regional Centre Payyannur
3. Regional Centre Koyilandy
4. Regional Centre Tirur
5. Regional Centre Thrissur
6. Regional Centre Panmana
7. Regional Centre Thiruvananthapuram

Competative Exams

There are some teacher qualifying tests like NET, SET, K-TET organised by the Government of Kerala.

Oriental Research and manuscript Library

M.A. Manuscriptology (Elective)

M.Phil Manuscriptology

Ph.D in Sanskrit, Malayalam and Tamil

Dept. of Linguistics

M.A. Linguistics

M.Phil Linguistics

M.Phil Computational Linguistics

Ph.D. Linguistics

MANAGEMENT EDUCATION

Introduction

Management education is attaining more and more importance today with the growth of business, industry and commerce. Globalization and consequent merging of world economy has widened the career prospects of management students in business, education, banking and government sector. Recent trends in the field of education clearly point out a shift from science and engineering to management education. Even after completing engineering courses students are found enrolling for M.B.A.

Content

Different types of courses are offered in management with various specializations. The courses are mainly classified as Certificate Courses, Diploma courses, Degree courses, and Post Graduate Courses. In Management course, students are exposed to Strategic Management, Management Process, Business Economics, Organisational Behavior and IT skills.

Diploma Courses

Many Universities offer diploma courses in various branches of management to graduates. Certain Universities are conducting certificate courses in management for Plus Two holders with one year duration.

Graduation Courses

Graduate level courses are offered for Plus Two holders. The main graduate level courses in management are B.B.A, B.B.M, B.B.S and B.M.S.

Post Graduate Courses

The most common course offered in management at Post Graduate level is M.B.A. But reputed institutes like Indian Institutes of Managements are conducting Post Graduate diploma Programmes in Management.

Eligibility

Graduate level courses are offered for Plus Two holders. The main graduate level courses in management are B.B.A, B.B.M, B.B.S and B.M.S. The admissions to these courses are made on the basis of merit or on the basis of entrance examination. The eligibility to the Post graduation course is Graduation.

Personal Traits

The success in the field of management depends on various personal traits which include communication skills, interpersonal skills, analytical skills, self confidence,

leadership qualities, technical skills, team spirit, quantitative aptitude, decision making skills and problem solving skill. Positive attitude, Vision and Public relation are also important in management.

Nature of work

Managing people, events, business and industries is the main function of managers. A manager has to deal with uncertainty. It is the duty of the manager to provide proper direction to employees.

Job Prospects

Job prospects in the field of management are wide and varied. The globalized world of today provides a lot of opportunities for managers. They can work in Insurance, Banking, Hospitals, Hotels, Tourism, Technology, Marketing, Financial services, Advertising, Public Relations, Health care, E-Commerce, Retail business, Investment, Airport, Logistics, Textile, Agribusiness, Pharmaceuticals, Fashion, Media, Construction, Telecom, Transport etc. Proper management is the backbone of any business.

Trend

In the context of Globalization and Liberalization, the demand for right management professional outstrips the supply in every sphere. Globalization transformed the conventional nature of management. Now it is a more professional area. It also resulted in the introduction of new areas and specializations in management. The field of management is more dynamic today providing thousands of opportunities to professionally trained people. Together with Govt. Institutions, certain private business schools also play a dominant role in this area.

Branches

Various new areas of specialization are emerging in the field of management. The important areas of specialization are given below.

1. Agri business management
2. Airline and Airport management
3. Banking management.
4. Co-operative management.
5. Construction management.
6. Defence management.
7. Disaster management.
8. Education management.
9. Entrepreneur ship management.

10. Entertainment management.

11. Export management.

12. E-business management.

13. Event management.

14. Financial management.

15. Forest management.

16. Fashion management.

17. Hospital management.

18. Hospitality management.

19. Industrial management.

20. I.T. management.

21. Insurance & Risk management.

22. Infrastructural management.

23. Labour management.

24. Media management.

25. Marketing management.

26. Material management.

27. Operational management.

28. Production management.

29. Pharmaceutical management.

30. Public relation management.

31. Police management.

32. Petrol management.

33. Personal management.

34. Rural management.

35. Retail management.

36. Sales and advertisement management.

37. System management.

38. Sports management.

39. Shipping and Logistic management.

40. Supply chain management.

41. Transport management.

42. Tourism management.

43. Textile management.

44. Telecom management.

45. International business management.

46. Human Resource management

Rare Specializations.

➢ MBA Family Business and Entrepreneurship this course is offered at Institute of Management, Gujarat.

➢ Post Graduate Programme in Rural management offered at institute of Rural Management, Anand.

➢ Post graduate diploma in Forest Management offered at Indian Institute of Forest Management.

➢ Post graduate diploma in Textile Management (PGDTM) offered at Institute of Textile Management, Coimbatore.

➢ M.B.A. (Aviation Management) offered at University of Petroleum and Energy studies, Dehradun.

➢ MBA (Port and Shipping Management) offered at Indian Maritime University, Chennai.

➢ Master Programme in International Business with specialization in Logistics offered at the Symbiosis Institute of International Business, Pune.

Institutes

Thousands of Institutions are offering management courses in India. Selecting a best business school is a difficult task and just getting a degree in management doesn't do anything good. Acquiring effective skills in management and business is essential. (List of institutions offering various courses in management is given in the Appendix)

Premier Institutes in Management

Indian institutes of management is the most reputed in the field of management education in India. IIMs are a group of 13 public autonomous institutes of management education in India. They were established to provide quality education in management in India. The main courses offered at IIMS are Post graduate Diploma in Management, one year Post graduate Programme for experienced executives, Fellowship programme in Management, P.G. Diploma and Fellow ship programme are treated as equivalent to MBA and Phd., respectively.

List of Indian Institutes of Management

Venue	Website
Calcutta, West Bengal	iimcal.ac.in
Ahmedabad, Gujarat	iimahd.ernet.in
Lucknow, Uttar Pradesh	iiml.ac.in
Kozhikode, Kerala	iimk.ac.in
Indore, Madhya Pradesh	iimidr.ac.in
Shillong, Meghalaya	iimshillong.in
Rohtak, Haryana	iimrohtak.ac.in
Ranchi, Jharkhand	iimranchi.ac.in
Raipur, Chhattisgarh	iimraipur.ac.in
Tiruchirappalli, Tamilnadu	iimtrichy.ac.in
Udaipur, Rajasthan	iimu.ac.in
Kashipur, Uttarakhand	iimkashipur.ac.in
Bangaluru , Karnataka	iimb.ernet.in

Management Institutes in Kerala

➢ Adi Shankara Institute of Engineering & Technology, Kalady, Ernakulam , Kerala [http://adishankara.net/]

➢ Albertian Institute of Management, Kochi [www.aim.edu.in]

➢ Allama Iqbal Institute of Management,Thiruvananthapuram [www.aiim.net.in]

➢ Asian School of Business, Pallipuram, Thiruvananthapuram [www.asbindia.in]

➢ Bharata Mata Institute of Management, Kochi [www.bmim.org]

➢ Bhartiya Vidya Bhavan's Royal Institute of Management, Kochi,Kerala [http://www.brim.ac.in/]

➢ Bhavan's Royal Institute of Management, Kochi [www.brim.ac.in]

➢ Bishop Jerome Institute, FATIMA COLLEGE ROAD, Kollam [http://www.bjgi.in]

➢ Caarmel Engineering College, Pathanamthitta [www.bccaarmelcollege.org]

➢ Chinmaya Institute of Technology, Kannur [www.chintech.ac.in]

➢ College of Engineering – Thiruvananthapuram [www.cet.ac.in]

- Conspi Academy of Management Studies, Thiruvananthapuram [www.camstvm.org]

- Cooperative Institute of Management and Technology,Thiruvananthapuram [www.cimat.kerala.gov.in]

- DC School of Management and Technology, One School Avenue, Pullikkanam, Idukki [www.dcsmat.ac.in]

- DCSMAT Media School, Thiruvananthapuram, [www.dcsmat.ac.in]

- DCSMAT Business School, DC County, Pullikkanam, Idukki . [www.dcsmat.ac.in]

- DCSMAT Trivandrum, Kinfrapark, Sainik School PO, Trivandrum [www.dcsmat.ac.in]

- De Paul Institute of Science & Technology, Angamaly [www.depaul.edu.in]

- Elijah Institute of Management Studies, Thrissur [www.elijahims.com]

- Farook Institute of Management Studies, Calicut, Kozhikode [www.fims.ac.in]

- Federal Institute of Science & Technology, Mookkannoor ,Angamaly, Ernakulam Dist [www.fisat.ac.in]

- Girideepam Institute of Advanced Learning, Kottayam [www.girideepamschool.org]

- Gurudev Institute of Management Studies, Kollam

- Holy Grace Academy of Management Studies, Thrissur District,, Thrissur [www.holygracebschool.org]

- ICFAI Business School, Palarivattom (P.O.), Cochin,Ernakulam [www.ibsindia.org]

- Ilahia College of Engineering & Technology, Muvattupuzha [www.icet.ac.in]

- Indian Institute of Management (IIM) , Kozhikode [http://www.iimk.ac.in]

- Institute of Management in Kerala, Senate Campus, University of Kerala, TVM [www.imd.ac.in]

- Institute of Technology Mayyil, Kannore [www.itmmayyil.com]

- Kerala Institute of Management of Tourism & Travel Studies, Thycaud P.O., TVM [www.kittstour.org]

- KMCT School of Business, Kozhikode, [www.kmctbusinessschool.org]

- Kochi International Business School, Pullepady Cross Road, Kochi, [www.kibs.ac.in]

- KVM College of Engineeing & Information Technology, Cherthala [www.kvmtrust.in]
- Lourdes Matha College of Science and Technology, Lourdes Hills, Kuttichal P.O, TVM [www.lmcst.ac.in]
- Magnus School of Business, Edapally, Cochin,Ernakulam [www.msbindia.org]
- Mangalam College of Engineering, Kottayam, [www.mangalm.net]
- Mangalam College of Engineering, Mangalam Hills, Ettumanoor PO, Kottayam [http://www.mangalam.net/]
- Mar Athanasius College for Advanced Studies, Tiruvalla [www.macfast.org]
- Mar Athanasius College for Advanced Studies, Thiruvalla, Kottayam [www.macfast.org]
- Marian International Institute of Management. Kuttikkanam, P.O. Idukki [www.miim.ac.in]
- MES College of Engineering, Kuttippuram, Malappuram [www.mesce.ac.in]
- MES College, Aluva [www.messocsams.org]
- Mount Zion College of Engineering, Kadammanitta, Pathanamthitta [http://www.mountzioncollege.org]
- MSN Institute of Management & Technology, Kollam [www.msnimt.org]
- Musaliar College of Engineering & Technology, PB No 7, Pathanamthitta [http://www.musaliarcollege.com]
- Nehru College of Engineering & Research Centre, Thrissur [www.nehrucolleges.net.in]
- PMA Management Foundation, Marutharode, Coimbatore Road, Palakkad
- Rajagiri Business School, Rajagiri Valley P.O., Kakkanad, Kochi [www.rajagiribusinessschool.com]
- Rajagiri College of Social Sciences, Kalamassery, Cochin [http://rcss.rajagiri.edu/]
- Rajagiri International School for Education & Research, Kakkanad, Cochin [http://www.rajagiritech.ac.in]
- Rural academy of management studies, Cherai [www.ramseducation.org/]
- Sadnam Institute of Commerce & Management, Palakkad [www.sicoms.info]
- Saintgits College of Engineering, Pathamuttom P O, Kottayam [www.saintgits.org]

- School of Communication & Management Studies Cochin,Kerala [www.scmsgroup.org]
- School of Management and Business Studies, MG University, Kottayam,Kerala[http://www.mgu.ac.in]
- SCMS Business School – Cochin [http://scmsgroup.org/scms]
- SNES Institute of Management Studies & Research, Kozhikode [www.snesimsar.com]
- Sree Narayana Guru Institute of Science & Technology, North Paravur [www.sngist.org]
- Sree Narayana Gurukulam College of Engineering, Ernakulam [www.sngce.ac.in]
- Sree Narayana Gurukulam College of Engineering, Kolenchery , Ernakulam [http://www.sngce.ac.in]
- St Berchamans Institute of Management Studies, Changanassery, Kottayam [http://www.sbmba.in/]
- St Joseph's College of Engineering & Technology, Palai, Kottayam [http://sjcetpalai.ac.in]
- Thangal Kunju Musaliar College of Engineering, Karicode, Kollam [http://www.tkmce.ac.in]
- TKM Institute of Management, Kollam [www.tkmim.org]
- TocH Institute of management and technology, Arakkunnam [http://www.tistcochin.edu.in]
- Viswajyothi College of Engineering & Technology, Muvattupuzha, Ernakulam [www.vjcet.org]
- Westfort Higher Education Trust, Thrissur [www.whet.co.in]

Competitive Exams

Different Institutes in management education in India are conducting entrance examinations for admission. Most notable entrance examinations in management are the following.

1. CAT:- CAT is the national admission test conducted for admission to Indian Institutes of Management.
2. CMAT:- Common Management Aptitude Test is a National level entrance test for management admission in India launched in 2012 by All India council of Technical

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Education. It is a three hour test comprising quantitative techniques, logical reasoning, language comprehension and general awareness.

3. XAT: - It is a national level test conducted by Xaviers Labour Research Institute. More than 35 management institutes in India select their students on the basic of XAT score.

4. MAT:-Management Aptitude Test is conducted by all India Management Association. Many of the management institutes in India select their students on the basics of MAT.

5. ATMA: - Association of Indian Management Schools used to conduct another admission test called ATMA.

6. SNAP:- Symbiosis National Aptitude test is a common and mandatory test for the admission to all PG Programmes of Symbiosis International University.

7. NMAT: - NMAT is an admission test conducted for admission to Narsee Monjee Institute of Management studies.

8. OPEN MAT:- Indira Gandhi National Open University conduct various courses in Management Admission to these courses are based on OPEN MAT

Further Career Options

After the successful completion of MBA with high academic performance one can take admission to the M.Phil or PhD in Management by appearing entrance test conducted by universities. They can appear UGC-NET exam to diversify their career opportunities as the demand for Management teachers is growing in Indian and foreign universities.

CAREER OPTIONS IN MATHEMATICS

Introduction

Mathematics is a universal subject and is the tool and language of commerce, engineering and other sciences – physics, computing, biology etc. It helps us recognize patterns and to understand the world around us and plays a vital, often unseen, role in many aspects of modern life.

Content

Major content areas of study include Arithmetic, Geometry, Trigonometry, Calculus/Analysis, Functional analysis, Set theory, Logic, Category theory, Number theory, Combinatorics, Graph theory, Topology, Lie theory, Differential equations/Dynamical systems, Mathematical physics, Numerical analysis, Computation, Information theory, Probability, Mathematical statistics, Mathematical optimization, Control theory, Game theory, Representation theory.

Eligibility

Generally, the eligibility for admission to the degree courses is plus two science with maths and the admission is based on merit. In almost all of the institutions, the eligibility for admission to the post graduate degree is graduation and the admission is based on merit. For the M Phil. and Research level studies, post-graduation and NET are desirable.

Personality Traits

- The basic skills you require include.
- Problem-solving.
- Reasoning.
- Numerical skills.
- Communication skills.
- Information and communication technology (ICT) skills.

Nature of Work

Nature of work in some of the important professional areas are given below.

➢ Actuary-- assemble and analyze statistics to calculate probabilities of death, sickness, injury, disability, unemployment, retirement, and property loss; design insurance and pension plans and ensure that they are maintained on a sound financial basis.

➢ Teaching -- introduce students to the power and beauty of mathematics in elementary, junior high, or high school mathematics courses.

➢ Operations Research Analyst-- assist organizations (manufacturers, airlines, military) in developing the most efficient, cost-effective solutions to organizational operations

and problems; this includes strategy, forecasting, resource allocation, facilities layout, inventory control, personnel schedules, and distribution systems.

- ➢ Statistician-- collect, analyze, and present numerical data resulting from surveys and experiments.
- ➢ Research Scientist-- model atmospheric conditions to gain insight into the effect of changing emissions from cars, trucks, power plants, and factories; apply these models in the development of alternative fuels.
- ➢ Computer Scientist-- interface the technology of computers with the underlying mathematical principles of such diverse applications as medical diagnoses, graphics animation, interior design, cryptogrraphy, and parallel computers.
- ➢ Inventory Strategist-- analyze historical sales data, model forecast uncertainty to design contingency plans, and analyze catalog displays to make them more successful; analyze consumer responses.
- ➢ Economist-- interpret and analyze the interrelationships among factors which drive the economics of a particular organization, industry, or country.
- ➢ Professor-- teach mathematics at the college level, do theoretical research, and advise.
- ➢ Robotics Engineer-- combine mathematics, engineering, and computer science in the study and design of robots.
- ➢ Geophysical Mathematician -- develop the mathematical basis for seismic imaging tools used in the exploration and production of oil and gas reservoirs.
- ➢ Design -- use computer graphics and mathematical modeling in the design and construction of physical prototypes; integrate geometric design with cost-effective manufacturing of resulting products.
- ➢ Photogrammetrist -- study the applied science of multi-spectral image acquisition from terrestrial, aerial and satellite camera platforms, followed up by the image processing, analysis, storage, display, and distribution in various hard-copy and digital format (courtesy of Bruce Hedquist)

Job prospects

A career for a Mathematician lies both in Public and private sectors.

Public Sector

A candidate with a Bachelor's degree in Mathematics can apply to different jobs through the test conducted by following organizations in the government sector;

- ❖ Union Public Service Commission.
- ❖ Staff selection commission.

- ❖ Indian Forest Services.
- ❖ Public Sector Banks.
- ❖ State PSCs.
- ❖ Indian Defense services etc..

Some General Careers Include

- ❖ Tax Assistant.
- ❖ Statistical Investigator.
- ❖ Banking sector.
- ❖ IT Sector

Teaching Profession in Government Sector after B.Sc. Mathematics

Teaching profession provides numerous opportunities for Mathematics graduates and post-graduates. At the university and college levels mathematics post-graduates can work as professors and lecturers and at school level, they can work and Mathematics teachers.

Trends

Current trends in the field of higher education reveal that pure sciences including Mathematics are gearing up after lagging behind for two decades. Establishment of five IISERs and commencement of integrated Post graduation courses by major institutions and Universities attract bright students into the field of Mathematics.

Some Rare Specializations

B.Sc. Hons. Maths - Many Institutes and central Universities conduct BSc Honours degree program for students who complete Class XII Education. Some of them are,

The Central University of Tamil Nadu.Website: www.tiruvarur.tn.nic.in.

The Central University of Jharkhand.Website: www.cuj.ac.in.

ASAS -Amrita School of Arts and Sciences, Amritapuri, offers integrated M.Sc. course in mathematics and physics. Website: http://amritapuri.

MSc and INTEGRATED M.Sc. PROGRAMMES IN MATHEMATICS

IISERs - www.iiserkol.ac.in

NISER - www.niser.ac.in.

UM-DAE - www.nestexam.in.

IISc - www.iisc.ernet.in/ug.

BITS - www.uohyd.ernet.in.

Fellowship

The Kishore Vaigyanik Protsahan Yojana fellowship has been introduced by the

Department of Science and Technology of Government of India for school and college students interested in a research career. (www.kvpy.org.in)

Institutes

CUSAT

The Cochin University of Science and Technology (CUSAT) offers M.Sc. mathematics. Admission is based on CUSAT Common Admission Test (CAT) score.

Indian Statistical Institute (ISI)

Chennai Mathematical Institute

1. NBHM - The National Board for Higher Mathematics (NBHM), Department of Atomic Energy, Anushakti Bhavan, CSM Marg, Mumbai. (www.nbhm.dae.gov.in, www.nbhm.tifr.res.in)

2. School of Mines - The Indian School of Mines, Dhanbad (www.ismdhanbad.ac.in).

3. The Chennai Mathematical Institute, T. Nagar, Chennai (www.cmi.ac.in)

Research Institutes in India

Master's degree holders in mathematics with at least 55 per cent marks can go for research leading to Ph.D. Those who qualify the Junior Research Fellowship conducted by CSIR-UGC or Graduate Aptitude Test in Engineering (GATE) conducted by IITs are eligible to get scholarship or fellowship for research study. Some universities conduct their own entrance test for admission to Ph.D. Programmes. However, those who have qualified the CSIR- UGC NET (JRF) examination or GATE will be exempted from the university-level entrance test.

The major research institutes are,

- Institute of Mathematical Sciences, Chennai
- Harish Chandra Research Institute, Allahabad
- The Indian Institute of Astrophysics, Bangalore
- Tata Institute of Fundamental Research
- School of Mathematics (TIFR, Homi Bhabha Rd, Mumbai 400 005, India)

Competitive Exams

After HSE- JEE MAIN, JEE ADVANCED, KVPY, CUSAT CAT, Entrance for Integrated PG

After BSc Mathematics-JAM, CUSAT CAT

After MSc Mathematics -JEST, JRF-NET, GATE.

MEDICINE

Introduction

Medicine is among the most sought after careers today. A doctor's profession involves a lot of hard work and at the same time it brings along with it the satisfaction of having cured patients and of having alleviated pain and suffering. Doctors all over the world are treated with great respect and the scope and prospects in the medical field are always bright. The field of medicine is very vast and specializations within it are increasing day by day. In our country besides the practice of the conventional system of treatment there are several other systems of treatment such as Ayurveda, Unani, Homeopathy, Nature cure and systems like Magneto therapy, Acupuncture, Acupressure and Reiki (Alternative medicine)

Content

Medical education and practice is regulated by the Medical Council of India set up by the Central Government. Parents and students are advised to verify the status of a medical college before seeking admission. To practice as a doctor one must have completed MBBS course from a college recognized by the MCI. On successful completion of the course one must register with the MCI as a licensed medical practitioner.

BDS (Bachelor of Dental Science) is a four year course with one year compulsory rotary internship and is conducted by Dental Council of India.

BHMS (Bachelor of Homeo medicine &Surgery) is a four and a half year degree course conducted by the Central Council of Homeopathy.

BAMS (Bachelor of Ayurvedic Medicine and Surgery) is a five year course and is monitored by the Central Council of Indian Medicine.

BUMS (Bachelor of Unani Medicine & Surgery) is an under graduate degree course and is monitored by the Central Council of Indian Medicine

BSMS (Bachelor of Siddha Medicine and surgery is an undergraduate five and a half year programme monitored by the Central Council of Indian Medicine.

Eligibility

Candidates who have cleared the Plus Two examinations with Physics, Chemistry and Biology and a minimum of 50% marks are eligible for the MBBS /BDS / BAMS / BHMS / BUMS / BSMS courses.

Personal Traits

To be successful in this field a person must have a missionary zeal to serve.

Have a keen observation and an analytical mind. Be willingness to work at odd hours a genial temperament, patience and a good sense humor. Working with an open mind

Nature of Work

Doctors and Dental surgeons are responsible for the overall health and well-being of their patients and for looking after their physical ailments when stricken by diseases or disorder. Their work involves examining patients, discerning their problems and providing them with medical treatments as well as the confidence and support required to overcome their ailments.

Job Prospects

After completing Degree in medicine, doctors can either start practicing as general physicians or study further for post graduation.

General practitioners can join government or private hospitals as resident doctors or medical officers.

With existing trends most MBBS doctors opt for post-graduation which offers a variety of specializations.

Recruitment for these jobs is handled by the UPSC which conducts Combined Medical Services Examination once a year for recruitment of doctors for the Railways, Central Health Services, Ordinance factory Health Services and the Municipal Corporation of Delhi.

State governments recruit medical professionals through Staff Selection Commissions Employees State Insurance Corporation (ESIC) has hospitals and dispensaries all over the country to provide medical Research institutions, councils and clinical laboratories run by the central and state governments also provide employment to Doctors

Medical services of the Army, Navy and Air Force under the Ministry of Defence offers excellent employment opportunities to doctors and dentists Doctors in the Armed forces are taken on as Commissioned officers with Gazetted Group A Posts but preference is given to students passing out AFMC,Pune.

Career opportunities are on the rise in almost all branches of medicine. Above average students are usually able to get a position for themselves. For those who can't make into the big names in medicare there are work options in nursing homes,polyclinics,health centres, private clinics and various allied organizations.

Specialisations After MBBS

- ❖ Anaesthesiology
- ❖ Cardiology
- ❖ Dermatology
- ❖ Endocrinology
- ❖ Gastroenterology
- ❖ Gerontology
- ❖ Hematology
- ❖ Neurology
- ❖ Nuclear Medicine
- ❖ Oncology
- ❖ Otolaryngology - ENT
- ❖ Family Practice
- ❖ Emergency Medicine
- ❖ Palliative Medicine
- ❖ Psychiatry
- ❖ Rheumatology
- ❖ Internal Medicine - Primary care for adults

Specialisation After Dental Medicine

- ❖ Oral and Maxillo Facial Surgery
- ❖ Paedodentics
- ❖ Oral Pathology
- ❖ Community Dentistry

Super Specialisations

Facilities are available for super specialization (DM degree in medical field & M Ch in surgical field) in different fields of medicine and surgery after the completion of MD/MS Neurosurgery, Cardiothoracic surgery, Genito urinary surgery, Plastic surgery ,Pediatric Surgery, Pediatric Genetics, ,Gastroenterology, Clinical Hematology, Medical Genetics, Surgical Gastroenterology, Pediatric Gastroenterology, Transfusion Medicine, Cosmetic Surgery.

Doctors with post graduate specializations are eligible for a Phd in any subject like Forensic medicine, Biostatistics, Gastro &Human Nutrition, Hospital administration, Neuro magnetic resonance.

Premier Institutes

Medical Colleges

➢ All India Institute of Medical Sciences, New Delhi -www.aiims.edu.

AIIMS Entrance Exam

All India Institute of Medical Sciences Entrance Exam acronym as AIIMS Entrance Exam is taken on National level by the candidates of Medical stream in +2 for getting admission in one of the best medical colleges in the world. i.e. AIIMS situated in Delhi as well as SIX AIIMS LIKES institutes situated at various places in India. It is one of the most prestigious Medical Entrance Exam in India.

Armed Force Medical College, Pune -www.afmc.nic.in. This year entrance exam is conducted by CBSE through AIPMT.

Jawaharlal Nehru Institute of Postgraduate Medical Education &Research, Puducherry -www.jipmer.edu.in.

JIPMER Entrance Exam

Jawaharlal Institute of Post-graduate Medical Education and Research entrance exam acronym as JIPMER entrance exam is conducted by the Institute situated in Puducherry to offer admission in M.B.B.S. Course. Admission to 75 seat of (15 seats reserved for Puducherry candidates) this course is made on all India basis and strictly on the basis of merit through this entrance examination.

JIPMER Entrance Exam Syllabus

JIPMER entrance exam is based on CBSE syllabus for 11th and 12th standard students.

Maulana Azad Medical College, Delhi.-www.mamc.ac.in

BHU Institute of Medical Sciences, Varanasi-www.bhu.ac.in

BHU Medical Entrance Exam for M.B.B.S. / B.D.S. / B.A.M.S. / B.Pharm 2014

Banaras Hindu University Pre Medical Test acronym as BHU PMT is conducted by Banaras Hindu University for it's Undergraduate Course as given below:

Admission to M.B.B.S. course is done through an entrance test which has two stages

- PMT Screening.
- PMT Mains.

Only those who qualify in PMT Screening can appear for PMT Mains for M.B.B.S. course. Admission to other courses like B.D.S., B.Pharm and B.A.M.S. is through only PMT Screening.

Seat Distribution

MBBS=84 Seats	General - 42	OBC - 23	SC - 13 & ST – 6
BDS=38 seats	General - 19	OBC - 10	SC - 6 & ST – 3

- ❖ Three percent seats are reserved for physically challenged (PC) candidates in all the categories of the above courses.

- ❖ Mahatma Gandhi Institute of Medical Science, Wardha- www.mgims.ac.in

MGIMS Entrance Exam

Mahatma Gandhi Institute of Medical Science Entrance Exam acronym as MGIMS is conducted by the institute for providing admission to first year of M.B.B.S. course.

Note:- Candidates must write their full address in capital letters and phone number on the space for Communication and the space for sender's address on the money order form.

MGIMS Entrance Exam Pattern

MGIMS Entrance Exam consists of paper of Physics, Chemistry and Biology having multiple choice questions, along with a paper on Gandhian thought with long and short answer type.

- ❖ Aligarh Muslim University, Aligarh- www.amu.ac.in,
- ❖ Christian Medical College.,Vellore-www.cmch-vellore.edu

- ❖ Madras Medical College,Madras-www.madrasmedicalcollege.edu
- ❖ Grant Medical College,Mumbai-www.grantmedicalcollege-jjhospital.org
- ❖ Lady Hardinge Medical College,Delhi-www.fmsc.ac.in/lady.htm
- ❖ Manipal Academy of Higher Education,Manipal-www.manipal.edu/karnataka

Dental Colleges

- ❖ Nair Dental college, Mumbai   . www.tnmcnair.com.
- ❖ Moulana   Azad Medical College, New Delhi . www.mamc.ac.in.
- ❖ AIIMS ,New Delhi .www.aiims.edu.
- ❖ Government Dental College, Bangalore,. www.karunadu.gov.in.
- ❖ King George's Medical College. www. kgmu.org.
- ❖ Kasturba Medical College, Manipal   . www.manipal.edu

Homeopathy College

- ❖ National Institute of Homeopathy, Kolkata. www.nih.nic.in/

Siddha College

- ❖ National Institute of Siddha, Tambar am   sanatorium, Chennai, www.nischennai.org.
- ❖ Affiliated to Dr. M.G.R. Medical University, National Institute of Siddha was started to produce best quality physicians, Teachers and Researchers of Siddha, a primary institute for conducting PG courses in 6 specialties of Siddha as mentioned below:

1. Siddha Maruthuvam - Pothu (General Medicine)

2. Gunapadam (Pharmacology)

3. Sirappu Maruthuvam (Special Medicine)

4. Pillaippini Maruthvam (Paediatrics)

5. Noi nadal (Pathology)

6. Nanju nool (Toxicology)

The first batch of this institute started in the year 2004-05. The intake is only 5 students in each of the six branches.

Unani College

- ❖ National Institute of Unani Medicine, www.nium.in

The National Institute of Unani Medicine is a Premier Institute which started its 1st batch of PG programs in the year 2004-2005. This Institute offers MD – Unani Medicine in Moalejat (General medicine), Ilmul advia (Pharmacology), Qabla-wa-Amraz-e-Niswan (Gynaecology) & Hizam-e-Sehath (Community Medicine). The admissions to the P.G course

here are held every year through a common entrance test. The students are selected based on their Merit & performance in the entrance test. The entrance test is conducted by RGUHS - Bangalore

Naturopathy College

❖ National institute of Naturopathy, Pune (Conducting 5 ½ year B.N&Y.S)

Institutes In Kerala

➢ Entrance Examinations For Admission To Medical Degree Courses, Kerala (Mbbs ,Bds ,Bhms ,Bams ,Bsms) Is Through Keam Conducted By The Commissioner Of Entrance Examination Government Of Kerala.

The Entrance Examinations and the subsequent allotments will be based on the various provisions laid down in the Prospectus approved by the Government. Visit "www.cee-kerala.org" for the Prospectus of KEAM Entrance Examinations.

Medical Colleges

1. GOVT. MEDICAL COLLEGE, KOZHIKKODE (KKM)
2. GOVT. MEDICAL COLLEGE, THIRUVANANTHAPURAM (TVM)
3. GOVT. MEDICAL COLLEGE, THRISSUR (TCM)
4. T D MEDICAL COLLEGE, ALAPPUZHA (ALP)
5. GOVT MEDICAL COLLEGE, MALAPPURAM (MLP)
6. GOVT. MEDICAL COLLEGE, KOTTAYAM (KTM)
7. GOVT. MEDICAL COLLEGE, ERNAKULAM

Government Sponsored Self Financing Colleges

1. ACADEMY OF MEDICAL SCIENCES, PARIYARAM, KANNUR (KNM)

Private Self Financing Colleges.

1. AMALA INSTITUTE OF MEDICAL SCIENCES, THRISSUR (AMC).
2. AZEEZIA INSTITUTE OF MEDICAL SCIENCES & RESEARCH, MEYYANNOOR, KOLLAM. (AZC).
3. DM WAYANAD INSTITUTE OF MEDICAL SCIENCES, WAYANAD (DMM).
4. DR. SOMERVELL MEMORIAL CSI MEDICAL COLLEGE, KARAKONAM, THIRUVANANTHAPURAM (SMC).
5. JUBILEE MISSION MEDICAL COLLEGE & RESEARCH CENTRE, THRISSUR (JMC).
6. KANNUR MEDICAL COLLEGE, KANNUR (KNC).
7. KARUNA MEDICAL COLLEGE, VILAYODI, PALAKKAD. (KMM).

8. KMCT MEDICAL COLLEGE, MANASSERI, KOZIKKODE. (KCM).

9. MALABAR MEDICAL COLLEGE HOSPITAL & RESEARCH CENTRE, KOZHIKKODE. (MMH).

10. MALANKARA ORTHODOX SYRIAN CHURCH MEDICAL COLLEGE, KOLENCHERRY, ERNAKULAM (MMC).

11. MES MEDICAL COLLEGE, PERINTHALMANNA. (EMC).

12. PUSHPAGIRI INSTITUTE OF MEDICAL SCIENCES & RESEARCH CENTRE, THIRUVALLA (PMC).

13. SREE GOKULAM MEDICAL COLLEGE & RESEARCH FOUNDATION, VENJARAMOODU P O, TVPM. (GMC).

14. SREE NARAYANA INSTITUTE OF MEDICAL SCIENCES, ERNAKULAM. (SIM).

15. SUT MEDICAL COLLEGE, VATTAPPARA,THIRUVANANTHAPURAM. (SUC).

16. TRAVANCORE MEDICAL COLLEGE, KOLLAM. (TRM)

Dental Colleges

Government Colleges

1. GOVT. DENTAL COLLEGE, KOTTAYAM (KTD).

2. GOVT. DENTAL COLLEGE, KOZHIKKODE (KKD).

3. GOVT. DENTAL COLLEGE, THIRUVANANTHAPURAM (TVD)

Government Sponsored Self Financing Colleges

1. PARIYARAM DENTAL COLLEGE, PARIYARAM, KANNUR (KND)

Private Self Financing Colleges

1. AL-AZHAR DENTAL COLLEGE, THODUPUZHA. (AAD).

2. ANNOOR DENTAL COLLEGE, PUTHUPPADY, MUVATTUPUZHA. (ADC).

3. AZEEZIA COLLEGE OF DENTAL SCIENCE & RESEARCH, DIAMOND HILLS, MEEYYANNOOR, KOLLAM. (AZD).

4. CENTURY INTERNATIONAL INSTITUTE FOR DENTAL SCIENCES & RESEARCH CENTRE, POINACHI, KASARAGOD (CDC).

5. EDUCARE INSTITUTE OF DENTAL SCIENCES, CHATTIPARAMBA, MALAPPURAM. (EID).

6. INDIRA GANDHI INSTITUTE OF DENTAL SCIENCES, KOTHAMANGALAM. (IGD).

7. KANNUR DENTAL COLLEGE, ANJARAKANDY, KANNUR. (KAD)

8. KMCT DENTAL COLLEGE, MAMBATTA, MUKKAM, KOZHIKODE. (KMD).

9. MALABAR DENTAL COLLEGE, MUDUR P O, EDAPPAL, MALAPPURAM. (MLD).

10. MAR BASELIOUS DENTAL COLLEGE, KOTHAMANGALAM (MBD).

11. MES DENTAL COLLEGE, PERINTHALMANNA, MALAPPURAM. (MED).

12. NOORUL ISLAM COLLEGE OF DENTAL SCIENCE, NEYYATTINKARA, THIRUVANANTHAPURAM. (NID).

13. PMS COLLEGE OF DENTAL SCIENCES & RESEARCH CENTRE, VATTAPPARA, TVPM (PMS).

14. PSM COLLEGE OF DENTAL SCIENCES, THRISSUR. (PSD).

15. PUSHPAGIRI COLLEGE OF DENTAL SCIENCES, TIRUVALLA (PMD).

16. ROYAL DENTAL COLLEGE, MANNARAPARAMBA, CHALISERY, PALAKKAD. (RDC).

17. SRI. SANKARA DENTAL COLLEGE, AKATHUMURI, VARKALA. (SVD).

18. ST. GREGORIOS DENTAL COLLEGE, CHELAD, KOTHAMANGALAM, ERNRAKULAM. (SGD)

Homoeopathic Colleges

1. A N S S HOMOEOPATHIC MEDICAL COLLEGE, KOTTAYAM (KTH)

2. DR. PADIYAR MEMORIAL HOMOEOPATHIC MEDICAL COLLEGE, ERNAKULAM (EKH)

3. GOVT. HOMOEOPATHIC MEDICAL COLLEGE, AYRANIMUTTAM, TVM (TVH).

4. GOVT. HOMOEOPATHIC MEDICAL COLLEGE, KOZHIKKODE (KKH)

5. SHREE VIDYADHIRAJA HOMOEOPATHIC MEDICAL COLLEGE, NEMOM, TVM (NEH).

Ayurveda Colleges

Government Colleges

1. AYURVEDA COLLEGE, KOTTACKKAL, MALAPPURAM (KTL).
2. AYURVEDA COLLEGE, OLLUR, THRISSUR (OLR).
3. AYURVEDA COLLEGE, PARIYARAM, KANNUR (KNA)
4. AYURVEDA COLLEGE,THIRUVANANTHAPURAM (TVA).
5. AYURVEDA COLLEGE,TRIPUNITHURA, EKM (TPA)

Private Self Financing Colleges

1. AHALIA AYURVEDA MEDICAL COLLEGE, PALAKAD (AHA).
2. KMCT AYURVEDA COLLEGE, MANASSERI, KOZIKKODE. (KMA)
3. MANNAM AYURVEDA CO-OPERATIVE MEDICAL COLLEGE, MANNAM SUGAR MILLS CO-OP. LTD., PANDALAM. (MAM).
4. NANGELIL AYURVEDA MEDICAL COLLEGE, KOTHAMANGALAM, ERNAKULAM (NGL).
5. P N PANICKER SAUHRIDA AYURVEDA MEDICAL COLLEGE, KANHANGAD. (PPA).
6. PANKAJA KASTHURI AYURVEDA COLLEGE, KATTAKKADA, TVPM (PKJ).
7. PARASSINIKADAVU AYURVEDA MEDICAL COLLEGE, PARASSINIKKADAVU, KANNUR - 670563 (PRK).
8. PNNM AYURVEDA MEDICAL COLLEGE,K A SAMAJAM HOSPITAL P O, SHORNUR, PALAKKAD (PNA).
9. SANTHIGIRI AYURVEDA MEDICAL COLLEGE, PALAKKAD (SGA).
10. SREEDHAREEYAM AYURVEDIC RESERACH & DEVELOPMENT INSTITUTE, KOOTHATUKULAM, ERNAKULAM. (SDA).
11. SREENARAYANA INST. OF AYURVEDIC STUDIES & RESEARCH, PUTHOOR, KOLLAM. (SNA).
12. VISHNU AYURVEDA COLLEGE, SHORNUR, PALAKKAD (VSH)

Siddha Colleges

Private Self Financing Colleges

1. SANTHIGIRI SIDHA COLLEGE, KOLIACODE, THIRUVANANTHAPURAM (SGS)

COMPETITIVE EXAMINATIONS

EXAMINATION	NOTIFICATION (Tentative)
AIPMT by CBSE(15%ALL INDIA Seats)	December
AIIMS	January
Manipal Academy of Higher Education,Manipal	February
St.John's National Academy of Health Sciences,Bengaluru	March
Armed Force Medical College,Pune	January
Bharathividyapeeth Pune	April
MahatmaGandhi institute of Medical Sciences,Wardha	January
JIPMER,Puducherry	February
CMC Vellore	February
Sri Ramachandra Medical College Research Institute,Chennai	March
AMU, Aligarh	March
BHU PMT,Varanasi	January
VM Medical college,Delhi	December
COMED –K,UGET	December
Kerala Medical Entrance Examination	January/February
AIMS Edapally,Kochi	December

Further Career Options

After obtaining the MBBS degree, candidates are eligible for taking the entrance examinations for admissions to the specialized MD/MS courses, they should also have completed a one year house job prior to their admission to a postgraduate degree/diploma course.

A BDS is the minimum qualification required to do a masters in Dental surgery

BHMS is necessary for doing its Post Graduation M.D (Homeo)

BAMS is necessary for doing its Post Graduation M.D (Ayu)&Phd

BSMS is necessary for doing its Post Graduation M.D(Sidha)

BUMS is necessary for doing its Post Graduation M.D/M.S &P.G Diplomas

Related Careers

Alternative Medicine, Biotechnology, Dentistry, Genetics & Genetic Engineering, Health Care Management, Teaching, Rehabilitation Medicine

Merchant Navy

Introduction

A career in Merchant Navy is deemed to be a prosperous career opportunity. This career gives one the opportunity to visit new places and see new people and earn a hefty pay packet. Merchant Navy offers a career distinct from all other. It offers excellent remunerations, promotional avenues and scope for adventure and travel. The shipping companies expect a seafarer highly professional, for the safe and efficient operation of the ship. The professional in this field includes Navigating Officers, Radio officers and Marine Engineers.

Content

The Indian Merchant Navy comprises passenger vessels, cargo, liners, tankers, are carries and other types of specialized ships. These ships are operated by public and private sector shipping companies and manned by trained navigators, marine engineers and crews. The responsibility for adequate training of personnel for the Indian Merchant Navy lies with the Government of India functioning under the Ministry of Surface Transport. Accordingly a number of training institutions under the direct administrative control of the Directorate General of Shipping have been established.

Eligibility

The minimum academic qualification for admission to the Institute is a pass in the Final examination of Standard XII of 10 plus 2 system or its equivalent, having passed individually in Physics, Chemistry and Mathematics as elective subject.

Candidates wishing to enter the Navigational and Engineering fields of Merchant Navy need to complete their B.Sc. degree in Nautical Science / Mechanical or Marine Engineering, before they can gain admission to the field. In some cases, students who have completed their 12th with PCM (Physics, Chemistry, Mathematics) are eligible to join as Deck Cadets. Candidates will need to obtain a Continuous Discharge Certificate issued by Directorate general of shipping.

One should Pass a medical fitness test for sea services, understand norms and have an eyesight 6/6 with no color blindness.

Direct Entry to Merchant Navy: After plus two with Physics Chemistry, Mathematics candidates are eligible to join as Deck cadets.

A student holding a Bachelor degree in Mechanical/Electrical Engineering could join in merchant navy as Engine Cadet, Fifth Engineer or Junior Engineer.

Personal Traits

- ❖ People with strong will and tough physical form
- ❖ No sea sickness.
- ❖ Love for travelling
- ❖ Self confidence, Adaptability
- ❖ Sportive, Flexible attitude
- ❖ Love for adventure and challenges
- ❖ Intelligent, intuitive and team worker
- ❖ Work for long hours
- ❖ Long periods of solitude and away from family
- ❖ Navigational and spatial orientation
- ❖ Depth perception and far vision
- ❖ Judgment and decision making

Nature of Work

Responsibilities of the Deck department

- ❖ Taking the ship from one port to another port i.e. navigation.
- ❖ Loading and unloading of cargo / Embarking and disembarking of passengers

Responsibilities of the Engine Department

- ❖ Keeping a watch on the running machineries
- ❖ Maintenance of all machineries on board the ship

Responsibilities of the Saloon / Catering Department

- ❖ Providing food to all people on board the ship
- ❖ Housekeeping of the accommodation area
- ❖ Ship Captain also known as (a.k.a.) Master: Responsible for safe navigation of ship, safety of passengers, crew and cargo.
- ❖ First Mate a.k.a. Chief Officer: Oversee all cargo planning, assist in navigation, allocate duties to cadets.
- ❖ Second Mate a.k.a. Second Officer: In-charge of checking all mails, maintenance of navigation equipment and charts.
- ❖ Third Mate a.k.a. Third Officer: Keeping safety equipments like lifeboats, firefighting, signaling in top condition

Job Prospects

In Merchant Navy major tasks performed are performed in the three basic areas of ship:

The Deck: The Deck officers include the Captain, Chief Officer, Second Officer, Third Officer, and Junior Officer.

The Engine: One can work as Chief Engineers, Second Engineer, Third Engineer, Fourth Engineer, Electrical Officer, Junior Engineer.

The Saloon Department provides career opportunities in kitchen, laundry, and other avenues.

After completion of the three year BSc programme in Nautical Science and acquiring the certificate of competency of second mate, candidates are appointed as third and second officers on board merchant ships. For subsequent promotions, the second officers have to clear higher examinations, which are also conducted by the Ministry of Surface Transport through the Directorate General of Shipping, Mumbai. Graduation from MERI are taken as Junior Engineers. Various merchant ship owned by Govt. as well as private companies employ officers. Foreign shipping companies also offer good jobs prospects to Indian Merchant Navy Officers.

The entry level for a fresh Marine Engineer is the rank of Fifth Engineer or Junior Engineer

Govt. Shipping companies

- ❖ Private Shipping companies
- ❖ Foreign Shipping companies
- ❖ After retirement one can work as Surveyors of Ships, Marine

Superintendent, Lecturer in Training Academies

Nautical Science graduate is Deck cadet. On gaining the certificate for Second Mate, the officer is eligible for promotion and can be posted as 2nd or 3rd officer on board a good merchant ship, with good salary. Further sea service renders the officer capable of giving the First Mate (Foreign Going) and Master (Foreign Going) examinations. Passing of the latter exam gives him the certificate of competency to become the Captain of a Merchant ship.

Career Flow Chart
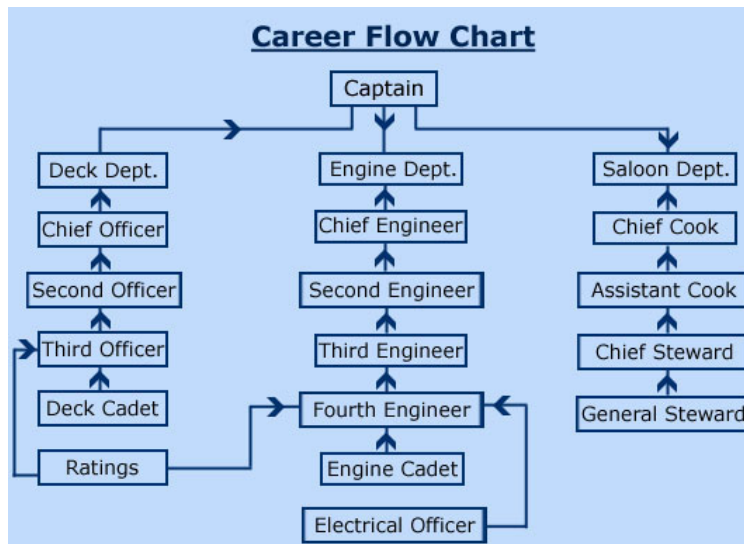
Trend

Marine Engineering and Nautical Science are the courses that demand for challenging career in Merchant Navy. People get job opportunities in the Merchant Navy and are offered a very good pay package. At present Merchant Navy offers lucrative employability to the aspiring candidates. But many students recently qualified from private institutions find difficulty to get a job in the marine field.

Recently Shipping companies recruit general steward, oilers, trainee seaman, mechanical fitters, and diesel mechanical engineer.

Branches

Courses to Join Merchant Navy:

Various courses to join after 10th or 12th or in both Govt & Private Training Institutes recognized and approved by DGS (Ministry of Shipping) they are:

Pre-Sea –Training-GPR-General Purpose Training-10th with minimum aggregate percentage of 40% with Mathematics, Science and English as compulsory subject.

Duration: 6 months: Age- 17 to 25 years.

Three months' Pre-Sea course in Duck rating.

Three months' Pre-sea training in Engine Rating.

Four months' Pre-Sea training Saloon Rating.

Duck Cadet –Diploma in Nautical Science, Educational. Qualification: 10+2 with PCM compulsory. Minimum 50% in aggregate and 50% in English. STCW Course-basically

Safety Course-It Consists Of Four Basic Courses.

1. EFA-Elementary First Aid
2. EPFF (Fire Prevention Fire Fighting

3. PST Provisional Survival Techniques.

4. PSSR-Personal Safety & Social Responsibility (Only 15 days programme)

Certificate Course: Educational Qualification 10thstd, Approved by DG Shipping (Govt of India)

1. Pre-Sea Training for Personel man Drudgers. Tags, OSUs etc., N.C.V. (Engine)

2. Pre-Sea Training Personnel man Dredgers, Tags, OSUs etc on N.C.V

One year Pre-Sea Diploma in Nautical Science - It leads to BSc Nautical Science affiliated in Maritime University or D G.Shipping.- Educational. Qualification. 10+2 with PCM/BSc Degree/BE/B.Tech Degree.

H.N.D.(High National Diploma) in Nautical Science. 10+2 PCM

H.N.D..(High National Diploma)in Marine Engineering. 10+2 PCM.

B.E.Marine Engineering (4 Year Degree course in Marine Engineering)10+2 PCM+English

BSc. In Nautical Technology(3 years training in an Institution+1 year at sea) 10+2 PCM)

B.Sc Degree in Nautical Science (10+2 PCM +English)

Two Year Marine Engineering(Qualification) Diploma in Mechanical/Marine/Naval Architecture/Electrical/Electronics Engineering)

One Year Marine Engineering course, Graduate in Marine Engineering. (Qualification- Graduate in B E (Mech) Engineering./Naval Architecture with 50%marks in final year 50%in English language in 10th or 12th or in degree.)

Institutes

- Cochin University of Science and Technology
- Government Training Institutes providing Pre-Sea and Post Sea training of International standard:
1. Marine Engineering &Research Institute (MERI),Mumbai.
2. Marine Engineering &Research Institute (MERI),Kolkata.
3. Training Ship Chanakya, Navi Mumbai.
4. Lal Bahadur Sasthri College of advanced Maritime Studies and Research,Mumbai
   Admission Criteria for Chanakya and MERI:

Eligibility

Both unmarried male and female candidates, age should not be more than 20 years.

Academic Qualifications. Plus two with Physics, Maths, Chemistry

Selection Criteria: Selection based on the Joint Entrance Examination given by IIT

Lal Bahadur Shastri College of Advanced Maritime studies and Research: This is a premier Post Maritime Education and Training Institute offering a comprehensive range of courses for Merchant Navy Officers. It offers about 33 post-sea courses which run almost concurrently.

Private Institutions

Private Training Institutions conduct Pre-sea courses for Nautical science as well as Engineering, both for plus two and engineering candidates. Some Institutions are recognized by D.G.Shipping.

Rare Specializtion

Shipping Operation Technology: Naval Architecture Ship maintenance, Seaman ship, Collision prevention and Marine Communication.

Maritime Law, Maritime Commerce ,Environmental Science.

B.Tech Naval Architecture &Ship Building (4year)

M.B.A. Shipping &Logistics Any degree from Govt. recognized university.

Competitive Exams

JEE

AIMNET: The All India Merchant Navy Entrance Test or Merchant Navy Entrance Exam. (For B.Tech Naval Architecture & Ship Building 4Years. HSC or10+2 with PCM 50%marks, B.Tech Marine Engineering, BSc Nautical Science(both requires 60% in PCM.

METEOROLOGY

Meteorology is the study of weather and weather forecasts.It is the study of changes in atmosphere and climate, which influence every part of life. Meteorology is also known as atmospheric science.

Content

As a meteorologist, one should be able to make use of the various equipments such as rain gauge, anemometer, thermometer, barometer, radiosondes, remote sensing instruments (Radar, Lidar, and satellites etc), in order to measure temperature, humidity, pressure, wind speed, rainfall and air quality.

Meteorologists need to have knowledge of

- ❖ Atmospheric physics, chemistry, meteorology, physical geography, and mathematics to understand weather, cloud systems, and past and present climates.
- ❖ What affects the weather in certain regions..
- ❖ How to perform experiments and operate scientific equipment.

Eligibility:

A number of colleges and universities offer these programs at undergraduate and postgraduate levels.

The eligibility criterion for UG(BSc in Meteorology) courses is a pass in 10+2 examination with science subjects (Physics, Chemistry and Biology).

For MSc (Meteorology, Atmospheric Science and oceanography) one must have passed in B.Sc, Physics/ Maths/Environmental Science from any recognized University.

For M.Tech (Meteorology, Atmospheric Science) one must have passed MSc Physics/ Maths/Environmental Science and Entrance test and Interview

Personality Traits

Meteorologists need to be

1. Good at problem-solving and planning

2. Good at communicating

3. Good at writing, as they need to prepare reports and research papers

4. Enquiring and observant

5. Persistent, patient and motivated

6. Able to work well in a team.

7. Good at investigative and analytical skills.

Nature of Works

The work meteorologists do may be categorized as Operational, Research or Applied. Meteorologists work in several areas besides weather forecasting. They research radioactive fall outs, the dynamics of hurricanes, ozone levels in the stratosphere or work in radio and televised weather bulletins. Meteorology is a technical branch that employs sophisticated technology. As a team meteorologists are physicists, chemists, mathematicians, engineers, geographers, oceanographers, hydrodynamicists, radiometrists & statisticians, hydrologists and astrophysicists.

Job Prospects

Weather Forecasting, Aviation Meteorology, Agricultural Meteorology, Hydrometeorology, Nuclear Meteorology and Maritime Meteorology, Industry, Power Production, Defence , Town Planning etc. needs meteorologist.

Meteorologists May Do Some or All of The Following

❖ Monitor and study weather systems and atmospheric patterns using satellites and radars.

❖ Predict weather conditions and climate trends, based on their study of this information, and use of computer forecasting models.

❖ Prepare weather maps and forecasts for the media, and shipping and airline companies.

❖ Design experiments and equipment to measure air quality and composition, ozone, greenhouse gases and pollution.

❖ Be involved in public awareness programmes about the weather.

❖ Supervise the work of technical officers, or teach and supervise students at universities

Trend

The significance of meteorologists have increased due to pollution in the environment, global warming , deforestation and desertification

Branches

Applied meteorology:- study of air currents, the composition of the atmosphere and its various properties, the effects of atmospheric pollution (smoke, acid rain etc) and application of the findings for providing advice on pollution control, sites for building power stations/oil rigs or even bridges. They work in departments of meteorology to provide meteorological services to government, TV channels, and for issuing flood and storm warnings.

Physical meteorologists study the physical nature of the atmosphere including its chemical composition and electrical, acoustical and optical properties. They work in studying environment related problems such as global warming and ozone depletion.

Meteorologists hence specialize for providing services in Synoptic Meteorology, Climatology, Hydro Meteorology, Marine Meteorology, Aviation Meteorology, Agricultural

Meteorology

Top Colleges Offering UG/PG/Other Courses.

1. CUSAT ,Kochi
2. Shivaji University (Kolhapur)
3. Indian Institute of Science (Bangalore),
4. Andhra University (Visakhapatnam),
5. 5.IITKharagpur, Indian Institute of Tropical Meteorology,
6. Aryabhatta Research Institute of Observational Sciences.
7. Panjab University, Patiala.
8. Bharathiar University, Coimbatore.
9. IIT Delhi.

MICRO BIOLOGY

Introduction

Microbiology is the study of micro organisms, which are invisible to the naked eye. Micro biology helps us to understand the life cycle of these microorganisms and the effect they have on plants and animals. Life of microorganisms affects soil ,water etc. It is also used for immunization improvement.

Content

Microbiology has specialized graduate and post graduate courses.Some universities offer M phil and Phd facilities for micro biology students

Eligibility

BSc Micro Biology

Plus two course with biology

M SC Microbiology

BSc Microbiology/BSc Biological Science / BSc MLT. In colleges admission is based on merit and in Universities through entrance test

Personality Traits

Hardworking and patience

Nature Of Work

Research oriented work in labs in Agriculture, Pharmacy and Food Industry.

Job Prospects

After completing the course one can work as a micro biologist in Agricultural and Pharmaceutical Labs, Food Industries, Water plants etc.

Other Jobs

1. Lecturers

2. Quality Specialist

3. Trainee Analyst

4. Lab Technician

5. Scientific Assistant

Trends

The development of micro biology depends largely on industrial methods, economic requirements and general programmes on science and Engineering.

Branches

1. Soil Micro Biology

2. Food Micro Biology

3. Water Micro Biology

4. Industrial Micro Biology

5. Dairy Microbiology

6. 6.Applied Microbiology

7. Veterinary Microbiology

8. Environmental Microbiology

9. Generation Microbiology

10. Molecular Microbiology

11. Pharmaceutical Microbiology

Institutes offering BSc Microbiology

1. Pazhassi Raja College Pulppally , Wayanad

2. MET College of Arts and Science, Nadapuram,Calicut

3. EMEA College, Kondotty, Malappuram

4. St Marys College Thrissur

5. St Pious College Rajapuram, Kasargode

6. SN College Kannur

7. Gurudev Arts and Science College, Methil, Payyannur

8. HM Arts and Science College,Randarkkara,Muvattupuzha

9. KBPM College, Kottuvally, N Paravoor Ernakulam Dist

10. Presentation College of Applied Science, Puthenvelikkara,Ernakulam

11. Sree Sankara College Kalady

12. SB College Changanssery

13. St Marys Educational Society College, Paliakara, Thiruvalla

14. Kesari Arts and Science College N Paravoor.

15. Centre For health Sciences, MTI Complex, West hill Calicut, Vadakara (Medical Microbiology).

16. School of Health Sciences, MG University, Kottayam(Medical Microbiology).

17. School of Biological Science, M G University Kottayam.

18. Al Azhar college of arts and science Todupuzha.

19. Amritha Viswavidyapeedam, Amruthpuri campus, vallickavu, Kollam.

20. Gems Arts and Science College ,Ramapuram, Malapuram.

21. Indiragandhi college of arts and Science, Nellikuzhi, Kothamangalam, Ernakulam dist.

22. Kannur University ,Mangattuparamba, Kannur.

23. MES Artsa dn Science College, Chathamangalam, IMA Hall,Nadakkavu, Calicut.

24. MHES College of Science and Technology, Cherandathoor,Vadakara, Calicut.

25. Ma'din Arts and Science College, Swalath Nagar, Melmuri, Malappuram.

26. Majlis arts and Science College, Puramannoor,Valanchery,Malappuram.

27. MES College Marampally, Aluva.

28. Safi Institute of Advanced Studies, Raisa Nagar, Vazhayoor East PO Via Ramanattukara,Malappuram.

29. Saga Institute of Management Studies, Downhill, Malappuram.

30. Sharaf Arts and Science college, Padne, Kasaragod.

31. St Thomas college, Arunapuram, Palai.

32. University of Calicut, (Microbiology/ Medical microbiology/ Industrial Microbiology)

There will be national level entrance test for premier institutes like AIIMS and IIT's

Institutes MSc Microbiology

1. Pazhassi Raja College Pulppally , Wayanad

2. Farook College, Feroke, Calicut

3. EMEA College, Kondotty, Malappuram

4. St Marys College Thrissur

5. M G University Campus, Kottayam

6. MES College Ponnani Malappuram

7. Centre of Health Sciences, Calicut University(Medical Microbiology)

8. Centre of Health Sciences,M G University (Medical Microbiology)

9. Amritha Viswavidyapeedam, Amruthpuri Campus, Vallickavu, Kollam.

10. Indira Gandhi college of arts and Science, Nellikuzhi, Kothamangalam, Ernakulam dist.

11. MHES College of Science and Technology, Cherandathoor,Vadakara, Calicut.

12. MES College Marampally, Aluva.

13. Presentation College of Applied Science, Puthenvelikkara,Ernakulam.

14. Safi Institute of Advanced Studies, Raisa Nagar, Vazhayoor East PO Via Ramanattukara, Malappuram.

15. Saga Institute of Management Studies, Downhill, Malappuram.

16. Sree Sankara College Kalady, Ernakulam Dist.

17. St Mary's College For Women,Paliakara,Thiruvalla.

18. St Thomas College, Arunapuram, Palai (Applied Microbiology).

19. University of Calicut (Microbiology/Medical Microbiology).

20. Kerala Agricultural University,Thrissur.

21. Kerala University of Health Science,Thrissur.

22. Mar Athanasious College Kothamangalam,Ernakulam.

23. Marthoma College, Thiruvalla.

24. PVS College of Nursing, Calicut.

25. SNGIST Arts and Science College, Karumallor P O N Paravoor Ernakulam.

26. St Xaviers College, Aluva.

27. The Cochin College, Kochi, Ernakulam

Premier Institutes

1. Pune National Virolgy Institute

2. All India Institute of Medical Science

3. Sri Chithira Institute of Medical Science

4. Jawahalal Nehru University New Delhi

5. Indian Institue of Science Bangalore.

Competitive Examinations

Faculty Management Studies Examination, CMC Vellore Entrance Examination, GATE

NURSING

Introduction

Nursing is the one of the noblest profession in the world. Nursing is a profession within the health care sector focused on the care of individuals, families, and communities. The professional opportunities in nursing are varied and numerous, because the job opportunities are worldwide, ongoing and increasing. Nurses may be differentiated from other health care providers by their approach to patient care, training, and scope of practice. This profession requires service with dedication, love, tender care of physically incapacitated, sick, injured, mothers, newborns, old persons, mentally challenges and deranged people etc

Content

Nursing is the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities, and populations. Nurses care for individuals of all ages and cultural backgrounds who are healthy and ill in a holistic manner based on the individual's physical, emotional, psychological, intellectual, social, and spiritual needs. The profession combines physical science, social science, nursing theory, and technology in caring for those individuals.

Eligibility

Admission Terms & Condition For School / College Of Nursing

Revised from 2012 - 2013 Academic year (Indian Nursing Council)

Auxiliary Nurse & Midwife	2 years	Nursing Examination Board	R.ANM
General Nursing & Midwifery	3 and 1/2 years	Nursing Examination Board	R.N & R.M
B. Sc (Basic)	4 years	University	R.N & R.M
B.Sc (Post Basic)	Regular: 2 yrs Distance: 3 yrs	University	Additional Qualification
M. Sc.	2 years	University	Additional Qualification
M. Phil	1 year (Full time) 2 years (part time)	University	Additional Qualification
Ph. D	3-5 years	University	Additional Qualification

A. N. M. (Auxiliary Nurse & Midwife)

➤ The minimum age for admission shall be 17 years on or before 31st December of the year in which admission is sought.

➤ The maximum age for admission shall be 35 years.

➤ The minimum educational requirements shall be 10 + 2 in Arts (Mathematics, Physics, Chemistry, Biology, Biotechnology, Economics, Political Science, History, Geography, Business Studies, Accountancy, Home Science, Sociology, Psychology, and Philosophy) Science or VHSE.

➤ Student shall be medically fit.

➤ Students who passed 10+2 Arts or Science examination conducted by National Institute of Open School.

G. N. M. (General Nursing and Mid wifery)

➤ Minimum and Maximum age for admission will be 17 and 35 years. There is no age bar for ANM/LHV.

Qualification:

➤ Pass 10+2 preferably with science group.

➤ Pass 10+2 in Arts and English Core/English Elective or Health care Science.

➤ Pass 10+2 vocational ANM.

➤ Registered as ANM with State Nursing Registration Council.

B. Sc. (N)

➤ The minimum age for admission shall be 17 years on 31st December of the year in which admission is sought.

Qualification:

➤ Pass 10+2 with Science (PCB) & English Core/English Elective with aggregate of 45% marks from recognized board.

➤ Student shall be medically fit.

➤ Students appearing in 10+2 examination in Science conducted by National Institute of Open School with 45% marks.

Post Basic B. Sc. (N)

➤ Pass 10+2 or an equivalent examination recognized by the university for this purpose. Obtained a certificate in General Nursing and Midwifery and registered as R.N.R.M.

Personality Traits

- ❖ Flexible
- ❖ Cheerful
- ❖ Physically enduring
- ❖ Emotional stability
- ❖ Empathetic
- ❖ Trustworthy

Nature of work

Nurses work closely with physicians as an integral part of the patient health care team. The doctor makes some key decisions about the diagnosis, treatment, and medication, and it is the nurse's role to administer that care on an ongoing basis.

A nurse is the helping hand of a doctor. A doctor cannot treat, operate or maintain patient records without a nurse. A nurse is the one who takes care and meets every requirement of a patient, soothes them and assists them from the beginning to end of treatment.

Job prospects

Nurses can find employment in hospitals, Nursing Homes, Medical Colleges, Health Departments. Nurses work in all departments in the medical field. Their work is interdisciplinary as well. With so many hospitals and medical institutes coming up, the demand for qualified and good nurses is also on a rise. A dedicated and hard working efficient nurse soon becomes the head nurse commanding other subordinate nurses.

Nurses practice in a wide range of settings, from hospitals to visiting people in their homes and caring for them in schools to research in pharmaceutical companies. Nurses work in occupational health settings (also called industrial health settings), free-standing clinics

and physician offices, nurse-led clinics, long-term care facilities and camps. They also work on cruise ships and in military service. Nurses act as advisers and consultants to the health care and insurance industries.

Trends

Nursing is not confined just to patient care only. The range and variety of subjects had made nursing very demanding. Indian nurses have earned good name for their commitment and ability across the globe. They have great demands in US and in other European countries. Nursing covers a range of jobs which vary widely in terms of level of functions. Internationally, there is a serious shortage of nurses.

Nursing   Job Titles –India and Abroad

- Addictions Nursing - Ambulatory Care Nursing - Cardiac Catheterization Lab Nurse - Certified Nurse Assistant (CNA) - Certified Nurse Midwife - Certified Registered Nurse Anesthetist - Critical Care Nurse - Diabetes Management Nurse - Emergency / Trauma Nurse - Flight / Transport Nurse - Forensic Nursing - Genetics Nursing - Geriatric Nurse Practitioner - HIV / AIDS Nurse - Holistic Nursing - Home Healthcare Nurse - Hospice and Palliative Care Nurse - Intellectual and Developmental Disabilities Nurse - Legal Nurse Consultant - Licensed Practical Nurse (LPN) - Licensed Vocational Nurse (LVN)	- Medical Assistant - Medical Surgical Nurse - Neonatal Nurse (NICU) - Nurse Anesthetist (CRNA) - Nurse Practitioner - Nursing Assistant - Nursing Informatics - Occupational Health Nurse - Oncology Nurse - Parish Nurse - Pediatric Nurse Practitioner - Peri Anesthesia Nursing - Peri Operative Nursing - Psychiatric Mental Health Nurse - Public Health Nurse - Radiology Nurse (CRN) - Registered Nurse (RN) - Rehabilitation Nurse - School Nurse Practitioner - Transplant Nursing - Travel Nursing - Wound Ostomy Continence Nursing (WOCN)

Institutions

All India Institute of Medical Sciences, Ansari nagar, 29 Aurobindo Marg, New Delhi, Delhi, 110029.

- National Institute of Mental Health and Neuro Sciences, Bangalore-560029.
- Christian Medical College, Vellore, Tamil Nadu.
- National Institute of Nursing Education, PGIMER, Sector-12, Chandigarh-160012.
- Pondicherry Institute of Medical Sciences - College of Nursing, Ganapathichettikulam, Kalapet, Pondicherry - 605014.
- Govt. College of Nursing, Medical College, Trivandrum, Kerala. 695011.
- College of Nursing, JIPMER, Puducherry-605006.
- Manipal Institute of Health Science, Manipal
- National Consortium study centers for Ph.D. in Nursing
    1. Indian Nursing Council, Delhi,
    2. College of Nursing, C.M.C, Ludhiana
    3. College of Nursing, C.M.C, Vellore,
    4. Govt. College of Nursing, Hyderabad,
    5. Govt. College of Nursing, Thiruvananthapuram,
    6. NIMHANS, Bangalore 560 029, Nodal Centre & Study Centre.
    7. College of Nursing, SSKM Kolkata.

The list of the approved guides will be available at the study centres listed above.

Military Nursing

Females who are unmarried or divorced legally separated and widows without encumbrances may opt for the four year BSc (Nursing / three-year probationary nursing course conducted at various armed forces hospitals in India. Those selected to the course have to execute a bond to serve in the Military Nursing Services (MNS) for five / four years, respectively. During training all candidates will be provided free ration, furnished accommodation, uniform allowance and a monthly stipend.

Applicants should be between 17 and 24 years of age and should have completed plus two or equivalent examination with Physics, Chemistry and Biology with at least 45 percent marks and be medically fit.

Selection to the course is made on the basis of a written examination of the objective type comprising general English biology and General intelligence followed by an interview of candidates successful in the written examination.

Armed Forces Medical Services Examining Board-Nursing Schools.

1. GNM, Mamba School of Nursing, I.N.H.S Aswini, Colaba, Mumbai.
2. GNM, Delhi Cantt. Army Hospital Delhi Cantt-10.
3. GNM, Calcutta, Command Hospital, Eastern Command, Calcutta-27
4. GNM, Jalandhar, Military Hospital, Jalandhar, Cantt.
5. GNM, Lucknow, Command Hospital, Central command, Lucknow
6. M. Meerut, military Hospital, Meerut
7. GNM, Banglore, Command Hospital, Air force, Bangalore - 7
8. GNM, Secunderabad, Military Hospital, Securnderabad.
9. GNM, Cochin INHS Sanjivini, Naval Base, Cochin - 624 041
10. M.Ambala, Military Hospital, Ambala cantt.
11. M. Chandigarh, Command Hospital, Chandigrah
12. M.Pathankot, Military Hospital, pathankot, C/o. 56 APO
13. M. Delhi Base Hospital, Delhi Cantt, New Delhi - 10
14. M.Dehra Dun, Military Hospital, command, Calcutta- 27
15. M. Jabalpur, Military Hospital, Jabalpur

BSc (Nursing) Degree Course is conducted at the Armed Forces Medical College, Pune

Ayurveda Nursing

The rapid expansion of indigenous system of medicines especially Ayurveda and Homeopathy medicine has provided the opportunities for Ayurveda and Homeopathic nursing as a nursing branch in our country. The increasing demand for the holistic treatment also created the avenues for the Ayurveda and Homeopathy nurses.

Name of course	Universities/Institutes	Duration	Eligibilty
Certificate courses in Ayurvedic Nursing	Govt. Ayurveda College Dhanwanthari Nagar, Tripunithura, Ernakulam, Kerala,India. Ph : 0484 2777374 www.ayurvedacollege.ac.in	1 year	Pass in SSLC
Diploma in Ayurveda Nursing and Pharmacy	National Institute of Ayurveda Madhav Vilas Palace, Jorawar Singh Gate, Amer Road, Jaipur ,Rajasthan, India Ph : 91-141-2635709 www.nia.nic.in	2 and half years	Higher Secondary Examination from the Board of Secondary education of Rajasthan, Ajmer or an examination recognised by the University as equivalent
Ayurvedic Paramedical (Nursing) Course	Arsha Yoga Vidya Peetam Trust Ayurvedic Trust Complex , Trichy Road Ramanathapuram,Coimbatore, Tamil Nadu ,India Ph : +91 422 4396160, 422 4370910 www.arshayoga.com	3 Months	Candidates should have passed +2 or above
Ayurveda Nursing	Amala Ayurvedic Hospital And Research Center Amala Nagar PO, Thrissur , Kerala, India Ph : +91-487-2303000 www.amalaayurveda.org	1 Year	SSLC passed with C+ (50%) marks +2 and degree passed are eligible for grace marks Age between 17 and 28 as on April 1 Physically handicapped are not eligible Candidates seeking admission for Nursing course must be unmarried and should not marry before completion of course
Nursing (Ayurveda) Course	Parathuvayalil Ayurveda Hospital, Post Box no: 9, Keezhillam, P. O., Perumbavoor, Ernakulam, Kerala, India. Ph : 91-484-2653041, 2653875, 2653876, 2653042 www.parathuvayalilhospital.com	1 Year	Pass in SSLC / Std. X with 50 % Marks

Homeopathic Nursing (Nurse-Cum-Pharmacist Training in Homoeopathy)

The course will be conducted in the following Govt. Homoeopathic Medical Colleges.

1. Govt. Homoeopathic Medical College, Thiruvananthapuram – 60 seats.

2. Govt. Homoeopathic Medical College, Kozhikode – 60 seats.

Eligibility for admission

Candidates who have passed the S.S.L.C or equivalent examination with a minimum 50% marks with eligibility to undergo University courses are eligible for admission. In the case of SC/ST candidates those who possess 40% marks in the above examination are eligible for admission.

NUTRITION AND DIETETICS

Introduction

      Nutrition is the study of the influence of food intake on health and wellbeing. The importance of nutrition in the primary prevention of disease (public health nutrition) is recognised by governments in both developing and developed countries. Public health nutrition involves studying the relationships between dietary intake and disease using the tools of nutritional epidemiology and applying the knowledge gained to help prevent disease in the population (nutrition intervention). Dietetics is the application of nutritional knowledge particularly tailored to individual needs.

Content

Personality traits

      To understand and enhance the Nutrition knowledge and apply the inputs in making correct choices in food for self & family & the community.

Job Prospects

- ❖ Acupuncturist
- ❖ Dietitian
- ❖ Environmental health practitioner
- ❖ Food technologist
- ❖ Health promotion specialist
- ❖ Herbalist
- ❖ Homeopath

* ❖ Sports therapist
* ❖ Nutritional therapist

Nature of Job

Will be placed in multispeciality Hospitals, Hotels, Food Industry and other Health Organistions

Courses

Diploma

St Teresas College Ernakulam (PG Diploma in Clinical Nutrition and Dietitics)

Bsc Clinical Nutrition and Dietetics

* ❖ Alphonsa College, Palai, Kottayam
* ❖ Bishop Choolaparambil Memorial College, Kottayam
* ❖ St Joseph's College for Women, Cherthala Alappuzha

MSc Clinical Nutrition and Dietetics

* ❖ Alphonsa College, Palai, Kottayam
* ❖ College of Applied Science, Killyanad, Calicut
* ❖ Vimala College Thrissur (Nutrition and Dietetics)

OCCUPATIONAL THERAPY

Introduction

Occupational therapy, often called OT, is the use of treatments to develop, recover, or maintain the daily living and work skills of people with a physical, mental or developmental condition. Occupational therapy is a client-centered practice that places a premium on the progress towards the client's goals. Occupational therapists work with people of all ages to help them overcome the effects of disability caused by physical or psychological illness, ageing or accident. The profession offers enormous opportunities for career development and endless variety. Occupational therapy interventions focus on adapting the environment, modifying the task, teaching the skill, and educating the client/family in order to increase participation in and performance of daily activities, particularly those that are meaningful to the client.

Content

The course content includs Anatomy, Applied Anatomy, Psychology, Study of Occupation, Physiology, Psychiatry and occupational therapeutic procedures and clinical and field postings.

Eligibility

B Sc Occupational Therapy

Pass in 10+2, or equivalent with Physics, Chemistry, English and Biology with a minimum of 45%-50% marks in Physics, Chemistry and Biology.

Master of Occupational Therapy (M.O.T)

The candidates must have passed BOT/BScOT from a recognized University with a minimum of 50% marks. In addition to this, some institute conduct entrance exams.

Personal Traits

A registered occupational therapist needs patience, ingenuity, determination, common sense, a sound knowledge base and enthusiasm. Most of all, it requires an interest in working closely with people to enable them to lead full and satisfying lives as independently as possible.

Nature of work

Treat patients suffering from physical or mental disorders. Occupational Therapists treat patients suffering from physical or mental disorders by whatever form of training or activity that likely to contribute to their recovery. They receive guidance from patients and doctors regarding the degree of recovery the patient may be expected to achieve.

Job Prospects

An Occupational Therapist is one of the most sought after professionals in the UK, Australia, New Zealand, Canada and the US. Employment is available in hospitals and a wide range of service organizations, rehabilitation centers, mental health centers, old age homes and special schools. Occupational therapists can also start their own practice or become consultants.

Institutes

1. National Institute for the Orthopaedically Handicapped, Kolkata
2. Indian Institute of Physical Medicine and Rehabilitation, Mumbai
3. NIRTAR, Cuttack
4. Pt. Deen Dayal Upadhyay Institute for Physically Handicapped, Delhi
5. Manipal College of Allied Health Sciences, Karnataka
6. Seth GS and KEM Hospital, Mumbai
7. TNM Medical College & BYL Nair Hospital, Mumbai
8. Christian Medical College, Vellore
9. Govt. Medical College, Nagpur
10. KMCH College of Occupational Therapy, Coimbatore
11. Padmashree Dr. D.Y. Patil College of Occupational Therapy, Navi Mumbai
12. Dr. D.Y. Patil College of Occupational Therapy, Kolhapur
13. School Of Occupational Therapy, Faculty Of Allied Health Science, Jamia Hamdard University, New Delhi
14. L.T. Medical College, Mumbai
15. Jaipur Occupational Therapy College & Hospital, Jaipur
16. Santosh Medical College, Ghaziabad
17. Indore Institute of Medical Sciences
18. Ahmedabad Institute of Medical Sciences
19. SRM College of Occupational Therapy, Tamil Nadu
20. Nims University, Shobha Nagar, Jaipur-303121

OPTOMETRY

Introduction

Optometry is a healthcare profession concerned with the health of the eyes and related structures, as well as vision, visual systems, and vision information processing in humans. Optometry is concerned with providing and maintaining the eyesight in good condition. Opthalmologist prescribes the lenses and optometrist prepares the glass. The person who undergoes the course can get employment in opthalmic industry, Eye Hospitals and Health Care Sectors.

Content

The Optometry course content include human physiology especially physiology of eyes, functional anatomy of eye, neurophysiology of eyes and principles of visual perception. Optometric examination, types of lenses, pharmacology, different ocular diseases and clinical practical sessions.

Eligibility

Diploma in Optometry

B Sc Optometry

10+2 with Physics, Chemistry, Biology or Mathematics

Post Graduate Diploma in Optometry

Graduate in any discipline. However, preference is given to science graduates and sponsored candidates.

M Sc Optometry

Bachelor's degree in Optometry

Personal Traits

Optometrists need the following characteristics

❖ Excellent communication and interpersonal skills

❖ Good general health and visual acuity

❖ A compassionate and caring attitude

❖ The spatial and form perception required to interpret test results and identify visual defects.

❖ Enjoy operating specialized instruments, working with people and analyzing information to make decisions.

Nature of Work

- ❖ Measure the eye and visual function
- ❖ Prescribe and dispense eyeglasses and contact lenses
- ❖ Diagnose diseases and disorders of vision
- ❖ Prescribe medications for the treatment of eye diseases
- ❖ Remove non-penetrating foreign bodies (for example, metal) from the eye
- ❖ Provide post-operative care for patients after cataract and refractive surgery
- ❖ Prescribe eye exercises to achieve accurate and comfortable vision
- ❖ Undertake rehabilitative intervention for low vision
- ❖ Educate and counsel patients about preventing and treating eye disease, contact lens care, appropriate lighting, sunglasses or tints, and eye safety at home and in the workplace
- ❖ Refer patients, when appropriate, to ophthalmologist or family physicians
- ❖ Treat glaucoma
- ❖ Act as consultants to other health care providers
- ❖ Provide teachers, physiotherapists, occupational therapists, school psychologists and other Professionals with eye health information related to clients or students.

Job Prospects

After graduation, an optometrist may

- ❖ Go directly into private practice
- ❖ Join another practitioner or group of practitioners in a busy practice.
- ❖ Work with an ophthalmologist or a group of physicians in family practice
- ❖ Participate in patient-based clinical research.
- ❖ Advising parents about potential eye hazards for children
- ❖ Diagnosing perceptual handicaps that hinder learning in school-age children
- ❖ Consulting with industrial safety personnel regarding the selection and placement of employees
- ❖ Fitting low vision patients whose vision can only be improved through the use of special magnifying devices.

Institutes

1. Ahaliya Foundation Eye Hospital, Palakkad
2. Amrita Institute of Medical Sciences, Kochi
3. Dr. Tony's Eye Hospital and Lasic Centre, Aluva
4. Eye Micro Surgery and Laser Centre (IGNOU), Thiruvalla
5. Jubilee Mission Hospital (IGNOU), Thrissur

6. Little Flower Hospital and Research Centre (IGNOU), Angamaly

7. Malabar Eye Hospital and Research Centre (IGNOU), Kozhikode

8. Netra Eye Care Centre (IGNOU), Thrissur

9. Reyhan College of Optometry. Malappuram

10. Govt. Medical College, Thrivananthapuram

PARAMEDICAL COURSES

Introduction

A Paramedic is an expert who assists the doctors in focused areas and aids for improved diagnosis and therapy. An upsurge in the number of patients, diseases and methods of treatment have cemented the role of Paramedical Professionals who are expert technicians. For every clinic the number of paramedics is greater than the physicians. The population explosion coupled with the mushrooming of private and corporate hospitals have provided numerous opportunities for skilled paramedics. Paramedics are the key players in the Health & Medical Sector. Without paramedics the entire Health Industry would have been out of gear and almost non-functionary.

Qualification

Students who have passed Class XII with Science Biology group are usually admitted in this course. Most of these courses are conducted in reputed Medical Colleges, well equipped hospitals in Kerala and other states of India.

Job Prospects

There are abundance of job opportunities in the field of Medical Science and Health Science. The short time courses help to get easy jobs in India and abroad.

After pursuing a course in the field of Paramedical Science, one can explore various career options available in the medical industry. They can work as Medical Lab Technicians, Radiography Technicians, Radiologists, Physiotherapists, Speech Therapists and Audiologists, Dialysis Therapists, Emergency Technicians, Emergency Care Practitioners, Perfusion Technicians, Cardiac Technicians, and Respiratory Therapists.

Personal Traits

To become a successful paramedic, a person should have

- ❖ Effective communication skills and an ability to work in small teams
- ❖ Ability to work in rotational shifts and long shifts
- ❖ Presence of mind to take the right decision during an emergency.
- ❖ Motivated and realistic about the challenges of Para-medicine
- ❖ Self disciplined and focused
- ❖ Desire to help people

Medical Lab Technician

Introduction

Medical Laboratory Technology also called Clinical Laboratory Science is concerned with the diagnosis, treatment and prevention of disease through the use of clinical laboratory tests. These tests help doctors to detect, diagnose and treat diseases. A Medical Laboratory Technician performs Chemical, Hematological, Immunologic, Microscopic, and Bacteriological Diagnostic analyses on body fluids such as blood, urine, sputum, stool, cerebrospinal fluid (CSF), peritoneal fluid, pericardial fluid etc. Medical Laboratory Scientists work in Clinical Laboratories at Hospitals, Doctor's Offices, reference Labs, Biotechnology Labs and Non-clinical Industrial Labs. They play an important role in collecting the information needed, sampling, testing, reporting and documentation of these investigations.

Content

The content of MLT course includes General Pathology and Micro biology, Hematology, Anatomy and Physiology, Biochemistry and Clinical Pathology, Immunology, Serology, Parasitology, Laboratory Management and Automation etc.

Eligibility

Diploma Courses (One Year) -   SSLC Pass

Bsc – MLT - Plus Two with Science with Physics, Chemistry and Biology

Personal Traits

Interpersonal skills

Flexibility to adapt to unexpected changes

Patience and attentiveness

Communication skills

Vigilance

Nature of work

The main job profile of a Medical Lab Technician is to perform diagnostic tests on samples of tissue, stool, urine, blood and other body fluids. The results of these diagnostic tests will help a Physician in diagnosing the illness or disease of the patient. They can find work in hospitals, clinics, pharmaceutical companies, Government funded research clinics. Collection of test materials, stocking, Labelling, testing, preparing report, managing, teaching etc are the main areas of work.

Job Prospects

Medical Laboratory Technologist have good career opportunities. They can work as Consultant, Supervisor, Health care Administrator, Laboratory Information System Analyst, Laboratory Manager, Health and Safety Officer etc.

Trend

There has been remarkable growth in the range and complexity of available tests and services, which is expected to continue. Many predict that Clinical Laboratory Technology will play an even more important role in the future delivery of health care.

NUTRITION AND DIETETICS

Institutions

Top Colleges In India

- ❖ All India Institute of Medical Science Diploma College www.aiims.ac.in
- ❖ Christian Medical College Diploma College www.cmch.vellore.edu
- ❖ Jawaharlal Nehru Medical College Diploma College Belgum, Karnataka
- ❖ Jawaharlal Institute Postgraduate Medical Education Research Diploma College
- ❖ Kasturba Medical College Diploma College www.manipal.edu
- ❖ Ki dwai Memorial Institute Onology Diploma College Hosur Road, Bangalore
- ❖ Mahatma Gandhi University Diploma College Kottayam,Kerala
- ❖ Medical Diploma College University of Kerala,Thiruvananthapuram,Kerala
- ❖ Post Graduate Institute of Medical Education Research Diploma College Chandigarh, Punjab

Major Colleges in Southern Region

- ❖ JIPMER, Dhanvantri, Nagar Pondicherry
- ❖ Pant institute of Technology, 19 Bazar Laurent St. Pondicherry
- ❖ Andhra Medical college Vishakhapatnam, Andhra pradesh
- ❖ Christian Medical Thorapudi, Vellore
- ❖ Medical college,Trivandrum,Kerala
- ❖ Mahatma Gandhi University Medical college, Kottayam
- ❖ Kasturba Medical college, Manipal &Mangalore
- ❖ Medical college, Fort, Bangalore
- ❖ Fr. Muller Institute of Medical Edu. Kankanady Mangalore
- ❖ MR Medical College, Gulbarga
- ❖ Institute of Health Sciences, Vidyanagar, Mangalore
- ❖ Kidwai memorial Institute Of Oncology, Hosur Road, Bangalore

PHARMACY COURSES

Introduction

Pharmacy is the science and technique of preparing as well as dispensing drugs and medicines. It is a health profession that links health sciences with chemical sciences and aims to ensure the safe and effective use of pharmaceutical drugs. Pharmacists usually study the composition and functioning of different medicines or drugs.

Pharmacists are the experts on drug therapy and are the primary health professionals who optimize use of medication for the benefit of the patients.

Scientific advances in Medicine have created bigger demand for Pharmacists who can consult physicians and health care practitioners on the proper use of new drugs. The demand for pharmacists is in a wide variety of sectors. They can work as Pharmacists and Medical Representatives. They can also work in Industrial Research Centers & Hospitals.

Contents

The content area covered in pharmacy courses include Chemistry of Medicines, Body Systems and Therapeutics, preparation of Safe and Effective Medicines, Research, Medicinal Development, Manufacturing, Distribution, Management etc.

Eligibility

Diploma in Pharmacy (D.Pharm) - Pass in PUC with Science subjects.

Bachelor In Pharmacy (B. Pharm) - Pass in 10+2 examination with Physics, Chemistry and English with Mathematics or Biotechnology or Computer Science or Biology as optional subjects.

Master of Pharmacy (M.Pharm) - BPharm from an institution recognised by the Pharmacy Council of India with minimum of 50% marks in aggregate.

Trends

While most health care programs focus on the relationship between the physician and the patient, pharmacists are becoming increasingly relevant to the equation. The current trends in pharmacy courses are PharmD courses. Allied disciplines like MBA in Pharmacy is a current trend.

Institutes

Prominent colleges imparting B.Pharm in India approved by PCI as on August 15, 2012 are Nims Institute of Pharmacy, Nims College of Pharmacy, NIMS University, Shobha Nagar, Jaipur-303121[2]

1. ISF College of Pharmacy, Moga

2. Dr. Hari Singh Gour Central University, Sagar, Madhya Pradesh

3. Alwar Pharmacy college, Alwar, Rajasthan

4. Birla Institute of Technology and Science,Pilani

5. Nirma Institute of Pharmacy, Ahmedabad

6. Madurai Medical College, Madurai, Tamil Nadu

7. Bharti Institute of Pharmaceutical Sciences, Srigangan

8. Delhi Institute of Pharmaceutical Sciences and Research (DIPSAR), New Delhi

9. Shri Baba Mast Nath Institute of Paharmacecutical Sciences & Research, Asthal Bohar, Rohtak

10. Banaras Hindu University (BHU), Varanasi, Uttar Pradesh

11. SGRR Institute of Pharmacy, Dehradun, Uttarakhand

12. Madras Medical College, Chennai, Tamil Nadu

13. Hamdard University, New Delhi

14. Bombay College of Pharmacy, Mumbai, Maharashtra

15. Gyan Vihar School of Pharmacy, Jaipur, Rajasthan

16. Srinivas College of Pharmacy,Valachil,Mangalore

17. Smt.Vidyawati college of Pharmacy,Uttar Pradesh,Jhansi

18. Indira College Of Pharmacy,Pune-33

19. Alard College of Pharmacy, Hinjewadi,Pune-411057

20. AISSMS College of Pharmacy, Pune. 01

21. Charak College Of Pharmacy & Research, Pune, Maharashtra

22. Nims University, Shobha Nagar, Jaipur-303121

23. H.N.B.Garhwal (Central) University Uttarakhand

24. Department of Pharmaceutical sciences and drug research Punjabi University Patiala

25. Sagar Institute of research and Technology-Pharmacy Bhopal

26. Truba Institute of Pharmacy, Bhopal

27. Nalanda college of Pharmacy,Cherlapally,Nalgonda

Kerala

1. A.J. College of Pharmacy

2. A.M. College of Pharmacy, Karunagappally

3. Al-Shifa College of Pharmacy

4. Amrita School of Pharmacy, Ponekkara (P.O)

5. Calicut Medical College

6. Fathima College of Pharmacy, Kallumthazham, Kollikollar

7. JDT Islam College of Pharmacy, Kozhikode

8. John Enoch college of Pharmacy, Karamana

Premier institute

National Institute of Pharmaceutical Education and Research (NIPER)

www.niper.nic.in/

Perfusion Technology

Introduction

Cardiovascular Perfusion Technology involves the study of Physiology, Pathology and associated equipment used to support and/or assume the function of the heart and/or lungs during medical procedures. Study of preparation and operations of heart, lung and other sophisticated equipments. The perfusionist is a highly trained member of the cardiothoracic surgical team which consists of Cardiac Surgeons, Anesthesiologists, Physician Assistants, Surgical Technicians, Respiratory Therapists, and Nurses.

Clinical Perfusion Technology, a field connected with Medicine, supports Anaesthetists and Surgeons during Cardiac Surgery.

Content

The Perfusion Technology courses include content like Human Anatomy, Physiology, Biochemistry, Pathology, Micro biology, Medicines relevant to Perfusion Technology, Applied Pathology, Applied Micro biology, Applied Pharmacology, and Clinical, Applied, and Advanced Perfusion Technology.

Eligibility

B Sc Perfusion Technology

10+2 with Physics, Chemistry and Biology

Personal Traits

❖ Similar to other paramedical careers.

❖ Ability to maintain concentration and patience during lengthy cardiac surgeries.

Nature of work

It demands a high level of patient care. Perform complex medical imaging examinations and procedures for diagnostic or interventional therapeutic purposes, utilizing all modalities of medical imaging equipment, in accordance with the standards and policies

established by the Radiology Department. Ensure patients are correctly identified and informed about the imaging procedure that is being performed. Ensure that correct patient, correct procedure, correct site protocols are adhered to. Maintain privacy and confidentiality of all patient information. Adjust medical imaging equipment parameters to the appropriate settings, and follow radiology department protocols. The perfusionist's main responsibility is to support the physiological and metabolic needs of the cardiac surgical patient so that the cardiac surgeon may operate on a still, unbeating heart. .   The Clinical Perfusion Technologists monitor blood circulation of the patient during cardiac surgery to make sure that it does not sever.

Job Prospects

The field of Clinical Perfusion Technology provides opportunities to utilize latest technologies in the field of medicine. Since this is a challenging field, they have job opportunities in hospitals all over the country.

The field of Perfusion Technology is a challenging and rapidly expanding profession. The perfusionist's role now includes surgical and nonsurgical specialties that require the use of extra corporeal circuits, support devices or blood salvaging capabilities.

Institutes

1. Jawaharlal Institute of Post Graduate Medical Education Research (JIPMER), Puduchery
2. Kerala University of Health Sciences, Thrissur
3. Manipal College of Applied Health Sciences (MCOAHS), Manipal, Karnataka
4. Rajiv Gandhi University of Health Sciences (RGUHS), Karnataka
5. Sri Jayadeva Institute of Cardiovascular Sciences and Research, Mysore, Karnatka

PHYSICS

Introduction

Physics is one of the oldest academic disciplines we have.

This branch of science deals with our nature and natural phenomena.Physicists study the world around us and try to uncover the laws which govern how and why objects exist and behave as they do. It also helps us to answer some of these fundamental questions, their findings act as the scientific basis for developments in all kinds of technology from communications and energy efficiency to space and satellites.

Just consider the field of medicine. 100 years since the discovery of X-ray by Rontgen, the collaboration between Physics and the medical community continues to yield new methods for improved diagnosis and treatment. X-rays, Positron Emission Tomography, Computer Tomography, Magnetic Resonance Imaging, Radiation Therapy, Ultrasound and Laser Surgery are well known techniques employed in today's medical practice. Tomorrow's practice will include Nano Technologies, Intravascular Robotics, Cry Ablation, Computer Diagnostics and Molecular Medicines. Like this, you can see the contributions of Physics in fields like Defence, IT, Electronics, Aviation, Communication, Industries and Interdisciplinary Sciences

Content

When a student opts for BSc Physics at the graduation level, she/he has to study Mathematics as a subsidiary subject. The second subsidiary subject varies with Universities and Institutions. Classical Mechanics, Optics, Electronics, Electromagnetism, Thermodynamics, Modern Physics, Quantum Mechanics and Experimental Physics are the major topics under BSc Physics. In courses like BSc (Honours) there will be additional topics, elective subjects and/ or Project work.

Eligibility

Those who wish to pursue Physics should study Science at the Higher Secondary Level. After successful completion of class XII, one can join for BSc Physics. Few seats are available in the country for BSc (Honours) Physics, Four year BSc Ed, BTech Physical Science, B Tech Engineering Physics, BS Physics and Five year
Integrated MSc Physics. After graduation in Physics one can study Pure Physics or Applied Physics for Post-Graduation. After Post Graduation M Tech and PhD are the higher study options.

Personal Traits

A Physicist will need to have an enquiring mind. You should be able to work accurately using a step-by-step approach. You will also need to communicate well, for tasks such as giving presentations and writing reports.

The basic skills one require includes

➢ Problem-Solving - Studying Physics gives one a pragmatic and analytical approach to problem-solving

➢ Reasoning Ability - One can construct logical arguments, apply analytical skills and grasp complex problems

➢ Numeracy Skills - One gains skills in using mathematics to find solutions to scientific problems, create mathematical modelling and interpret and present information graphically.

➢ Practical Skills - One plans, executes and reports experiments, using technical equipment and paying attention to detail.

➢ Communication Skills – One can convey complex ideas and use technical language correctly.

➢ Information and Communication Technology (ICT) - This includes specialist software packages and some programming.

Nature of work

The nature of work of a Physicist varies with the area in which one works. The Academic field is considered more interactive, interpersonal and intellectual, whereas the Industrial field involves more risk and is team work oriented. Research field is challenging and requires perseverance and consistency.

Job Prospects

A career for a Physicist lies in Public as well as Private sectors

Jobs in Government Sector

A candidate with a Bachelor's degree in Physics can apply for different jobs through the various examinations conducted by following organizations in the Government sector;

➢ Union Public Service Commission

➢ Staff Selection Commission

➢ Indian Forest Services

➢ Public Sector Banks

➢ State PSCs

➢ Indian Defense Services etc.

- Some general careers include
- Tax Assistant
- Statistical Investigator
- Grade III & Compiler Exam
- Combined Higher Secondary Exam
- Banking sector
- IT Sector
- Combined Graduate Level Exam etc.

Jobs in Indian Railways after B.Sc. Physics

- Senior P way Supervisor
- Special class Railway Apprentice

Teaching Profession in Government Sector after B.Sc. Physics

- Teaching profession provides numerous opportunities for Physics graduates and one can enter into the job as professors, lectures etc in Universities, Colleges etc. For this one needs a Post-Graduation(MSc Physics) and also qualify the UGC- National Eligibility Test. MSc Physics + B Ed in Physical Science + SET(State Eligibility Test) makes a student eligible to teach at the Higher Secondary Level. To start a career as a teacher in High Schools, one should have a B. Ed along with their BSc degree.
- Job and Research Opportunities are available after MSc Physics in the following Institutes/ Organisations
- Bhabha Atomic Research Centre (BARC)
- Oil and Natural Gas Corporation (ONGC)
- Bharat Heavy Electricals Limited (BHEL)
- National Thermal Power Corporation (NTPC)
- Indian Space Research Organization (ISRO)
- Defense Research and Development Organization (DRDO)
- Physical Research Laboratory Ahmedabad
- Nuclear Science Centre New Delhi
- Saha Institute of Nuclear Physics Kolkata
- The specific fields where one can find jobs are in the following
- Teaching
- Research

- ➢ Analyst
- ➢ Geo Physicist/Field Seismologist
- ➢ Medical Physicist
- ➢ Radiation Protection –Practitioner
- ➢ Research Scientist (Physical Sciences)
- ➢ Scientific Laboratory -Technician
- ➢ Secondary School -Teacher
- ➢ Meteorologist
- ➢ Operational Researcher
- ➢ Product/Process Development Scientist
- ➢ Systems Developer

JOBS FOR PHYSICIST - INTERNATIONAL FOCUS

Patent Attorney	Renewable Energy Manager
Technical Author	Satellite Engineer
Astro Physicist	Science Communicator
Clinical Scientist	Science Journalist
Costal Scientist	Sound Engineer
Gravity Researcher	Structural Engineer
Ice Scientist	Tv Science Advisor
Laser Fusion Scientist	Weather Forecaster
Material Scientist	Techno- Marketer
Particle Phyiscist	Production Planner
Engineering Physicist	Marine Geophysicist

Jobs in Private Sector and Industrial Sector

Material engineering firms, Power generation, Archaeology bodies, Medicine manufacturing companies, MRI machinery manufacturers recruits graduates and post graduates in the field of Physics. There is a tremendous potential in instrumentation, defence hardware, solar photo voltaic systems, vacuum based tools, service and maintenance, displays, transducers, sensors, bio-sensors, laser based instruments, renewable energy, materials, composites, pollution measurement and control, design of LSI, VLSI, ASIC chips.

Instrumentation is a predominantlyPhysics based industry. Most of the modern defense hardware (surveillance, communicationand combat equipment etc.) utilize developments in Physics.

PBI (Physics Based Industries) have bright future in Solar Photo Voltaic systems development and mass production at low cost. This would employ huge numbers of Physics graduates in R&D, production, installation, maintenance etc.
Associated R&D for energy efficient domestic and industrial appliances, efficient battery technology and other renewable energy sectors would also generate higher employment and investment potential.

In almost all the Physics based industries vacuum based tools form a major part. Electronics Industry also needs Physicists in large quantum in R&D, Design, Analysis and technical sectors.

Industries employing Physicists include Aerospace and Defense, Education, Energy, Engineering, Instrumentation, Manufacturing, Oil and Gas, Science, Communication, Space Exploration and Telecommunications.

Physics graduates can also pursue careers in a wide range of sectors such as IT and Consultancy, the Environmental Industry, Financial Services, and the Legal Sector, Transport and Utilities.

Trend

Current trends in the field of higher education reveal that pure science is gearing up after two decades of lagging behind Applied Sciences and Technology. Establishment of five IISERs and commencement of integrated Post graduation courses by major Institutions and Universities attract bright students into the field of pure sciences like Physics.

Branches

PURE/ THEORETICAL PHYSICS
APPLIED PHYSICS

- ➢ Astrophysics
- ➢ Photonics
- ➢ Geophysics
- ➢ Marine Geophysics
- ➢ Bio Physics
- ➢ Nano Physics
- ➢ Particle Physics

- Nuclear Physics
- High Energy Physics
- Solid State Physics
- Theoretical Physics
- Material Physics
- Optical Physics
- Medical / Health Physics
- Molecular Physics
- Plasma Physics
- Fluid Physics

Rare specialisation

- Marine Geophysics
- Particle Physics
- Nuclear Physics
- High Energy Physics
- Solid State Physics
- Theoretical Physics
- Fiber Optical Physics
- Optical Physics
- Medical / Health Physics
- Molecular Physics
- Plasma Physics
- Fluid Physics

List of Major Institutions

Course	Duration & Eligibility	Name & Location of Institute	Website
BS Physics	4 yrs : XII Science + JEE (Advance)	IIT Kanpur	www.iitk.ac.in/
BS Physics	4 yrs :XII Science + KVPY, JEE	IISc Bangalore	www.iisc.ernet.in
B.Tech. Physical Sciences	4 yrs:XII Science + JEE (Advance)	Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram	www.iist.ac.in
BS-MS dual-degree in Physics.	5 yrs : XII Science + JEE (Advance)	IIT Madras	www.iitm.ac.in/
Integrated M.Sc. in Physics	5 yrs : XII Science + JEE (Advance)	IIT Kharagpur	www.iitkgp.ac.in/
B.Tech. Engineering Physics.	4 yrs XII Science + JEE (Advance)	IIT Bombay, Delhi, Guwahati and Madras	www.iitb.ac.in/ www.iitd.ac.in/ www.iitg.ac.in/
Integrated M.Sc. Applied Physics	5 yrs : XII Science + JEE (Advance)	Indian School of Mines Dhanbad	www.ismdhanbad.ac.in/
Dual-degree M.Tech. in Engineering Physics	5 yrs : XII Science + JEE (Advance)	IIT, Bombay	www.iitb.ac.in/
BS-MS dual-degree	5 yrs XII Science + KVPY/ JEE/INSPIRE SCHOLARS /Aptitude Test conducted by IISER	IISERs in Thiruvananthapuram, Pune, Bhopal, Mohali and Kolkata	www.iiser-admission.in www.iisertvm.ac.in www.iiserpune.ac.in www.iiserbhopal.ac.inw ww.iisermohali.ac.inww w.iiserkol.ac.in
Integrated M.Sc Physical Science	5 yrs : XII Science + National Entrance Screening Test (NEST)	NISER Bhubaneswar	www.niser.ac.in
Integrated first degree M.Sc. (Hons.) in Physics	5 yrs : XII Science + BITS admission test	Birla Institute of Technology and Science (BITS) Pilani, Goa, Hyderabad	www.bitsadmission.com
Integrated MSc Physics	5 yrs XII Science + Entrance Examination 5 yrs	Hyderabad University	http://www.uohyd.ac.in/
M.Sc. Photonics	5 yrs : CUSAT-CAT	Cochin University of Science and Technology	www.cusat.nic.in
M Sc Physics	2 yrs : B Sc Physics + Joint Admission Test to MSc (JAM)	Different IITs	gate.iitk.ac.in/jam/index. html (this website may change in the coming years)

Institutes (Premier/ Special)

IISERs, Indian Institute of Science, NISER, UM- DAE Centre, IITs, IIST, Birla Institute of Technology and Science (BITS), CUSAT, SN Bose National Centre for Basic Sciences, Kolkata are a few centres of excellence for Physics.

The Indian Institute of Science, Bangalore, provides excellent opportunities for meritorious Physics graduates.

Meritorious Plus Two students with Physics as one of their subjects can opt for research-oriented five-year integrated M.Sc. programmes in Physics.

A few universities and institutions that offer this programme are the Indian Institutes of Science Education and Research (IISERs), National Institute of Science Education and Research (NISER), Indian Institutes of Technology (IITs), Indian Institute of Space Science and Technology (IIST) and University of Mumbai, Department of Atomic Energy Centre for excellence in basic sciences (UM-DAECBS).

IISERs

The Ministry of Human Resource and Development has set up five IISERs at Thiruvananthapuram, Pune, Bhopal, Mohali and Kolkata. The institutes offer dual degree BS-MS and Ph.D. programmes.

NISER

The National Institute for Science Education and Research (NISER), Bhubaneswar, established by the Department of Atomic Energy offers five-year integrated M.Sc. programmes in Physical, Biological, Chemical and Mathematical Sciences. Total seats: 60.

The UM- DAE Centre for Excellence in Basic Sciences, Mumbai, under the Department of Atomic Energy, offers five-year integrated M.Sc. programme in Physical, Chemical, Mathematical and Biological Sciences.

The degree is awarded by the University of Mumbai. Total seats: 30. Web site: http://cbs.ac.in.

Integrated Science Education and Research Centre, VisvaBharathi, Santhinikethan, offers a five-year integrated M.Sc. degree in Physical Science. Total seats: 21 Web site: http://visva-bharati.ac.in.

IITs

The Indian Institutes of Technology (IITs) Kanpur and Kharagpur offer five-year integrated M.Sc. Physics course for students who have completed Plus Two with Physics, Chemistry and Mathematics.

IIT

Bombay conducts a five-year dual degree M.Tech. Programme in Engineering Physics with specialisation in Nano Science. IIT Kanpur also conducts a M.Sc. –Ph.D. and degree programme in Physics.

IIST

The Indian Institute of Space Science and Technology (IIST) Valiamala, Thiruvananthapuram, offers four-year B.Tech in Physical Sciences which focuses on Astronomy, Earth Science, Remote Sensing and Chemical Systems.

Other institutes

1. Birla Institute of Technology and Science (BITS) offers integrated first degree M.Sc. (Hons.) in Physics at its Pilani, Goa and Hyderabad campuses. The selection is based on BITS admission test. Web site: www.bitsadmission.com.

2. University of Hyderabad offers integrated M.Sc. course in Physics. The selection is based on a national-level entrance test and interview. Web site: www.uohyd.ernet.in.

3. Amrita School of Arts and Science, Amritapuri, offers integrated M.Sc. Physics and mathematics. Web site: http://amritapuri.amrita.edu

4. Cochin University of Science and Technology (CUSAT) conducts integrated M.Sc. course in photonics. The selection is based on CUSAT-Common Admission Test. Web site: www.cusat.nic.in. This list is only indicative.

5. The Indian Institute of Science, Bangalore, provides opportunities for first-class Physics graduates to study integrated Ph.D. programmes. Web site: www.iisc.ernet.in.

6. SN Bose National Centre for Basic Sciences, Kolkata, conducts a post B.Sc. integrated M.Sc. –Ph.D. programme in physical sciences.

7. Tata Institute of Fundamental Research, Mumbai; Institute of Physics, Bhubaneswar; Nuclear Sciences Centre, New Delhi; Indian Institute of AstroPhysics, Bangalore; Harishchandra Research Institute, Allahabad; Physical Research Laboratory, Ahmedabad and so on provide research facilities in Physics or related subjects.

8. Those who have obtained a Masters degree in Physics with high marks can appear for the Joint Entrance Screening Test for admission to Ph.D. programmes at these institutes.

Competitive Exams

- After HSE- JEE MAIN, JEE ADVANCED, KVPY, CUSAT CAT, Entrance for Integrated PG, Aptitude Test by the Institutes concerned
- After BSc Physics-   JAM, CUSAT CAT,
- After MSc Physics-JEST, JRF-NET, GATE

Further Career/ Study options

IITs conduct MSc courses in Physics. Admission is through Joint Admission test for Masters (JAM). Graduates in Physics are eligible to apply.

Graduates and Post graduates in Physics seeking admission for a Ph.D. / Integrated Ph.D. Programme in Physics or Theoretical Computer Science or Neuroscience in prestigious Institutes shall appear for the Joint Entrance Screening Test (JEST)

After MSc Physics one can appear for Graduate Aptitude Test in Engineering (GATE). PSU's like BARC, NPCIL, HAL, DRDO etc. give importance to GATE scores for various job positions in their organizations.

GATE qualified candidates become eligible for the award of Junior Research Fellowship (JRF) in CSIR Laboratories. They can do PhD in different National level Institutes.GATE is the gate way for M Tech in many universities.

A Post Graduate in Physics can appear for CSIR- UGC National Eligibility Test (NET). On getting high score one can pursue PhD with JRF. NET qualified candidates are eligible for Lectureship in Universities and colleges.

MSc + BEd makes one eligible to appear for Service Selection Board Tests to be in Education Core service in forces like Indian Army

M.Sc in Physics can find career opportunities in foreign electronics and manufacturing companies. They can also work in various foreign research institutes. Meritorious candidates can apply for the vacancies available in research organizations like European Space Agency (ESA) and National Aeronautics and Space Administration (NASA)

References

Employment News – Different issues

Career 360 Different issues

Higher Education Directories by Mathrubhoomi, MalayalaManorama and RashtraDeepika

Opportunities in and for Physics based Industries like T.P.S.Nathan, Centre for Advanced Technology, Indore andA.K.Gupta, IBP Co. Limited, Mumbai.

targetstudy.com/colleges/bsc-hons-Physics-degree-colleges-in-india.html

http://www.psa.gov.in/sites/default/files/file8.pdf

http://www.Physics.org/careers.asp?contentid=381

http://content.timesjobs.com/career-after-masters/

http://entrance-exam.net/

'Not only is the Universe stranger than we imagine – it is stranger than we can imagine' – Arthur Stanley Eddington.

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PHYSIOTHERAPY

Introduction

Physical Therapy or Physiotherapy is a health care profession primarily concerned with the remediation of impairments and disabilities and the promotion of mobility, functional ability, quality of life and movement potential through examination, evaluation, diagnosis and physical intervention. The primary physical therapy practitioner is the Physical Therapist (PT) who is trained and licensed to examine, evaluate, diagnose and treat impairment, functional limitations and disabilities in patients or clients.

Due to mechanization and sedentary lifestyles, people face common muscular skeletal problems which include issues such as backache, stiff shoulders and neck, osteoarthritis knee, etc. In curing out the disorders, the physiotherapists work wonderfully with the mainstream doctors.

Content

The physical therapist's professional curriculum is as rigorous as the traditional medical curricula and includes content and learning experiences in the clinical sciences (e.g., content about the cardiovascular, pulmonary, endocrine, metabolic, gastrointestinal, genitourinary, integumentary, musculoskeletal, and neuromuscular systems and the medical and surgical conditions frequently seen by physical therapists). The Physiotherapy training includes screening, examination, evaluation, diagnosis, prognosis, plan of care, and intervention.

Eligibility

BPT (Physiotherapy)

10+2 with Physics, Chemistry and Biology

MPT (Physiotherapy)

BPT (Physiotherapy)

Personal Traits

Genuine interest in helping people

Interpersonal skills, patience, empathy and ability to motivate and encourage people

Good health and physical stamina

Good co-ordination and manual dexterity

Analytical and problem solving skills

Good organizational skills

Good oral and written communication skills

Positive outlook

Nature of Work

Physiotherapists work in a variety of settings. Weekdays, evenings and weekend work are required. Physiotherapists may be required to lift and transfer patients who have limited or little mobility, and lift and adjust equipments that weigh up to 20 kilograms. Providing direct patient care involves bending, stretching, standing and reaching.

A physiotherapist use physical means such as exercises, movements, weights, electrotherapy and massage to treat the sick. Sometimes they treat patients under the general direction of doctors as they may evolve their own approach to treatment.

Job Prospects

Physiotherapists may work in settings such as

 ➢ Child Development Centers
 ➢ Community Health Centers
 ➢ Fitness centers, Health Clubs or Spas
 ➢ Government and Health Planning Agencies
 ➢ Home Care
 ➢ Continuing Care facilities
 ➢ Hospitals and Rehabilitation Centers
 ➢ Physiotherapy Clinics and Multidisciplinary Clinics (for example, Pain Clinics)
 ➢ Schools
 ➢ Sport and Recreation facilities.

Physiotherapists may advance to supervisory or management positions in large organizations, or move into teaching and research positions.

Trends

The demand for physiotherapy services increased sharply over the last few years. This increase is largely due to the effects of the ageing of the population, shorter stays in health institutions (the shift to ambulatory care) and an improvement in the survival rate of accident

victims and newborns. The increase in demand for physiotherapy services should continue to have a positive influence on employment growth for physiotherapists over the next few years.

Institutes

Pt. Deen Dayal Upadhyaya Institute for Physically Handicapped

www.iphnewdelhi.in/

Manav Rachna International University, Faculty of Applied Sciences

www.mriu.edu.in/

School of Physiotherapy, S S G Hospital

www.physiotherapyindia.org

Apollo College of Physiotherapy

www.apollocollegedurg.com/

Nizam's Institute of Medical Sciences

www.nims.ap.nic.in/

Indian Institute of Health Education & Research

www.iiher.org/

Patna Medical College

www.pmch.us/

Amar Jyoti Institute of Physiotherapy

www.amarjyotirehab.org/

National Institute of Health Education & Research

science-education.nih.gov/

Indira Gandhi Institute of Medical Sciences

www.igims.org/

Dr B R Ambedkar Medical College Bangalore,

Florence College of Physiotherapy Bangalore/ Bengaluru, (Karnataka),

Oxford College of Physiotherapy Bangalore/Bengaluru, (Karnataka),

EMS Memorial Cooperative Hospital and Research Centre, Peinthalmanna, Malappuram

BCF College of Physiotherapy, Kottayam

Little Flower Institute of Medical Science and Research Centre, Angamaly

AWH Special College, Kozhikode

School of Medical Education (SME), MG University, Kottayam

School of Medical Education (SME), MG University, Angamaly

School of Medical Education (SME), MG University, Thevara

Medical Trust Institute of Medical Sciences, Kochi

Premier Institutes

Swami Vivekanand National Institute of Rehabilitation Training and Research (S.V. NIRTAR)

www.nirtar.nic.in

POLYTECHNIC

Introduction

A Polytechnic is a technical educational institution which offers various courses two streams, they are: stream 1- engineering/technology and stream 2- management and commercial practice. There are various types of polytechnics in India - government owned polytechnics, private polytechnics, model polytechnics and women's polytechnic and so on. Polytechnics offer diploma level courses which enable the students to perform basic engineering tasks. These institutions are affiliated to state technical boards and not with any university. After successfully completing their diploma in polytechnics, students can gain lateral entry to engineering degree (under graduate) courses called B.E/B.Tech, govt jobs-private jobs, and short term add on courses. Polytechnics are mostly meant for candidates who want to get employed as soon as possible, to kick start of their career.

Content

All the polytechnics diploma courses have common subjects like, English and Elements of Economics, Mathematics, Physics and Chemistry. All other contents depend on the branches. Polytechnic colleges are providing diploma engineering courses like Civil Engineering, Mechanical Engineering, Electronics Engineering, Textile Technology, Computer Engineering etc.

Eligibility

All candidates who have passed SSLC/THSLC or equivalent examination are eligible to apply for admission, subject to the following conditions:

➢ The candidate should be a citizen of India.

➢ The candidate should be a native of Kerala or undergone a qualifying examination from an institution in Kerala State or his/her parent should be a permanent employee in Central/State/Quasi Government/Public Sector undertaking in Kerala State.

Candidates who have taken more than two chances to secure eligibility for higher studies in SSLC/THSLC or equivalent examinations are not eligible for admission. Appearances for "Betterment" or "SAY" Examination will not be considered as a chance.

For CBSE / ICSE candidates the Marks / Grades obtained in Science is considered for calculating grade in science in the place of Physics and Chemistry.

Personality Traits:

- ❖ Sound technical and mathematical skills
- ❖ Logical reasoning
- ❖ Ability to think methodically, to design, plan and manage projects
- ❖ Ability to maintain an overview of entire projects
- ❖ Love for Science especially physics
- ❖ Curiosity
- ❖ Negotiating, supervisory and leadership skills combined with the ability to delegate.
- ❖ Energetic and hard working

Nature of work

Engineering technicians solve technical problems. They build equipment, conduct experiments, and collect data and calculate results. They might also help to make a model of new equipment. Some technicians work in quality control, where they check products, do tests, and collect data They may also be persons who produce technical drawings or engineering drawings.

Trend

Sandwich Courses

(Co -operative Courses) under which a student spends specified periods alternately in an educational institution and in industry. Each period of study in the institution is matched closely with the corresponding period of industrial work so that the entire course becomes a coherent whole of theory and practice

Branches

- ❖ Computer Engineering
- ❖ Electronics
- ❖ Printing Technology
- ❖ Fashion Designing
- ❖ Mechanical Engineering
- ❖ Automobile Engineering
- ❖ Civil Engineering
- ❖ Electrical Engineering

POLYTECHNIC COLLEGES IN KERALA

Sl. No:	Institution Name & Address	Branches	No. of Seats
1	Central Polytechnic College, Vattiyoorkkavu, Thiruvananthapuram. Ph: 0471-2360391	Civil Engineering	60
		Mechanical Engineering	60
		Electronics Engineering	60
		Textile Technology	60
		Computer Engineering	60
2	Women's PolytechnicCollege,Kaimanom, Thiruvananthapuram Ph. 0471-2491682	Electronics Engineering	50
		Instrument Technology	60
		Commercial Practice	40
		Computer Engineering	60
3	Government Polytechnic College, Nedumangad. Ph:0472-2802686	Electronics Engineering	50
		Computer Engineering	50
		Computer Hardware Maintenance	50
4	Government Polytechnic College, Attingal. Ph: 0470 - 2622643	Mechanical Engineering	40
		Automobile Engineering	40
		Computer Hardware Maintenance	60
5	Government Polytechnic College, Neyyattinkara. Ph: 0471 - 2222935 (Courses Under MPEC System)	Electronics & Avionics	50
		Electronics & Instrumentation	50
		Electronics & Communication	60
		Computer Engineering	60
		Computer Application & Business Management	50
6	Government Polytechnic College Punalur Ph: 0475 – 2228683, 2783040	Electronics Engineering	60
		Computer Engineering	60
		Computer Application & Business Management	40
7	Sree Narayana Polytechnic College Kottiyam Ph: 0474 -2484068	Civil Engineering	70
		Mechanical Engineering	70
		Electrical & Electronics Engineering	70
		Electronics Engineering	30

8	Government Polytechnic College Ezhukone Ph: 0474 – 2484068	Mechanical Engineering	40
		Electronics & Communication	40
		Computer Hardware Maintenance	40
9	Model Polytechnic College Karunagappally, Kollam	Computer Hardware Maintenance (SF)	
		Applied Electronics (SF)	
		Telecommunication Technology (SF)	
10	Government Polytechnic College Vennikulam Ph: 0469-2650228	Civil Engineering	30
		Electronics Engineering	60
		Automobile Engineering	50
		Computer Engineering	60
11	Government Polytechnic College Adoor Ph: 04734-231776	Mechanical Engineering	50
		Architecture	40
		Polymer Technology	40
12	N.S.S Polytechnic College Pandalam Ph: 04734-259634	Civil Engineering	70
		Mechanical Engineering	70
		Electrical & Electronics Engineering	70
		Electronics & Communication	30
		Computer Engineering	40
13	Government Polytechnic College Vechoochira Ph: 04735-266091	Electronics Engineering	40
		Computer Engineering	40
		Biomedical Engineering	40
14	Government Polytechnic College Cherthala 0478-2813427	Computer Hardware Maintenance	60
		Electronics & Instrumentation	50
		Electronics Production Technology	60
15	Carmel Polytechnic CollegeAlappuzha ph: 0477 - 2287825	Civil Engineering	60
		Mechanical Engineering	60
		Electrical & Electronics Engineering	60
		Electronics Engineering (SF)	
		Computer Engineering (SF)	
		Automobile Engineering (SF)	
16	Women's Polytechnic College Kayankulam. Ph:0479 -2443513	Electronics Engineering	60
		Commercial Practice	60

17	Government Polytechnic College,Nattakam, Kottayam.Ph:0481-2361884	Civil Engineering	50
		Mechanical Engineering	60
		Electrical & Electronics Engineering	50
		Electronics Engineering	60
		Polymer Technology	60
		Commercial Practice	50
18	Government Polytechnic College Pala .Ph: 04822-200802	Electronics Engineering	50
		Computer Engineering	40
		Instrument Technology	50
19	Government Polytechnic College Kaduthuruthy Ph: 04829-283680	Electronics Engineering	50
		Computer Engineering	50
		Computer Hardware Maintenance	50
20	Model Polytechnic College Mattakara, Kottayam	Computer Hardware Maintenance (SF)	50
		Applied Electronics (SF)	60
		Telecommunication Technology (SF)	40
		Computer Engineering	60
21	Model Polytechnic College Poonjar, Kottayam	Computer Hardware Maintenance (SF)	50
		Applied Electronics (SF)	60
		Telecommunication Technology (SF)	40
22	Government Polytechnic College Muttom Ph: 04869-255083	Civil Engineering	40
		Mechanical Engineering	50
		Electrical & Electrical Engineering	60
		Electronics Engineering	60
		Computer Engineering	60
23	Government Polytechnic College Vandiperiyar, Kumily 04869-223903, 223303	Computer Technology	50
		Electronics Engineering	40
		Management	40
24	Government Polytechnic College Nedumkandam Ph: 04868-234082	Electronics Engineering	50
		Computer Engineering	50
		Computer Hardware Maintenance	50
25	Government Polytechnic College Purappuzha, 04862-274126,	Computer Engineering	40
		Information Technology	40

	274704		
26	Model Polytechnic College Painav, Idukki	Computer Hardware Maintenance (SF)	
		Hardware Maintenance (SF)	
27	Government Polytechnic College Kalamasery Ph: 0484 – 2555356	Civil Engineering	40
		Mechanical Engineering	50
		Electrical & Electronics Engineering	50
		Automobile Engineering	50
		Chemical Engineering	50
		Computer Engineering	60
		Electronics Production Technology	60
28	Women's Polytechnic College Kalamassery Ph: 0484 - 2556624	Architecture	30
		Electronics Engineering	60
		Computer Engineering	60
		Commercial Practice	50
29	Government Polytechnic College Kothamangalam Ph: 0485 – 2570287	Civil Engineering	30
		Mechanical Engineering	50
		Computer Engineering	60
		Electronics Engineering	60
30	Government Polytechnic College Perumbavoor 0484 - 2649251	Mechanical Engineering	40
		Electronics & Communication	50
		Computer Engineering	50
31	Maharajah's Technological Institute Thrissur Ph: 0487 – 2333290	Civil Engineering	60
		Mechanical Engineering	60
		Electrical & Electronics Engineering	60
		Electronics Engineering	60
		Computer Engineering	50
32	Sree Rama Governmet Polytechnic College, Thriprayar. Ph: 0487 - 2391239	Civil Engineering	50
		Mechanical Engineering	50
		Electronics Engineering	50
		Electrical & Electronics Engineering	50
		Computer Engineering	60

33	Thiagarajar Polytechnic College Alagappanagar Ph: 0480 – 2751346	Civil Engineering	70
		Mechanical Engineering	70
		Electrical & Electronics Engineering	70
34	Government Polytechnic College, Koratty Ph: 0480-2733974	Electronics & Instrumentation	50
		Textile Technology	40
		Polymer Technology	40
35	Government Polytechnic College Kunnamkulam Ph: 04885-226581	Tool & Die	40
		Electronics & Communication	50
		Computer Engineering	50
36	Women's Polytechnic College Nedupuzha, Thrissur Ph: 0487 – 2449182	Electronics Engineering	60
		Computer Engineering	60
		Commercial Practice	60
37	Government Polytechnic College Chelakkara Ph: 04884 – 252119	Electronics Engineering	50
		Computer Engineering	50
		Computer Hardware Maintenance	50
38	Model Politechnic College Mala	Computer Hardware Maintenance (SF)	
		Applied Electronics (SF)	
39	Government Polytechnic College Palakkad. Ph: 0491-2572640	Civil Engineering	50
		Mechanical Engineering	50
		Electronics Engineering	60
		Computer Hardware Maintenance	60
		Instrument Technology	50
40	Government Polytechnic College & Institute of Printing Technology Shoranur. Ph: 0466-2220450	Electronics Engineering	50
		Computer Engineering	60
		Printing Technology	70
41	Government Polytechnic College Perintalmanna Ph: 04933 - 227253	Civil Engineering	50
		Mechanical Engineering	50
		Electrical & Electronics Engineering	50
		Electronics Engineering	60
42	Government Polytechnic College, Thirurangadi	Electronics Engineering	50
		Electronics & Communication	50

		Computer Engineering	50
43	SSM Polytechnic College, Tirur. Ph: 0494-2422234, 2420580	Civil Engineering	50
		Mechanical Engineering	60
		Electrical & Electronics Engineering	60
		Electronics Engineering	60
		Computer Engineering	40
		Automobile Engineering	50
44	Womens Polytechnic College, Kottakkal Ph: 0494 - 2546150 (Courses Under MPEC System)	Electronics & Communication	40
		Electronics Engineering	60
		Electronics & Instrumentation	60
		Computer Application & Business Management	40
45	Kerala Government Polytechnic College, Kozhikode. Ph: 0495 - 2383924	Civil Engineering	50
		Mechanical Engineering	60
		Electrical & Electronics Engineering	60
		Chemical Engineering	40
		Computer Engineering	60
		Tool & Die	50
46	Women's Polytechnic College, Kozhikode, 0495 - 2370714	Electronics Engineering	60
		Commercial Practice	50
47	Model Polytechnic College, Vadakara	Computer Hardware Maintenance (SF)	
		Medical Electronics (SF)	
		Applied Electronics (SF)	
48	JDT Islam Polytechnic College, Kozhikode (Aided Institution)	Computer Engineering	
		Electrical & Electronics Engineering	
		Automobile Engineering	
		Architecture	
		QS & CM	
		Computer Hardware Maintenance	
49	KMCT Polytechnic College, Kozhikode (Self Financing Institution)	Mechanical Engineering (SF)	
		Electronics & Communication (SF)	
		Automobile Engineering (SF)	

		Biomedical Engineering (SF)	
		Electronics & Instrumentation SF)	
		Tool & Die (SF)	
50	AWH Polytechnic College, Kozhikode (Self Financing Institution)	Mechanical Engineering (SF)	
		Electronics & Communication (SF)	
		Medical Electronics (SF)	
		Tool & Die Engineering	
51	Government Polytechnic College Meenangadi. Ph: 04936 - 247420	Civil Engineering	60
		Mechanical Engineering	60
		Electrical & Electronics Engineering	60
		Electronics Engineering	60
52	Government Polytechnic College Meppadi Ph: 04936 - 282095	Electronics Engineering	50
		Computer Engineering	50
		Computer Hardware Maintenance	50
53	Government Polytechnic College Kannur. Ph: 0497 – 2835106	Mechanical Engineering	60
		Civil Engineering	50
		Electrical & Electronics Engineering	60
		Electronics Engineering	60
		Wood & Paper Technology	40
		Textile Technology	60
54	Government Polytechnic College Mattannur 0490 - 2472505	Mechanical Engineering	50
		Electronics Engineering	60
		Electronics & Instrumentation	50
55	Government Polytechnic College Kalliasseri	Computer Hardware Maintenance (SF)	
		Kalliasseri Medical Electronics (SF)	
		Telecommunication Technology (SF)	
56	Residential Womens Polytechnic College, Payyannur Ph: 04985 - 203001 (Courses Under MPEC System)	Electronics & Instrumentation	60
		Electronics & Communication	60
		Computer Engineering	60
		Computer Application & Business Management	50

57	Government Polytechnic College Kasaragod. Ph: 0467 - 2234020	Electrical & Electronics Engineering	50
		Mechanical Engineering	50
		Electronics Engineering	60
		Computer Engineering	60
58	Government Polytechnic College Kanhangad Ph: 0467 - 2203110	Electronics Engineering (SF)	
		Civil Engineering	50
		Mechanical Engineering	50
		Automobile Engineering	
59	Government Polytechnic College Thrikkaripur. Ph: 0467 - 2211400	Electronics Engineering	50
		Computer Engineering	50
		Computer Application & Business Management	40

IHRD POLY TECHNIC COLLEGS

Sl. No:	Colleges	Courses
1.	**Model Polytechnic College, Karunagapally** The Principal, Model Polytechnic College, Edakulangara.P.O., Karunagappally, Kollam – 690 56 Phone 91-476-2623242/2623597	Computer Hardware Maintenance (45seats) Applied Electronics (45 Seats) Telecommunication Technology (45Seats)
2.	**Model Polytechnic College, Kallyassery** The Principal, Model Polytechnic College, Model Polytechnic Office, Kalyassery LPS Campus, Kannur – 670 562 91-497-2780287, 91-497-2780960, mptkallyassery.ihrd.ac.in	Computer Hardware Maintenance (45 Seats) Medical Electronics (45 Seats) Telecommunication Technology (45Seats)
3.	**Model Polytechnic College, Mala** The Principal Model Polytechnic College,Kallettumkara P.O., Mala, Thrissur, Pin – 680 683 Phone :0480-2720746, 0480-2233240	Computer Hardware Maintenance (45 Seats) Applied Electronics (45 Seats)
4.	**Model Polytechnic College, Mattakkara** The Principal, Model Polytechnic College, Mattakkara.P.O, Ayarkunnam, Rosary Hill Ashramam, Kottayam Dist. Pin - 686 564 Phone/Fax:91-481-2542022	Computer Hardware Maintenance (60 Seats) Applied Electronics (60 Seats) Telecommunication Technology(60 Seats)
5.	**Model Polytechnic College, Poonjar** Principal, Model Polytechnic College Poonjar, Thekkekara.P.O Kottayam – 686582.	Computer Hardware Maintenance (60 Seats) Applied Electronics (60 Seats) Telecommunication Technology (60 Seats)
6.	**Model Polytechnic College, Vadakara** Principal, Model Polytechnic College	Computer Hardware Maintenance (60 Seats) Applied Electronics (60 Seats) Telecommunication Technology (60

	Poonjar, Thekkekara.P.O Kottayam – 686582.	Seats)
7.	**Model Residential Polytechnic College, Kozhalmannam** The Principal, Model Residential Polytechnic College, Kuzhalmandam.P.O., Palaghat- 678 702 phone : 91-4922-272900 mrptckozhalmannam.ihrd.ac.in	Civil Engineering (Water Resources Management) (30 seats) Civil Engineering (Environmental Engineering) (30 seats)
8.	**Model Polytechnic College, Painavu Idukki.685603**	Computer Hardware Maintenance (30 Seats) Medical Electronics (30 Seats)

Options after Polytechnic Diploma courses

LATERAL ENTRY TEST FOR B.TECH

B.Tech programme allows Diploma students to take entry directly into second year of engineering course.

For taking admission in B.Tech, you must have done at least 3 years diploma after 10th in any branch of engineering.

Some colleges give admission through lateral entry exams like Joint Entrance Examination of Lateral Entry (JELET), Diploma to Degree Entrance Competitive exam, etc. so you need to appear and crack these exams. Some colleges conducted their own entrance exams.

Chances in Defence Forces

Indian Navy Artificer Appprentices/Direct Entry Artificer (Diploma Holders)

Minimum Educational Qualification for Indian Navy Artificer Appprentices/Direct Entry Artificer (Diploma Holders)

Matriculation or equivalent with Science and Maths with 65% marks or 60% or more aggregate marks in 10+ 2 or equivalent examination with Science and Maths. For Direct Entry Artificer: 3 years Diploma with minimum 50% marks in Mechanica1/ Electrical/Electronics. Instrumentation Engineering/ Telecommunicationl, Aeronautical/Ship Building and Architecture from a Govt recognised Polytechnic/Institute.

Chances Through SSC Exams

CPWD Diploma in Civil or Electrical or Mechanical Engineering from an institution recognized by the Central Government or equivalent qualification.

Junior Engineer (Civil & Electrical), Department of Posts   Three years Diploma or equivalent in Civil Engineering or Electrical Engineering from an institution recognized by the Central Government or State Government.

Junior Engineer (Civil), MES (b) Junior Engineer (Electrical & Mechanical), MES (c) Junior Engineer(QS&C) MES.

Degree in Civil Engineering from a recognised Unversity OR I)Three years Diploma in Civil Engineering from a recognised Institute or University or Board; and (II) Two years experience in Planning, Execution and Maintenance of Civil Engineering works. Degree in Electrical or Mechanical Engineering from a recognised University; OR (I) Three years diploma in Electrical or Mechanical Engineering from a recognised Institute or University or Board; and (II) Two years experience in Planning, Execution and Maintenance of Electrical or Mechanical Engineering works. (i) 3 years Diploma in Civil engineering from a recognised intitiution/University/Board or equivalent; OR (ii) Passed Intermediate examination in Building and Quantity Surveying Sub Div.II of the institute of Surveyors.

Chances Through Kerala PSC

Kerala PSC appoints Poly diploma holders in Electrical as Sub Engineers in KSEB and Civil Engineering Diploma holders as sub engineers in PWD and Irrigation Department.

PROSTHETIC AND ORTHOTIC ENGINEERING

Introduction

Prosthetic and Orthotic Engineering is a medico-engineering profession which deals with physically disabled, crippled and orthopedically handicapped persons. Prosthetists involve themselves in the care of patients with full or partial loss of limbs and they design devices such as artificial limbs and braces which are also called Prostheses. Orthotic Technologists work with patients with limb or spine related disabilities, they study Orthopedics, Amputation Surgery, Post Surgical Prosthesis, Applied Mechanics and Kinesthesiology; and design and create custom made braces and other corrective devises known as Orthoses.

Content

The Prosthetic and Orthotic Engineering courses include the contents like Anatomy, Physiology, Applied Mechanics, Biomechanics, Engineering Drawings, Prosthetic Science, Orthotic Science, Computer Science, Mobility and Rehabilitation aids etc.

Eligibility

Diploma in Prosthetics and Orthotics

Bachelor in Prosthetics and Orthotics

10+2 with Physics, Chemistry, Biology/ Mathematics with45% marks in PCB/PCM

Personal Traits

Good inter personal communication skills

Ability to work in an inter disciplinary approach

Technical and mechanical skills

Ability to deal with patients

Nature of Work

The work of orthotic and prosthetic technicians goes on in a clinical setting. They work with equipment which is placed generally in a location which ensures freedom of movement. The fabrication unit could be noisy and cluttered. Fitting job requires patience and care. Often several rounds of trials with patients could be a frustrating experience.

Their Job Entails

Close study of the patient's requirements

An assessment of the muscles involved, flexibility, tone etc

Preparation of blueprint, model or cast

Carrying out trials on a specific device before finalization

Making minor changes, adaptations of shape and size and fit

Seeking the doctor's approval

Prosthetic and orthotic technicians assist in the preparation of the devices Materials used for the device may vary - wood, leather, plastics, fiber glass, foam, fabric etc

Job Prospects

Technicians with an interest in management may go on to complete a management qualification. Using the career framework, technicians could go on to study for a degree in prosthetics and qualify as a Prosthetist. This profession is a time demanding one but brings with it good employment opportunities and self practice facilities. Based on their educational qualifications and professional experience P&O professionals may get posted as Technologists, Consultants, Prosthetists and Orthotists in the supervisory level, as Technicians or Assistants. With upgrading of skills and considerable amount of job experience they may become Head of the Department. Those in the teaching field can become Instructors and Lecturers. Yet others can join R&D cells of Government Organizations and MNCs as Researchers. Trained professionals can also start their own manufacturing and maintenance units.

Institutes

1. Medical Trust Hospital, Ernakulam, MG University, Kerala.

2. The Institute for the Physically Handicapped, Vishnu Digamber Marg New Delhi - 110 002, Diploma in Prosthetics and Orthotics Engineering (30 seats).

3. The Government Institute of Rehabilitation Medicine, K.K.Nagar, Chennai, diploma in prosthetics and orthotics engineering.

4. Christian Medical College, Thorapadi, Vellore - 632 002, Diploma in Prosthetics and Orthotic Engineering.

5. The Department of Rehabilitation, Safdarjung Hospital, Ansari Nagar, New Delhi, Diploma in Orosthetics and Orthotics Engineering.

6. Central Polytechnic, Taramani, Chennai - 600 013, diploma in prosthetics and orthotics Engineering (10 seats).

7. The All India Institute of Physical Medicine and Rehabilitation, Hazi Ali Park, Mumbai - 400 034, Bachelor of Prosthetics and Orthotics Engineering.

8. The Swami Vivekananda National Institute of Rehabilitation Training and Research, Olatpur, P.O Bairoi, Cuttack - 754 010, Bachelor of Prosthetics and Orthotics Engineering (four-and-a-half years)

Premier Institutes

1. The National Institute for the Orthopaedically Handicapped, BT Road, Bon-hooghly, Kolkata - 700 090, Bachelor of prosthetics and Orthotics Engineering (four-and-a-half years). For more details visit -www.rehabcouncil.nic.in

2. Nation al Institute of Rehabilitation Training and Research (NIRTAR), Olatpur, Cuttack, Orissa.

   http://www.nirtar.nic.in/

POLITICAL SCIENCE AND INTERNATIONAL RELATION

Political Science is a Social Science discipline concerned with the study of the State, Nation, Government, Politics and Policies of Government. Political scientists study different constitutions, interest groups, pressure groups, political parties, international relations ,international organisation and NGO's.

Content

Political Theory, Political Philosophy, Constitutions, Political Systems , Municipal and International law, Public Governance etc.

Eligibility

For BA Political Science

Plus Two Humanities /Science/Commerce

FOR M A Political Science

Any Degree from a recognized University.

FOR M Phil Political Science

M A Political Science

Personal Traits

Communication skills, Aptitude for current national and International affairs. Must be an avid reader with analytical ability, intellectual curiosity and creativity

Nature of Work

They analyze many areas of political behavior, including voting, public opinion, taxation, and public administration, the structure and operation of governments at all levels,

and the effects that these governments have on the people. They also study the patterns, sources, and psychology of political power and collect large amounts of information and then try to organize it into a theory or system that will explain some area of Politics and Government with the help of IT.

Job Prospects

- ❖ Civil Service
- ❖ Teaching and Research
- ❖ Editor Online Political Journal
- ❖ Journalist
- ❖ Political Commentator
- ❖ Various other Govt.jobs

Trends

Decolonization, Ideology, Federalism, Corruption, and Political instability and Dependency theory etc. are greatly influencing the study of international relations and politics in the world especially in developing countries.

Branches

- ❖ Law
- ❖ Psephology
- ❖ Comparative Politics
- ❖ Public Administration
- ❖ International relations
- ❖ Political Sociology
- ❖ Human Rights
- ❖ Urban Policy Planning

Priemier Institutes

1. The School of International Studies , Jawaharlal Nehru University, New Delhi
2. Gokhale Institute of Politics and Economics, Pune, Maharashtra
3. Aligarh Muslim University
4. Central University of Kerala
5. Banaras Hindu University
6. Pondicherry University, R.V. Nagar, Puducherry
7. Jadavpur University, Kolkata, West Bengal

Institutions in Kerala

1. Maharajas College, Ernakulam
2. Govt. Brennon college, Thalasseri
3. Department of Politics and West Asian Studies, University of Calicut
4. Department of Politics and International Relation, MG University
5. Department of Political Science, University Of Kerala
6. Govt. College, Madappally, Vadakara
7. Govt. College, Nattakam , Kottayam
8. Govt. College, Nattika, Thrissur
9. Sri.Keralavarma College, Thrissur
10. Sri Narayana College, Kollam
11. St. George, College, Aruvithura, Kottayam
12. NSS College, Changanassery, Kottayam
13. St. Marys College, S. Bathery, Wayanad
14. New Mann College, Thodupuzha.
15. Assumption College, Changanassery
16. Christ College, Irinjalakkuda

Competitive Exams after BA Political Science.

- Civil Service
- UPSC
- KPSC
- IBPS
- LLB Entrance
- Judicial Service Exam

Further Career and Study Options

- Teaching and Research in Foreign Universities including Cambridge , Harward and London School of Economics.
- Teaching and Research in Central Universities

PSYCHOLOGY

Introduction

Psychology is discipline that involves the scientific study of mental processes and behaviours. Psychology has the immediate goal of understanding individuals and groups by both establishing general principles and researching specific cases, and by many accounts it ultimately aims to benefit society. In this field, a professional practitioner or researcher is called a psychologist and can be classified as a social, behavioural, or cognitive scientist. Psychologists attempt to understand the role of mental processes in individual and social behaviour, while also exploring the physiological and neurobiological processes that underlie certain cognitive functions and behaviours.

Content

The content area of psychology courses include study about behaviour, abnormality, statistics, biology, social psychology, genetics, physiology, etc. The focus of study is on understanding of behaviour in different contexts of life.

Eligibility

BA/BSC/B Psych. Psychology - Plus Two

MA/MSc/M Psych Psychology - Graduation in psychology or any graduation with at least one paper in allied subjects

Personal Traits

To work in any of the psychology careers, you must have a strong interest in the way people think and behave. You must also be committed to help people transform their lives in a positive way.

Psychologists need investigative minds, observational skills and a logical, methodical approach to solve problems. You must have the intellectual ability and psychological knowledge to understand behavior in a scientific way. A keen interest in human behaviour and a scientific approach to problem solving are important skills for a psychologist.

You will also need excellent communication and interpersonal skills. You must be able to build a trusting, constructive relationship with clients. Many psychologists also need strong team skills; for example, clinical psychologists may work alongside consultants, nurses, occupational therapists and social workers. The ability to express your findings, including in reports, is an important part of many psychologists' careers.

This work can be very demanding, so you must be generally enthusiastic and able to bounce back from setbacks. You are likely to be involved with some clients who have severe

problems, who display vulnerability and extremes of emotion. You must therefore be resilient and able to avoid becoming burdened by the difficulties you encounter. This means having a calm, professional approach at all times. You must also have a strict respect for your clients' confidentiality.

Nature of Work

Psychologists may work in a wide variety of settings, including schools, universities, hospitals, private clinics, government offices, corporations and small businesses. Psychologists primarily work in one of two broad areas: basic psychology or applied psychology. Basic (research) psychologists investigate physical, emotional, social, cognitive and biological bases of human thought and behaviour. They often conduct experiments and may work at a colleges or universities, or they may be employed by a business or government office.

Applied psychologists use their knowledge of human behaviour to solve real life problems or help people overcome psychological problems. Applied psychologists may work directly with clients in a health care setting, such as in a hospital, mental health clinic, school or private practice. Other applied psychologists may work in government, industry, business or nonprofit settings. In addition to applying their knowledge of psychology directly, these professionals may also perform research, offer training, design products, create programs or provide psychological advice.

Job Prospects

There are different job prospects available for a psychology post graduate in a variety of settings. Some among them are:

- Psychologist
- Counsellor
- Teaching
- Trainer
- Psychotherapist
- Life skill Trainer
- Career Guidance
- Industrial psychologist
- Human Resource Development
- Criminologist

- Vocational psychologist

- School psychologist

- Military psychologist

- Forensic psychologist

- Sports psychologist

- Education of differently abled

Trends

According to WHO statistics those who suffer from psychological problems and in need of professional help is increasing day by day. In India there is a huge scarcity of trained psychologists. International job trends also show a huge demand of trained psychologists.

Branches

Child psychology, Clinical psychology, Counseling psychology, Developmental psychology, Industrial psychology are different branches of psychology. A psychologist should have a desire to help people with mental or emotional problems and diagnose mental ailments. New thinking about mental health and care increases opportunities for clinical psychologists. A clinical psychologist can find jobs in mental health hospitals and clinics and do private practice as consultant psychologist or counselor. Teaching, education, research are other major avenues. The other main branches are: Educational and School psychology, Health psychology, Environmental psychology, and Psychological Testing.

Rare Specializations

- Psychology graduates can choose some rare specialization for their higher studies:

- Neuropsychology

- Psycho-oncology

- Forensic psychology

- Criminology

- Peace psychology

- Aviation psychology

- Behaviour genetics

Institutes

Those who have passed Plus Two in any stream can seek admission to the degree course in psychology. The marks in the qualifying examination will be taken into account for selection.

In Kerala

1. BA/BSc (Govt./Aided)
2. Govt. College for Women, Vazhuthacaud, Thiruvananthapuram
3. Mahatma Gandhi College Kesavadasapuram, Thiruvananthapuram
4. Sree Narayana College Chempazhanthy, Thiruvananthapuram
5. Fatima Mata National College Kollam
6. Union Christian College Aluva
7. Kuriakose Elias College Mannanam
8. Govt. College Kuttanellur, Thrissur
9. Prajyoti Niketan College Pudukad, Thrissur
10. HM College, Manjery, Malappuram

BA/BSc (Unaided)

1. AWH Special College Kokkad, Hosdurg, Kasaragod
2. Little Flower Institute of Social Science and Health, Kaithapoyyil, Calicut
3. Christ College Irijalakuda, Thrissur
4. St. Joseph's College, Irinjalakuda, Thrissu
5. Wadihudha Institute of Research and Advanced Studies

PG/M PHIL/ PhD

1. Dept. of Psychology, University of Karyavattom, Tvm
2. Govt. College for Women, Vazhuthacaud, Tvm
3. School of Behavioural Sciences, Mahatma Gandhi University, Kottayam
4. Union Christian College, Alluva
5. Dept. of Psychology, University of Calicut, Thenjipalam, Malappuram
6. Mother Arts and Science College, Peruvallur, Thrissur
7. Prajyothi Nikethan College Puthukad, Thrissur

Outside Kerala

1. Bharathiar University, Coimbatore, Tamilnadu
2. Avinashalingam Institute for Home Science and Higher Education for Women, Coimbatore

3. Annamalai University, Annamalai Nagar, Tamilnadu

4. Mother Teresa Women's University, Koddaikanal

5. Pondichery University, Puducherry

6. University of Madras, Chennai

7. University of Mysore, Mysore

8. Andhra University, Visakhapatanam

9. University of Mumbai, Mumbai

10. Delhi University South Campus, New Delhi

11. Jamiya Milia Islamia, Faculty of Humanities, Jamia Nagar, New Delhi

12. Nagpur University, Nagpur

13. Faculty of Science and Technology, University of Mysore, Mysore

Premier Institutes

1. The National Institute of Mental Health and Neuro Sciences (NIMHANS) Bangalore

   http://www.nimh.nih.gov/

2. Central Institute of Psychiatry (CIPR) Ranchi

   www.cipranchi.nic.in

3. National Brain Research Institute

   http://www.nbrc.ac.in/

4. National Institute for Mentally Handicapped (NIMH) Hyderabad

   http://www.nimh.nih.gov/

5. Jawahar Lal Nehru University (JNU), New Delhi

   http://www.jnu.ac.in/

6. All India Institute of Medical Sciences, New Delhi

   http://www.aiims.edu/

7. Defence Institute of Psychological Research (DIPR)

   http://drdo.gov.in

8. Tata Institute of Social Sciences (TISS)

   http://campus.tiss.edu/

BCVT (CARDIO VASCULAR TECHNOLOGY)

Introduction

Cardio Vascular Technologists and Technicians and Vascular Technologists use Imaging Technology to help physicians diagnose cardiac (heart) and peripheral vascular (blood vessel) ailments in patients. They assist physicians in the diagnosis and treatments of cardiac peripheral vascular conditions. There is huge demand for technicians specializing in cardiovascular devices who assist doctors in diagnostic and prognostic methods. Categorically speaking, a cardiovascular technician or technologist or a person dealing with methods and devices that helps to diagnose heart diseases.

Content

The cardio vascular technology courses generally include topics like gross human anatomy, anatomy of cardio vascular system, physiology, pathology and pathophysiology, microbiology, pharmacology, electro cardiography, EEG, clinical training at echocardiography, EEG, etc,

Eligibility

B Sc Cardio Vascular Technology

10+2 with Physics, Chemistry and Biology with 50% marks

Personal Traits

This field requires someone who is confident and not afraid to work in life and death situations to take care of critically sick patients. He/she should be meticulous, focused, careful, practical, consistent, observant, hard-working, technical, computer-savvy, caring.

Nature of work

Cardiovascular technologist prepare patients for invasive procedures, monitor the patient's blood pressure and heart rate with EEG equipment, notify cardiologist immediately of any changes in patient's condition as well as assist the cardiologist during the procedures.

Job Prospects

Because heart conditions are among the leading causes of illness in older populations means that the demand for cardiovascular technicians and technologists should increase significantly. It is safe to say this is a field which will offer very strong job opportunities for the foreseeable future.

Institutes

1. Cochin University of Science & Technology , Kochi
2. College of Engineering Trivandrum
3. Pondicherry University , Pondicherry
4. GMC , Thrissur
5. GCN , Kottayam
6. Calicut Medical College , Calicut
7. Devaki Amma Memorial College of Pharamacy , Chelembra
8. KLE University
9. MGM Institute of Health Science
10. St Jhon's Medical College , Bangalore

RADIOLOGICAL TECHNOLOGY

Introduction

A Radiologic Technologist, also known as Medical Radiation Technologist and as Radiographer, performs imaging of the human body for diagnosis or treating medical problems. Radiologic technologists work in hospitals, clinics, and private practice.

Radiologic technologists use their expertise and knowledge of patient handling, physics, anatomy, physiology, pathology and radiology to assess patients, develop optimal radiologic techniques or plans and evaluate resulting radiographic images.

Radiologic technology modalities (or specialties) includes: Diagnostic radiography;

Sonography Fluoroscopy CT (computed tomography); MRI (magnetic resonance imaging); Nuclear medicine; Radiotherapy; and Mammography.

Content

Radiological courses will focus on topics like Anatomy and Physiology, X-ray equipment, Professionalism, Pathology, Patient care, Radiobiology and Protection, Radiological and Radiographic Techniques.

Diploma in X Ray Technician

Eligibility

10+2

B Sc in Imaging Technology Radiography

B Sc Medical Radiological Technology

B Sc Radiography and Imaging

B Sc Radiography

B Sc Radiology

Eligibility

10+2 Science with 50% of marks

M Sc Medical Imaging Technology (Radiology)

Eligibility

Bachelor Degree in Science in Medical Technology (Radiography).

Personal Traits

Radiology techs must have the people skills to deal with highly stressed patients. This includes active listening so that they become aware of patient concerns, and have the verbal ability to carefully explain the procedures and results. People skills are also useful for dealing

with medical professionals from whom they receive requests and submit the diagnostic results.

Nature of Work

Radiologic technologists must follow the Physician's orders precisely and conform to regulations concerning the use of radiation to protect themselves, their patients, and their coworkers from unnecessary exposure. In addition to preparing patients and operating equipments, radiologic technologists keep patient records and adjust and maintain equipments. They also prepare work schedules, evaluate purchases of equipment and even manage a Radiology Department

Institutes

1. All India Institute of Medical Sciences (AIIMS), New Delhi
2. Appollo Institute of Hospital Management and Allied Sciences, Chennai
3. Christian Medical College, Vellore
4. Dharbhanga Medical College and Hospital, Dharbhanga
5. Dr. B. R. Abedkar Medical College and Hospital, Bangalore
6. Dr. M. V. Shetty Institute of Health Sciences, Mangalore
7. Agarthala Government Medical College, Agarthala
8. Gauhati Medical College, Kamrup
9. Madras Medical College, Chennai
10. Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
11. National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore
12. In Kerala Diploma courses are provided by various institutes. The admission procedure is done by LBS, Trivandrum. www.lbskerala.com

RAILWAYS

Introduction

Indian Railways, the largest employer in the country functions under Ministry of Railways, Government of India. It is the second largest railway network in the world; divided in to 17 zones and thousands of employment opportunities are available in 4 Groups - A B C D. Every year, Indian railways generate lot of job openings to a large number of Indian nationals. It requires a variety of people at the Administrative, Technical and Non Technical operations, to work together for the smooth functioning of the rail systems. Candidates with qualifications ranging from 10th standard to Engineering graduates can find job openings in the varied operations of the Indian Railways. The selection is based purely on merit and is subject to the rules and regulations framed by the Ministry of Railways (Railway Board). Reservations of posts for candidates belonging to Scheduled Caste, Scheduled Tribe, Other Backward Castes and Ex-servicemen are made in accordance with rules framed by the Government of India from time to time.

Job Opportunities in Railways

❖ Railway jobs are divided into 4 basic groups – Group A, Group B, Group C and Group D. Employees belonging to Group A and Group B are gazetted officers. The Railways selects its officers into Railway job Group A through the UPSC exams.

❖ Recruitment of Group C- Officers are done through the Railway Recruitment Boards (RRBs).

❖ Recruitment for Group D -The Group D recruitment is done at the divisional level.

Recruitment for Group A

The highest ranking officers of Railways are in the Group A category whose recruitment is directly done by the UPSC by a written exam followed by the interview or group discussion. This recruitment is done by the Combined Engineering Services Examination, Combined Medical Services Examination and Civil Services Examination.

Eligibility

The minimum eligibility required for the Group A services

Through Civil Service: is Graduation in any discipline or an equivalent qualification

Through Engineering Service Exam: Degree in Engineering or M.Sc Degree or its equivalent

Through Combined Medical Service: Degree in Medicine- M.B.B.S (for medical service) from any recognized University.

Through the Civil Services Exam, the services included are

- ❖ Indian Railway Traffic Service
- ❖ Indian Railway Accounts Service
- ❖ Indian Railway Personnel Service
- ❖ Railway Protection Force.

The Combined Engineering Services Exam leads to the recruitment of officers into the following services.

- ❖ Indian Railway Service of Engineers
- ❖ Indian Railway Stores Service
- ❖ Indian Railway Service of Mechanical Engineers
- ❖ Indian Railway Service of Electrical Engineers
- ❖ Railway service of Signal Engineers.

Different Medical Careers in Railways – Government Health Care Jobs

Indian Railways require various job positions through direct recruitment for different Health Care Jobs. All these fall under non technical jobs of Railways. The main work area for these employees being in railway hospitals and also at the time of emergency to provided immediate medical support.Qualification required for Health Care Jobs in railways is B.Sc or Diploma in respective field such as nursing, Pharmacist, Radiographer etc.

Selection Process Includes

- ❖ Single stage Written Examination,
- ❖ Aptitude Test and
- ❖ Verification of Document

Various Health Care Jobs in Railways are

- ❖ Staff Nurse
- ❖ Health and Malaria Inspector
- ❖ Pharmacist
- ❖ Physiotherapist
- ❖ Lab Assistants
- ❖ Radiographer.
- ❖ Lab Technician.
- ❖ Lab Assistant - Medical

Through the UPSC Special Class Railway Apprentice Examination the personnel in Indian Railway Service of Mechanical Engineers can also be recruited. All the officers of Group A are trained in the appropriate section among the six centralized training institutes in the country.

Recruitment for Group B:

No special examinations are held for Group B officers. They are directly promoted from Group C staff. Railway Recruitment Boards (RRBs) make appointments to Group B services posts.

Group B Services see below

Recruitment for Group C:

The Group C posts are divided in to Technical and Non Technical staff.

A- Technical Cadre Examination

Technical posts includes

- ❖ Loco Pilots
- ❖ Motor men
- ❖ Guards
- ❖ Signal and Mechanical Inspectors etc

RRBs conduct Technical Cadre Examinations. ie, Written Tests and Interviews to recruit candidates. These tests are prepared as per the educational qualifications prescribed for various posts. Aptitude test wherever prescribed is related to testing the candidate's perception, analytical and reasoning skills with reference to safety concerns. Medical fitness according to the Railway specifications is a must before appointment.

Eligibility

Age limit for this particular job in Indian railway is between 18 years to 20 years.

Educational qualification for Assistant Loco Pilot and Loco pilot is Diploma in respective field which include Mechanical, Automobile, Electrical, Electronics as per AICTE rules. Students who completed ITI with respective fields can also apply.

Selection process involves 1. Written exam 2. Aptitude test and followed by 3. Verification of documents. For detailed information and online application visit to official website http://www.rrcb.gov.in/rrbs.html.

Pattern/Syllabus

Objective/subjective type questions, General English, General General-Arithematic, Analytical and Quantitative skill and knowledge in the concerned area/Technical qualification for the post.

B-Non Technical popular Categories (NTPC)

Group C -The various Non Technical categories include

- ❖ Clerks,
- ❖ Assistant Station Masters,
- ❖ Ticket Collectors,
- ❖ Trains Clerks,
- ❖ Commercial Apprentice,
- ❖ Traffic Apprentice,
- ❖ Stenographers
- ❖ Junior-cashiers etc.

Eligibility

Recruitment of Group C officers is done through the Railway Recruitment Boards (RRBs) in the country.

Pass in the Matriculation or its equivalent with not less than 50% marks in aggregate.

Minimum percentage of 50% marks in aggregate is not applicable to SC/ST candidates and to those candidates (Irrespective of community), who possess qualifications higher than matriculation such as SC/Intermediate/Graduation/Post Graduation.

Most of the posts require the candidates to pass the written tests which are followed by interview.

After the selection in these candidates, they are required to pass through a medical test.

The age criteria for majority of these posts is within the limits of 18 to 27 years while the educational qualifications varies from post to post, which can range from matriculation pass to Graduation from a recognized University.

Pattern/syllabus

Objective type questions in General English (and /or Hindi), Mathematics, General Knowledge, General Intelligence, current affairs and information about Railway are included in the exam. Medical fitness according to the Railway specification is a must before appointment.

Group C and Group D are non-Gazetted subordinate posts. Group C comprises of clerical staff, supervisors and skilled labourers while unskilled and semi-skilled labourers fall under the Group D class. Group C and D employees are recruited through 21 Railway Recruitment Boards, located at different parts of the country, which are controlled by the Railway Recruitment Control Board (RRCB). Some of the posts and its qualifications are given below.

Sl. No:	Post	Qualification
1	Enquiry-cum-Reservation Clerk	Degree
2	Jr. Accounts Asst.	Degree : Eng. typing 30 wpm, Hindi typing 25 wpm
3	Prob. Astt. Master Rly. Station	Degree/ Diploma in Traffic & Management preferred
4	Apprentice Signal Inspector- grade I	B.E. (Elect/ Electro/ Telecom
5	Apprentice Signal Inspector (Gr. III)	Dip. (Mech/ Elect/ Electro/ Telecom) or B.Sc. (Physics)
6	Trainee Elect	BE (Mech/ Elect/ Foreman Electro)
7	Apprentice Inspector Apparent. Permanent way Inspector (Gr.lll)	Dip. (Civil/ Mech/ Electro))
8	Apprentice Train Examiner	Degree
9	Guard	Degree
10	Law Asst	Degree in Law
11	Statistical Astt.	MA/ M.Sc. with Eco/ Statistics/ Maths
12	Stenographer (Eng)	Matriculation and proficiency in Eng. Stenography 80 w.p.m. Eng. Typing 40 w.p.m.)
13	Accounts Clerk	: Matriculation
14	Trainee Asst.	Matriculation and Driver (Elect/ Diesel) Cert. from ITI
15	Apprentice	Mechanic Dip in Elect. Engg. (DH/ Elect))
16	Skilled Artisan	Matriculation and ITI Cert.)

Qualification For Various Jobs (Group C)

Traffic Department

1	SMs	Diploma in Rail transport &management.
2	Traffic Signalers	Matric with 50%
3	Guards	Degree
4	Train Clerks	Matric with 50% marks

Commercial Department

5	Ticket Collectors	Matric with 50% marks
6	Coml. Clerks Coaching & Goods	Matric with 50% marks
7	Enquiry and Reservation Clerks	Degree
8	Law Asstt.	Degree law

Catering

9	Catering Manager III	Matric with diploma in Catering
10	Catering Manager Gr. I &II	10+2 diploma in Catering Exp. 2 years
11	Asstt. Cook	
12	Sr. Cook	Matric

Transportation (Power) Dept.

13	First Fireman	Matric
14	Train Examiner	Diploma in Mech/Elec/Civil Eng.

Civil Engineering

15	PW Mistry	10+2 with Science & Mathsdiploma Civil
16		Eng./Elec/Mech.
17	P.W. Inspector	Diploma Civil Engg.
18	IOW	Diploma Civil Engg.
19	Bridge Insp.	Diploma Civil Engg.
20	Signal Insp.	Diploma Tele or BSc Physics
21	Tele Insp.	Diploma Electronic/Tele/Radio .Engg.BSc Physics
22	E	Matric. ITT Certificate Electrician/Fitter/Wireman
23	Mech. MSM	Matric. ITT Certificate Electrician/Fitter/Wireman
24	Maintainer	ITI Certificate Elec./Radio/Wireman
25	Telephone	Matric
26	Draftstman	Diploma Engg. College

Stores

27	A. Stores Keeper,	Diploma Engg.
28	Skilled Artisans	Diploma Engg.
29	Staff Nurse	Certificate as Registered Nurse/ mid-wife 3 years course
30	Physio –Therapist	Diploma Physiotherapy from a recognized Institution
31	Pharmacist	As per Pharmacy Act Section 31/32
32	Health/ Malaria Insp.	Matric diploma from a recognized institution
33	Radiographer	Matric with Physics &chemistry
34	Lab Staff	Matric with Science with 1yr/ experience
35	Dietician	B.Sc Science 10yrs. experience Diploma in Dietician
36	Midwife	Diploma in Midwifery

Accounts And Other Departments

37	Shroffs	Matric
38	Cashier	
39	Actts. Clerks	Matric with 50%marks
40	Sr.Acts. Clerk	Degree
41	Clerks of all Dept. except	Matric with 50% marks
42	Typist	Matric with 50% marks
43	Stenographer	Matric, Type writing & shorthand

Recruitment for Group D:

The Group D recruitment is done at the divisional level. Following group 'D' Posts done by RRB.

❖ Porter - Transp.

❖ Gateman - Transp

❖ Parcel Porter.

❖ Helper Grade II-Mech, Elect,S&T

❖ Trackman - Engg.

❖ Safaiwalla

❖ Peon(Civil engg.)

❖ Helper(S&T)

❖ Khalasi/Peon (Tech Deptt)

Eligibility

10th Pass / ITI and Physical Efficiency Test. Candidates who have qualified in Physical Efficiency Test will be called for a written examination. For the all above vacancies, the age limit will be 8 to 33 years. (Relaxation as per extent rules). There will be no interview.

Syllabus

The question paper for the written examination shall be based on class 10th consisting of multiple choice objective type questions aimed to assess GK, Mathematics, and reasoning etc. These posts are advertised in the Employment News and respective websites of the concerned Railway zones. To know the position of vacancies advertised by these RRBs you can log on to their websites.

RRB Boards Name	Official Website
1. RRB Ahmadabad	• www.rrbahmedabad.gov.in
2. RRB Ajmer	• www.rrbajmer.org
3. RRB Allahabad	• www.rrbald.gov.in
4. RRB Bangalore	• www.rrbbnc.gov.in
5. RRB Bhopal	• www.rrbbhopal.gov.in
6. RRB Bhubaneswar	• www.rrbbbs.gov.in
7. RRB Bilaspur	• www.rrbbilaspur.gov.in
8. RRB Chandigarh	• www.rrbcdg.gov.in
9. RRB Chennai	• www.rrbchennai.net
10. RRB Gorakhpur	• www.rrbgkp.gov.in
11. RRB Guwahati	• www.rrbguwahati.gov.in
12. RRB Jammu Srinagar	• www.rrbjammu.nic.in
13. RRB Kolkata	• www.rrbkolkata.org
14. RRB Malda	• www.rrbmalda.gov.in
15. RRB Mumbai	• www.rrbmumbai.gov.in
16. RRB Patna	• www.rrbpatna.gov.in
17. RRB Ranchi	• www.rrbranchi.org
18. RRB Secunderabad	• www.rrbsecunderabad.nic.in
19. RRB Silliguri	• www.rrbsiliguri.org
20. RRB Thiruvananthapuram	• www.rrbthiruvananthapuram.net
21. RRB Muzaffarpur	• www.rrbmuzaffarpur.bih.nic.in

Special Class Railway Apprentices' Examination

Direct Recruitment to the Special Class Railway Apprentices' is made through the Union Public Service Commission (UPSC) on the basis of the Annual Competitive Examinations. Recruitment to the Indian Railway Traffic Service (IRTS) and the Indian Railway Accounts Service (IRAS) is done on the basis of the result of the Civil Services Examination (The Indian Administrative service examination) and that to the Indian Railway services of Engineers (IRSE), Indian Railway Service of Electrical Engineers (IRSEE) and

Indian Railway Services Stores (IRSS) is made on the basis of the Combined Engineering Service Examination.

For Recruitment to the Indian Railway Service Mechanical Department, there is a dual method, one is by Combined Engineering Service Examination and the other is UPSC Special Class Railway Apprentices' Examination. Approximately, 50 percent are recruited as the Special Class Railway Apprentice through the U.P.S.C. Exam. This examination is held once a year, generally in the month of July. Sample copy of the application forms and other particulars are published in the Employment News, usually in the month of February.

Tentative Schedule

1. Notification of Examination – February
2. Conduct of Examination – July

Eligibility

The applicants must have passed Plus Two with Mathematics, Physics and Chemistry in first or second division or equivalent grade or should be Graduates with Mathematics and Physics or Chemistry as one of the subjects. Those appearing for the final qualifying examination may also apply. The candidates should be between 17 and 21 years of age as on January 1, 2014, the upper age limit relaxed by five years for those belonging to the Scheduled Castes and the Scheduled Tribes and up to three years for those from the Other Backward Classes. Detailed eligibility criteria are given in the notification. The eligible candidates will be issued e-admission certificates on www.upsc.gov.in three weeks before the examination.

Age – limits

17-21 years on 1st August of the Year of examination

Certain categories of persons as specified in the Notice are eligible for age relaxation

Scheme of Examination

The written examination consists of three papers carrying a maximum of 600 marks. Paper I is a General Ability Test (English, General Knowledge and Psychological Test). Paper II tests skills in Physical Sciences (Physics and Chemistry) and Paper III is of Mathematics. Each is of two hours and 200 marks. All papers have objective-type multiple-choice questions.

A personality test of 200 marks will be held for candidates who pass the written examination.

Part I: Written Examination carrying a maximum of 600 marks in the subjects as shown below				
Paper	Subject	Code Number	Time allowed	Maximum Marks
Paper – I	General Ability Test (English, General Knowledge and Psychological Test	01	2 hours	200
Paper – II	Physical Sciences (Physics and Chemistry	02	2 hours	200
Paper – III	Mathematics	03	2 hours	200
	Total			600
Part II	Personality test carrying a maximum of 200 marks in respect of only those candidates who are declared qualified on the basis of the written examination			

❖ Indian Railway Service of Mechanical Engineers (IRSME)

❖ Indian Railway Traffic Service (IRTS)

This branch of the Indian Railways look after transportation and commercial matters pertaining to transportation. The branch is further divided into two divisions:

➢ The Commercial Division: This division deals with all commercial responsibilities like ticket checking, catering, administration and management of stations, reservation, platform announcements etc.

➢ The Operations Division: This division deals with controlling the movements of trains, keeping a check on incoming and outgoing trains.

A career with the IRTS begins with 3 years of probationary training. The training is carried out for 2 years at Lal Bahadur Shastri Academy of Administration in Mussourie, zonal Training Centres and in Corporates and on the job training.

➢ Indian Railway Accounts Service (IRAS)

This branch of the Railways deals with the accounting and finance operations of the Indian Railway. Appointed officers of the IRAS begin their careers with two years of probationary service.

➢ Indian Railway Personnel Service (IRPS)

This division handles all matters relating to recruitment, promotions, training and even staff welfare, staff welfare activities, transfers, disciplinary actions and so on. The officers of the personnel department also undergo a 3-year probation period.

➢ Railway Protection Service/ Railway Protection Force

This branch of the Indian Railway Services operates as other para-military forces. They are responsible for the maintenance of law and order on trains and on premises owned and used by the Indian Railways. On recruitment a RPF officer undergoes training for 3 years at Baroda, Lucknow and Police training establishments.

➢ Indian Railway Engineering Service

It is the technical side of the Indian Railways and is engaged in activities like installation, maintenance, construction and planning of railway tracks, bridges and buildings.

Trends

Railway Recruitment Board is one of the pioneers in drafting recruitment procedures for one of the most aspiring career opportunities in India. Indian Railway have the record breaking credibility of being one of the largest employers in the world. Being a public sector employment opportunity, railway jobs offer one of the most assuring careers for any youngster in India. With inclination towards public sector openings and its added advantages like attractive perks, accommodation, in-time promotions, flexible work hours with post retirement benefits, jobs in such sector are socially organized.

Railway Recruitment Board, Thiruvananthapuram
(For Southern Railway)

It caters to the recruitment needs of all Group 'C' vacancies of Thiruvananthapuram, Palghat and Madurai Divisions of Southern Railway. The candidates recruited by this Recruitment Board are liable to be posted anywhere on Southern Railway.

Railway Recruitment Board, Thiruvananthapuram, functions directly under the control of Railway Recruitment Control Board, Ministry of Railways, Rail Bhawan, Raisina Road, New Delhi - 110 001.

Postal Address	Railway Recruitment Board, Thampanoor, Thiruvananthapuram – 695001
Telephone Number	0471-2323357

The Institute of Rail Transport [IRT]

The Institute of Rail Transport [IRT] was incorporated in 1964,with its headquarters in New Delhi. The IRT is managed by a Governing Council which includes Chairman and

Members of the Railway Board, the General Managers of the Zonal Railways Production units and other Senior Railway Personnel. This is the only institution where railway men from all departments and non-railway men can meet and interact freely without any inhibition and departmental bias. IRT has also given attention to the advances in Telecommunication, Computer Technology as they develop interfaces with Transport Technology.

The Institute conducts the following Four (4) Diploma Courses

Rail Transport and Management

The following One Year Correspondence Diploma Courses in "Rail Transport and Management" ,Transport Economics& Management , Multi-Model Transport &logistics Management are of immense benefits to students, railway men and professionals.

The diplomas have been recognized by the Ministry of Railways as additional desirable qualification for recruitment to categories of Assistant Station Master and Traffic/Commercial Apprentice and for supervisory grades in Electrical, Mechanical, Civil Engineering and other departments of Railways.

Transport Economics & Management

The one year correspondence diploma course is likely to benefit fresh graduates from Universities desiring specialization in Transport Economics & Management and seeking employment opportunities in the related fields and those who are already working in any of the Organizations/Ministries dealing with Transport and desiring to upgrade their knowledge.

➢ The duration of the course is one year, from January - February every year.

Multi-Modal Transport (Containerization) & Logistics Management

The course include Transportation , Freight forwarding, Cargo handling, Customs house agents, Shippers, Containers and those dealing with Logistic Management.

➢ The duration of the course is one year, from March - April every year.

These two diploma courses have also been recognized by the Ministry of Railways as additional desirable qualification for requirement to the posts in the Commercial, Operating, Electrical, Mechanical and Civil Engineering Departments.

Eligibility

Candidates having a Bachelor's Degree or a Diploma in any Engineering Discipline from a recognized University/Institute are eligible to apply for the above 3 courses.

Trends

Those interested in the promotion of transport can avail individual membership or institutional membership. Those who are having organizations dealing with transport can arrange to depute the staff to join the diploma course outlined above. It will make them perform their duties more effectively. In the years to come, it is expected that the Institute will play a significant role in the South Asian Region.

Institute Of Rail Transport

Room No. 17, Rail Bhavan,

Raisina Road,   New Delhi – 110 001

Ph – 011-2338 4171, 2338 4362, 2330 3236, 2330 4147

Email – irtindia3@gmail.com, irt@nde.vsnl.net.in

Six Production Units Provide Plenty of Opportunities For Technical / Engineering Graduates.

1. Chittaranjan Loco Works
2. Diesel Locomotive Works
3. Diesel-Loco Modernisation Works
4. Integral Coach Factory
5. Rail Coach Factory
6. Rail Wheel Factory

The Following Are The Subsidiary Organizations Of Indian Railways Which Cater To The Diverse Needs Of The Railway Zones Throughout The Country.

1. RITES Ltd.
2. Konkan Railway Corporation's.
3. RAILTEL Corporation of India Ltd.
4. Mumbai Railway Vikas Corporation
5. Pipavav Railway Corporation Limited
6. Central Organisation For Modernisation of Workshops
7. Centre for Railway Information System
8. Container Corporation of India Ltd.

9. Indian Railway Catering and Tourism Corporation Ltd.

10. Indian Railway Finance Corporation

11. IRCON International Ltd.

The Following Associated Organizations Also Offer Wide Career Opportunities In Indian Railway.

❖ IT Projects under CAO/FOIS

❖ Indian Railway Welfare Organisation (IRWO)

❖ National Rail Museum sites (NRM)

❖ Palace on Wheels (RTDC Website)

❖ Rail Land Development Authority (RLDA)

❖ Rail Vikas Nigam Ltd. (RVNL)

❖ Research Design and Standards Organisation (RDSO)

❖ Workshop Projects, Patna

❖ C-TARA

Railways Have Own Training Institutes To Train And Develop Its Workforce Which Is A Continuous Process.

Centralised Training Institutes

1. Indian Railways Institute of Electrical Engineering (IRIEEN)

2. Indian Railways Institute of Mechanical and Electrical Engineering (IRIMEE)

3. Indian Railways Institute of Signal Engineering and Telecommunications (IRISET)

4. National Academy of Indian Railways, Vadodara (NAIR)

5. Indian Railways Institute of Civil Engineering (IRICEN)

6. Indian Railways Institute of Transport Management (IRITM)

RESPIRATORY THERAPY

Introduction

The Respiratory Therapists treat people with disorders affecting the cardiopulmonary system such as asthma, emphysema, pneumonia, cardiovascular disorders, and trauma. In the hospital setting, the Respiratory Therapist provides care and life support to patients in the Emergency room, Intensive Care Units, General Hospital areas, Pulmonary Diagnostics Laboratories and other specialty areas such as Rehabilitation. Respiratory Therapists evaluate, treat and care for patients with breathing disorders.

Content

The course content generally includes topics like Human Anatomy and Physiology, Microbiology, Physics, General Psychology, Developmental Psychology, and Public Speaking etc.

Courses

Bachelor in Respiratory Therapy

Eligibility

10+2 with Physics, Chemistry, Biology

Master in Respiratory Therapy

Eligibility

B Sc Respiratory Therapy

Personal Traits

❖ Willingness to work irregular hours
❖ Compassion
❖ Sacrifice
❖ Passion to continue learning
❖ Enjoy teamwork
❖ Excellent work ethics

Nature of Work

Respiratory Therapists (RTs) are trained as "physician-extenders" and are a very important part of a healthcare team. As the name implies, respiratory therapists treat patients with problems related to breathing, such as issues of people suffering from lung disease. They are Patient Care Managers who not only determine the need for respiratory care services but actually administer that care directly to patients.

Job Prospects

Career opportunities will remain good in the near future because of the substantial projected growth of the middle-aged and elderly population. As this population grows, the incidence of lung disease will also increase requiring more services from respiratory therapists. Many therapists can still expect to work in the hospital setting. However, opportunities outside the hospital will continue to grow in Respiratory Therapy Clinics, Diagnostic Clinics, Physician Offices, Nursing Homes, and Patient Homes.

Institutes

1. Kanyakurmari Government Medical College, Kanyakumari, Tamil Nadu
2. Amrita Institute of Medical Sciences (AIMS), Kochi
3. IGNOU, New Delhi
4. Manipal University, Manipal, Karnataka
5. SRM University Kanchipuram, Tamil Nadu
6. Nizam's Institute of Medical Sciences, Hyderabad
7. Sri Ramachandra Medical College & Research Institute Porur Madras

SANSKRIT - COURSES & CAREERS

Introduction

Sanskrit is a very ancient language and a great storehouse of various types of Sanskrit literature. Vedas, Puranas, Legends etc are written in Sanskrit . It includes Science, Medicine, Astronomy, Astrology, Mathematics, Economics, Law etc. In all branches of knowledge the authentic works are available in Sanskrit only. Sanskrit is closely related to Yoga, Ayurveda, Astrology, Archeology, and Manuscriptology. Sanskrit knowledge is very useful to gain expertise on the ancient poetry and historical knowledge of India. Sanskrit has been made as a mandatory subject in many corporate institutions. The candidates doing research in Sanskrit after completing higher degrees in the respective field have a lot of job opportunities in the field of teaching itself. Along with it they also have good opportunities in translation, research and manuscriptology also.There are Nine Sanskrit universities in all over India.In Kerala SreeSankara University of Sanskrit, Kalady is among them.The major fields that Sanskrit students join as a career include Teaching, Research and Civil Services, but subjects such as Library Science, Law, Water conservation, Archaeology, Environmental science and Media are also becoming the preferred choice of Sanskrit students.

Content

Sanskrit Sahitya, Vyakarana, Vedanta, Philology, Philosophy, History of Sanskrit Literature. etc.

Eligibility

- ❖ BA Sanskrit   -Pass Higher Sccondary with Sanskrit/Prak-Sastri
- ❖ MA Sanskrit   BA Sanskrit,Any Degree with part II Sanskrit/ Sastri
- ❖ M.Phil -MA Sanskrit with 50% Marks/Acharya
- ❖ Ph.D -MA Sanskrit/Acharya with 55%marks&NET or M.Phil or Pass Entrance Test conducted by the Universities.
- ❖ B.Ed   -50% marks in BA Sanskrit/Sastri or MA Sanskrit/Acharya.
- ❖ M.Ed   -MA B.Ed in Sanskrit/Siksha Acharya with 50% marks and pass Entrance Test conducted by the Universities.

Personality Traits

- ❖ Good Communication Skills
- ❖ Good Writing Skills
- ❖ Research Skills

Nature of Work

Teaching jobs in schools and universities. Research in Academic, Ayurvedic medicine, Yoga etc require extensive travel and inquisitiveness.

Job Prospects

- Teacher(U P S A)   -   BA B.Ed in Sanskrit
- Language Teacher (U P)   -   Plus Two pass with Sanskrit main/BA Sanskrit/BA B.Ed Sanskrit.
- HSA Sanskrit   -   BA B.Ed in Sanskrit /Siksha Acharya
- Trained Graduate Teacher (Kendriya Vidyala)   -   BA,B.Ed in Sanskrit.
- HSST Sanskrit   -   MA B.Ed in Sanskrit/SikshaAcharya& SET.
- Assistant Professor (College/University)   -   MA Sanskrit /Acharya & NET/ Ph .D.
- Assistant Professor in
- Training College   -   MA .M.Ed & NET/Ph.D.
- Assistant Professor in
- Ayurveda College   -   MA, NET /Ph.D
- Assistant Professor in Kerala   -   MA ,B.Ed.
- Kala Mandalam
- Sanskrit Special Officer(DPI)   -   MA ,B.Ed& Ph.D.
- Manuscript reader   -   MA&Ph.D in Manuscriptology.
- Translator   -   Graduation with Good proficiency and knowledge.
- News Reader   -   MA Sanskrit
- Journalist   -   Graduation with Diploma in Journalism
- Religious Teacher   -   Indian Army

Self Employment

1. Joythisham,Vastuvidya,Tantravidya.

Institutions in Kerala

BA Sanskrit.

1. Govt Sanskrit college , Thiruvanthapuram.
2. University College, Thiruvanthapuram.
3. Devaswam Board College, Kollam.
4. NSS College, Punalur.

5. SN College, Quilon.

6. NSS College, Pandalam.

7. Govt.SanskritCollege, Tripunithura.

8. Maharaja College, Ernakulam.

9. SreeSankaraCollege, Kalady.

10. Sree Krishna College, Guruvayoor.

11. Sree Kerala VarmaCollege, Trissur.

12. SreeNeelakanda Sanskrit College, Pattambi.

13. SreekrishnapuramV.T Bahattathiripad College, Palakkad.

14. Govt.Victoria College, Palghat.

15. Govt.BrennenCollege, Thalassery.

16. PayyannurCollege, Payyannur.

Branches and Colleges

1. BA Sanskrit Nyaya -Govt Sanskrit College Thiruvanthapuram., Govt Sanskrit College, Tripunithura.

MA SANSKRIT

1. Govt.Sanskrit College, Thiruvannthapuram.

2. University College, Thiruvanthapuram

3. Devaswam Board College, Kollam.

4. Govt.Sanskrit College, Tripunithura.

5. Maharaja College, Ernakulam

6. Sree Sankara College, Kalady.

7. Sree Neelakanda Sanskrit College, Pattambi.

8. Sree krishnapuram V.T.B. College, Palakkad.

9. Sanskrit Department, Calicut Universiry Campus.

10. Sanskrit Department, Kerala University Campus.

Branches and Colleges

1. M A Sanskrit, Nyaya- Govt. Sanskrit College, Thiruvananthapuram., Govt. Sanskrit College, Tripunithura.

2. M A Sanskrit Vedanta - Govt. Sanskrit College, Thiruvananthapuram., Devaswam Board College, Kollam.

3. M A Sanskrit, Vyakarana-Govt.SanskritCollege,Thiruvananthapuram.-Govt.Sanskrit College, Tripunithura.

Sanskrit University In Kerala And Study Centers

1. Sree Sankaracharya University of Sanskrit.Kalady (BA Nyaya,sahithya,Sanskrit , MA in Nyaya,Sahithya,Vedantha,Vyakarana)

2. Sree Sankaracharya University of Sanskrit, Vanchiyoor. TVM. (BA Sanskrit, MA Sanskrit in Nyaya, Sahitya, Vedanta, Vyakarana.)

3. Sree Sankaracharya University of Sanskrit, Panmana. Kollam. (MA in Sanskrit , Vadanta)

4. Sree Sankaracharya University of Sanskrit, Kottappuram ,Thrissur (MA in Nyaya, sahithya, Sanskrit)

5. Sree Sankaracharya University of Sanskrit, Ettumanur (MA in sahithya, Sanskrit)

6. Sree Sankaracharya University of Sanskrit, Thuravoor, Alappuzha (MA in sahithya, Sanskrit).

7. Sree Sankaracharya University of Sanskrit, Tiroor (MA Sahitya, Vyakarana.).

8. Sree Sankaracharya University of Sanskrit, Koyilandy (MA Sahitya, Vedantha).

9. Sree Sankaracharya University of Sanskrit , Payyanur (BA in Sanskrit , MA in Sanskrit ,sahithya,Vedantha,vyakarana

Some Important Study Centers In India.

1) International Center for Management and India Studies (formerly Centre for American Education)

   Bangalore - Bagalur Road,, Kothanur Village, India

   University Degree Program, Graduate, Professional Programs, International Study Abroad Programs

2) University of Calcutta Kolkata, West Bengal, India

   University Degree Program, Graduate, Professional Programs

3) University of Delhi

   University Degree Program, Graduate, Professional Programs

4) University of Madras

   University Degree Program, Graduate, Professional Programs

5) Vikram University Ujjain (MP)

   University Degree Program, Graduate, Professional Programs

List of Colleges and courses offered by Rashtriya Sanskrit Sansthan Study Centers in Kerala

Colleges

1. Rashtriya Sanskrit Sansthan (Deemed University)

    Guruvayoor Campus, P.O.Puranattukara,Trichur.

2. Calicut Adarsh Sanskrit Vidyapeetha, Balussery, Kozhikkode.

Courses

➢ Shastri - B.A.

➢ Acharya - M.A.

➢ Shiksha Shastri - B. Ed.

➢ Shiksha Acharya - M.Ed

➢ Vidya Varidhi –Ph.D

List of Oriental Institutes In South India

Karnataka

1. Kannada University, Hampi (MRC)
2. Keladi Museum and Historical Research Bureau, Keladi (MRC)
3. Mahabharata SamshodhanPratishthan, Bangalore (MRC)
4. National Institute of Prakrit Studies & Research, Shravanabelagola (MRC)
5. Oriental Research Institute, University of Mysore, Mysore (MRC)

Kerala

1. Oriental Research Institute and Manuscripts Library, University of Kerala, Thiruvananthapuram (MRC)
2. Sukrtindra Oriental Research Institute, Cochin

Andhra Pradesh

1. Andhra Pradesh State Government Oriental Manuscripts Library and Research Institute, Osmania University, Hyderabad (MRC)
2. Sri Venkateswara Oriental Research Institute, Tirupati (MRC / MCC)

Tamil Nadu

1. The Adyar Library and Research Centre, Adyar, Chennai
2. The KuppuswamiSastri Research Institute, Mylapore, Chennai
3. Sri ChandrashekharendraSaraswatiViswaMahavidyalaya, Kanchipuram (MRC)
4. Tanjore Maharaj Serfojis Sarasvati Mahal Library, Thanjavur (MRC / MCC)

SHORT TERM AND ADD ON COURSES

Introduction

Short term courses are the Educational or other Technical courses which can be completed within a short period. It gives extra support to our main educational qualifications and experience.

Short term courses are intended to get a job within a short period. It is basically to equip one to be a skilled labourer. This will help those in need of a job and monetary benefits.

Things we have to consider before selecting any Short Term Course

- Duration of the completion of course
- Benefits of completing that course
- Recognition of the course
- Course fees

Add on courses are intended to enrich one's skills in a scientific manner

Eligibility

SSLC with 60% in Science & Maths

Diploma in Tool & Dye making

Diploma in Electronics

Diploma in Computer Engineering

Diploma in Mechatronics For details : see Polytechnic Colleges.

(www.polyadmissionkeral.org)

Food Craft Institutes

Eligibility

SSLC pass with 45%

Courses

- Food Production
- Bakery & Confectionary
- Hotel Accommodation & Operation
- Front Office Operation
- Catering & Food Preservation

Institute

1. Food Craft Institute, Kalamassery
2. Food Craft Institute, Kozhikode

3. Food Craft Institute, Malappuram etc., forOOD CRAFT INSTITUTE – MALAPPURAM etc…for details see www.fcikerala.org

Ayurveda Pharmacy & Nursing

Eligibility

SSLC with 50% marks), Duration : I year

Institute

1. GOVT AYURVEDA COLLEGE -TVM
2. GOVT AYURVEDA COLLEGE- THRIPUNITHURA
3. GOVT AYURVEDA COLLEGE -KANNUR

PSV Ayurveda College- Kottakkal

Details

Directorate of Ayurveda Medical Education, Arogya Bhavan Building, Puthanchanda, Tvm Ph: 0471 2320664

JUNIOR DIPLOMA IN CO-OPERATION (JDC)

Eligibility

SSLC PASS –ADMISSION IS ON MERIT BASIS)

- GOVT CO-OPERATIVE TRAINING CENTRE, THALI, KOZHIKKODE
- GOVT CO-OPERATIVE TRAINING CENTRE, KANNUR
- GOVT CO-OPERATIVE TRAINING CENTRE, CIVIL LANE RD, THRISSUR

Library Certificate Course

- Thiruvananthapuram Public Library.
- Duration: 6 Months, 40 Seats

Eligibility

SSLC PASS WITH 50% MARKS

Contact

State Librarian (Course Director),State Central Library,Tvm, 04712322895

Kerala Grandhasala Sangham

Eligibility

SSLC PASS with experience)

Handloom technology

- Advanced training in handloom weaving
- Training in weaving & designing

Institute

1. Institute Of Handloom Technology, Kannur

Computer

- Advanced course in computer graphics and
- Animation course- 52weeks, cedti
- Advanced Course In Computer Animation 26 Weeks- Cedti

Audio Visual And Reprographic Centres

- Computer and dtp operation-6 months
- Advanced training in offset printing -6 months
- Office automation and salesmanship -6 months
- Word processing and data entry operation-6 months

Institute

1. Kerala state audio–visual and reprographic centre printing technology
2. Certificate in printing technology- university of calicut, vadakara centre
3. Diploma in printing technology- institute of printing technology, shoranur
4. Certificate course in offset printing- audio visual and reprographic centres

Kgte Courses

- Ten
- Diesel engine mechanic
- Electrical wireman
- Elctronic service
- Automobile

Shramik Vidya Pith

- Agarbathy
- Bridal preperations
- Umbrella
- Candles
- Soap
- Detergents

Leather

- Certificate in leather processing-clri, chennai-26 weeks

- Certificate in leather goods- clri, chennai & kolkata and in indian institute of leather products, chennai-26 weeks

- Certificate in leather garments clri, chennai &jalandhar regional centre and indian institute of leather products- 26 weeks.

- Certificate in leather footwear clri and indian institute of leather products- 26 weeks

Computer Graphics

- Advanced course in computer graphics and

- Animation course- 52weeks, cedti

- Advanced course in computer animation 26 weeks- cedti

- Certificate course in 3d animation 12 weeks, cedti

- Advanced course in graphics and multimedia- 12 weeks, cedt

- Stenography

- The stenographers guild, no:1, guild street, behind shiva- vishnu temple, t.nagar, chennai- 17

- 24/53, akbar sahib street, behind bells road, trplicane, chennai- 600005 call centre training

- Public relations

- Executive secretaryship

- Hardware and networking

- Tractor driving

- Regional engineer keral agro industries corporation ltd coimbatore road palaghat 678001 – course in tractor driving

Certificate Courses

Handloom Technology (1year)

- Weaving & dyeing

- Training in Weaving & Designing

- Advanced training in Handloom &Weaving

- Special Training in Jacquard weaving

- Training in Experts Oriented weaving

- Training in Expert Oriented Dyeing

Centres

Thottada (Kannur)

Fashion Designing

- Pattern Making

- Costume Designing

- Embroidery

Centres

Trivandrum, Thrissur, Kozhikode (Women's Polytechnic)

Photography

- Digital Photography

- Digital Still Photography

Centres

- Jan Sikshak Sansthan (Calicut)

- Sathern Film Institute (Tvm)

Beautician (3-6 Months)

- Hair & Skin Care

- Basic Beauty Care

- Herbal Beauty Care

Centres

- Regional Vocational Training Institute, Tvm

- Women's College, Tvm, Shehnas Hussain beauty parlor

Secretarial Practice (1 year)

Centres

- Regional Vocational Training Institute, Tvm

- Holy Cross, Calicut

- Architectural Draftsmanship-6 Month

Centres

- Regional Vocational Training Institute, Tvm

Apparel Training Centres (3-6 Months)

- Pattern Cutting

- Machine Cutting

- Measurement & Quality Control

Centres

- Trivandrum, Kannur…

STED (3-6Months)

- Interior Designing
- DTP
- Animation
- Office Automation

Main Centres

- Kozhikode, Ernakulam etc.
- Foot ware Technology(1year)

Centres

- NSIC - Agra, Chennai

Leather Technology (20-26 weaks)

- Certificate in leather goods
- Certificate in leather processing
- Certificate in leather garments
- Certificate in leather foot wear

Centres

- Central Leather Research Institute, Chennai
- Indian Institute of Leather Products, Chennai

Graphics & Animation

- 3 D Animation – 12 weeks
- Computer Animation – 26 weeks
- Graphics & Multimedia – 12 weeks

Centres

- CDIT Centres – Tvm, Mohali

Sugar Technology

- Sugar Boiling - 5 month
- Juice Supervision - 6 months

Centres

- Vasanth Dada Sugar Institute, Pune
- National Institute of Sugar Technology, Kamapur

Banking-Certificate Courses

- Certificate Course in Credit Card.
- Quantitative Methods for Banking and Finance

- Trade finance

Institute

- Institute of Banking and Finance, The Arcade, World Trade Centre,2-nd floor,
- East Wing Cuffe Parade, Mumbai-400005, PH: 022-22187003, Web: www.iibf.org.in

Electrical &Electronics

- Post Graduate Diploma in sugar engineering- 1½ year (NSI)
- Post graduate Diploma in plastic engineering-1 year-CIPET
- Post Diploma in CAD/CAM-1Year, Central Tool Room Training Centre, Bhuvaneswar.
- PG Diploma in energy auditing and management- non residential three months part time programme- Small Industries Service Institute, Chennai- under Ministry of small scale industries, govt of India.
- PG Diploma in Bio- Informatics- 1 yr, Jaypee Institute of Information Technology, Noida, UP.
- Advanced diploma in Fire Safety Engineering- 1 yr- Indian institute of Fire Engineering.
- Post Diploma in Fire Engineering-1 yr- Indian institute of Fire Engineering .
- Advanced Diploma in Industrial Safety- 1 yr- Indian Institute of Fire Engineering.
- Post Graduate Diploma in Management of NGO's(PGDM 'NGO')-IIRM, Jaipur .
- Postgraduate Diploma in Rural Development (PGDRD)- IIRM, Jaipur PG Diploma in Mechanical Wood Industries Technology- Indian Plywood Industries Research and Training Institute , Bangalore

Short Term Courses In Engineering

1. Advanced diploma in fire safety engineering- 1 yr- Indian institute of fire engineering
2. Post diploma in fire engineering-1 yr- Indian institute of fire engineering
3. Advanced diploma in industrial safety- 1 yr- Indian institute of fire engineering
4. Diploma in geo information technology and remote sensing- 3 months full time- institute of remote sensing and geo information technology, centre for environment and development, TVM & EKM
5. Computer Applications in Civil Engineering- 3 days, NIT-REC, Calicut

6. 1 year course for Graduate Mechanical Engineers- Merchant Navy- international Maritime institute – noida UP

Foreign Languages

Courses

Certificate / Diploma course in Foreign Languages like German, French, Spanish, Arabic, Russian, Chinese, etc

- Pass in +2.
- Duration : 6 months / 1 year / 2 year
- Cost : Rs.3,000/- (approx)
- Scope : Language Translators, Interpreters in Multi-National Companies, International Hotels, Airlines, Tourist Destinations.

Interior & Exterior Design

Ventilation, Air-condition, hotel,…

Institutes

1. School of Interior Design, Ahmadabad
2. University of Madras
3. Avinashilingam Institute of Home Science & Higher Education, Coimbatore

Diploma & Certificate Courses

- Diploma in Tuberculosis and Chest Diseases
- Diploma in Tamil
- Diploma in Linguistics
- Diploma in Pali Language and Literature
- Diploma in Modern Arabic
- Diploma in Tibetan Language and Culture
- Sangeet Shiromani (Diploma in Hindustani Music or KarnatakMusic)
- Diploma in Russian (General)
- Diploma in French (General)
- Advanced Diploma in German
- Diploma in Personnel Management
- Diploma in Marketing and Sales Manageme

Engineering & Technology

1. Plastic Technology
2. Auto Electrician

3. Electrician

4. Plumbing

5. Welding

6. Carpentary

Computer Science

1. Certificate Course in Computer application

2. Certificate Course in Information Technology

3. Data Entry

4. Advanced Multimedia, Graphic and Animation

5. Hardware Technology

Post Graduate Courses & Post Diploma

Courses

1. Post Graduate course in Tool, Die & Mould Design (PGTD)

2. Post Graduate course in CAD/CAM and Tool Engineering (PGCTE)

3. Post Graduate course in Mechatronics (PGM)

4. Post Graduate course in VLSI & Embedded Systems (PGVES)

5. Post Diploma in Tool Design (PDTD) Sl.

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5. Post Diploma in Tool Design (PDTD) Sl.

Sl. No.	Course	Duration	Qualification
I.	AGRICULTURE:		
1	Bee-Keeping [Apiculture]	Three Months	SSC Failed
2	Mushroom Culture	Three Months	SSC Failed
3	Veterinary Compounder	One Year	SSC Failed
4	Sericulture Assistant	One Year	SSC Failed
5	Farm Assistant	One Year	SSC Failed
6	Fisheries Assistant	One Year	SSC Failed
7	Gardener Training Course	Six Months	SSC Failed

Business & Commerce

8	Accountancy	One year	Intermediate
9	Taxation	One year	Intermediate
10	Salesmanship	One year	SSC
11	Typewriting English	One year	SSC Failed
12	Shorthand	One Year	SSC

Computer science

Courses

13	Web Designing & Internet	Three Months	SSC Failed
14	Computer Maintenance	Three Months	SSC Failed
15	M.S. Office	Three Months	Intermediate
16	Unix C & C++	Three Months	Intermediate
17	V.B. & Oracle	Three Months	Intermediate
18	VB & ASP	Three Months	Intermediate
19	Oracle with D2K	Three Months	Intermediate
20	Oracle with DBA	Three Months	Intermediate
21	DTP	Three Months	Intermediate
22	Auto CAD	Three Months	Intermediate
23	Accounting Package	Three Months	Intermediate
24	Computer Application	Six Months	SSC failed
25	Information Technology	Six Months	SSC failed
26	Hardware Technology	Six Months	SSC failed
27	Data Entry	Six Months	SSC failed
28	Multimedia, Graphic &Animation	Six Months	SSC failed
29	Advanced Certificate Course in Computer Application	One Year	SSC failed
30	Advanced Certificate Course in Information Technology	One Year	SSC failed

Engineering & Technology

31	Motor Driving	Three Months	SSC Failed
32	Plastic Technology	Six Months	SSC Failed
33	Auto Electrician	Six Months	SSC Failed
34	Electrician	Six Months	SSC Failed
35	Plumbing	Six Months	SSC Failed
36	Welding	Six Months	SSC Failed
37	Carpentry	Six Months	SSC Failed
38	Building Construction	One Year	SSC Failed
39	Automobile Engg.Technology	One Year	SSC Failed
40	Air-Condition &Refrigeration	One Year	SSC Failed
41	Radio & TV Technician	One Year	SSC Failed

Home Science
Courses

42	Apparel construction	Three Months	SSC Failed
43	Tie & Die, Block, Batik, Screen-printing	Three Months	SSC Failed
44	Computer based fashion designing	Three Months	SSC Failed
45	Soft Toys & Flower Making	Three Months	SSC Failed
46	Beautician course	Three Months	SSC Failed
47	Embroidery & Zig – Zag	Three Months	SSC Failed
48	Cookery	Six Months	SSC Failed
49	Bakery & confectionery	One Year	SSC Failed
50	Hotel Management	One Year	SSC Failed
51	Food Preservation &Processing	One Year	SSC Failed
52	Fashion Designing	One Year	SSC Failed
53	Textile Designing	One Year	SSC Failed
54	Interior Designing	One Year	SSC Failed
55	Preprimary Teacher Training	One Year	SSC Failed
Humanities Courses			
56	Receptionist	One Year	SSC Failed
57	Tourism Management	One Year	SSC Failed

Diploma in Engineering-Aligarhmuslim University

1. Computer Engineering
2. Electrical Engineering
3. Electronics Engineering
4. Information Technology
5. Instrumentation & Control
6. Mechanical Engineering
7. Mechanical - Production Engineering
8. Mechanical – Refrigeration and Air-conditioning
9. Plastic Technology
10. P.G. Dip. In Nanotechnology
11. Adv. Diploma in Food Technology
12. Dip. In Costume Design & Garment Tech
13. Diploma in Secretarial Practice
14. .Adv. Diploma in Multimedia System
15. Adv. Diploma in Interior Decoration

Diploma Courses In Medicine (2 Years)

1. Diploma in Optometry & Ophthalmic Assistance
2. Diploma in Operation Theatre Management
3. Diploma in Medical Laboratory Technology
4. (Pathology/Microbiology/Biochemistry)
5. Diploma in Dialysis Techniques
6. Diploma in Medical Lab. Technology (Radiology)
7. Diploma in Anaesthetic Assistance
8. Diploma in Surgical Endoscopic Techniques
9. Diploma in Dental Hygiene
10. Diploma in Physiotherapy

Certificate Courses (3-6 Months-For Women)

1. Computer Programming (BASIC)
2. MS Office
3. Tally
4. Web Designing and Publishing
5. Commercial Art

6. Beauty Culture I (Skin Care)

7. Beauty Culture II (Hair Care)

8. Textile Designing

9. Typing

10. Fashion Garments

11. Needle work

12. Interior Decoration

13. English Fluency Development Course

14. Diploma Course of Educational & Vocational Counseling (*Part-Time*)

15. PG DIPLOMA

16. P.G.Dip. in Public Relations

17. P.G.Dip. in Taxation

18. P.G.Dip. in Electronic Data

19. Processing & Machine Operation

20. P.G. Dip. in Musicology

21. P.G.Dip. in Company Law, Banking& Insurance

22. P.G.Dip. in Labour Law & Labour Relations

23. P.G.Dip. in Criminology and Criminal Administration

24. P.G. Diploma in Pest Management

25. P.G.Dip. in Laboratory Technology

26. P.G.Dip. in Gem Testing and Jewellery Designing

27. P.G.Dip. in Applied Art

28. P.G.Dip. in Orthoptics

29. P.G.Dip. in Horticulture

30. P.G.Dip. in Environmental Chemistry

31. P.G.Dip. in Food Analysis

32. P.G.Dip. in Hospitality Management

33. . P.G.Dip. in Gardening & Interior

Hamdard University

1. Diploma in X-Ray & ECG Techniques

2. Diploma in Operation Theatre Techniques

3. Diploma in Dialysis Techniques

4. Diploma in Medical Record Techniques (DMRT)

5. Diploma in General Nursing & Midwifery (DGNM)

6. D.Pharm

7. D.Pharm (Unani)

8. Pre-Tib

9. Certificate Course of Unani Dispenser

University Of Hyderabad

1. Adv. P.G. Diploma Courses (2 Semesters)

2. Mineral Exploration

3. Folk Culture studies

4. P.G. Diploma Course (2 Semesters)

5. Health Communication

List of Fake Universities / Institutions/India As Per Ugc Norms

1. Maithili University/Vishwavidyala, Darbhanga, Bihar.

2. Mahila Gram Vidyapith/ Vishwavidyala,(Women's University)Prayag, Allahabad(UP).

3. Varanaseya Sanskrit Vishwavidyala, Varanasi (UP)/Jagatpuri,Delhi.

4. Commercial University Ltd.,Daryaganj,Delhi

5. Indian Education Council of U.P, Lucknow(UP)

6. Gandhi Hindi Vidyapaithh, Prayag, Allahabad(UP)

7. National University of Electro Complex Homeopathy, Kanpur

8. Netaji Subash Chandra Bose University (Open University) Achaltal, Aligarh(UP)

9. D.D.B Sanskrit University, Putur, Trichi, Tamil Nadu.

10. St. John's University, Kishanattam, Kerla

11. United Nations University, Delhi

12. Vocational University , Delhi

13. Uttar Pradesh Vishwavidyala, KosiKalan, Matura

14. Maharana Partap Shiksha Niketan Vishwavidyala, PartapGarh UP

15. Raja Arabic University, Nagpur

16. Kaserwani Vidya Pith, Jabalpur(MP).

17. Delhi Vishwa VidyaPeeth 233, Tagore Park, Model Town, Delhi-110009

18. Badagandi Sarkar World Open University, Education Society, Gokak, Belgaum(Karnataka)

19. Bhartiya Shiksha Parishad, UP(Lucknow)

List of self styled Institution /Universities which have been declared Bogus by the University Grant and other Govt. bodies.

1. All IndiaBoardSecondaryEducation,Delhi,Bhawan, 700,GaliNo-17,GoaplPurVillage, (Timrpur) ,PO Azadpur, Delhi-110009.

2. Board of Adult Education and Training Office, Aligang(Kasturba Nagar) Kotal Mubarkpur, New Delhi,

110003.CampusRZ295,BRAHANPURINANGALAYA(RAILWAYCROSSING PUNCHKULAROAD), Delhi

3. Central Borad of higher Education East Patel Nagar, New Delhi

4. Central Borad of higher Education Uttam Nagar , New Delhi

5. Hindi Sahitya Sammelan, Prayag(Allahabad) U.P.

6. Bombay Hindi Vidyapeeth, Bombay

7. Maharishi Valmiki National University, Delhi

8. Maithili University/ Vishwavidyalaya Darbhanga, Bihar

9. Takshila Kendriya Vishwavidyalaya, Uttam Nagar(New Delhi)

10. Mahila Gram Vidyapith/ Vishwavidyalaya (Women University) Paryag, Allahabad (U.P.)

11. Varanaseya Sanakrit Vishwavidyalaya Varansi (Utter Pardesh), Jagat Puri Delhi

12. Commercial University Ltd. Darya Ganj, Delhi

13. Testator Research University Bodihaya Ranur (Tamil Nadu)

14. Sree Narayana Open University Quilon (Kerala)

15. Gandhi Hindi Vidyapith Prayag, Allahabad (U.P.)

16. National University of Electro Complex Homeopathy Kanpur (U.P.)

17. University Newjerusalem Kathuparamba Cannore (Kerla)

18. World Social work University Perunguzhi (Kerla)

19. Netaji Subhash Chander Bose University (Open University) Achaltal, Aligarh (U.P.)

20. Shrimati Mahadevi Verma Open University Mughal Sarai (U.P.)

21. D.D.B. Sanskrit University Putur, Trichi, Tamil Nadu

22. Amritsar University, Amritsar (Punjab)

23. Arya University Srinagar (Jammu Kashmir)

24. Bible University Ambur (North Arcot)

25. Eastern Orthodox University Ambur (North Arcot)

26. Blobe University of Science Kumbaronam

27. St. John's University Kizhanattam, Kerala

28. National University Nagpur

29. Self Culture University Kizhanattam

30. United Nations University, Delhi

31. Vocational University, Delhi

32. Western University of Kapurthala

33. Utter Pradesh Vishwavidyalaya Kosi Kalan Mathura (U.P.)

34. Maharana Pratap Shiksha Niketan Vishwavidyalaya Pratapgarh (U.P.)

35. Indian Education Council of U.P. Lachnow (U.P.)

36. Bhartiya Shiksha Parishad (U.P.) Open Vishwavidyalaya Lacknow (U.P.)

37. Raja Arabia University, Nagpur

38. Urdu University, Motia Park, Bhopal

39. Vocational University Amritsar

40. Uttar Pradesh Vishwavidyalaya Kosi Kalan

SOCIAL WORK

Introduction

Social work is a professional discipline that utilizes a variety of skills, techniques, and activities with a holistic focus on people and their environments. Activities and duties of a social worker include counselling, clinical social work, group work, social pedagogical work, and family treatment and therapy as well as efforts to help people obtain services and resources in the community. Interventions also include agency administration, community organization and engaging in social and political action to impact social policy and economic development. The holistic focus of social work is universal, but the priorities of social work practice will vary across communities depending on cultural, historical, and socio-economic conditions.

Content

The content of the subjects includes Sociology and Economics for Social Work, Human Growth and Development, History, Philosophy and Fields of Social Work, Community Organization and Social Action, Theory and Practice of Counselling, Development Communication, Advanced Direct Social Work Practice, Social Work Research and Statistics, Administration of Human Service Organizations, Rural & Urban Community Development, Social Work Practice With Families, Psychopathology for Social Work and field visit programmes.

Eligibility

The basic qualification needed to join the Bachelors degree in Social Work (BSW) is a pass in class 10+2. The students who have studied psychology, sociology, social work or any related fields shall be given preference. Aspirants of the BSW course will need to appear for an admission test and a personal interview conducted by the concerned university/institute. (Some institutions admit students on the basis of the marks scored in the qualifying exam).

The eligibility for Social Work Masters Degree Programme (MSW) is Bachelor of Social Work degree (BSW) from a recognized Institute. Candidates who have a Bachelor's degree in Humanities/ Social Science/Science/Commerce or Management subjects are also eligible. Students with a background in social work, psychology, social science, sociology or any other related fields are given preference.

Personal Traits

Social workers must be committed, sympathetic and empathetic while working with people. They need to possess good communication skills and must be non-judgmental in attitude. Social workers should be good observers with strong negotiation skills. This career can be emotionally and intellectually demanding.

Nature of Work

Social work goes on at three major levels. These are the individual level (case work), group work and community or organization work. Social workers are generally engaged in activities undertaken by agencies in any of these areas.

Working with individual client on a case involves face to face contact with the individual or family, joint meetings in the office, home visits, and work in a hospital or work with children at home, school or special institutions. Group work goals are generally rehabilitative in nature. Group work involves working with special groups like old, handicapped, delinquents etc. Community work involves analyzing problems of the whole community and finding possible solutions. It may involve community education or soliciting cooperation from the whole community.

School social work

Involves working with students, teachers and parents to bridge the gap between the school and the home with an effort to get the best for the child.

Medical social work

Medical social workers are found in cancer hospitals and in departments where critically ill are admitted. A social worker is trained to work with seriously ill and with bereaved families.

Psychiatric social work

There are two main work settings for psychiatric social work: child guidance clinics and psychiatric units or hospitals where a team consisting of social workers, psychiatrists and clinical psychologists work with disturbed children and adolescents.

Community social work

Community social workers specialize in working with groups who have a common problem, e.g., those facing problems of bad housing, unemployment, lack of local facilities, or minority group issues within the community.

Gerontological social work

This branch deals with care of old people.

Criminology and correctional social work

Prisons, reformatories, remand homes, crime and delinquent prevention programmes exist in every country. Social workers are trained to work to create a positive social climate for prevention of antisocial behaviors.

Labour welfare and industrial relations

In private as well as public sector enterprises employee's welfare is a major concern for maintaining a healthy industrial climate. Social workers work with personnel managers to achieve this goal.

Research

Social workers carry on social research.

Job Prospects

Professional social workers can be found in direct practice in administrative, management and policy planning positions in various Government and Non-Governmental Organizations (NGOs) as well as in government ministries. International organizations too are socially aware and hence a number of opportunities are available in international social work. Industrial and commercial units too are looking to hire social workers. Health care areas are also providing lots of opportunities for professional social workers.

Some Job Titles for Social Workers

• Health care specialist	• Aging/ gerontology specialist
• Industrial social worker	• Child welfare case worker
• Intake counsellor	• Clinical social worker
• Juvenile correction worker	• Community organization leader
• Medical/ hospital social worker	• Counsellor
• Nursing home supervisor	• Criminal justice
• Program officer/ coordinator	• Developmental disabilities specialist
• Psychiatric social worker	• Occupational social worker
• Research analyst	• Family counsellor
• School counselor	• Food stamp counsellor

Branches

Field of Practice for Professional Social Workers

Addiction / Substance Abuse	Correctional Institutions/ Prisons
Mental Health	Counseling & Therapy
Mental Retardation	Community Development
Management of Social Services	Elderly Care
Mother & Child Health	Human Resource Management
Policy & Planning Services	Medical Social Work
School Social Work	Mental Health
Social Research & Program	Mental Retardation
Evaluation Service	
Social Work Administration & Policy	
Social Work Education & Research	
Child Welfare	
Clinical / Mental Health	

Specialization
Master of Social Work Specializations

- ❖ Human Resource Management.
- ❖ Criminology and Correctional Administration.
- ❖ Medical and Psychiatric Social Work.
- ❖ Family and Child Welfare.
- ❖ Rural and Urban Community Development and Schools Social Work.
- ❖ Medical and Psychiatric Social Work.
- ❖ Urban and Rural Community Development.
- ❖ Personnel Management.
- ❖ Industrial Relations & Labour Welfare.

Colleges providing BSW courses in Kerala

- ❖ Rajagiri College of Social Sciences, Rajagiri P.O, Kalamassery , Kochi (Ernakulam Dist.) - 683104
- ❖ Ideal College for Advanced Studies, Malappuram
- ❖ Ideal International Institute of Education, Thavanur , Malappuram Dist. - 679573
- ❖ K.M.M. College of Arts and Science, Thrikkakara
- ❖ Near Model Engineering College, Pipe Line Junction , Thrikkakara, Ernakulam Dist. - 682021

List of Institutes Offering MSW in Kerala

- ❖ Rajagiri College of Social Sciences, Kochi
- ❖ Layola College Trivandrum
- ❖ Assumption College, Changanacherry
- ❖ B.C.M. College for Women, Kottayam
- ❖ Bharata Mata College, Thrikkakara
- ❖ Kuriakose Elias College, Mannanam
- ❖ Marian College, Kuttikanam
- ❖ St.Joseph's College, Moolamattom
- ❖ Al-Azhar College of Arts & Science, Perumpillichira.P.O, Thodupuzha
- ❖ Bishop Vayalil Memorial Holy Cross, College, Cherpunkal, Kottayam
- ❖ De Paul Institute of Science & Technology, Angamaly
- ❖ Jai Bharath Arts & Science College, Vengola, Perumbavoor
- ❖ M.E.S College, Propose.P.O, Erumely
- ❖ Mar Baseliose College, Adimaly
- ❖ St. Gregorios College of Social Sciences, Parumala, Mannar
- ❖ Yeldo Mar Baselios College, Kothamangalam
- ❖ Mar Augusthinose College, Ramapuram

National Level Institute

1. TISS (Tata Institute of Social Sciences)
2. University of Delhi
3. Jamia Millia Islamia
4. Aligarh Muslim University
5. Banaras Hindu University

Competitive exams

Admissions to social work institutes are based on entrance examinations. A general structure of the exam includes a written test, a group discussion and a personal interview. Admission will be finalized after the satisfactory merit based performance

Future Options

M.Phil

PhD

Add On Courses Like

1. Gerontology
2. Counseling and guidance
3. Training and development
4. HR management
5. Organizational behavior and management
6. NGO management etc…

Some diploma and certificate courses related to Social Work

Diploma Courses

1. Diploma in Community Development
2. Diploma in HIV and Family Education
3. Diploma in Management of Welfare and Developmental Services
4. Diploma in Village Health Worker
5. Diploma in Women Studies
6. Diploma in Youth in Development Work
7. Diploma Programme in Conflict Transformation and Peace building (CTPB)
8. Post Graduate Diploma in Labour Studies
9. Post Graduate Diploma in Social Work & Rural Development
10. Post Graduate Diploma in Social Work (PGDSW)
11. Post Graduate Diploma in Social Work among Tribals (PGDSWT)
12. Post Graduate Diploma in Women's Studies

Certificate Courses

1. Certificate Course in Women and Legal Literacy
2. Certificate course in Women's Studies
3. Certificate course in Abolotion of Child Labour
4. Certificate Course in Accounting of trust and society
5. Certificate Course in Social Work
6. Certificate in AIDS and Family Education (CAFÉ)
7. Certificate in NGO Management
8. Certificate in Social Work and Criminal Justice System (CSWCJS)
9. Certificate in Volunteer Management
10. Certificate in Youth in Development Work (CCYP)

A Social Worker working with an individual, experiencing social and emotional difficulties

You must have a sympathetic and caring nature

Social workers can take groups of children or adults on recreational outings. They may also accompany parents who have been given access to their children if they are supervised

Social workers will visit clients in the community and spend time with them to check on how they are doing.

TATA INSTITUTE OF SOCIAL SCIECES (TISS)

The Tata Institute of Social Sciences (TISS) was established in 1936. In 1964, the Institute was declared Deemed University under Section 3 of the University Grants Commission Act (UGC).

TISS National Entrance Test (TISSNET)

Computer based National Entrance test (TISS-NET) will be held in December in different parts of the country. The computer based test is objective type and even those with basic computer knowledge can take the test. The objective test will have questions related to General Knowledge; Analytical Ability, Logical Reasoning and English Proficiency.

Under Graduate Courses

    Bachelor of Arts (BA) - Social Work (Hons)

Post Graduate Degree Courses

❖ Master of Arts (MA) - Criminology and Correctional Administration

❖ Master of Arts (MA) - Education (Elementary)

❖ Master of Arts (MA) - Human Resources Management and Labour Relations

❖ Master of Arts (MA) - Medical and Psychiatric Social Work

❖ Master of Arts (MA) - Personnel Management and Industrial Relations

❖ Master of Arts (MA) - Research Methodology

❖ Master of Arts (MA) - Social Welfare Administration

❖ Master of Arts (MA) - Social Work / Social Science

❖ Master of Arts (MA) - Urban and Rural Community Development

❖ Master of Business Management

- ❖ Master of Health Administration
- ❖ Master of Hospital Administration

Several Certificate ,Diploma and MPhil Programmes are available . Refer www.tiss.edu

Campus Directory

- ❖ Mumbai Campus: Mumbai: +91-22-25525000 (Board Number)
- ❖ Guwahati Campus: (0361) 2510342

  Hyderabad Campus: (040) 24017701

  Tuljapur Campus: (+91) 9270105222

SOCIOLOGY

Sociology is the science of society. It tries to explore the various ways in which the social groups, organizations, and various social institutions affect human behavior ,actions and various opportunities available to society. Sociology allow students to integrate knowledge from a variety of social disciplines such as History, Economics, Psychology, Anthropology and Political Science .Thus Sociology has a wide scope for Career Development. Sociology is the youngest of Social Sciences and is now considered as the Mother of Social Sciences.

All professional graduates like engineers , doctors, nurses, teachers etc learn Sociology as subject in their course. Sociologist has wide spread demand in suburban society like Kerala. In the field of Civil Service, Sociology is considered a popular subject.

Content

Basic Concepts in Sociology, Society, Methods in Social Research, Indian Society, Social Problems in India, Social Change and Development, Social Thought, Population Studies, Society and Environment

Eligibility

- B.A SOCIOLOGY - *Pass in any **Plus two** course or equivalent.*
- M.A SOCIOLOGY – *Pass in any Degree*

Personal Traits

- Have a social out look
- Straight forward
- Unbiased
- Strong aptitude for research
- SInterest in outdoor activities
- Planning and organizational skills

Nature of Work

Field work and Research oriented,Teaching , Community organization are essential essential.

Job Prospects

1. Labour Officer in Labour Department
2. Human Relation Officer
3. Personal Officer
4. Employment Officer
5. Probation Officer
6. Assistant professor in Arts and Science Colleges, Law Colleges, Nursing Colleges, IITS/NITs.
7. Superintendent in juvenile home
8. Social Scientist in Medical Colleges/ Regional Cancer Centre
9. Psychiatric Social Worker / Social Worker in Medical College
10. Social worker in Reformatory Schools
11. Welfare Officer in Social Welfare Department/ Plantation Corporation
12. .Child Development Project Officer in Social Welfare Department
13. Tribal Development Officer in I T D Project.
14. Family planning Officerin Medical Colleges.
15. Social Welfare Officer in Social Security Schemes
16. Sociology Teachers in Indian Army
17. District Youth Coordinator Nehru Yuva Kendra as etc.

Branches:

- Social Psychology
- Social demography
- Social Anthropology
- Sociology of movements
- Sociology of Religion
- Political Sociology
- Rural sociology
- Urban Sociology
- Sociology of development and modernization
- Sociology of Education
- Sociology of Tourism
- Medical sociology

Institutions

B.A Sociology coursers in Kerala

1. K N M Government college Kanjiramkulam ,Trivandrum
2. S N college , Chempazanthi, Trivandrum
3. M G College ,Trivandrum
4. Kariavattom University campus ,Trivandrum
5. Secred Heart College ,Thevara ,Ernakulam
6. B C M College , Kottayam
7. C M S College ,Kottayam
8. Zamorin'sGuruvayoorappan college , Calicut
9. FarookCollege . Calicut
10. VimalacollegeThrissur.
11. Mar Athanesious College KothamangalamErnakulam

M.A Sociology Courses in Kerala

1. Loyola c ollege of Social Sciences Sreekariyam , Trivandrum
2. K N M Government College ,Kanjiramkulam, Trivandrum
3. KariavattomUniversity collge , Trivandrum
4. C M S college ,Kottayam
5. Zamorin'sGuruvayoorapancollege ,Calicut
6. M G University Kottayam
7. Kannur University Kannur

Premier Institutions

1. Tata Institute of Social Sciences ,(TISS) Mumbai
2. NIMHANS, Bagaluru
3. IIT Chennai
4. IIT Gandhi Nagar
5. Central University ,Pondicherry etc
6. Loyola College of Social Sciences ,Chennai.
7. Gandhigram Rural Institute,Tamilnadu

Rare Specialization

- M Sc in Medical sociology of Madras University
- M.Sc Demogaphy of Kerala University

- M.Phil in Futurology of Kerala University

- M.A.Social Welfare Administration of M G University ,Kottayam

Competitive Examination

- Humanities and Social Science Entrance exam

- Joint entrance exam JEE

Trend

Experts in Medical Sociology have high demand. Sociologist has increasing demand in Non Govermental Organisation and various Social Projects

Further Career Options

Research degrees like M.Phil and PhD will tend to get higher post like Sociologist, Social Scientist, Research Officer etc

Additions

Study of Sociology leads to maximum development of Interpersonal Communication Skill, Research Skill, Management Skill, Planning and Organizational Skill. Indian Council of Medical Research (I CM R) is providing Scholarship for Sociological Research.

SPECIAL DIPLOMAS

Ceramic Technology

Ceramic Technology is an emerging branch of Engineering/Technology dealing with the study of the properties, manufacture, design and applications of ceramic materials. The ceramic designers are concerned with designing various types of ceramic wares used in industries, households, institutions, corporate houses and other places. The use of ceramic ware can be for both decorative as well as functional purposes. Ceramic products include table and kitchenware, decorative ware like flower vase, insulators, potters, building materials like tiles, etc. Cement is also considered as one of the ceramic material.

Content

Drawing, Basic Design, Clay Craft, History & Methods of Ceramics, Design & Production, Art Appreciation, Surface Pattern and Screen Printing.

Eligibility

A pass in Tenth

Personal Traits

Creative, Artistic, Hardworking, Dedication etc

Job Prospects

An individual who aspires to make a career in Ceramic Technology is sure to find himself loaded with a wide range of job opportunities. It could be as an entrepreneur or as an employee in a large-scale ceramic ware manufacturing unit, or even in a steel refractory or as a researcher in a lab. Ceramic Designer, Mural Artist, Pottery Designer, Creative Potter, Art / Ceramic Teachers, Industrial Ceramic Artist.

Branches

Industrial Design

Product design.

Furniture Design

Ceramic Design.

Institutes Providing Diploma in Ceramic Technology

- Indian Institute of Mumbai
- Regional Engineering College, Rourkela
- Indian Institute of Ceramics/Central Glass and Ceramic Research Institute, Kolkata
- Govt. PolytTechnic Jhajjar, Haryana
- Gujarat Technological University, Ahmedabad, Gujarat

- Institute of Technology, Banaras University- Varanasi
- PDA College of Engineering , Karnataka

Higher studies

Colleges and Universities In India Offering Ceramic Engineering

Institution/ University	Seats	Course
College of Ceramic Technology, 73, AC Banerjee Lane, Calcutta 700010	40	B.Sc.(Tech.) 4 years
Indian Institute of Ceramics, C/o Central Glass & Ceramic Research Institute, Calcutta – 700032		Correspondence Course equivalent to B.Sc. (Tech)
University College of Science & Technology, 92, Acharya Prafulla Chandra Road, Calcutta 700009	20	B.Sc. (Hons) , B.Tech. Ceramics
Banaras Hindu University, Institute of Technology, Mumbai 400076	11	5 years Dual Degree Program me in M.Tech Ceramics & Composites
Regional Engineering College, Rourkela 769008	15	BE Ceramics
PDA College of Engineering, Gulbarga-5805102	40	B.E.in Cement & Ceramics Technology
Anna University, Allagappa College of Tech. Guindy, Chennai – 600025	20	B.Tech. Ceramics

TEXTILE TECHNOLOGY

The Diploma in Textile Technology is aThree-year Programme which covers the manufacture of textile fibers to form fabrics, involving various production processes.

Content

The range of subjects within this programme includes Textile Fibre Science, Spinning, Weaving, Knitting, Finishing, Textile Testing and Quality Control.

Eligibility

Diploma Programme open to students who have passed or who will appear for qualifying

Examinations under the Higher Secondary (10+2) with 50% marks.

Personal traits

Must be Hard Working, Creative, Innovative, Competitive

Nature of work

Textile industry has three major categories of workers, those who work in Research and Development, Manufacturing and in Merchandising.

The Textile Technologists/ Engineers work to constantly find new synthetic materials, fabrics, textures and experiment with dyes and weaves, test for durability, fabric strength, and work with and develop computerized equipments.

The Textile Testing Laboratory carries out tests on sample textiles, Designers generate fabric designs, Textile Production Workers are involved in the manufacturing process and Merchandisers are involved in the business of selling the fabrics. The Garment Manufacturing Industry is an offshoot of this sector.

Textile Production goes through four main stages - Yarn Preparation, Yarn Production, Weaving or Knitting, Dyeing and Finishing.

Job Prospects

Diploma holders may be employed in various positions within the Textile Industry. The scope of career opportunities depends on the graduate's experience and willingness to work hard. Graduates may be employed as Supervisors or equivalent, leading to more senior positions as Assistant Managers and Managers. In addition, graduates may also be offered certain posts within the Government sector in areas related to textiles.

- Researchers
- Technologists

- Process Engineer

- Operations Trainee

- Technical Salesperson

- Development Engineers

- Medical Textiles Engineer

- Quality Control Supervisor

- Technical Services / Sales Manager

Institutes

- Polytechnic College, Trivandrum, Kannur & Koratty

- Institute of Textile Technology, Cuttack - Diploma in Textile Technology

- Nachimuthu Polytechnic College - Diploma in Textile Technology

- PSG College of Technology - Diploma in Textile Technology

- Techware Institute of Technology, New Delhi - Diploma in Textile Engineering

- The Maharaja Sayajirao University - Diploma in Textile Technology.

Higher Studies

- Bachelor of Technology in Textiles Technology -Anna University of Technology. Madurai .

- Alagappa College Of Technology, Chennai

- Anna University of Technology, Coimbatore,Tamil nadu

- Post Graduate Diploma in computer aided Textile designing-Polytechnic college, Kalamassery

Further career options

Textile engineering, being a creative and inventive field, offers several career opportunities in diverse industrial sectors.Product Research and Development, Process Engineering, Sales, and Corporate Management and Supervision are some areas to explore. Such professionals can look for attractive opportunities in Textile Mills, Export Houses, Knitwear Manufacturing Units, Textile Dyeing and Printing Units, and a large number of Government-sponsored and Private silk, handloom, jute, khadi, and craft Development Organizations.

RUBBER TECHNOLOGY

Rubber Technology is a branch of Engineering that constitutes processing of latex, natural rubber, or synthetic rubber to convert it into useful products. Right from tyres and tubes to door and window profiles to gloves and toy balloons to rubber bands and pencil erasers, rubber has finally made its presence felt in almost all industries. Such is the use and popularity of rubber products that companies and factories have now started recruiting professionals in Rubber Technology to extract the best from rubber and help in manufacturing a multitude of end products, using the right techniques.

Content

The curriculum for Rubber Technology usually instructs and educates students on the types of rubbers, their properties, and descriptions of formulation of rubber compounds.

- Elastomer Physics
- Elastomer Chemistry
- Industrial Rubber
- Natural Rubber Production
- Simulation and Mechanics
- Speciality Polymers
- Synthetic rubbers

Eligibility

For Diploma course in Rubber Technology:

The candidate should have passed the Higher Secondary Exam (Std. XII) with English, Physics, Chemistry and Mathematics.

For Bachelor of Technology in Polymer Science and Rubber Technology:

10+2 with PCM and Biology

Job prospects

There are more than 6000 operational units in India currently. These units provide great job opportunities. This field is growing stronger with the increase in demand of tyres for cycles, automobiles and even aero planes. Moreover, rubber is also utilized in a number of other industries and car decoration. So a career in Rubber Industry is a lucrative option because of its extended scope both in India and also abroad. The candidates in this field can also work in various other sectors such as Agricultural Industries, Automobile Industries, Transportation Companies, Construction Firms, and Artificial Limbs Manufacture Industries

and so on. In these industries they can get into various job prospectus such as Testing Technologist, Production Engineer, Polymer Specialist, Marketing Executive, Materials Technologist, Quality Control Specialist, etc. based on one's qualification and interest

Branches

- Development of Polymer blends
- Chemical Dye Vulcanization
- Waste Rubber Recycling
- Development of Conductive Rubber Composites

Institutes

- Cochin University of Science & Technology
- Indian Rubber Institute, Chennai (Tamil Nadu)
- Indian Rubber Institute (IRI), Mysore (Karnataka)
- IRRI Kottayam.

Footwear Technology

Footwear is created from various raw materials, some being leather, plastic, canvas, jute, rubber, and cloth as well. An integral part of the Leather Industry, footwear manufacturing has evolved tremendously and gained popularity across the fashion world. The use of sophisticated machinery and skilled manpower has further contributed to the recognition of high-end brands. In short, Footwear Designing Technology, as of today, finds an important place in the list of lucrative career options.

Content

Product Knowledge, Pattern & Pre-Prod. Engineering / CAD, Marketing Management, Accounting & Finance, HRD and Personnel Management, Technology, Cutting, Stitching, Lasting, Footwear Constructions, Finishing, Lab Testing, Sports Shoe Technology, Personality Development, Communication, Community Development, Computer Science, Production Planning & Control etc.

Job Prospects

Designers are found to be working with Footwear Companies as Technical Designers and Stylist Designers. Technical Designers train themselves in pattern making, cutting, designing, whereas Stylist Designers are responsible for updating the product in fashion and style. Designers are also employed by buying houses and boutiques. Established designers also hire young designers to work under them.

Institutes

1. CFTI Chennai
2. CFTI Agra
3. BITS , Pilani
4. CLRI, Chennai
5. Govt. Leather Working School , Bandera (E) Mumbai
6. NSIC Technical Service Centre Chennai
7. Footwear Designing and Development Institute, FDDI Noida-

PLASTIC ENGINEERING &TECHNOLOGY

Plastic Engineer**g** encompasses the processing, design, development, and manufacture of plastics products. A plastic is a polymeric material that is in a semi-liquid state, having the property of plasticity and exhibiting flow. Plastics engineering encompasses plastics material and plastic machinery. The plastics engineer has to design a product that meets certain specifications while keeping costs to a minimum.

Content

Design and Development of moulds, dyes and plastic products

Tooling,Design & CAD, Plastics Processing, Testing & Quality Evaluation of Materials & Products.

Job Prospects

Plastic Technologists and professionals are in great demand in today's ever growing Plastic Industrial Sector. The public sector organizations including Oil and Natural Gas Corporation, Oil India Limited, Polymer Corporations of different States, Petro-chemical Research Laboratories, and the Ministry of Petroleum and Chemicals offer several jobs to Plastic Professionals in their various positions. Others regularly recruit Chemical Engineers and Plastic Technologists.

Moreover, there are large Petrochemical Engineering Plants and various Private Companies dealing with the Production and Marketing of Plastic commodities which offer attractive employment opportunities.

Courses and Eligibility

Course	Duration	Eligibility
PG Diploma in Plastic Engg (PGDPE)	One year	An Engg. Degree in Mech/Chem./Production/Polymer/Tool Engg.
PGDPPT	One year	Degree in Science with Chemistry
PGDPTCT	One year	Degree in Science with Chemistry
PGDPCT	One year	Degree in Science with Chemistry
PGDPMD	One year	3year Diploma in Mech/Plastic Tech/Tool Engg/Plastic Production/CIPET, DPMT
PGDMM	One year	3 year Diploma in Mech/Elecrical/Electronic Engg and CIPET, DPMT
DPMT	Three years	SSLC/SSC with Maths, English &Science
DPMMT	Two years	ITI Trade Certificate in Turning/Mechanist/Fitting

Institutes

1. CIPET Chennai, Tamil Nadu
2. CIPET Extension Centre, Ryon and Silk Mill, Amritsar- Punjab
3. CIPET Extension Centre, Govindapuram Industrial Estate –Bhopal
4. Bharathiyar Institute of Engg and Technology, Trichnappally, Tamilnadu
5. Birla Institute of Technology-Ranchi
6. Cochin University , Trikkakkara Campus, Kerala
7. Anna University , Chennai
8. Crescent Engineering College, Chennai

LEATHER TECHNOLOGY

Offering attractive career choices, Leather Industry in India has lot more potential which can be tapped once, more investment is done and latest technology is brought in. Crucial facts about Leather Technology is that the Leather Industry till recently entertained experienced professionals as there were no Academic or Research Institutes in Leather Technology; however, the modern requirement to implement latest technology to produce fine range of leather product forces to set various institutes which can teach about Leather and the use of Technology to produce effective and suitable leather products.

Content

Leather Goods, Manufacturing, Footwear Manufacturing, Designing And Pattern Cutting, Information Technology, Basic Engineering, Elementary Leather Manufacture, Environment Management, Industrial Management And Entrepreneurship Development, Testing and Quality Control, Leather Garments Manufacturing.

Courses, Eligibility and Institutes

Course	Eligibility	Duration	Institution
1. Diploma in Leather goods	Plus Two with 55%	6 months – one year	Central Leather Institute Adayhar, Chennai
2. Diploma in Leather Garments/Footwear	Plus Two with 55%	6 months – one year	Central Leather Institute Adayhar, Chennai
3. Certificate in Foot wear /Leather goods/ Leather Garments/Processing	SSLC with 55% marks	6 months – one year	Central Leather Institute Adayhar, Che nnai
4. Diploma in Footwear Technology	Plus Two	3 years	Footwear Development and Research Institute- UP
5. PG Diploma in Foot wear Technology	Degreee	I year	Alagappa College of Technology- Tamil Nadu
6. Diploma in Footwear Design and production	Plus Two	2 years	Central Footwear Training Institute Chennai
7. Management in Footwear Technology	Plus Two with Ph, Che, Math	2 years	Indian Institute of Leather products- Mangalore
8. Diploma Programme in Leather Goods	Plus Two with 55%	10 months	Central Leather Institute Adayyar- Chennai
9. Diploma Programme	Plus Two with	10 months	Central Leather Institute

in Leather Garments	55%		Adayyar- Chennai
10. Diploma Programme in Footwear Manufacture	Plus Two with 55%	1 year	Central Leather Institute Adayyar- Chennai
11. Certificate Course in Saddle making	SSLC	4 months	Central Leather Institute Adayyar- Chennai
12. Post Diploma in Footwear Technology	Any diploma	1 year	Bharath Institute of Science and Technology

Personal traits:

Commitment, dedication, creativity and hard work are the key traits required for this career.

Job Prospects:

Job prospects are quite attractive for those who have excellent designing skills combined with mental ability and artistic finesse. India is a leading exporter of leather and leather products. Jobs ranging from designing footwear and accessories like belts, bags, purses and caps to toys, upholstery, baggage, musical instruments, garment tags, gift items, etc are umpteen in various export houses. Leather Technologists can get jobs in Chemical and Engineering Industries involved in the manufacturing of items such as bags, suitcases, upholstery, footballs and cricket balls, car and aircraft seats, hydraulic seals, gaskets, etc.

Higher Studies

- B.Tech / M.Tech in Leather Technology
- Two-year PostGraduate Diploma Course in Leather Garment Design and Technology from The National Institute of Fashion Technology (NIFT)

Sugar Technology

Sugar Technology is a specialized branch of Engineering which deals with production, refinement and packaging of sugar from sugar cane. This Department caters to the need of extension advisory services for Sugar and Co-products Industry.

The job of the Sugar Technologists is processing of raw sugar independently and with cane has been successfully implemented in some Sugar Factories

Content

Sugar Manufacture, Chemical control, Sugar Engineering, Sugarcane Agriculture, Allied Sugar Manufacture, Sugar Industry by Products, Process Instrumentation & Control, Advance sugar technology

Courses, Eligibility, and Institutions

Course	Eligibility	Duration	Institution
Diploma in Sugar Technology	Plus Two with PCM	1 Year	National Sugar Institute, Kanpur – UP
B Tech Sugar Technology	Plus Two with PCM	4 Years	SND College of ENGG. Muzaffar Nagar – UP
PG Diploma in Sugar Tech.	BSc. Chemistry	1 Year	Govt. Polytechnic Kolhapur.
B Tech Sugar Technology	Plus Two with PCM	4 Years	Dr. Ambedkar Regional Engg.College, Jalandhar
B Tech Sugar Technology	Plus Two with PCM	4 Years	Muzaffarpur Institute of Tech.-Bihar
B Tech Sugar Technology	Plus Two with PCM	4 Years	Alagappa College of Technology, Tamil Nadu
B Tech Sugar Technology	Plus Two PCM	4 Years	Priya Darshini Engg. College, Tamil Nadu
B Tech Sugar Technology	Plus Two PCM	4 Years	Kolkata University, Kolkata

Job Prospects

- Sugar Engineers
- Consultants
- Researchers
- Supervisors
- Quality Analysts

Further Education

After completing Bachelors in Sugar Technology, one can go for Masters in Sugar Technology followed by Research.

AUDIOLOGY & SPEACH LANGUAGE PATHOLOGY

Introduction

Speech-Language Pathologists and Audiologists work not only with a variety of clients but also in a wide range of settings, including schools, hospitals, and doctors' offices. Some even choose to conduct research into speech and hearing. Speech-Language Pathologists and Audiologists assess, diagnose, treat and help to prevent speech and hearing problems caused by accidents, diseases, and genetic disorders.

Audiology is the branch of science that studies hearing, balance, and related disorders. It's practitioners, who treat those with hearing loss and proactively prevent related damage, are audiologists. Employing various testing strategies, audiology aims to determine whether someone can hear within the normal range, and if not, which portions of hearing (high, middle, or low frequencies) are affected and to what degree.

Speech-Language Pathologists and Audiologists are health professionals who focus on the processes and disorders of speech, language and hearing. Speech-language pathologists work with patients to study the production of speech, mechanisms that influence language skills, and disorders that affect the ability to speak and produce language. Audiologists study the perception of sounds, the physical and psychological characteristics that underlie hearing, and disorders that affect the ability to hear.

Content

A Bachelor's degree in Speech Pathology prepares students for fields requiring backgrounds in human development, communication, health, and education. The course content also includes introductory courses in Psychology, Statistics, Human Anatomy, Physiology, Biology, Genetics. The course content also includes specialized subjects like Disorders and Testing of Speech and Language Development and Audiology.

Eligibility

B Sc Speech Language Pathology/ BSLP

Only those candidates who have studied at least three subjects from among Physics, Chemistry, Biology and Mathematics at 10+2 level are eligible for admission.

M Sc Speech Language Pathology/ MSLP

M Sc Audiology

Candidates with a B.Sc. (Sp. & Hg.) / BASLP degree with an average of not less than 50% of marks and approved by RCI are eligible for admission.

Personal Traits

Speech-Language Pathologists need the following characteristics

- Excellent Communication and Interpersonal skills
- The intellect and perseverance to complete the training
- Sensitivity to client needs
- Creative Problem Solving skills
- Ability to set priorities and deal with multiple demands
- Ability to concentrate and pay close attention to details
- Ability to work effectively in a team environment.

Nature of Work

- Give patients hearing tests
- Identify the causes of speech or hearing problems
- Decide on the best way to treat problems
- Carry out Speech Therapy
- Conduct speech Therapy
- Teach lip reading
- Pay attention to the emotional and physical needs of patients severely damaged by stroke or accidents
- Consider specializing in treating, for example, children or the elderly
- Use Sign Language if you work with Hearing Impaired or Deaf Clients
- Work as part of a team of health care professionals

Job Prospects

The workplace may be a hospital, health centre, day-care centre, rehabilitation unit, school or preschool, a client's home, prison or young offenders' institution. Therapists may work in several different locations during the week. Self-employment/freelance work is expanding. Many experienced practitioners do some private work and an increasing number see only private client.

Institutes

1. All India Institute of Medical Sciences (A.I.I.M.S.), Safdarjung Enclave, Aurobindo Marg, Ansari Nagar , New Delhi (Delhi).
2. Post Graduate Institute of Medical Education and Research : College of Nursing, Chandigarh (Chandigarh).

3. Indian Institute of Health Education, Berur, Patna.

4. J.M. Institute of Speech and Hearing, Road No - 5, Indrapuri P.O – Kesharinagar, Patna (Patna District) Bihar.

5. Institute of Communicative and Cognitive Neurosciences (ICCONS), Shoranur, Palakkad, kerala *www.iccons.org/.*

6. AWH Special College (Association for Welfare of the Handicapped Special College), Near Kallai Railway Station , Kozhikode (Kozhikode Dist.), (Kerala).

7. National Institute of Speech and Hearing (NISH), Thiruvananthapuram, Kerala.

8. College of Physiotherapy, Speech and Hearing, Mangalore.

9. Dr. M.V. Shetty College of Speech and Hearing, Maladi Court, Panjimogaru , Mangalore (Dakshina Kannada District)   www.drmvst.org .

10. Dr. MV Shetty Memorial Trust College, Karnataka.

11. Institute of Nursing, Mangalore.

12. Institute of Speech and Hearing, Hamur Road, Bangalore Karnataka.

13. Kasturba Gandhi Medical College, Manipal.

14. Kasturba Gandhi Medical College, Manipal.

15. Manipal Academy of Higher Education, Manipal Karnataka.

16. Medical Trust Hospital and institution, MG Road Cochin.

17. Naseema Institute of Speech and Hearing (N.A.I.S.H. Institute), Bangalore (Karnataka).

18. Osmania University, Hyderabad, Andhra Pradesh.

19. Rajiv Gandhi University of Health Sciences, Jayanagar, Bangalore, Karnataka.

20. Shri Ram Chandra Medical Institute, Porur.

21. Sri Ram Chandra Medical Institute, Chennai.

22. Sweekar Rehabilitation Institute for Handicapped, Secunderabad (Andhra Pradesh)All India Institute of Speech and Hearing, Manasa, Mysore.

23. Tamil Nadu Medical College, Tamil Nadu.

24. University of Chennai, Centenary Building , Chennai.

25. University of Mysore, Mysore Vishwavidyalaya, Karnataka.

26. BYL Nair Charitable Hospital, Mumbai.

27. Gujarat University, Navrangpura, Ahmedabad.

28. University of Mumbai, M.G. Road, Fort, Mumbai.

Premier Institutes

Ali Yavar Jung National Institute for the Hearing Handicapped (A.Y.J.N.I.H.H.), Kishenchand Marg, Bandra Reclamation (W), Mumbai. www.ayjnihh.nic.in

All India Institute of Speech & Hearing, Mysore www.aiishmysore.com

More details are given on www.rehabcouncil.nic.in, the website of the Rehabilitation Council of India, New Delhi, which governs all institutes imparting training in speech therapy, and onhttp://ishaindia.org.in/ of the Indian Speech and Hearing Association, a national professional organisation of speech therapists.

STATISTICS

Introduction

Human beings use statistics in all walks of life consciously or subconsciously before making decisions. However, statisticians are professionals who use statistical tools for the collection, classification, tabulation, presentation, analysis and interpretation of data in order to arrive at a conclusion for effective decision making. This includes fields of medicine, agriculture, psychology, biology, marketing, economics, education, public health, sports, and others.

Content

Since statistics is a set of tools used to organise and analyse data,the major content areas in statistics include

Collection Classification and Presentation of Data

Descriptive Statistics

Tools for data analysis

Inferential Statistics

Operations Research, Statistical Quality Control, Factor Analysis, Discriminant Analysis etc...

Eligibility

B.Sc Statistics

Plus Two with Mathematics or Statistics as one of the subjects.

M.Sc Statistics

B.Sc Statistics or B.Sc Mathematics

M.Phil

M.Sc Statistics with 55% Score

Ph.D

M.Sc Statistics with 55% Score and JRF NET Conducted by CSIR or Pass in Entrance Examination conducted by Universities.

Personality Traits

A good statistician should have

Analytical Reasoning Skill

Numerical Reasoning Skill

Data Interpretation Skill

Communication Skill

Nature of Work

Since the duty of the statistician is to collect data and analyse data for arriving at proper concusions, collection of data and analysis of data is an important responsibility of statisticians. Therefore, statisticians will have to do field work for collection of data.

Job Prospects

Central Government, State government and Non-Governmental Agencies are providing opportunities for statisticians. Ministry of Statistics and Program Implementation, Central Statistical Office (CSO), National Sample Survey Office (NSSO) etc… are central government agencies, which provide several prominent job opportunities for statisticians. Statistical Research Officers are required for Reserve Bank of India (RBI), Department of Economics and Statistics etc.. Many of the private companies and banks required statistical data analysts.

Candidate who has a bachelor's degree in statistics may get entry-level jobs as statisticians. If they complete a master's degree, they can get high level jobs in this field. Some of the available job opportunities for a statistician are,

- Statistical Officers
- Statistical Investigator
- Programmer
- Research Officer
- Research Analyst

- Data Analyst

- Business Analyst

- Biostatisticians

- Bio-statistical programmers

- Epidemiologists

- College Professors

- Higher Secondary School Teachers

- High School Assistants (HSA)

- Consultants

- Research Associates

- in Industry, Hospitals, Public Health Labs, Planning etc ..

- Information and Data Processing

- Market Research

- Operations Research

- Population Studies

- Commercial Surveys

Trend

The rapid growth in computer science and information technology since the second half of the 20th century has had a substantial impact on the practice of statistical data analysis. Many powerful statistical softwares like SPSS, STATISTICA, R etc.. helped data analyst to simplify the task. Hence statistical data analysts with skill in computerised data analysis have a wide scope in the field.

Branches

Major branches of statistics are

- Biostatistics

- Agricultural Statistics

- Actuarial Statistics

- Operations Research

Institutes

Course	Duration	Eligibility	Name of Institute	Website
M.Sc Statistics	2 Years	B. Sc Statistics or B. Sc Mathematics	Indian Statistical Institute (ISI) – Kolkota, New Delhi, Banglore and Chennai.	www.isical.ac.in www.isibang.ac.in www.isichennai.res.in
			Indian Institute of Technology (IIT), Kanpur	
			Kerala University Campus, Thiruvananthapuram	www.keralauniversity.ac.in
			University of Calicut, Kozhikode	www.universityofcalicut.info
			Kannur University, Kannur	www.kannuruniversity.ac.in
			Cochin University of Science and Technology (CUSAT),	www.cusat.ac.in
			Nehru Arts and Science College, Padnekat, Kasargod	www.nasc.ac.in
			Farook College, Kozhikode	www.farookcollege.ac.in
			Govt. Arts and Science College, Kozhikode	www.gasckkd.ac.in
			Govt. Victoria College, Palakkad	www.victoriacollege.in
			St. Thomas College, Trissur	www.stthomas.ac.in
			Maharajas College, Ernakulam	www.maharajascollege.in
			St. Thomas College, Pala	www.stcp.ac.in
			Nirmala College, Moovattupuzha	www.nirmalacollege.ac.in
			Kuriakose Elias College, Mannanam, Kottayam.	www.kecollege.in
			St. Georges College,	

M.Sc Statistics	2 Years	B. Sc Statistics or B. Sc Mathematics	Erattupetta	
			University College, Thiruvananthapuram	www.universitycollege.ac.in
			Govt. College, Manjeshwaram, Kasargod	www.gpmgcm.org
			Govt. Arts College, Thiruvananthapuram	www.gactvm.org
			St. Josephs College Devagiri, Kozhikode (Self - Financing)	www.devagiricollege.org
			Sardar Patel University, Vallabh Vidyanagar, Anand. Gujarat	www.spuvvn.edu
			Aligarh Muslim University, Aligarh, UP.	www.amu.ac.in
			Banaras Hindu University, Varanasi.	www.bhu.ac.in
			Punjab University, Chandigrh	www.puchd.ac.in
			Osmania University, Hyderabad	www.osmania.ac.in
			Devi Ahilya Viswa Vidyalaya, Indore	www.dauniv.ac.in
			Himachal Pradesh University, Shimla	hpuniv.nic.in
			Loyola College, Chennai.	www.loyolacollege.edu
			PSG College Of Arts & Science, Coimbatore	www.psgcas.ac.in
			Parvathaneni Brahmayya Siddhartha College of Arts & Science, Vijayawada	www.pbsiddhartha.ac.in
			Presidency College, Chennai	www.presidencychennai.com
			Sant Gadge Baba Amravati	www.sgbau.ac.in

			University, Amravati, Maharashrtra	
			University of Calcutta, Kolkotha	www.caluniv.ac.in
M.Sc Agricultural Statistics	2 Years	"	Kerala Agricultural University, Mannuthi, Trissur	www.kau.edu
M.Sc Biostatistics	2 Years	"	Kerala Veterinary University, Pookod, Wayanad	www.kvasu.ac.in
			St. Thomas College Pala	www.stcp.ac.in
M.Sc Health Statistics	2 Years	"	Banaras Hindu University, Varanasi	www.bhu.ac.in
M. Sc Applied Statistics and Informatics	2 Years	"	IIT – Mumbai	www.iitb.ac.in
			Osmania University, Hyderabad	
M.Sc Operations Research and Computer Application (OR&CA)	2 Years	"	Cochin University of Science and Technology (CUSAT)	www.cusat.ac.in
M.Sc Operations Research	2 Years	"	Aligarh Muslim University, Delhi	www.amu.ac.in
			University of Delhi - Delhi	www.du.ac.in
			Ramjas College – Delhi	www.ramjascollege.edu
			St. Stephen's College - Delhi	www.ststephens.edu
			Indraprastha College for Women, Delhi	ipcollege.ac.in
			St. Xavier's College Mumbai	xaviers.edu
MS Quantitative Economics	2 Years	"	Indian Statistical Institute (ISI) - Kolkota	www.isical.ac.in

M. Tech. Quality, Reliability and Operations Research	2 Years	"	Indian Statistical Institute (ISI) - Kolkota	www.isical.ac.in
M. Tech Industrial Engineering and Operations Research	2 Years	"	IIT – Mumbai	www.iitb.ac.in

Competitive Examination

Indian Statistical Service – Conducted by UPSC

(To select efficient statisticians for the government of India)

Premier Institutes

Indian Statistical Institute (ISI) – Kolkota

203 – Barrackpore Trunk Rd

Kolkata, 700108

Indian Statistical Institute (ISI) – New Delhi

7, S.J.S. Sansanwal Marg

New Delhi 110 016, India

Phone: +91-11-4149 3901

Fax: +91-11-4149 3981

Email: statmath [at] isid.ac.in

Indian Statistical Institute (ISI) – Banglore

Banglore – 560059

Indian Statistical Institute (ISI) – Chennai

MGR Knowledge city, CIT Campus, Taramani

Chennai – 600113

Phone: +91-44-66632507   Fax: +91-44-66632544.

Indian Statistical Institute (ISI) SQC & OR Unit – Chennai

110, Nelson Manickam Road, Aminjikarai

Chennai – 600029

Phone: +91 44 23740612, +9 1 44 23740256

Indian Statistical Institute (ISI) - North East Center

Tezpur University, Assam 784028

Phone: 037 1226 7296

Fax: 037 1226 7321

Indian Statistical Institute – Hyderabad

Street No. 8, Habsiguda

Hyderabad 500007

Phone: +91-40-27153984, 27171906, 27179402

Fax: +91-40-27173602

Email: info@isihyd.ac.in

STUDY ABROAD

Introductn

The education system abroad, undoubtedly, is quite different from ours in as much as the styles of teaching and learning. In India we generally have more of theoretical teaching and exams are held only once a year or semester, whereas the foreign education system lays emphasis on group discussions, practicals (which are held throughout the year on a regular basis) and presentations. In addition, regular attendance, research, project work and continuous testing of students on the basis of their performance are quite important in their system of education. It is worth mentioning here that in spite of all this, Indian students adapt themselves easily to this system. Being well versed with basic fundamentals of their subject, they are generally able to study smoothly even in this kind of environment.

To gain admission to institutions abroad, one has to keep in mind that, among other considerations, emphasis is laid on one's individual capabilities. Good academic record is no doubt quite important to get admission to a university abroad but one's participation in extracurricular activities would also be a significant factor. Besides this, one's test scores, personal statements and letters of recommendation prove equally significant. One may not be very scholastic but being an all rounder helps.

One must consider your suitability to the course and colleges and one's adaptability to the culture of the country. It is advisable to get as much information as possible about the country and its education system. Be prepared to adapt to the change in style of education, language, food and life-style of the country in question. Initially one may find it difficult to adapt to this change but, by and by, it would not be difficult to get used to it.

During the stay abroad, one may be confronted with some difficulties, still get some advantages as well, such as lesser pollution, better library and laboratory facilities. Some may find the accent of lecturers alien but this problem too is overcome within a short time, because while going abroad one anticipates such things and is prepared for them.

For higher education it is important to develop an attitude for critical thinking, to be able to make careful and right judgment, and to have an analytical approach.

Criteria of making selections

➢ Good academic merit
➢ Individual capabilities
➢ Suitability to the course and college
➢ Adaptability to the culture of the country

- ➢ A fair knowledge of the language
- ➢ Independence and self-reliance
- ➢ Rapport with staff
- ➢ Analytical skills

According to a recent study by a faculty of IIM Bangalore, there has been a 256% growth in Indian students going abroad in the last decade or so! Indian Students are also being adventurous about where they are willing to go and study, let's take a closer look at why students wish to study abroad and how you can go

How to Plan Study Abroad?

Once the decision has been made to study abroad, one should start the process as early as before the completion of 10+2, if one wants to pursue under graduation. The process of choosing the exact course, selecting the country/universities, applying, and finally going abroad is long and needs very careful and precise planning. Therefore, it is better for one to start the process by the time one completes class XI because it will take you about a year to complete the process. Similarly, if one wants to take up graduate studies one should start planning a year in advance to complete the formalities on time. First step in this process is to identify the field that one is good at and the career one wants to build up. Simultaneously, comes the choice of the exact course and the choice of the place where the best course in the field of one's choice is available, i.e. the choice of your destination. And after one has decided on a particular country, next is the choice of university. It is important to ascertain about the recognition status of the particular degree from a particular university/college across the world. It is better to select more than one university unless you are very sure of yourself. Generally, students apply to four or five universities. However, before taking decisions on these aspects a number of factors need to be considered. Some of the most important factors that need consideration are.

1. When the place of study is chosen it is advisable to consider the courses for which different countries are known for. For example, USA is known for the courses in Finance and Business Management, Singapore for Hospitality, Business Management and Polytechnics and UK for English Literature, Economics, Business Management, Mathematics, Nursing, Law, Art and Design.

2. Another important consideration is about fee and living expenses as these vary across countries.

3. In addition, to lessen the financial burden, if one wants to earn while one learns, it is better to choose a country where one can work part time during one's studies and is also allowed to stay on after completion of the course. For example, New Zealand and Australia are the best places for in this respect.

4. Admission and visa requirements should also be checked up carefully before making the best selection in respect of the destination.

Comparison of Countries**

Countries	Annual Tuition Fee	Annual Living Cost	Duration	Total Cost of Bachelor's	SAT Required	Scholarships available	Additional cost for helth insurance
USA	USD 25000 to 40000	20 to 30 lakhs	4 years	80 to 120 lakhs	Yes	Yes	Yes
UK	GBP 9000 to 16000	15 to 22 lakhs	3 years	45 to 66 lakhs	No	Yes	Free (Covered by NHS*)
Australia	AUD 25000 to 35000	25 to 31 lakhs	3 years	75 to 93 lakhs	No	Yes	Yes
Singapure	SGD 27000 to 31000	17 to 19 lakhs	3-4 years	51 to 76 lakhs	Yes	Tuition grant (Mainly with bond)	Yes
New Zealand	NZ Doller 25000 to 37000	20 to 25 lakhs	3-4 years	60 to 75 lakhs	Yes	Yes	Yes
Hong Kong	USD 13000	11 lakhs	3 years	33 lakhs	Yes	Yes	Yes

**2012-13 Statistics

*National Health Services (UK)

Advantages of Studying Abroad

➢ Entirely different system, power-packed with modern facilities and learning methods

➢ Practical knowledge and training by world renowned professors

➢ Opportunity to develop leadership skills

➢ Chance to learn new languages and culture of many countries

➢ Opportunity to be independent and adaptable by handling wholly unfamiliar situations

➢ Value addition to profile with a degree from world Class University

- ➢ Monetary supports through scholarships, stipends and bursaries
- ➢ Work opportunities for self and spouse while studying settling after studies.

Select World Rankings

Name of Ranking	Websites
QS World Rankings	http://www.topuniversities.com
THE (Times Higher Education)	http://www.timeshighereducation.co.uk/world-university-rankings/2011-2012/top-400.html
Academic Ranking of World Universities	http://www.shanghairanking.com/
Good University Guide	http://www.thetimes.co.uk/tto/public/gug/
US News World Rankings	http://colleges.usnews.rankingsandreviews.com/best colleges

SELECT WEBSITES FOR VISA

Australian Government Website

- www.india.embassy.gov.au/ndli/students_home.html
- www.immi.gov.au/immigration/
- www.vfs-au-in.com

Singapore Government Website

- www.ica.gov.sg
- www.singaporeedu.gov.sg

UK Government Website

- www.ukba.homeoffice.gov.uk/visas-immigration/studying/
- www.vfs-uk-in.com

USA Government Official Website

- http://newdelhi.usembassy.gov/visas.html
- www.vfs-usa.co.in

New Zealand Government Website

- www.immigration.govt.nz/

Canada Government Website

- www.cic.gc.ca/english/study/study-who.asp
- www.vfs-canada.co.in/

Few Leading Countries & Institutions

There are many institutions across the globe which offers affordable programs of greater benefit to the Indian students in Engineering, Business, Health Care etc. The list below is not comprehensive but just lists a few of such institutions which are in great demand among Indian students. Please note the openings may change from time to time.

Canada

Conestoga College, Centennial College, Seneca College, Lambton College, Niagara College, Algonquin College, Confederation College, Fleming College, Fanshawe College, Georgian College, George Brown College, Carleton University, Vancouver Island University, Grant MacEvan University, Cambrian College.

Australia

Monash University, Deakin University, Charles Darwin University, James Cook University, Melbourne Institute of Technology, Southern Cross University, James Cook University (Brisbane), ATMC - Australian Technical And Management College, University of Wollongong, Australian Catholic University, Australia National University, University of Melbourne.

UK

University of Aberdeen, University of Bedfordshire, North Umbria University, Swansea University, University of Salford, University of South Wales, West London University, De- Montford University. Cambridge University, Lancaster University, Middlesex University, Nottingham University, Oxford University, University of Cardiff, University of Leeds, University of Machester, University of Sheffield, University of Strathclyde, University of Warwick

Sweden

Jonkoping University, Chalmers University, Linkoping University, Skovde University,

Karo linska University

Germany

Technical Institute of Munich, Ulm University, Coburg University of Applied Sciences and Arts, Ingolstadt University of Applied Sciences, Esslingen University of

Applied Sciences, RWTH Aachen University, Anhalt University of Applied Sciences, Bauhaus-University, Weimar Berlin, University of Technology Bielefeld, University Bonn-Rhein-Sieg, University of Applied Sciences, Charite University of Medicine Berlin, Chemnitz University of Technology, Freiburg University, FH Aachen University of Applied Sciences, Deggendorf University of Applied Sciences

New Zealand

Auckland Institute of Studies At St Helens, Auckland University of Technology, Bay of Plenty Polytechnic, Christchurch Polytechnic Institute of Technology, Massey University, Nelson Malbourgh Institute of Technology, NorthTec, Otago Polytechnic, Waiariki Institute of Technology, Wellington Institute of Technology, University of Canterbury, Universal College of Learning

USA

Valparaiso University, New Jersey Institute of Technology, Missouri University of Science and Technology, University of Southern California, Los Angels (California), University of Texas at Austin (Texas), New York University; Columbia (New York), University of Illinois at Urbana-Champaign(Illinois), University of Pennsylvania, Philadelphia (Pennsylvania), Ohio State University, Columbus(Ohio),Harvard University, Cambridge (Massachusetts), University of Michigan at Ann Arbor(Michigan), Rutgers, State of NJ-New Brunswick(New Jersey),Purdue University, West Lafayette (Indiana)

Ireland

Griffith College Dublin, Griffith College Limerick, Institute of Technology Tralee, University of Limerick.

Norway

University of Oslo, University of Bergen, University of Tromso, Norwegian University of Science and Technology

China

Harbin Medical University, China Medical University, Dalian Medical University,

Singapore

PSB Academy, FTMS, School D' Hospitality, James Cook University, , Kaplan Higher Education, S P Jain Education, EASB, MDIS, MAGES Institute for Excellence, Nanyang Institute of Management, National University of Singapore, Singapore Management University.

Some Useful Websites*

COUNTRY	WEBSITE
Australia	www.immi.gov.au
US	www.uscis.gov
New Zealand	www. immigration .govt. nz
Singapore	www.ica.gov.sg
Canada	www.cic.gc.ca
UK	www.ukba.homeoffice.gov.uk
Germany	www.vfs-germany.co.in
Sweden	www.indianembassy.se
China	www.china-embassy.org
Norway	www.norwayemb.org.in/
Bulgaria	http://www.mfa.bg/embassies/india

*mainly useful for these sites, only guidelines for admission and student visa.

TRAVEL AND TOURISM

Introduction

Tourism is one of the most booming sectors all over the world. It is a vast industry which is spread all over the globe. It is one of the major employment providing sectors that offer jobs to millions of people and is also a key revenue generating source.

India's rich history and its cultural and geographical diversity make its international tourism appeal, large and diverse. It presents Heritage and Cultural Tourism along with Medical, Business, Educational, Religious and Sports Tourism.

It is a multi-sectoral industry that cuts across other industries like Hospitality, Catering services, Transportation, Travel Agencies/Airline Operators, etc.

Content

IATA rules, Travel document, Topography, Management, Entrepreneurship, Marketing, Ecology, Environment and Tourism , Indian culture , Tourism Development, Products etc.

Eligibility

For Under Graduate programmes and Diploma Courses: *Any Plus Two*

For Post Graduate and PG Diploma programmes : *Any Degree*

Various courses in the field of Tourism

- ❖ B.A. (Tourism Studies)
- ❖ B.T.M.(Tourism management)
- ❖ B.T.S. (Tourism Studies)
- ❖ M.A. (Tourism Administration)
- ❖ Master of Tourism Administration(MTA)
- ❖ M.A. (Tourism Management)
- ❖ M.B.A. (Tourism Administration)

Diploma Courses in Tourism Studies

- ❖ Advanced Diploma In Travel & Tourism
- ❖ Diploma in Tourism & Ticketing (Graduates)
- ❖ Diploma in Tourism & Ticketing (Professional)
- ❖ Diploma in Travel and Tourism Interior Designing
- ❖ Post Graduate Diploma in Tourism
- ❖ Post Graduate Diploma in Tourism & Hotel Management

- ❖ Post Graduate Diploma in Tourism and Indian Monuments (PGDTIM)
- ❖ Post Graduate Diploma in Travel & Tourism Management
- ❖ Certificate Courses in Tourism Studies
- ❖ Certificate Course in Tourism & Ticketing

IATA-UFTAA courses

- ❖ IATA Provides recognized standard in travel, tourism and cargo industry . The areas of specialization are: IATA/UFTAA Standard, Advanced and Travel Agents, Marketing Courses
- ❖ IATA/UFTAA Cargo Agents Introductory, International Air Cargo Rating, Dangerous Goods Refresher Courses.
- ❖ Basic Fares and Ticketing courses, Intermediate Fares and Ticketing Courses, Advance Fares and Ticketing Courses, etc. Diploma Fares and Ticketing Courses are also provided.
- ❖ One can also pursue **IATA courses** through home study or through **IATA's authorized training centers**. IATA (www.iata.org) study programmes are offered at four levels, one leading to the next.

Personal Traits

- ❖ Ability to work with all kinds of people
- ❖ Friendly in nature
- ❖ Effective communication skills
- ❖ Enthusiasm
- ❖ Pleasant disposition

Nature of Work

- ❖ Make appropriate travel arrangements and reservations
- ❖ Calculate and quote appropriate fares
- ❖ Arrange for international travel documents in accordance with the applicable IATA rules and procedures
- ❖ Answer customers' queries, give quotes, rates and supplements, explain conditions and book tour products
- ❖ Provide accurate advice to clients on major tourist destinations

Job Prospects

- ❖ In the public sector, one can be employed as Tourism Officers in Museums, Embassies, State Tourism Boards, Local Government Tourism Committees, etc.

There are opportunities in the Ministries of Information, Culture and Tourism as Tourism Officers, Information Assistants, and Tourist Guides.

❖ In the private sector work for travel agencies, tour operators, airlines, hotels, transport and cargo companies.

❖ In the recreational field of leisure travel; one may work for the National Park Services as a Park Ranger, Photographer, Museum Staff, and Managerial and Financial Administrative Personnel.

❖ Other areas that have career prospects for tourism students include top-class hotel, amusement park, and cruise line, airline or restaurant.

Travel Journalism

Trend

Now a days Eco tourism,Proper Tourism, Space Tourism, Sports Tourism, Dark Tourism, Doom Tourism, Medical Tourism etc. influence the Tourism Industry.

IATA

The International Air Transport Association (IATA) is the trade association of one of the most dynamic and fast-paced industries in the world. Originally founded in 1919, it brings together approximately 280 airlines, including the World's largest. Flights by these airlines comprise more than 95% of all international scheduled air traffic.

UFTAA

The United Federation of Travel Agents' Associations (UFTAA) is the highest and largest world body representing the travel industry. UFTAA represents 114 National Associations and additional Affiliate members in a total of 122 countries.

Branches

❖ Agri Tourism
❖ Cultural Tourism
❖ Geo Tourism
❖ Heritage Tourism
❖ Slum Tourism
❖ War Tourism
❖ Wildlife Tourism
❖ Medical Tourism
❖ Religious Tourism

Rare Specialization

❖ Tourism Marketing

❖ Culture and Heritage Tourism

❖ Tourist Socialization and Behavior

❖ Sustainable Tourism

Hospitality Tourism

Institutes & Universities

Top Tourism Colleges in India

Refer : HOSPITALITY AND HOTEL MANAGEMENT

Competitive Exams

Entrance Exams for Admission to Tourism courses

❖ AIMS Test for Management Admission - (ATMA)

❖ Federations of Hotels and Restaurants Association of India (FHRAI)

❖ Indian Institute of Tourism and Travel Management (IITTM) Test

❖ IATA Entrance Exam

❖ Management Aptitude Test - (MAT)

❖ OPEN Management Admission Test - (OPENMAT)

❖ Joint Entrance Examination (JEE)

Refer : See... HOSPITALITY AND HOTEL MANAGEMENT

Future Career Options:

The following section of jobs may be available to Graduates: Tourism Research Officer, Eco-Tourism Guide, Tourism Event Manager, Tourism Association Coordinator, Tourism Economists, and the Tourism Multiplier.

Additions

• Bachelor of Tourism Studies (BTS) offered by **IGNOU** (*www.ignou.ac.in*)

• Online study

Christ University Bangalore has an MPhil Programme in Tourism

Studies.www.christuniversity.in

• MG University, Kottayam offers MPhil Tourism. www.mgu.ac.in

• IGNOU has some Programmes (Ph.D)See http://www.ignou.ac.in/

• Students may specialize in one or more foreign languages along with co related subjects for better career placements.

VETERINARY SCIENCE

Introduction

Animal husbandry is the agricultural practice of breeding and raising livestock.

Content

Diagnosis of diseases of birds and animals, timely vaccination to prevent diseases, scientific breeding etc are the area of activity of veterinarians.

Nature of Work

The job profile of veterinarians is probably much more than that of a general physician or a surgeon. Those handling domestic pets have to keep in mind the owner's attachment to the pet and provide individual attention and care. In farm animal practice, vets are concerned not only with treating animals which are owner's investment, but also with advising on the well-being and productivity of the entire stock.

Personal Traits

- ❖ They should have scientific temper, willingness to work hard, commitment, an enquiring mind and cleanliness.
- ❖ They must be prepared to live in remote areas, or far away from the comforts and conveniences of the city.

A veterinarian should have a genuine love for animals. Aptitude and interest in the biological sciences are important. Scientific learning and undertaking of animals is required. Working with large animals requires physical stamina and quick body reflexes to tackle the animal's moody behaviour. Other qualities are:- ability to inspire confidence in animals; power of observation and self-reliance; adaptability; indifference to the occasionally disagreeable conditions of work; the ability for team work.

Job Prospectus

Experts can get employment in central and state departments of animal husbandry, veterinary hospitals, clinics, colleges, diary farms, zoological parks, wild life sanctuaries and also in different job avenues.

After a student graduates as a vet, he/she can opt for a Post Graduation or Ph.D. in specialized areas like surgery, andrology or medicine, or take up the job of a livestock development officer. A veterinarian can also join dairy and poultry farms as a doctor or become a marketing officer for a pharmaceutical company.

Wildlife and zoo veterinarians promote natural ecology and cater to the health problems in wildlife in zoos, national parks and wildlife sanctuaries.

Army veterinarians can work as officers of the remount veterinary corps.

- ❖ Hospitals
- ❖ Extension Officers
- ❖ Dairy Sector
- ❖ Pharmaceutical Companies
- ❖ Wildlife and Environment

B.Sc. Animal Husbandry and Dairying Job Types

- ❖ Veterinary Officer
- ❖ Technology Consultant
- ❖ Assistant Sales Manager & Sales Manager
- ❖ Asst. Manager (Export) - Dairy Products
- ❖ Area Sales Manager
- ❖ Sales Executive - Dairy
- ❖ Junior Officer Logistics - Dairy Division
- ❖ Sales Executive - Fresh Dairy
- ❖ Head - Production & Quality Assurance
- ❖ Head Quality Control (QC) - FMCG
- ❖ Market Development Manager
- ❖ Institutional Sales / Business Development Manager

Trends

Veterinary science and animal husbandry is the growing field in the job market.

Branches

- ❖ Poultry Science
- ❖ Animal Nutrition
- ❖ Pathology
- ❖ Parasitology
- ❖ Surgery
- ❖ Animal Reproduction
- ❖ Genetics
- ❖ Feed and fodder technology

Competitive Exams

All india pre-vetenary science (AIPVT)

Institutes

B V Sc & A H 5 ½ yrs

College of Veterinary Science in Mannuthy,Thrissur/Pookkode,Wayanad/Hebbal,Bengaluru /Vidar,Karnataka/Tirupati,A P/Acharya N G Ranga Agri.University,Hyderabad/T N Veterinary and Animal Science College,Chennai

M V Sc

- ➢ College of Veterinary Science in Mannuthy,Thrissur/Hyderabad, Andhra Pradesh/Guwahati, Assam/Ranchi, Jharkhand/Patna, Bihar/ Anand, Gujarat/Mumbai, Maharashtra/Ludhiana, Punjab/Bikaner, Rajasthan/Chennai, Tamil Nadu/Mathura, Uttar Pradesh/Pantnagar, Uttar Pradesh/Calcutta

Eligibility for Allied Science Courses

- ➢ To pursue a B.Sc. (Agriculture/Fisheries/B.F.Sc./fisheries/diary/veterinary)degree, a candidate needs to be 10+2 pass in science stream with Physics, Chemistry and Biology as subjects.
- ➢ The candidate also needs to qualify AIEEA conducted by ICAR (Indian Council of Agricultural Research), New Delhi, or State/ Institution level entrance test to get admission in various Institutes.
- ➢ Age limit is Minimum 17 Years and relaxation is allowed for OBC/SC/ST in maximum age limit.
- ➢ For BVSc.15% seats are appointed by ICAR, remaining by entrance (KEAM etc)

MSc.

Graduation in concerned subjects

Entrance Exam by KAU (Kerala Agriculture University) and ICAR (Indian Council for Agriculture Research)

INFORMATION TECHNOLOGY

Introduction

Career in IT is considered one of the most high-paying jobs and is full of opportunities; particularly when India's prowess in information technology industry is recognized across the globe. The pool of talented computer engineers working in IT companies of the USA and Canada shows that IT can take a person to higher levels. Numerous IT companies from India employ huge number of computer professionals in their Indian and overseas offices.

Content

Subjects usually studied under this IT degrees and PGs are Hardware and Software Modules, Networks, Web Design, Programming, Information Systems, Software Engineering, Digital Electronics & Programming, Website Development & Operating Systems, Office Automation, Database Fundamentals, Application programming, Computer Organization and System Analysis & Design.

Eligibility

After class 10:

➢ Certificate from the ITI - 1 Year Data Processing and Computer Software.

➢ Diploma from Polytechnics 3 year Computer Engineering.

After class 12:

➢ 3 years BSc Computer Science or BCS.

- 3 years Bachelor of Computer Application or BCA.
- 3 years Bachelor(Computer Application & Informatics)
- 4 years BE/B Tech(CS/IT).
- 4 years BIT/BIS.

Aftergraduation:

- MSc (Computer Science / Information Technology / Software Engineering) / MCS After BSc.
- MCA 3 years for any graduate preferably with Maths at 12th.
- ME/M Tech (Computer Science / Information Technology / Software Engineering).
- PhD in Computer Science/allied discipline after Masters in related discipline.

Personal Traits

- Numerical skills
- Logical reasoning
- Patience

At all levels.

- Flexibility
- Willingness to adapt to new methodologies and to learn continuously.

Operators

- Practicality
- Liking to routine work.
- Organizing/Administrative ability

Programmers/Analyst

- Facility to logical thinking
- Patience
- Numeracy
- Power of deep and sustained concentration

System Analyst/Designer

- Above average intelligence
- Logical reasoning
- Ability to listen
- Imagination
- Ability to simplify explanation of complicated procedures.

System programmers/software engineers

- Imagination
- Interest in high technology
- Very high intellectual capacity

Nature of work

Software Developers

Software developers are professionals who are concerned with facets of the software development process which involves activities such as design and coding, computer programming, project management, etc.

Hardware Engineers:

These professionals do research, design, develop, test, and oversee the installation of computer hardware which inter alia includes computer chips, circuit boards, systems, modems, keyboards, and printers.

System Designer

Professionals involved in system designing, Logical & Physical Designing wherein logical designing can be enumerated as the structure & characteristics such as output, input, files, database & procedures, etc.

System Analyst

Computer engineers who work as systems analyst do research about the existing problems and plan solutions for the problem. They also recommend software and system related problems and coordinate development between business development teams.

Networking Engineers

Networking engineers are computer professionals involved in designing, implementation, and troubleshooting of computer networks.

DBA

DBA or Database Administrator are the professionals who are bestowed with the job to design, implement, maintain, and repair an organization's database. Inter alia DBA professionals are also known as Database Coordinator or Database Programmer in IT sector.

Graphics and Multimedia

This includes a range of activities from creating a presentation style for a given topic to visualizing the graphic elements in an application.

Quality assurance

An important aspect of IT Industry. The job involves software testing and Auditing.

Web development:

Webmasters mainly set up and configure internet websites. They also maintain web sites and constantly update the information contained.

Job Prospects.

Booming IT sector in India has plenty of jobs for fresh Computer Science graduates. Candidates from top Engineering colleges however get attractive job offers from IT companies in comparison to not so known Engineering colleges. Additionally, candidates with high percentage of marks and good communication skills as well as sound computer knowledge do not face problem in getting a job whether they are from a reputed Engineering college or not. Computer Engineers can get jobs in non-IT companies like universities, research, private and public industries, government departments, business organisations, commercial organisations and manufacturing sectors, etc.

Besides the Computer Engineers have plenty of options to work in IT companies in departments such as design, development, assembly, manufacture and maintenance, etc. Working as programmer, web developer, and E- commerce specialist with telecommunications companies, automotive companies, aerospace companies, etc. can be a lucrative career option as well. Moreover, numerous national and multi-national computer manufacturing companies, computer hardware system design and development companies, computer networking companies, software development companies, etc. require computer professionals in large numbers.

Top Companies

- ❖ Google
- ❖ Yahoo

  Hewlett-Packard

  International Business Machines Corporation

- ❖ Toshiba Corporation
- ❖ Dell Inc
- ❖ NEC Corporation
- ❖ Canon Inc
- ❖ Apple Inc
- ❖ ASUSTEK Computer Inc
- ❖ Acer Inc
- ❖ Lenovo Group Limited
- ❖ Sun Microsystem

- ❖ TCS

  Infosys

  HCL

  Wipro

Institutes

A number of Engineering colleges in India offer BTech /BE in Computer Science and many of them are internationally acclaimed. Most of the Engineering colleges are in public sector, which include IITs and NITs.

Software Engineer

Job Description

A Software Engineer designs, develops and maintains software applications. The code that a Software Engineer is generally called programs. Software Engineers start their career as an Entry Level Trainee Programmer and then move on as a Programmer, Software Engineer, Senior Software Engineer, Systems Analyst, Senior Systems Analyst and then become a Consultant. The booming IT Sector has brought in a number of openings, particularly in the Tier-I and Tier-II cities

Educational Requirements

- BSc (Computer Science) / BCA / BIT/
- BE/BTech
- MSc (Computer Science / Information Technology / Software Engineering) / MCA / MCS
- ME/MTech (Computer Science / Information Technology / Software Engineering)

While candidates doing courses under Distance Education / Open University mode are eligible to become Software Engineers, large organizations prefer students doing a regular course.

Additional Skills

- Communication & Written Skills with fluency in English
- Hands on knowledge on Computer software and Emailing skills.
- Programming / Logic / Software Development skills

Opportunities in India

Software Engineer can find a job in the field of Information Technology. Companies such as Infosys, Wipro, TCS etc. hire Software Engineer.

Opportunities in Abroad

The Information Technology industry has a huge demand for IT Professionals. International majors such as Microsoft, IBM, EDS etc. hire Software Engineers

What Next....

A Software Engineer after gaining some industry experience will become:

- Senior Software Engineer (3-5 years' experience)
- Team Lead (5-6 years' experience)
- Project Lead(above 6 years)

IT courses in Kerala University

➢ B.Tech ,M.Tech,BE,ME [**Pls refer Engineering…Colleges…………**]

➢ BSc (Computer Science) / BCA / BIT

B.Sc. Computer Applications , Major - Stands for Bachelor of Science in Computer Applications. Typically, a B.Sc. is a three year course, minimum eligibility for which is an intermediate (10+2) in science.. Subjects usually studied under this degree are Hardware and Software Modules,Networks, Web Design, Programming, Information Systems, Software Engineering, Digital Electronics & Programming, Website Development & Operating Systems, Office Automation, Database Fundamentals, Application programming, Computer Organization and System Analysis & Design.

[List of colleges in Kerala given in the appendix II]

Master of computer application. (MCA)

Master of Computer Applications **(MCA)** is a post graduate degree in Computer Application streams awarded in India and conducted by many top colleges and universities all over India. MCA is a three year (6 semesters) course. The students entering MCA must have a B.C.A. / B.Sc. / B.Com. degree with Mathematics as one of the subjects at 10 +2 level or at graduation.

List of Masters in Computer Application Entrance Exams

Most of the colleges conduct an entrance examination to admit students for MCA program. Colleges can either conduct their own or can follow All India Master of Computer Application (MCA) entrance exam. More than 50 colleges in India now admit through this nation-wide entrance exam. Any science graduate with mathematics as an optional or mandatory subject at graduation level can attend MCA entrance exams.

List of some MCA Entrance Exams

- Indian Institute of Technology Joint Admission Test (IIT JAM)

- All India MCA Common Entrance Test (AIMCET)

- Birla Institute of Technology Mesra (BIT Mesra) MCA Entrance Exam

- Delhi University MCA (DU MCA) Entrance Exam

- ICFAI School of Information Technology MCA Test (IMCAT) .

- Jawaharlal Nehru University (JNU) MCA Entrance Test

- Kerala Entrance Examination (KEE) for MCA Admission

- National Institute of Technology MCA Common Entrance Test (NIMCET)

- Vellore Institute of Technology (VIT) MCA Entrance Examination,

Admission to MCA programme is usually on the basis of the score secured for the entrance examination. In many of the institutes students also have to attend for group discussion and interview as part of their admission procedure. All the entrance exams will be conducted on different dates announced by the respective colleges. There are quite a good number of colleges in different states of India which intake admissions for MCA programme on the basis of the entrance exam conducted in the respective state. All India entrance exams will have test centers all over India including all the major tier 1 and 2 cities.

Institutes of MCA COLLEGES IN KERALA

1. **C.H.M.M. College For Advanced Studies**

   Metca Land, Chavercode, Varkala,Palayamkunnu P.O.

   Kerala - 695146

2. **College of Applied Science.**

   Kiliyanad,Calicut 673 001

3. **College Of Applied Sciences,**

   Vadakkancherry, Palghat Dist Kerala

4. **Computer Centre University of Calicut,**

   Calicut University CampusP.O

   Tenhipalam Malappuram Dist

5. **DE Paul Institute Of Science & Technology,**

   De Paul Nagar, Angamaly South P.O., Kochi,

   Kerala - 683573

6. **Department Of Computer Applications,**

   Cochin University P.O., Kochi, Kerala - 680200

7. **DOEACC Centre**

   Calicut Rec P.O. Box No. 5, Calicut

8. **Don Bosco College**

   Anagadikaduvu, Kannur

   Kerala - 670706

9. **ER&DCI Institute Of Technology**

   Er&Dci, Campus, Vellayambalam,

   Thiruvananthapuram

10. **Govt. Engineering College**

    Kerala - 680 009

11. **K.V.M. College Of Engg. & Information Tech**

    K.V.M. Trust, P.B. No. 30

    Cherthala; Alappuzha

12. **K.V.V.S. Institute Of Technology**

    Kaittapparambel (Via) Enathu, Adoor, Pattonamttitta Dist.

    Kerala - 691526

13. **Kristu Jyoti College Of Management Of Tech**

    Chethipuzha, Kurismmoodu P.O., Changanacherry,

    Kottayam,, Kerala - 686104,

14. **LBS College Of Engg. Povval,**

    Muliver Post,, Kasaragode 671 542. Kerala

15. **Lourdes Matha College of Science & Tech Lourde Hills,**

    Kuttichal PO,Thiruvananthapuram 695 574. Kerala

16. **M.E.S. College Marampally**

    M.E.S College Marampally, Aluva-7 Kerala, ,

17. **Malabar College Of Computer Science**

    Pmac Campus, Parali Post, Palakkad - 678618

18. **Mar Athanasios College For Advanced Studies**

    Tiruvalla-689 101, Kerala

19. **Mar Athansius College Of Engineering**

    M.A.College P.O., Kothamangalam-686 666

20. **Mar Baselios Institute Of Technology,**

    Post Bag No. 3, Anchal P.O., Kollam Dist Kerala - 695004, ,

21. **Marian College**

    Kuttikkanam P.O., Peermade-685531 Kerala,

22. **Marthoma Institute Of Infromation Technology,**

    Chdayamangalam, Kollam Dist., Kerala - 691534

23. **MES College Of Engineering**

    Kuttipuram,, PO - Thrikkanapuram-679 573

24. **Nirmala College, Muvattupuzha**

    Nirmala College (Po), Muvattupuzha, Kerala - 686661

25. **National Institute of Technology**

    R.E.C. PO., Kozhikode Kerala - 673 601

26. **Rajagiri College Of Social Sciences,**

    Rajagiri P.O. Kalamassery, Cochin

27. **Rajiv Gandhi Inst. Of Tech., Kottayam**

    Velloor. P.O., Kottayam

28. **Regional Centre School Of Tech. & Applied**

    Near Govt. High School, Edappally Kochi 682 024

    Kerala

29. **Santhigiri College Of Computer Sciences**

    Vazhithala P.O., Thodupuzha

    Kerala - 685583, ,

30. **Saintgits College of Engineering**

    Kottukulam Hills, Pathamuttom PO, Kottayam

    Kerala - 686 532 ,

31. **SCMS School Of Technology & Management,**

    SCMS Campus, Pratap Nagar Muttam,

    Aluva, Cochin - 683 106

32. **School Of Technology & Applied Science**

    Mahatma Gandhi University,, Kottayam-686 560

33. **Sree Narayana College Of Technology**

    Vadekevila P.O. , Kollam - 691010,

34. **Sree Narayana Guru Institute Of Science & Technology,**

    Thamaramukku, Thekkethazham, Karumalloor,

    North Paravur, Ernakulam, Kerala - 686511,

35. **Union Christian College**

U.C. College P.O., Aluva, Kerala

36. **Vidya Academy of Science & Technology**

Kurumel, Thalakottukara PO, Thrissur Kerala

37. **Westfort Higher Education Trust**

P.B.No.16,Mulankunnathukavu, Pottore - P.O

Trichur - 680 581, Kerala

Other institutes

Indian Institute of Information Technology - IIIT in India

Indian Institutes of Information Technology - IIITs initially a group of four renowned institutes - Indian Institute of Information Technology, Allahabad (IIIT Allahabad) was established in 1999, Indian Institute of Information Technology and Management, Gwalior (IIITM-G) first IIIT of country, Indian Institute of Information Technology, Design and Manufacturing, Jabalpur (IIITDM Jabalpur) in Madhya Pradesh, Indian Institute of Information Technology Design & Manufacturing Kancheepuram (IIITDM Kancheepuram) - offering higher education in India, focused only on the information technology. Established by Government of India and managed by Ministry of Human Resource Development these institute of National importance's are funded by the Central Government itself.

These IIITs are providing Under Graduate, Post Graduate and PhD programmers in various course related to IT like course in informatics and library sciences, fields of Design, Computer Sciences, Electronics and Communication and Mechanical Engineering as well as programs in the broad areas of computer, electronics and mechanical engineering etc. to name a few.

Indian Institute of Information Technology - IIIT Allahabad

Courses offered

1. B.Tech. (Electronics & Communication Engineering)

2. M.Tech. (Bioinformatics)

3. M.S. (Electronics and Communication Engineering)

4. Ph.D. (Electronics and Communications Engineering)

5. M.Tech. (Intelligent System)

6. M.Tech. (Wireless Communication and Computing)

7. M.B.A. (Information Technology)

8. M.Sc. (Cyber Law and Information Security)

9. M.Tech. (Information Technology)

10. M.Tech. (Robotics Engineering)

11. M.Tech. (Micro Electronics)

12. B.Tech. (Information Technology)

13. M.Tech. (Biomedical Engineering)

14. M.Tech. (Microelectronics and VLSI Design)

Indraprastha Institute of Information Technology - IIIT Delhi

Courses offered

- ❖ Ph.D. (Computer Science and Engineering)
- ❖ Ph.D. (Electronics and Communications Engineering)
- ❖ M.Tech. (Electronics and Communication Engineering)
- ❖ M.Tech. (Computer Science and Engineering)
- ❖ B.Tech. (Electronics & Communication Engineering)
- ❖ B.Tech. (Computer Science and Engineering)

Indian Institute of Information Technology and Management - IIITM Gwalior

Courses offered

- ❖ B.Tech. (Information and Communication Technology) + M.B.A.
- ❖ M.B.A.
- ❖ M.Tech. (Digital Communication Engineering)
- ❖ M.Tech. (Information Security)
- ❖ M.Tech. (VLSI Technology)
- ❖ M.Tech. (Visual Information Processing)
- ❖ B.Tech. + M.Tech.
- ❖ M.B.A. (Infrastructure Management)
- ❖ M.B.A. (Information Technology)
- ❖ M.B.A. (Public Systems Management)
- ❖ Ph.D.
- ❖ M.Tech. (Information Technology)
- ❖ M.Tech. (VLSI Design)
- ❖ M.Tech. (Software Engineering)
- ❖ B.Tech. (Information & Communication Technology) + M.Tech (Information & Communication Technology).

Indian Institute of Information Technology and Management - IIITM Kerala

Courses offered

- ❖ M.Phil. (Computer Science)
- ❖ Post Graduate Diploma in Information Technology (PGDIT)
- ❖ PG Diploma in E-Governance
- ❖ M.Sc. (Information Technology)
- ❖ M.Phil. (Ecological Informatics)
- ❖ M.Sc. (Computer Science)
- ❖ M.Sc. (Geoinformatics)
- ❖ Ph.D.
- ❖ Post Graduation Diploma in Agri Informatics

Indian Institute of Information Technology, Design and Manufacturing (IIITDM)

Courses offered

- ❖ Ph.D. (Mechanical Engineering)
- ❖ Ph.D. (Electronics and Communications Engineering)
- ❖ Ph.D. (Computer Science and Engineering)
- ❖ M.Des. (Master of Design)
- ❖ M.Tech. (Mechatronics)
- ❖ M.Tech. (Mechanical Engineering)
- ❖ M.Tech. (Electronics and Communication Engineering)
- ❖ M.Tech. (Computer Science and Engineering)
- ❖ B.Tech. (Mechanical Engineering)
- ❖ B.Tech. (Electronics & Communication Engineering)
- ❖ B.Tech. (Computer Science and Engineering)
- ❖ Ph.D. (Design)

Indira Gandhi National Open University

Indira Gandhi National Open University was established under the Indira Gandhi National Open University Act, 1985, encated by the Parliament of India. IGNOU has contributed significantly to the development of higher education in the country through the Open and Distance Learning (ODL) mode.

Diploma Cources

- ❖ Diploma in Computer Application
- ❖ Diploma in Computer Application & Desktop Publishing

- ❖ Diploma in Business Accounting & Taxation
- ❖ Diploma in Hardware & Networking
- ❖ Diploma in Graphic Designing & Animation
- ❖ Diploma in DTP & Print Technology
- ❖ Certificate in Graphic Designing
- ❖ Certificate in Hardware & Networking

Degree Cources

Doctoral Degree

- ❖ Doctor of Philosophy Computer Science (Ph.D CS)

Master's Degree

- ❖ Master of Computer Applications (MCA)

Bachelor's Degree

- ❖ Bachelor of Computer Applications (BCA)

Certificate

- ❖ Certificate in Information Technology (CIT)

LBS

The LBS Centre for Science and Technology (LBSCS&T), Thiruvananthapuram the premier institute of computer training and consultancy.

LONG TERM COURSES

- ❖ PGDCA (Post Graduate Diploma in Computer Applications)- Fast Track
- ❖ PGDCA (Post Graduate Diploma in Computer Applications).
- ❖ PDSE (Post Diploma in software Engineering)
- ❖ PGDIT (Post Graduate Diploma in Information Technology)
- ❖ DCA (Diploma in Computer Applications)
- ❖ IDCHNM (integrated Diploma in Computer Hardware and Network maintenance)

List of LBS Centres all over Kerala

1	**KOLLAM REGIONAL CENTRE** II Floor, R R Building, QS Road, Kollam - 1. Ph: 0474 - 2764654 **email:** lbs.kollam@gmail.com
2	**ANCHALUMOODU SUB CENTRE** Panchayath Shopping Complex, Anchalaumoodu, Kollam Ph: 0474 - 2553382 **email:** lbs.achalummoodu@gmail.com
3	**KANNANALLUR SUB CENTRE** Thrikkovil Vattam Grama Panchaya Shopping Complex, Kannanallur, Kollam Ph: 0474 - 2764654 email: lbskannanalur@gmail.com
4	**NILAMEL SUB CENTRE** Near Village Office, Benglankunnu, Nilamel, Kollam Ph: 0474-2434299 email: lbs.nilamel@gmail.com
5	**ADOOR SUB CENTRE** KRM Towers, East of Central Junction, Adoor, Pathanamthitta Ph: 04734 - 227538 email: lbs.adoor@gmail.com
6	**KALAMASSERY REGIONAL CENTRE** HMT Junction, NAD Road, Kalamassery - 683 104. Ph: 0484 - 2541520, 2551466 email: lbs.kalamassery@gmail.com
7	**PAMPADY SUB CENTRE** LBS Sub Centre, Kadavumbhagam Buildings, Near Police Station, K.K.Road, Pampady, Kottayam. Ph: 0481 - 2505900 email: lbs.pampady@gmail.com
8	**ALAPPUZHA SUB CENTRE** LBS Sub Centre Municipal Library Building, Near KSRTC Bus Stand, District Court Ward, Thathampally P.O., Alappuzha. Ph: 0477 - 2254588 email: lbs.alappuzha@gmail.com
9	**ETTUMANOOR SUB CENTRE** Pandarasseril Buildings, Near Village Office, Ettumanoor Ph: 0481-2534820 email: lbs.ettumanoor@gmail.com

10	**CHALAKKUDY SUB CENTRE** Municipal Town Hall Building Complex, Main road, Chalakkudy, Thrissur Dist: 680307 Ph: 0480-2701469, email: lbs.chalakudy@gmail.com
11	**KOTHAMANGALAM SUB CENTRE** Govt. UP School Campus, Chelad P O, Kothamangalam - 686681 Ph: 0485-2572921 email: lbs.kothamangalam@gmail.com
12	**TRICHUR REGIONAL CENTRE** LBS Sub Centre NSIC Tech. Training Centre Campus, Alumvettuvazhi Road, Chiyyaram, Thrissur - 680 026. Ph: 0487 - 2250657, 2250751 email: lbs.thrissur@gmail.com
13	**ALATHUR SUB CENTRE** Sanu Complex, Door No.832, Alathur Panchayat, Palakkad Ph: 0492-2222660 email: lbs.alathur@gmail.com
14	**PALAKKAD SUB CENTRE** Door No. 26/631, II Floor, Charutha Chambers, Noorani, Shornur Road, Yakkara Amsom,, Palakkad. Ph: 0491 - 2527425 email: lbs.palakkad@gmail.com
15	**KUNNAMKULAM SUB CENTRE** EMS Memorial Building, Kummamkulam Municipality Complex, Kunnamkulam PO, Thrissur. Ph: 04885-211558 email: lbs.kunnamkulam@gmail.com
16	**GURUVAYOOR SUB CENTRE** Krishnanjali Building, Opp. Pvt, Bus Stand, Guruvayoor Ph: 0487-2552387 email: lbs.guruvayoor@gmail.com
17	**KOZHIKODE REGIONAL CENTRE** 17/420, Indira Gandhi Road, Kozhikode - 673 004. Ph: 0495 - 2720250 email: lbs.kozhikode@gmail.com
18	**MANJERI SUB CENTRE** K.C Building, Opp. Juma Masjid, Pandikkad Road, Manjeri, Malappuram. Ph: 0483 - 2764674 email: lbs.manjeri@gmail.com

19	**WAYANAD SUB CENTRE**
	Govt. Higher Secondary School Campus,
	kaniyambetta P O, Wayanad
	Ph: 0493 - 6285939
	email: lbswayanad@gmail.com
20	**NADAPURAM SUB CENTRE**
	Nadapuram Panchayath Shopping Complex,
	Kallachi, Kozhikode
	Ph: 0496 - 2553301
	email: lbscentre.nadapuram@gmail.com
21	**KANNUR REGIONAL CENTRE**
	Old Engg. College Campus, Near S.N.Park, Kannur - 1
	Ph: 0497-2702812,
	email: lbs.kannur@gmail.com
22	**KOOTHUPARAMBU SUB CENTRE**
	II nd Floor, Malabar Plaza, Kannur Rd. Koothuparamba
	Ph: 0490-2365878,
	email: lbs.koothuparambu@gmail.com
23	**PAYYANNUR SUB CENTRE**
	Near Gandhi Park, Payyannur
	Ph: 0498-5208878
	email: lbs.payyannur@gmail.com
24	**KANHANGAD SUB CENTRE**
	Near Bus Stand , Kanhangad , Kasaragod.
	Ph: 0467-2201422
	email: lbs.kanhangad@gmail.com
25	**KASARAGOD SUB CENTRE**
	Taluk Office Compound, Kasaragod.
	Ph: 0499-4221011
	email: lbs.kasaragod@gmail.com

- ❖ DCOM   (Diploma in Computer Operation &Maintenance)
- ❖ DCFA (Diploma in Computerised Financial Accounting)
- ❖ COOP (Certification in Object Oriented Programming)

Short Term Courses

Course name	Duration	Eligibility
Data entry and office automation	120 hrs	SSLC
MS Office and Internet	100 hrs	SSLC
Office automation and Internet	70 hrs	SSLC
DTP(Eng &Mal)	90 hrs	SSLC
Programming in C++	90 hrs	SSLC
Computerized financial accounting using TALLY	80 hrs	BCom,BBA,+2 Commerce, DCP, JDC, HDC
Programming in Java	80 hrs	BTech/ MCA/PGDCA/Degree passed or studying
Programming in Dot net Technologies	100 hrs	BTech/MCA/PGDCA/Degree passed or studying

Centre for Development of Imaging Technology (C-DIT)

Centre for Development of Imaging Technology

(C-DIT)is a unique organization working in the area of convergence and beyond of Information and Communication Technologies (ICT) and Content development and dissemination in multi-media formats.

Courses

Post Graduate Diploma Courses

1. Post Graduate Diploma in Science & Development Communication

2. Post Graduate Diploma in Multimedia Design

3. Post Graduate Diploma in Animation Film Designing

4. Post Graduate Diploma in Television and New Media Journalism

5. Post Graduate Diploma in Television Production Management & Marketing

Diploma Courses

1. Diploma in Digital Media Production

2. Diploma in Web Design & Development

Certificate Courses

1.PG Certificate Course in TV News Presentation

2.PG Certificate Course in Photo Journalism

3. Certificate Course in Non-Linear Editing

4. Certificate Course in Videography

5.Certificate Course in Digital Still Photography

6.Certificate Course in TV Anchoring

Centre for Development of Advanced Computing(CDAC)

Centre for Development of Advanced Computing, Thiruvananthapuram, is a Scientific Society of the Department of Information Technology, Ministry of Communications Information Technology, Government of India. It is a national Centre of Excellence, pioneering application oriented research, design and development in Electronics and Information Technology.

Courses

- ❖ IBM Mainframe
- ❖ DESD
- ❖ .NET
- ❖ JEE
- ❖ JAVA-ANDROID
- ❖ JAVA
- ❖ LAMP
- ❖ ECM
- ❖ MULTIMEDIA & WEB
- ❖ DCA
- ❖ COBOL
- ❖ COMPUTER H/W & N/W
- ❖ ADVANCED JAVA

STDC

C-DAC Thiruvananthapuram, is a pioneer in application oriented research, design, development and Technology Transfer in the areas of Electronics and Information Technology .The Software Training and Development Centre (STDC) focuses on creating high quality manpower in advanced software domains by imparting high-level training.

SHORT TERM COURCES

SI. No:	Name of the Course	Duration(Weeks)	Registration Fee	Course Fee
1	Java Programming	4 Weeks	225	6742
2	MS Office and Internet	4 Weeks	112	2809
3	Programming in C	4 Weeks	112	3371
4	Object Oriented Programming in C++	4 Weeks	112	3371
5	.Net Technologies	8 Weeks	225	13483
6	COBOL Programming	2 Weeks		3371
7	Embedded C with Microcontrollers	4 Weeks	225	6742
8	Web Development using LAMP	4 Weeks	225	6742
9	Java Enterprise Edition	8 Weeks	225	13483
10	Linux and Open Office	4 Weeks	112	2809
11	Multimedia and Web Designing	6 Weeks	112	5618
12	Java Programming and Android	6 Weeks	225	10112
13	Computer Hardware and Networking	4 Weeks	112	4494
14	Programming in CPP (Vacation)	4 Weeks	112	1910
15	Advanced Java Technologies	6 Weeks	200	10000

LONG TERM COURCES

SI. No	Name of the Course	Duration(Weeks)	Registration Fee	Course Fee
1	Diploma in Computer Applications	24 Weeks	225	6742

ADVANCED COURCES

SI. No:	Name of the Course	Duration(Weeks)	Registration Fee	Course Fee
1	Training Programme on IBM Mainframe	9 Weeks	562	47191
2	PG - Diploma in Embedded Systems Design	24 Weeks	1100	69000
3	PG - Diploma in Advanced Computing	24 Weeks	1100	79000

CORPORATE COURCES

SI. No:	Name of the Course
1	Training Programme on IBM Mainframe
2	PG - Diploma in Embedded Systems Design
3	Java Programming
4	MS Office and Internet
5	Programming in C
6	Object Oriented Programming in C++
7	.Net Technologies
8	COBOL Programming
9	Embedded C with Microcontrollers
10	Web Development using LAMP
11	Java Enterprise Edition
12	Linux and Open Office
13	Multimedia and Web Designing
14	Java Programming and Android
15	Computer Hardware and Networking
16	Diploma in Computer Applications
17	Programming in CPP (Vacation)
18	PG - Diploma in Advanced Computing
19	Advanced Java Technologies

Keltron

Keltron IT Education Centres are "Centres of Excellence" in Information Technology created with the specific intention of bridging the huge gap between academic institutions and the Industry.

Software Courses

❖ ASP.NET, C#.NET,VB.NET

❖ PHP, HTML, DHTML ,CSS

- ❖ Java, J2EE, J2SE, J2ME
- ❖ MYSQL ,MSSQL ,Oracle 10g
- ❖ C, C++

Other Courses

- ❖ IT Business Process Management and Strategic Marketing
- ❖ Android Application Development
- ❖ IT Projects (Diploma/Bsc/BCA/BE/BTech/ME/MCA/MTech)
- ❖ Advance Courses in Multimedia and Animation

Advanced IT Courses

- ❖ Hardware, System Administration and Networking Courses
- ❖ IT Finishing School and Internship Programmes

IHRD

Institute of Human Resources Development(IHRD) is an autonomous educational institution established by the Government of Kerala in 1987.

IHRD Institutions

- ❖ Engineering Colleges

    Nine Engineering Colleges
- ❖ Model Polytechnic Colleges

    Seven Model Polytechnic Colleges
- ❖ College of Applied Science

    Fourty Two College of Applied Science
- ❖ Technical Higher Seconday Schools

    Twenty One Technical Higher Seconday Schools
- ❖ Regional Centre

    Two Regional Centre
- ❖ Extension / Study Centre

    Nine Extension / Study Centre / IHRD Centre
- ❖ Model Finishing School

    Two Model Finishing Trivandrum ,Kochi

Hardware and Networking

Job Description - Computer Hardware Engineer

- ❖ As this job title implies, a computer hardware engineer's expertise lies with the physical parts of computers and computer systems—computer hardware. He or she

oversees the manufacture and installation of computer systems, chips and circuit boards as well as peripherals including keyboards, routers and printers. A computer hardware engineer's job includes design, development and testing of computer hardware.

Employment Facts - Computer Hardware Engineer

❖ There were1, 75,000 computer hardware engineers employed in 2013.

Educational Requirements - Computer Hardware Engineer

❖ To work as a computer hardware engineer one must have at least a bachelor's degree in computer engineering.

Other Requirements - Computer Hardware Engineer:

Computer hardware engineers who offer their services directly to the public must be licensed by the state in which they work. To be successful in this field, one should be creative, inquisitive, analytical and detail oriented. Good communication skills, both in writing and orally, are important.

Advancement Opportunities - Computer Hardware Engineer:

An entry-level computer hardware engineer usually works under a more experienced engineer's supervision. With experience, he or she will begin to work more independently and may eventually begin to supervise those with less experience.

Job Outlook - Computer Hardware Engineer:

The Bureau of Labor Statistics expects the job outlook for computer hardware engineers to be be about as fast as the average for all jobs through 2018.

A Day in a Computer Hardware Engineer's Life:

❖ On a typical day a Computer Hardware Engineer's tasks might include

- Providing technical support to designers, marketing and sales departments, suppliers, engineers and other team members throughout the product development and implementation process.
- Testing and verifying hardware and support peripherals to ensure that they meet specifications and requirements, by recording and analyzing test data.
- Monitoring functioning of equipment and making necessary modifications to ensure system operates in conformance with specifications.
- Building, testing, and modifying product prototypes using working models or theoretical models constructed with computer simulation.

Top courses:

- N+
- Network Security
- JCHNP
- MNA
- JCHNE
- Cisco
- Security+
- Red Hat Certification
- Diploma In Computer Hardware
- Diploma In Networking
- Certification in Hardware and Networking
- Linux

Job roles in Hardware and Networking:

- System administrator
- Network administrator
- System Engineer
- Technical Engineer/Computer Hardware Engineer
- Network Engineer
- Technical support
- Help desk technician/Network support technician
- IT technician
- IT administrator
- Field service technician
- Security Database development and administration
- Intranet Specialist

Remuneration:

Hardware and networking jobs mostly start with a package of Rs.8000-10,000 per month. With certification from reputed and recognized organizations (especially the vendors) you can get nearly Rs. 20,000-25,000 per month.

CISCO

Cisco Career Certifications

Cisco certifications are mandatory for any IT professional who wants to build a career in the networking industry. To enhance its services Cisco, which is known for its high-end routers started Certifications in the network domain so that technicians could be identified to have professional knowledge on its products. With the volume of its sales being large the requirement for skilled personnel for Cisco Products has increased monumentally. Cisco certification is therefore a popular choice for many.

Cisco certification exams are prepared for a more practical approach, which gives most of its successful candidates, preparedness for real time eventualities. These professionals can plan, design, connect, maintain and troubleshoot small, medium to large networks. Cisco Certifications are varied with Cisco CCNA, CCNP and CCIE certifications being the most sought after by the industry.

Entry Courses

Both the CCENT and the CCTcertifications serve as starting points for individuals interested in starting a career as a net working professional

- CCNT
- CCT

Associate Courses

The Associate level of Cisco Certifications can begin directly with CCNA for network installation, operations and troubleshooting or CCDA for network design. Think of the Associate Level as the foundation level of networking certification.

- CCNA Routing and Switching
- CCDA
- CCNA Data Center
- CCNA Security
- CCNA Service Provider
- CCNA Service Provider Operations
- CCNA Video
- CCNA Voice

Professional

The Professional level is an advanced level of certification that shows more expertise with networking skills. Each certification covers a different technology to meet the needs of varying job roles.

- CCDP
- CCNP
- CCNP Data Center
- CCNP Security
- CCNP Service Provider
- CCNP Service Provider Operations
- CCNP Voice

Architect

Cisco Certified Architect is the highest level of accreditation achievable and recognizes the architectural expertise of network designers who can support the increasingly complex networks of global organizations and effectively translate business strategies

CCAr

Microsoft Career Certifications

Microsoft Certification being valuable, Measurable rewards to students and IT Professionals. Microsoft Certification helps provide you with relevant skills that can lead you access to valuable Microsoft Certification benefits. Microsoft Certification are available for most Microsoft technologies and all skill levels. Achieving a Microsoft Certification helps provide you with relevant skills that can lead you to a fullfilling career, while giving you access to valuable microsoft certification benefits.

IT Professional Courses

- ❖ MCTS
- ❖ MCITP
- ❖ MCDST
- ❖ MCSA
- ❖ MCDBA
- ❖ MCSE

Devoloper Courses

- ❖ MCPD
- ❖ MCAD
- ❖ MCSD

Trainer Courses

- ❖ MCT
- ❖ MCLC

Home and Office User

- ❖ MCAS
- ❖ MOS

Advanced Certification Courses

- ❖ Microsoft Certified Master
- ❖ Microsoft Certified Architect

Redhat Career Certifications

For Training in Redhat Certifications one should always choose authorized Red Hat partners that offer top-notch faculty, world-class infrastructure, excellent placement support and strong industry interface

Open Source technology has now developed into a complete, rapidly growing entity, providing great freedom and control to its users. The opportunities with open source is unlimited and Linux is considered as the harbinger of the open source movement.

The opportunities with open source technology is tremendous, primarily due to the reason that it is a rapidly growing area in IT and the requirements are highly diversified. The present scenario is such that the demand and supply gap is very big and there is an acute shortage of quality professionals in these areas.

Red Hat Certification Courses

- Red Hat Certified Engineer(RHCE)
- Red Hat Certified Security Specialist(RHCSS)
- Red Hat Certified Datacenter Specialist(RHCDS)
- Red Hat Certified Virtualization Administrator
- Red Hat Certified Architect(RHCA)

Animation

Animation is now being used not only in feature films and television but also in advertisements, computer games , web designing and many other areas. Thus animation and cartooning are now an attractive career option.

Courses and Eligibility

Aspirants seeking a Diploma or a Bachelor Degree in animation should have passed 12thstandard from any recognized board with a minimum of 45% marks. Similarly, for postgraduate programs in animation training, one must have a bachelor's degree in any discipline, preferably arts. One should ideally possess a basic knowledge about handling computers. In animation industry, aspirants can further specialize as a 3D or 2D modeler, special FX Creator, Animator, Character Designer, Games Designer, and Interaction Designer.

Career prospects:

Animation and multimedia are among the major hunted jobs of the 21st century. This field being new to the Indian sector has a lot of hidden potential and talent, which needs to be properly groomed and exploited according to the international standards

Remuneration

A plausible salary is the most attractive part of this profession. As a junior animator or trainee one could get between Rs.10000- 15000 per month. And a well-experienced animator who has a good portfolio of excellent animation work could easily get 50000- 60000 per month.

Eligibility

Candidates who have passed 10 + 2 .

B.Sc.Courses

Digital Art & Animation

Visual Effects

Gaming

Graphic Design & Web Development

Eligibility

Candidates who have passed 10th .

Candidates who have passed 10 + 2

Diploma Courses

Animation 2D Classical & Digital

Animation

3D Animation Graphic Design & Web Development

Web Application Development.

Eligibility

Candidates who have passed 10 + 2 (or) any other equivalent to PUC and recognized by KSOU

Certificate Courses

Visual Effects

Editing, Mixing& Post Production

Architectural Walkthrough

Interactive E-learning Application

Interactive Mobile Application

Computer-aided design (CAD)

Computer-aided design (CAD), also known as computer-aided design, is the use of computer technology for the process of design and design-documentation. Besides using computers to store and retrieve information, several companies use them in design projects. CAD is used to design, develop and optimize products, which can be goods used by end consumers or intermediate goods used in other products.

Courses and Eligibility

The duration of a Computer Aided Design (CAD) course may be less than 6 months. Any one who has completed 10+2 with a flair for computers can take up this course. Candidates with a strong background in science and engineering are preferred by institutes.

Career prospects:

CAD is applied in all industries where precision, construction and assembly of parts are required. Professionals can be employed in architecture, automobile, consumer electronics, electrical, machinery, ship building, construction, aerospace, aircraft and many more engineering-based industries. Nearly every industry has a specific application for CAD software. AutoCAD, a popular CAD software package, and its many competitors permeate every industry. Auto engineers use CAD software for every aspect of auto design. In electronics and electrical industries, engineers use CAD to design wiring layout or printed circuit boards (PCB). Designers use CAD to help them design equipment for everything from the medical field to equipment for the International Space Station.

Remuneration: The salary in this field is very handsome. One can earn somewhere between Rs.30, 000 – Rs.50, 000 per month depending upon his/her expertise in the field.

Computer Careers in Designing And Editing

1. Graphic Designing.
2. Web designing.
3. Motion Graphic Designing
4. VLSI designing.
5. Game Designing
6. Automobile designing.
7. Sound editing.
8. Vedio Editing.

Pls refer Designing……………

IT enabled service

BPO

- BPO is distinct from information technology (IT) <u>outsourcing</u>, which focuses on hiring a third-party company or service provider to do IT-related activities, such as application management and application development, data center operations, or testing and quality assurance.

- BPO is also referred to as ITES -- information technology-enabled services. Since most business processes include some form of automation, IT "enables" these services to be performed.

- BPO require greater skill, knowledge, education and expertise to handle.

Careers in BPO

Business Process Outsourcing (BPO) is one of the fastest growing industries in the present scenario. BPO refers to outsourcing in all the major fields of business. In India, various organizations have set up call centers wherein outsourcing of business process is done. One can find call centers (for customer care services) of every other organization, right from telecommunication companies to banks. Call centers are concentrated in the major cities of India..many institutes have started imparting training to develop special skills required for the job, such as proficiency in spoken English, speech, accent and voice modulation, negotiation with clients, marketing skills, and communication skills, through short-term diploma or certificate courses.

Course details

Generally, BPO companies hire freshers, predominantly graduates. Hence, one can work with BPO with a graduation degree in any stream. While domestic call centers recruit

students who have completed 10+2 or are undergraduates, international call centers, on the other hand, insist on graduation or work experience in the relevant field. One can choose from several courses available for BPOs, such as BPAP Certificate Course on BPO Management, BPO Training Certificate Course, Introduction to BPO/Call Centre Career Program, Diploma Course in Finance and Accounting, Diploma Degree in BPO Management, ACPG-Call Centre Specialization, Graduate Degree in Business Process Outsourcing, MBA in BPO Management, PGP (BPO Operations Management), etc. Apart from academic qualifications, one has to be proficient in English language (both written and spoken) and should possess good customer service, call handling, and communication skills.

Top CollegesofferingUG/PG/OtherCourses

Some major institutions in India that conduct different level of courses for the skills required in BPOs include Aptech (with ACPG courses in all major cities of India), Indira Gandhi National Open University (IGNOU), New Delhi; Lason India, Chennai; Brainware (in all major cities of India); Excellionn, New Delhi; Hero Mindmine Institute Ltd., Bangalore; K10 Technologies, Mumbai; Sikkim Manipal University (SMU), Sikkim; Acumen Education Group, Chennai; Nittany Institute of BPO Management, Chennai; BPO certification Institute, Orissa; NEXT at Bangalore, Hyderabad, Chennai, Mumbai, and Visakhapatnam; Bangalore Institute of Call Center Training, Bangalore; ITES Grads at Gurgaon and Bangalore; and Chennai Business School, Chennai.

Remuneration

At the beginner's level, one can earn between Rs. 8000 and Rs. 10,000 per month. After 2-3 years of experience, BPO professionals can easily generate around Rs. 12,000-15,000 per month. With subsequent work experience, remuneration can increase up to Rs 20,000 or even more, per month.

Medical Transcriptionists(MT)

Medical transcription is an emerging career option and is the result of global opening is the IT Services sectors,Jobs in MT are mainly offered by USbased companies in India who in reality cater to customers (doctors in the US and in Canada)

MT – Nature of Work

MT involves preparing a medical report / document based on the doctor's tape recorded message about the patient's diagnosis and treatment

The doctors dictate into a tape recorder as they interact with the patient and the message gets tape recorded into a computer attached to the telephone.

The recorded message is transcribed by a medical transcriptionist

MT – Work Environment

The transcriptionists here recorded messages on the earphone and work simultaneously on the computer.

The work requires hours of concentrated work and audio, visual, manual coordination

Some rare specialization

Artificial Intelligence (ai):

AI is highly interdisciplinary branch of computer science that attempts to incorporate the principles of human intelligence and reasoning in to computing system.

Robotics

A branch of computer science that applies artificial intelligence and engineering concepts to create and program mechanical devices that are able to perform a variety of tasks.

Neural Networks

The study of computer system modeled after the biological nervous system.Neural networks are designed to intimate the working of human brain and are used in areas such as voice and pattern recognition and speech synthesis.

Telecommunications Engineering

Telecommunication Engineering involves the analysis and design of all systems that receive, transmit, and deliver information.

Management Information Systems (Mis)

MIS programs emphasize the understanding and application of computer technology to organizational problems, the design of computer based system for data processing, and the design of decision- support

Important websites

AICTE	-	www.aicte-india.org
IGNOU	-	www.ignou.ac.in
LBS	-	www.lbskerala.com
C DAC	-	www.cdactvm.in
C DIT	-	www.cdit.org
KELTRON	-	www.keltron.org
NIELT	-	www.doeacccalicut.ac.in
IHRD	-	www.ihrd.ac.in
RUTRONIX	-	www.keralastaterutronix.com
MICROSOFT	-	www.microsoft.com

CISCO   -   www.cisco.com

REDHAT   -   www.redhat.com

ANTHROPOLOGY

Introduction

What exactly is anthropology? It is the holistic study of humans. It studies the past, from the beginnings, millions of years ago to the present day of humans all over the world in a comparative, holistic and integrative manner. Anthropology builds upon the knowledge from Biological Sciences and Social Sciences. Since it studies humans from the biological and social point of view, it is considered as a Bio-Social Science. A central concern of anthropologists is the application of knowledge to the solution of human problems.

Anthropology considers how human cultures changes over time, and how people and seemingly dissimilar cultures are different and the same. Fieldwork is the backbone of anthropological research and anthropologists use participant observation as one of the important techniques to collect data.

Content

The four major areas of Anthropology, in which Anthropologists have been trained in, are: Socio cultural Anthropology, Biological/Physical Anthropology, Archaeological Anthropology and Linguistic Anthropology.

1. Social cultural Anthropology: - Socio cultural Anthropology is the study of human society and culture. It analyses, interprets and explains the social and cultural similarities and differences

2. Biological/Physical Anthropology: - It studies the biological and physical characteristics of humans. Biological anthropologists seek to understand how humans adapt to diverse environments, how biological and cultural processes work together to shape growth, development and behaviour.

3. Archaeological Anthropology: - Archaeological anthropology is a branch of anthropology which deals with pre-historic cultures

4. Linguistic Anthropology: - The branch of Anthropology that studies human languages is called Linguistic Anthropology

Eligibility

Post Graduate Degree.

Degree in any subject (preferable to related subject)

Personal Traits

An anthropologist should

❖ Be curious about human nature and culture

- ❖ Enjoy working with people
- ❖ Have good health and stamina
- ❖ Have good communication skills
- ❖ Have good interpersonal relationship skills
- ❖ Have an attractive personality
- ❖ Be able to maintain objectivity
- ❖ Be a philanthropist
- ❖ Be open, honest, transparent and
- ❖ Be empathetic with fellow human beings.

Nature of Work

Contemporary Anthropologists do not just work in alien or exotic locations, rather they can be found in an astonishing field and career. Anthropologists can be found in corporations, all levels of government, educational institutions and non-profit associations. Anthropologists work in disaster areas. Whatever their field of choice, anthropologists can change the way we view and interact with our world. Anthropologists apply their knowledge and skills to solve real-world problems in a variety of fields, including forensics, cultural resource management, economic development, public health, human development, museum studies, and environmental conservation.

Job Prospects

Anthropology provides a wide array of job prospects. Some of them are detailed below.

- ❖ Teaching and research in University, College, Tribal Welfare Institutions/Organisations and Anthropological Survey of India.
- ❖ Community Development Projects of governmental and non-governmental organizations, Human Development Departments and agencies of different World Organizations (UNESCO, UNICEF, WHO, World Bank, and ILO.
- ❖ Anthropological Survey of India.
- ❖ Many Anthropologists find career options among NGOs, who are working for the welfare and development of all sections of Indian Society.
- ❖ Anthropologists are, posted at the Office of the Commissioner for Scheduled Castes and Scheduled Tribes.
- ❖ Social Welfare Departments of the Government of India and State governments.
- ❖ Office of the Registrar General of India.

- ❖ The Gazetteer Division of the State Information Departments.
- ❖ Indira Gandhi National Centre for Arts.
- ❖ Ministry of Tribal Affairs.
- ❖ There are anthropologists associated with the country's major museums.
- ❖ Career opportunities are available for Anthropology students in the Indira Gandhi Rashtriya Manav Sangrahalay (IGRMS) at Bhopal.
- ❖ Anthropologists were deputed in The Indian Museum at Kolkata and the National Museum in New Delhi. The Government Museum at Chennai, the Prince of Wales Museum at Mumbai, Gujarat Vidyapith Museum in Ahmedabad and The Gurukul Kangri Vishwavidyalaya Museum near Haridwar.
- ❖ The Central Bueraou of Investigation (CBI) also appoints forensic anthropologists to assist the officials in crime detection.
- ❖ Anthropologists were also employed by the Indian Institutes of Technology (IIT) , the Indian Institute of Management (IIMs), the Administrative Staff College at Hyderabad, Udaipur and other similar institutes.
- ❖ Research institutes like Kerala Institute for Research, Training and Development Studies of Scheduled Castes and Scheduled Tribes (KIRTADS), Kozhikode, Kerala Institute for Local Administration (KILA) also appoint anthropologists in various positions.
- ❖ Anthropologists also find placements in more than20 research institutes under ICSSR, located in different parts of India.
- ❖ There are more than forty universities in India with full fledged Anthropological Departments. Anthropology is also being taught at the Higher Secondary level in many states of India, including Kerala.

Trend

Anthropologists are also addressing social and cultural consequences of natural disasters like earth quake tsunami, cyclone, tornado and other natural calamities.

The recent trend is towards:
- ➤ Education/Outreach,
- ➤ Archaeology including under water archaeology,
- ➤ Cultural Resource Management (CRM),
- ➤ Historic Preservation,
- ➤ Museum/Curation/Project Design,
- ➤ Community Development,

- ➤ Advocacy (Human Rights/Social Justice),
- ➤ Human/Social Services,
- ➤ International Development/Affairs,
- ➤ Forensics,
- ➤ Mass Communication,
- ➤ Ethnography/Cultural Anthropology,
- ➤ Administration/Management,
- ➤ Evaluation/Assessment,
- ➤ Health (International/Public Health),
- ➤ Environment and Natural Resources,
- ➤ Business and Market Research,
- ➤ Tourism/Heritage,
- ➤ Healthcare Management/Services/Deliver,
- ➤ Management Consulting/Organizational Development/Training,
- ➤ Social Impact Assessment,
- ➤ Law, Criminal Justice Law Enforcement and Humanitarian Efforts.

Branches

Apart from the traditional four major branches and its sub branches, a lot of new branches are being emerged with the advancement of the discipline. This include Anthropology of art, Ethno musicology, Media Anthropology, Feminist Anthropology, Nutritional Anthropology, Psychological Anthropology, Cognitive Anthropology, Transpersonal Anthropology, Legal Anthropology, Public Anthropology, Cyborg Anthropology, Digital Anthropology, Environmental Anthropology, Urban Anthropology, Theological Anthropology, Philosophical Anthropology and of course, and Business Anthropology.

Business Anthropology is another promising and fast growing branch in Anthropology. It is now believed that, hiring an Anthropologist will make a firm more competitive in the new economy. Hence, the list of multinationals hiring anthropologists include Intel, Citicorp, AT&T, Kodak, Sapient, Hauser Design, Boeing, Motorola, Walt Disney, Microsoft, General Mills, Hallmark, Travel One, Hanseatic Group, Manchester Memorial, Palisades Pharmaceuticals and Celanese Corporation.

Institutes and Premier Institutions

Anthropological Survey of India with its head quarters at Kolkata and several Regional Centers spread across the country is the largest anthropological organisation in the world. The organisation is engaged in collection, preservation, maintenance, documentation and study of ethnographic materials as well as ancient human skeletal remains. It is working with seven regional centers, one sub-regional centre, one permanent field station and eight other field stations located in various parts of the country, besides a camp office at New Delhi. Its regional centers are located at various places in India including Dehradun, Port Blair, Mysore, and Udaipur. Indira Gandhi Rashtriya Manav Sangrahalay (IGRMS) at Bhopal is another famous premier anthropological institute in India.

Departments of Anthropology functioning in various Indian universities and universities abroad including Oxford, Harvard, Cambridge, Manchester, Edinburgh, Duke University and London School of Economics and Political Science are famous for Anthropological Research and Training. In Kerala, Anthropology is being taught in Kannur University in its Palayad campus at Thalassery. PG, M.Phil and Ph.D courses are being offered in Kannur University.

Tribal Research Institutes working in almost all Indian states are famous for Anthropological Research, Training and Development Studies.

Career Openings/Options/Positions in Anthropology		
Sl. No:	Ministry/Institution/Department	Positions
1	Anthropological Survey of India	Director, Deputy Director, Anthropologist, Technical Assistants, Senior/Junior Research Fellows
2	Centre for Cultural Resources and Training (CCRT)	Field Officer
3	Centre for Development Studies (CDS)	Project Faculty
4	Centre for Early Childhood Education & Research (CECDR)	Research Officer
5	Commercial Banks	Development Officer, Marketing Researcher
6	Council for Social Development	Social Scientist
7	Directorate of Health	Community Health Educators, Medical Anthropologist
8	Directorate of Women & Child Development	Consultants, Project Associates, Project Assistant, Project Co-ordinators,
9	District Mueums/Governmen t Museums	Curators

10	Forestry Sector Development Project	Community Development Specialists
11	Government Departments	Labour Welfare Officer
12	Indian Council of Medical Research (ICMR)	Medical Anthropologist
13	ICSSR Research Institutes (27 including ANSISS, CDS, CESS, CMDR, CPR, CRRID, GIDR, CSSS, CSDS, CSD, CWDS, DBANISS, GIS, GIDS, GBPSSI, CSS, IIE, ISEC, ISID, IDS, IEG, IPE, MIDS, MPISSR, NCCDS, OKDISCD, SPISER, etc)	Faculty Positions, Project Fellows, Research Assistants, ResearchAssociates
14	IGNCA	Project Assistant/Project Associate, Programme Director (Kala Darsana)
15	IGNOU	Faculty Positions/Research Assistant / Field Invegtigator
16	ILO	Labour Welfare Officer
17	Indian Council of Social Science Research	Social Scientist
18	Indian Institute of Forest Management (IIFM)	Field Investigators
19	Indian Institutes of Technology	Research Associate, Senior Research Fellow
20	Indian Museum	Keeper/Assistant Keeper (Anthropolgy), Education Officer
21	Indira Gandhi Rashtriya Manav Sangrahalaya (IGRMS)	Director, Museum Associate
22	Institute of Languages	Linguists
23	Institutes of Archives	Archivist
24	Institutes of Health and Medical Sciences	Research Scientisgts (Non-Medical), Research Assistant
25	Institutes/Departments of Urban Planning	Urban Planner
26	Jansankhya Sthirata Kosh	Executive Directors
Career Openings/Options/Positions in Anthropology		
	Ministry/Institution/Department	**Positions**
27	Kerala Institute of Local Administration	Project Faculty
28	Kerala Institute of Research, Training and Development of SCs and STs (KIRTADS)	JRF, SRF, Research Assistant, Research Officer, Deputy Directors, Director
29	Lalit Kala Akademi	Research Officer
30	LIC	Development Officer, Field Officer
31	LRS Institute of Tuberculosis and Respiratory Diseases	Technical Assistant (Field), Technician (Field Worker)
32	Marketing Research Institutes	Marketing Researcher
33	Ministry of Culture	(Director General, Director, Joint Director, Deputy Director, Research Officer)
34	Ministry of Minority Affairs	Research Investigator
35	Ministry of Tribal Affairs	Director General, Director, Joint Director,

		Deputy Director, Research Officer
36	National AIDS Control Organisation	Technical Officer
37	National AIDS Research Institute	Reserach Scientist, Research Assistant, Counsellor
38	National and States AIDS Control Socieities	Counsellors, ICTC Supervisors
39	National Commission for Scheduled Castes (NCSC)	Director, Deputy Director, Assistant Director/Research Officer, Investigators/Senior Investigators
40	National Culture Fund, Ministry of Culture	Senior Mangaer
41	National Institute for Research in Reproductive Health Scientist (Non-Medical)	Scientist (Non-Medical), Research Assistants, Field Workers
42	National Institute of Classical Tamil	Faculty Positions, Dorector/Deputy Dirctor/Research Officer/Junior Research Officer
43	National Institute of Health & Family Welfare	Faculty Positions, Consultants
44	National Institute of Nutrition	Scientist (Non-Medical), Research Assistants, Field Workers
45	National Institute of Rural Development (NIRD)	Faculty Positions/ Consultants
46	National Institute of Social Defence (NISD)	Deputy Director (Training), Master Trainers, Resource Persons, Research Assistant
47	National Museum Institute	Young Museum Professionals , Museum Consultant, Research Fellow
48	National/Regional Forensic Science Laboratory	Analyst/Scientist
49	NCERT	Education Officers
50	Non-Government Organisations	Anthropologists, Community Workers, Field Scientists, Educators
51	Planning Commission	Research Officer
52	Population Research Centres	Research Assistant,Investigators
53	Regional/National Medical Research Centres	Research Assistants
54	Rural Development Institutes	Rural Development Officers
55	S Swaminathan Research Foundation (MSSRF)	Social Scientist
56	School of Public Health Postgraduate Institute of Medical Education & Research	Field Investigator, Supervisors, Project Coordinators
57	Staff Selection Commission	Research Assistant
58	State and Central Universities (Departments of Anthropology, Socialogy, Tribal Studies, Cultural Studies, Development Studies, Women's Studies, Ethnomusicology, etc.)	Technical/Research Assistants, Research Associates, Project Fellow, Faculty Positions

59	State Forest Research and Training Institute	Junior/Senior Research Fellows
60	Tata Institute of Social Sciences (TISS)	Technical/Research Assistants, Research Associates, Project Fellow, Faculty Positions
61	Tribal Research Institutes	District Research Officers
62	UNESCO	Education Officers
63	UNICEF	Medical Anthropologist
64	Union Public Service Commission (UPSC)	Deputy Superintending Archaeologist, Senior Research Officer
65	WHO	Medical Anthropologist
66	World Bank	Development Officer

Interviews

An Interview is a conversation between two or more people where questions are asked by the interviewer to elicit facts or statements from the interviewee. Interviews are a standard part of journalism and media reporting, but are also employed in many other situations, including qualitative research . When one prepares for a part-time or a full-time job, one will have to face a variety of interviews.

Interview Types

Screening Interview, Telephone Interview, Video Conferencing, One-on-one Interview, panel Interview, Group Interview etc.

Interview Format

Behavioral Interview, Situational Interview, Structured Interview, Unstructured Interview, Semi-Structured Interview, Case Interview, Testing/Assessment.

What is an Interview?

An interview will give the candidate a great opportunity where he can describe his experience and skills and can get an idea about the company. During an interview, an employer's goal is to gather additional information about the interviewee that is not provided in the resume and covering letter. They will attempt to find out what motivates the interviewee, how well one communicates and whether one is a leader or a follower. The interview is a two-way process. The interviewee evaluates the employer whereas he/she evaluates you.

Interview Preparation

Through good preparation, one will feel more confident and ready to do his best and overcome the fear factor. The majority of the interviews try to access your personality and

skills, so before one talks to the prospective employer, take time to do a self assessment and think about what one has to offer.

Strengths –Know your strengths and be prepared to tell a short story which demonstrates that strength.

Academic Performance

Be prepared to discuss your grades, mention particular courses that are related to the targeted career, and describe the additional skills one has acquired through labs, internships, service learning, etc.

Work Experience

Be prepared to describe what one has learned from previous work experience and how it related to the position.

Professional Goals : State how one's qualifications match one's career interests and professional goals. Describe how the goals would motivate one to do the best work for them.

Before the Interview

- Research the Employer: Visit the company website, learn about the products, services, and mission.
- Research the position: Analyze the job description; match your experiences to the position.
- Know Yourself: Know your resume inside & out and prepare examples of your activities.
- Know the Interview Format: Know who you are meeting with and the format the interview will follow.
- Practice: Prepare your answers to frequently asked interview questions. Do a mock interview.
- Make a List of Questions to Ask: Prepare questions that demonstrate your interest.
- Map it out: Know the exact location of the interview and how to reach there in time.

The Day of the Interview

- Dress to Impress: Look professional, well dressed and groomed.
- Be Prepared: Bring extra resumes, references, certifications, work samples, etc.
- Arrive Early: Reach early so you have time to relax before the interview begins.
- Have a great Attitude: Be enthusiastic and have a positive attitude.

During the Interview

- Make a Great First Impression : Offer a firm handshake, have good eye contact, smile & be polite

- Demonstrate Your Knowledge & Interest: Listen, have clear & brief answers, ask questions.

After the Interview

- Learn from your mistakes : Note what you think you handled right & and what you handled wrong

- Say Thank You: Send a thank you letter that reiterates your interest in the position and organization.

- Follow-up: Make one follow-up call to check on the status of the position.

Answering Interview Questions

Non Verbal Communication, Actions Speak Louder Than Words. Don't send the wrong message.

Pay attention to these non-verbal cues:

- Fidgeting with the hands makes one look nervous and unsure of oneself.

- Drumming one's fingers, clicking a pen, tapping the shoe makes one look impatient, or uninterested in the discussion.

- Stooping gives a lazy, tired, inattentive or unrefined look.

- Crossing your arms makes one look defensive or inflexible.

- Chewing gum during an interview makes one look unrefined and rude.

- Keeping a blank expression makes the interviewer wonder if one can understand what he/she has been talking about.

- Looking at the ceiling or floor to compose one's thoughts makes the look insincere or unprepared.

- Flipping the hair off the face makes one look slightly out of control or nervous.

Stay Positive

Maintain a positive, confident attitude throughout the interview, and avoid making excuses or blaming others. Be honest when asked about weaknesses or past failures, but focus on positive elements such as what one has learned from a past failure, or what steps one has taken to improve one self.

Stay Focused

Give clear, focused, well-organized answers to the interviewer's questions. Don't ramble or give irrelevant information. Remember why you are there – to make a presentation of the skills and abilities as a candidate for a particular job – and keep the answers on track with that purpose.

Illustrate Your Answers

Keep your answers brief and to the point, but don't just give "yes" and "no" responses. Create a "word picture" for the interviewer by illustrating one's personal qualities and strongest abilities with examples from the past. Try to address any underlying questions you think the employer might have about your suitability for the job.

Ask Questions When Indicated

Ask relevant, meaningful questions at appropriate times during the interview. Find out more about specific job responsibilities, what kind of training is provided, what advancement opportunities are available within the company, how much travel is required, etc. Be sure to ask about the next step at the close of the interview.

Be Yourself

It is important to relax and be yourself. Don't try to present an image of someone you think they want, because it won't be genuine.

General Interview Stages

Introduction

It is the common exchange of names, small talk, and casual questions. This is your first chance to make an impression. Topics may include weather, traffic, hobbies, etc. (designed to make you more at ease/relaxed).

Broad Questions and Answers

The interviewer will begin to ask you questions about yourself, your education, your past work experience, other items on your resume, your interests and goals. You may be asked questions about the organization and the job position.

Questions may include

"Tell me about yourself"

"Why did you choose this degree?"

"What are some of your extracurricular interests?"

Position Related Questions

The interviewer concentrates more on the details of the job and the company and how you might fit in. You will be able to discuss how your experiences and qualifications fit the requirements of the job.

Questions may include

"Why are you interested in working for this company?"

"Why are you interested in this position?"

"What types of contributions do you see yourself making to this company?"

"How has your experience and education prepared you for this position?"

You should ask pointed questions about the job and company based on your previous research. In addition to skills and qualifications, the interviewer will be looking for signs of your work ethic and your values.

Conclusion

The interviewer will summarize what has been said and clarify any questions you may have. This is when you need to repeat your interest in this company and position and stress again how you are uniquely qualified for the job.

The interviewer should explain the next steps in the recruiting process and how and when the next contact with you will be made. If the interviewer doesn't do this, ask them for the information before you leave.

Avoid discussing salary or benefits unless the interviewer initiates it. This will be discussed when you are definitely being considered for the job, or when a job offer is made to you.

Behavioral Interviewing

Behavioral Interviewing is an interviewing technique that helps employers to predict how a candidate will perform on the job and fit into the organization. By finding out what actions one has taken and/or how one has reacted in past situations, the employer gets a sense for how one will probably respond to circumstances in the position being considered for.

This technique provides employers with objective information that they don't get from a traditional interview question.

For example, if an employer asks, "Do you work well with people who do not know your language?" your response will most likely be "yes." If the employer says, "Tell me about a time when you had to work in such a situation," you will respond with a story about a situation where this was the case.

The employer will then be able to judge for him/herself whether one can actually perform well, according to his/her standards. This also gives the opportunity to prove by example that one can handle the task at hand.

How to Answer Behavioral Questions

- Answers to behavioral interview questions need to be specific and detailed.
- Listen carefully to what the interviewer asks and answer relevantly. If unsure, ask for clarification.
- You can use examples from either school or work.
- Tell a story about something you've done, or talk about an event you were involved in.
- Structure your answers in three parts:
    1. Begin by briefly describing the situation
    2. Detail the action taken
    3. State the result (this should be a positive one, if it is not, state what you have learned from the situation)

How to Prepare for Behavioral Questions

- Refresh memory about achievements in school and at work.
- Think about the challenging problems or obstacles faced. Summarize how it was handled and its outcome.
- Demonstrate past behaviors by drawing on many experiences; think about internships, classes and projects, activities, team and sports participation, community service, and full or part-time jobs.
- Decision making, leadership, organizational skills, problem solving, and team building are among the many topics that behavioral questions probe into, so any experiences which involve these areas would be good to use as behavioral examples.

Interview Questions

1. How are you today?
2. Tell me a little bit about yourself.
3. What do you know about this organization?
4. Why are you interested in working for this company?
5. How did you decide on a program of study?
6. Why did you select this College/Company?
7. What subjects did you like best/least? Why?

8. What are your strengths?

9. What is your biggest weakness?

10. How has your college experience prepared you for this position?

11. Why do you think you would do well in this job?

12. Describe your work ethics.

13. Describe the biggest challenge you have had in your last job or internship and how you handled it.

14. Talk about a time when you made a mistake. How did you fix it?

15. Talk about a situation where you had to deal with someone who was being difficult. How did you handle the situation?

16. Tell me about a situation when you had to learn something new in a short period of time. How did you do it?

17. Tell me about a time when you had to work in a team environment. Were you the leader or a follower in the group?

18. Tell me about a time you received criticism and how you dealt with it?

19. Give me an example of an important goal you set and how you reached it.

20. Describe a situation that required you to do a number of things at the same time. How did you handle it?

21. Describe a situation where others you were working with on a project disagreed with your ideas. What did you do?

22. Tell me about your ability to work under pressure.

23. Tell me about a suggestion you have made and what came out of it.

24. What two work accomplishments are you most proud of?

25. What duties have you performed in the past that you liked most/least and why?

26. What would your previous supervisor say your strongest point is?

27. What kind of management style do you work best under and why?

28. Why are you leaving your current position?

29. What motivates you to do your best on the job?

30. Do you have any questions for me?

Remember these points before preparing a good CV

The first thing a Curriculum Vitae needs to do is attract the attention of its recipient so that it gets read. The second thing it needs to do is to generate enough curiosity that the reader schedules a job interview. A CV should highlight your strengths: you have to market

yourself. Your resume should have a personal style. Be careful not to make any mistakes. Do not include any documentation unless it is requested. Important key words used as sub titles will help the busy recruitment cell authorities to find the suitable candidates easily.

Content of the CV

Remember your Curriculum Vitae (also known as a CV, a Resume, Bio-data or Personal Data Sheet) contains all these following data.

Personal Details

Give complete address with a recent passport size photo, email id and contact number.

Job Objectives

Career ambitions and motivations should be indicated right after personal data in order to highlight them. You should be clear and convey what you would like to do and what your areas of interest are in just a few lines.

Education

Present all your educational qualifications with the name of the Course, University, percentage of marks, year of pass in a good table.

Professional Experience

You should include the dates you have worked, the name of the company, the city where it is located, the company's activities, and your duties/designation.

Computer Skills

It is very essential to know at least basic operation skills for all types of jobs and will be considered as an additional skill for promotions in the future if not necessary in the current job.

Language and Personal Communication Skills

Languages and Personal Communications skills are also extremely important. Listening, Writing and Conversational Skills should be clearly stated.

Extracurricular activities

It includes Sports, Volunteer or Community Work, Membership of Associations, Experience with different cultures, travel and stay abroad, as well as any artistic competence should be indicated. This is important information for the reader of your CV and a good indication of skills such as flexibility, adaptability, organizational ability, problem solving, and leadership.

References

Finally it is customary to write at the bottom of the page: References: Available on request. The purpose of this section is to show the employer that there are distinguished people who have good opinion about you.

Declaration

Sign with name under the declaration that 'the above stated details are true to the best of my knowledge.'

Finally, it is important to remember that there is no one type of resume that works for every job opportunity. It is advisable to prepare several CVs, according to the types of jobs you are interested in. While some basic information, such as personal data, education, and language and IT skills, must be kept the same, each Resume should be personalized, with aspirations, interests, and goals that are allied with each job opportunity.

SCHOLARSHIP

Scholarship is an award of financial aid for a student to further his or her education. Scholarships are awarded based upon various criteria, which usually   the values and purposes of the donor or founder of the award. Scholarships are available from various sources. Students can also avail of national/state scholarships. To know about the scholarships and apply with in time is very important. Scholarships can be in different levels of education and can be given by government or non government sources.

Assistantship: a paid academic appointment made to a graduate student that involves part-time teaching or research.

Scholarship: a grant or payment made to support a student's education, awarded on the basis of academic or other achievement.

Fellowship: an endowment established or a sum of money awarded to support a scholar or student engaged in advanced research in a particular field.

Important Scholarships available to students are given below.

Other Scholarships and websites

1. National Board for Higher Mathematics -for degree maths students - www.nbhm.dae.gov.in/ under graduate scholarship

2. National Board for Higher Mathematics - for PG maths students www.nbhm.dae.gov.in/ masters scholarship

3. Acquire scholarship   for degree – social science   www.acquirekerala.orgrs

4. Dr. D S Kothari fellowship post doctoral students www.ugc.ac.in / student corner

5. Rajiv Gandhi Scholarship SC/ST- M Phil / PhD students   www.ugc.ac.in / student corner

6. Post Graduate merit scholarship Degree Rank hold www.ugc.ac.in / student corner

7. Merit cum means scholarship Agriculture degree students   www.icar.org.in

8. National fellowship by ICSSR Social science PhD students   www.icssr.org/ fellowship

9. Full Bright scholarships Research, Post Doctoral   www.usief.org.in/ fellowship

10. British council scholarships PG, PhD www.britishcouncil.in

11. World Bank Scholarships PhD www.worldbank.org

12. Common wealth scholarships PG, PhD www.cscuk.dfid.gov.uk

13. ADB Scholarship PG students www.adb.org

14. Indian oil scholarships professional course www.eonlineapply.com/

15. Islamic Development Bank (IDB) professional course/Research www.metdelhi.org

16. PM Foundation scholarship backward students www.pmfonline.org

SI. No	NAME OF SCHOLARSHIP	DISTRIBUTING AGENCY	FOR WHOM	ELIGIBILITY	DOCUMENTS TO BE PRODUCED	TIME OF APPLICATION	MODE OF APPLICATION	AMOUNT	WEB SITE
1	E_grantz	Govt. Of Kerala	SC/ST/ OEC	SSLC No income limit	SSLC, Community, Income , Aadhaar , Bank account No	June-July	Through Akshaya Kendra	5000/ year	www .e_gr antz. keral a.gov .in
2	E_grantz	Govt. Of Kerala	OBC	SSLC Income: 45500/year	SSLC, Community, Income , Aadhaar , Bank account No	June-July	Through Akshaya Kendra	1600/ year	www .e_gr antz. keral a.gov .in
3	BPL Scholarship	DHSE Kerala	BPL Meritorious students	SSLC	SSLC, Ration card/BPL Certificate	July-August	Through Head of the Institution	5000/ year	–
4	IED Scholarship	General Education Kerala	IED Students	40% and above disability	SSLC, Medical board certificate Aadhaar , Bank account No	June-July	Through Head of the Institution	4300/ year	–
5	Post Metric Scholarship	Directorate Of Collegiate Education, Kerala	Minority students (Muslim, Christian etc.)	Income limit 2 lakhs/year SSLC mark 50% above	Affidavit Rs 10, SSLC, Community, Income , Aadhaar , Bank account No	June-July	Online	7000/ year	www .dces chola rship. keral a.gov .in
6	District merit Scholarship	Directorate Of Collegiate Education, Kerala	All category	Full A+ in SSLC. No income limit	SSLC, Aadhaar , Bank account No	June-July	Online	1250/ year	www .dces chola rship. keral a.gov .in
7	State merit Scholarship	Directorate Of Collegiate Education, Kerala	All category Degree and PG students	50% and above mark in qualifying exam	SSLC, marklist of qualifying exam, Aadhaar , Bank account No	June-July	Online	1250/ year for Degree 1500/ year for PG	www .dces chola rship. keral a.gov .in

8	Central sector Scholarship	Directorate Of Collegiate Education, Kerala	All category Degree students	80% and above marks in Plus Two Already enlisted students in DHSE website	SSLC, Plus 2 marklist, Aadhaar , Bank account No	June-July	Online	10000 /year	www .dces chola rship. keral a.gov .in
9	CH Muhamm ed Koya Scholars hip(Muslim Girls Scholars hip)	Directorate Of Collegiate Education, Kerala	Muslim girls	Degree students Plus Two 50% marks and above Income limit 4.5 lakhs in a year	SSLC, Plus 2 marklist, Aadhaar , Bank account No	June-July	Online	4000/ year for Degre e 5000/ year for PG 6000/ year for profes sional studen ts	www .dces chola rship. keral a.gov .in
10	Inspire Scholars hip	Central Govt.	Degree pure science students	1% Toppers in Plus Two Exam (list of selected students can be had in the dhse portal)	SSLC, Plus Two mark list	July- august	Through Head of the Institutio n	80000 /year	www .inspi re- dst.g ov.in
11	Kishore Vaigyani k Protsaha nYojana (KVPY) Scholars hip	IISC Bangalor e	First year HSE/BS c/MSc/ MS Students	80% marks in SSLC Maths & Science and must be qualified in KVPY Entrance exam	SSLC, Mark list of Qualifying exam, KVPY result	August- Sept	Online	5000/ month	www .kvpy .org.i n/mai n
12	Merit Cum means Scholars hip	Central Govt.	First year professi onal students	4.5 lakh/year 50% above mark in	SSLC, Income , Aadhaar , Bank account No	May- June	Online	Tuitio n fee and hostel fee(depen ds	www .dte.o rg.in/ schol arshi p

			Plus 2					upon course)	
13	Moulana Azad Scholarship	Moulana Azad Educational Foundation Delhi	Plus One minority girls only(muslim, Cristian, Sikh etc)	1 lakh/year Income 55% above mark in SSLC	SSLC, affidavit Rs.20. atteste by Notary public	July-Spt	Online	6000/ year	www .maef .nic.i n
14	Post graduate Indira Gandhi Scholarship for single girl child	Central Govt.	Degree			July-Dec	online	20000 /year	www .ugc. ac.in/ sgc
15	CBSE Merit Scholarship	CBSE	CBSE First year girl Students		Sslc 60 %	July - aug		500	www .cbse. nic.in
16	Scholarships on Higher Education	Govt. of Kerala	Degree first year students 50%	6 lakhs	+2 marks	July- Dec	Online	12000 - Ist year 18000 - II nd year 24000 – III rd year	www .kshe c.ker ala.g ov.in (high er educ ation schol arshi p)
17	National Merit cum means scholarsip	Central Govt.	9-12 class students in Govt./ aided schools	NTSE	score			5000/ year	Htpp: //mhr d.gov .in/na tional merit sche me