2023

COLLEGE PREDICTOR
COMPENDIUM

IISC/IISER/IIST/NFSU - Advanced Sciences

PREFACE

Namaskar !

NJ Charitable Foundation is happy to present the College Predictor Compendium for Advanced Sciences to get an admission for the Bachelor Degree, Bachelor and Masters Dual degree and Integrated Master degree in various subjects from institutes of National Interest viz. - IIT (Indian Institute of Technology), IISc. (Indian Institute of Science), IISER (Indian Institute of Science Education and Research), NFSU (National Forensic Science University). We have already published the courses offered in IITs and NITs through JEE (Joint Entrance Examination) with their respective cut off marks. Here we shall see the seat matrix of IIT Madras, IISc. Bangalore, 7 various campuses of IISER (Pune, Kolkata, Bhopal, Mohali, Tirupati, Berhampur and Thiruvananthapuram filled up through IAT (IISER Aptitude Test) and NFSU aptitude test. We are also including the information on the admission in Indian Statistical Institute (ISI) and ICT (Institute of Chemical Technology).

For any further information, please feel free to contact Ranjeet Dutta on ranjeet.dutta@njgroup.in.

With warmest regards,

Ranjeet Dutta

Manager,

NJ Charitable Foundation

☎ - +91 261 4025223

   - +91 81412 34967

Editorial Notes

Hello Readers!

Namaskar! It is my pleasure to introduce this handbook to assist students and their parents to select one of the most graceful careers at the most appropriate institution. We have kept the courses mostly in alphabetic order available with various states, in particular institutions. The edition of the book especially aims to cover all major undergraduate degree courses of Sciences, available at various prestigious institutions and its campuses covered through the admission channel of IAT, NEST, ISI, NFSU and CET. We have already published the courses opted in various IITs / NITs / Universities after qualifying JEE (Mains) and JEE (Advanced). Although IISERs use 25% of admissions through the channel of JEE (advanced) score, but 75% of the admissions with the entrance test of IAT (IISER Aptitude Test), and the test is also used as a gateway of admission in the Indian Institute of Science, Begaluru.

The edition of the booklet is based on the information available on the site of various institutions for various years. Even though there is a negligible chance of error for any information provided here, I request the reader to verify the information with the appropriate authorities and exempt us from any form of litigation.

This is the maiden edition of the booklet, please go through our other publications at www.njcf.in   and suggest the changes you would like to see in the next edition of the booklet.

Feel free to contact me at ranjeet.dutta@njgroup.in if you have any questions regarding the information or clarity on any information provided in the booklet. I am certain to help you to take the right step on your career ladder !

Thank you.

Regards,

Ranjeet Dutta

Manager,

NJ Charitable Foundation

☎ - +91 261 4025223

   - +91 81412 34967

Founder's Pen

Namaskar !

The team of NJCF over a period of last 10 years have dealt with more than 250 students and based on the experience we realised that the students don't have ideas related to various undergraduate courses/programmes. There are wide choices of careers and courses available however only a few of them are known due to which these students only take admission into conventional courses and get an average career path. Therefore to aid the following :

- Career Options - Choice of courses
- Competitive Exams through which one get entrance to good colleges
- Career prospects for each course
- Cutoffs for getting admission in a college

We are glad to launch the first series of **COLLEGE PREDICTOR COMPENDIUM**, for the purpose of helping students to get an idea of the varied options of courses and colleges and it will also serve as a **COLLEGE PREDICTOR** tool based on the scores in the competitive exam.

I am glad that the first **Advanced Sciences COURSE COMPENDIUM** is launched where the list of institutions accepting the score of various entrance examinations with available cut offs will help as a tool to students who have appeared for respective entrance tests in the academic year 22-23.

The **COLLEGE PREDICTOR COMPENDIUM** is not only restricted to Advanced Sciences or Scientific Technologies but also published for **JEE, GUJCET, NATA**, **Law and Management programs** (CLAT, NLAT and other) and **NEET** (Medical Entrance) so far.

This compendium would be an **Annual Publication** and help students to get aware not only about the colleges but also about the various courses in which a career could be pursued.

There will also be an **ADVANCED SEARCH** available on the **NJCF Application** through which a student can get an idea of various options available to select as a career prior to taking the competitive exam and shall also get an idea of the college in which the student can get admission after taking the competitive exam.

I am sure that this initiative of NJCF will go a long way in helping the STUDENTS to take the RIGHT academic path for a bright future.

Warm regards

Neeraj Choksi
Director,
NJ Charitable Foundation

Acknowledgement

First and foremost I express my sincere gratitude to Mr. Neeraj R. Choksi and Mr. Jignesh R. Desai for encouraging the series - "College Predictor Compendium" on their noble foundation NJ Charitable Foundation. I extend my gratitude to Ms. Nima Deokar, Head of NJCF for her constant support and feeds in the development of the booklet.

My special thanks to Mr. Vikas Bhagwagar for putting his enormous efforts in compilation of the data with adequate research.

Further, I extend my vote of thanks to the entire team of NJ Group for conceding their valuable time as and when required.

Finally I would like to thank all readers for selecting and promoting this series in order to induce learners with the horizon of learning.

Happy Reading.

Ranjeet Dutta

Manager,

NJ Charitable Foundation

☎ - +91 261 4025223

    - +91 81412 34967

CHARITABLE
FOUNDATION
TO CREATE A COMMUNITY OF 'RISHEY'

<mark>Index</mark>

CHARITABLE FOUNDATION
TO CREATE A COMMUNITY OF 'RISHEY'

IAT

IAT is the acronym for Indian Institute of Science Education and Research Aptitude Test. The test is conducted by the Consortium of NLUs established in 2017. The IAT is a 2-hour test, with 60 (15 questions each from Mathematics, Physics, Chemistry and Biology) multiple-choice questions carrying 4 marks each. There are negative markings of 1 mark for every wrong answer. These questions would be divided across the following 4 subjects:
- Mathematics
- Physics
- Chemistry
- Biology

The tentative total number of seats available for the BS-MS/BS program is 1838, with each IISER having the following number of seats :

Name of the Course : BS-MS Program (5 years)

Institute Location	State	Fees	Number of Seats
IISER Berhampur	Odisha	542000	170
IISER Bhopal	Madhya Pradesh	314500	240
IISER Kolkata	West Bengal	476220	250
IISER Mohali	Punjab	177660	250
IISER Pune	Maharashtra	291700	288
IISER Tirupati	Andhra Pradesh	538300	200
IISER Thiruvananthapuram	Kerala	437250	320
Total			**1718**

BS-MS program is an integrated coursework of Natural and Applied sciences where one has to learn Physics, Chemistry, Life Sciences, Earth Sciences, Social Sciences, Computer Sciences and Mathematics over a period of 10 semesters.

Name of the Course : BS Program in Engineering Sciences (4 years)

Location	State	Fees	Number of Seats
IISER Bhopal	Madhya Pradesh	314500	60

Engineering Sciences are basically more of research orientation in the fields of applied sciences. Students are guided for the development of various tools and techniques involved in various fields of engineering. Problem solving techniques are developed and resolve challenges.

Name of the Course : BS Program in Economic Sciences (4 years)

Institute Location	State	Fees (in INR)	Number of Seats
IISER Bhopal	Madhya Pradesh	251600	30

The BS Program in Economic Sciences is related to the advancement in the field of Economics, Financial Dynamics and Data Sciences.

Apart from the various campuses of IISER, IAT also invites admissions of Undergraduate Programmes and integrated Master Degree Programmes in IISC - Bengaluru. This is to be mentioned that IISc Bengaluru also invites applications through the channel of JEE Advanced qualified candidates. 25% of the seats are filled up through the channel of JEE Advanced but not through JoSAA (please refer to our College Predictor Compendium - JEE), and hence we are discussing it here under the IAT which is the channel responsible for 75% of the UG course admission in IISc.

Name of the Course : BS (Research) Programme (4 years)

The Bachelor of Science (Research) Programme is a four-year programme organised into eight semesters in IISc - Bengaluru. The final two semesters are devoted exclusively to a research project. Six major disciplines are offered, viz. -

1. Biology
2. Chemistry
3. Earth & Environmental Science
4. Materials
5. Mathematics
6. Physics.

Students specialising in any of the above disciplines will have to take a set of prescribed core and elective courses in the chosen discipline. They will also take courses in engineering, humanities, and interdisciplinary areas for a well-rounded learning experience. While a student specialises in a major discipline, he/she can also broaden his/her knowledge and skills by taking courses in other disciplines. Students who take a sufficient number of designated courses in a discipline other than their major will qualify for a "minor" in that discipline. The combination of courses taken by a student will be listed in his/her final transcript.

The seat matrix of IISc - Bengaluru for BS (Research) Programme is as given below : -

Institute Location	State	Fees (in INR)	Number of Seats
IISc Bengaluru	Karnataka	25040	137

However, there is a reservation for Overseas Indian Citizens (OCI) to get admission in IISc. As per the judgement dated 03.02.2023 passed in Writ Petition (Civil) 891 of 2021 by the Hon'ble Supreme Court of India in which the OCI/PIO candidates shall be considered as Indian nationals. Depending on their domicile status, they can qualify for admission through KVPY(IAT)/ JEE/ NEET/ GATE/ MTech degree, etc. also.

Note: The Kishore Vaigyanik Protsahan Yojana (KVPY) does not exist now and IAT has commenced

Name of the Course : BE/B.Tech in Mathematics and Computing (4 years)

B. Tech. in Mathematics and Computing is a 4-year undergraduate degree course offering students comprehensive theoretical knowledge as well as practical experience and training in Computer Science, Numerical Computing, and Mathematical Finance. The course is designed as a combination of topics taken from three different streams viz. - Mathematics, Statistics and Computer Science. Graduates of this program will emerge with a deep theoretical knowledge and a strong practical training in mathematical, statistical and computer related aspects.

The seat matrix of IISc - Bengaluru for BE/B.Tech in Mathematics and Computing (4 years) Programme is as given below : -

Institute Location	State	Fees (in INR)	Number of Seats
IISc Bengaluru	Karnataka	20000	52

This is to be noted that fees given here is devoid of tuition fee for each of the two above programmes, as the tuition fees is completely waived off for the students getting admission through IAT or JEE Advance channel. Candidates within a rank range of 1-10000 in JEE Advance only can apply for the IISERs and IISc. Programmes mentioned above.

The registration for IAT starts around the end of the preceding academic year and examination is conducted around April - June tenure.

NEST

National Entrance Screening Test or simply NEST is conducted by the Government of India in order to admit students in NISER (National Institute of Science Education and Research), Bhubaneshwar and CEBS (Centre for Excellence in Basic Sciences).

The basic sciences are four in CEBS Mumbai viz. - Mathematics, Physics, Chemistry and Biology. It is also a gateway of integrated master degree programs in the field of basic sciences. Both the institutes are governed by the Department of Atomic Energy and affiliated to Homi Bhabha National Institute (HBNI).

A candidate can choose any three subjects or all four subjects in the test. However, if a candidate selects all four subjects in the test - the best three subjects score is considered while making the merit list.

The candidates admitted to the programme are eligible to receive an annual scholarship of Rs 60,000 through the DISHA program of the Department of Atomic Energy, Government of India. In Addition, the scholarship recipients receive a grant of Rs 20,000 per annum for the summer internship. Candidates selected by DST for the INSPIRE-SHE program are endorsed for INSPIRE scholarship by NISER CEBS.

The questions are asked on the basis of following subjects:

- Mathematics
- Physics
- Chemistry
- Biology

The examination is compulsorily online and computer based and conducted on two shifts.

The questions are asked in 4 sections, each section having a set of 17 subject specific questions. Out of these 17 questions, 12 questions are of single correct option type and 5 questions of multiple correct option type. 4 marks are awarded for selecting all correct answers and no wrong answer in the multiple correct option type. While each question of single choice correct option yields 2.5 for selecting correct option and -1 for a wrong choice. There is no marks awarded or deducted for the unattempted question.

Sections	No. of single correct MCQs (A)	No. of single correct MCQs (B)	Full marks of (A)	Full marks of (B)	Total Marks
Mathematics	12	5	30	20	50
Physics	12	5	30	20	50
Chemistry	12	5	30	20	50
Biology	12	5	30	20	50
Grand Total	48	20	120	80	200

The examination is conducted around May-June of the year and the application forms are invited either in the end of preceding year or in the starting months of the year.

The seat matrix through NEST in NISER and CEBS are given as below :

Category	Location - NISER, Bhubaneshwar	Location - CEBS, Mumbai
General	101	23
General - EWS	0	6
OBC - NCL	54	15
SC	30	9
ST	15	4
Divyangjan	5% seats in each category	5% seats in each category
Total	200	57
Total Proposed Intake	200	57

So, the total intake as of now through NEST is 257 which includes the 5% of seats for Divyangjan.

Name of the Course : Five years Integrated MSc

(One of the four basic Sciences from Physics/Chemistry/Biology/Mathematics)

Institute Location	State	Fees	Number of Seats
NISER Bhubaneswar	Odisha	89750	200
CEBS Mumbai	Maharashtra	76500	57

ISI

The Indian Statistical Institute, known widely as ISI, was founded in 1931. At present,the Institute and its subsidiaries have seven centres operating at Kolkata, Delhi, Bengaluru, Chennai, Pune, Vadodara (Baroda) and Tezpur.

ISI scientists working in the areas of Theoretical and Applied Statistics,Mathematics,Computer Science,Economics as well as Statistical Quality Control and Operations Research are located mainly in the Kolkata, Delhi, Bengaluru and Chennai campuses.

In order to be eligible for the admission to this programme,an applicant has to clear the couple of exams that are Multiple Choices type and descriptive questions answers for the admission. A candidate gets just one chance each to appear in undergraduate and postgraduate level of entrance examination. Examinations are conducted around sometime between April and June, the applications are invited either in the end of the preceding year or in the early start of the year.

The undergraduate degree programmes being offered by the institute are the following:
1. B. Stat (Hons.) : 3 years degree programme offered at the Kolkata centre.
2. B. Math (Hons.) : 3 years degree programme offered at the Bengaluru centre.

Bachelor of Statistics (Honours) [B Stat (Hons)]

Eligibility In order to be eligible for admission to this programme, an applicant must have successfully completed 10+2 years of Higher Secondary Education (or its equivalent) with Mathematics and English as subjects.

Selection Procedure All applicants for this programme, except the INMO AWARDEES (see next paragraph), will have to appear for two written tests comprising multiple-choice type and descriptive questions in Mathematics at the 10+2 level. Based on performance in the written tests, a number of candidates will be called for interviews.

The written test is waived for applicants who have been selected as INMO AWARDEES to participate in the International Mathematics Olympiad Training Camp (IMOTC) in the the current year or in any previous year, based on their performance in the Indian National Mathematics Olympiad (INMO) conducted by the National Board of Higher Mathematics, Department of Atomic Energy, Government of India. Such candidates will be directly called for interviews. The final selection of candidates for admission to the programme is based on performance in the two written tests (unless waived) as well as the interviews. The final list of candidates selected for admission is announced after completion of all the interviews.

Bachelor of Mathematics (Honours) [B Math (Hons)]

Eligibility In order to be eligible for admission to this programme, an applicant must have successfully completed 10+2 years of Higher Secondary Education (or its equivalent) with Mathematics and English as subjects.

Selection Procedure All applicants for this programme, except the INMO AWARDEES (see next paragraph), will have to appear for two written tests comprising multiple-choice type and descriptive questions in Mathematics at the 10+2 level. Based on performance in the written tests, a number of candidates will be called for interviews.

*The written test is waived for applicants who have been selected as INMO AWARDEES to participate in the International Mathematics Olympiad Training Camp (IMOTC) in the the current year or in any previous year, based on their performance in the Indian National Mathematics Olympiad (INMO) conducted by the National Board of Higher Mathematics, Department of Atomic Energy, Government of India. Such candidates will be directly called for interviews. The final selection of candidates for admission to the programme is based on performance in the two written tests (unless waived) as well as the interviews. The final list of candidates selected for admission is announced after completion of all the interviews. A candidate who has applied for the B Stat (Hons) programme shall have only one subsequent option to switch to the B Stat (Hons) programme of the Institute.

Name of the Course : B. STATS (3 years Honours Programme)

This **three-year** degree programme offers comprehensive instruction in the theory, methods and application of Statistics, in addition to several areas of Mathematics and some basic areas of Computer Science. It also offers optional courses in some other subjects. It is so designed that, on successful completion, the students will be able to pursue higher studies in areas of Statistics and Mathematics, as well as Computer Science, Economics and allied fields, or take up careers as Statisticians in research institutions and scientific laboratories, government departments or industries. This programme is offered only at **Kolkata.**

The seat matrix is as given below, out of which 25 seats are reserved for general category, 14, 7 and 4 seats are reserved for Economically Weak Section - Non Creamy Layer (EWS-NCL), Scheduled Caste (SC) and Scheduled Tribe (ST) respectively.

Institute Location	State	Fees	Number of Seats
ISI Kolkata	West Bengal	(stipend)*	50

*It is to be noted that selected candidates get a stipend of **INR 3000** per month for successful completion of the programme. That is why the figure in the fees column is highlighted. Although it is only for the first semester. The amount of stipend to be awarded in each subsequent semester depends on academic performance, conduct, and attendance, as specified by the institutional constitution, provided the requirements for continuation in the academic programme (excluding repetition) are satisfied.

The coursework of the B.Stats (Honours) is as under :

Paper No.	Year	Semester	Paper	Subject
1	1	I	1	Analysis I (C)
2	1	I	2	Probability Theory I (C)
3	1	I	3	Vector and Matrices I (C)
4	1	I	4	Statistical Methods I (C)
5	1	I	5	Introduction to Programming and Data Structures
6	1	I	6	English (Non-Credit)
7	1	II	1	Analysis II (C)
8	1	II	2	Probability Theory II (C)
9	1	II	3	Vector and Matrices II (C)
10	1	II	4	Statistical Methods II (C)
11	1	II	5	Numerical Analysis Remedial
12	2	I	1	Analysis III (C)
13	2	I	2	Probability Theory III (C)
14	2	I	3	Statistical Methods III (C)
15	2	I	4	Elements of Algebraic Structures
16	2	I	5	Elective Course I
17	2	II	1	Introduction to Stochastic Processes
18	2	II	2	Discrete Mathematics
19	2	II	3	Statistical Methods IV (C)
20	2	II	4	Differential Equations
21	2	II	5	Elective Course II
22	3	I	1	Linear Statistical Models (C)
23	3	I	2	Parametric Inference (C)
24	3	I	3	Sample Surveys (C)
25	3	I	4	Economic and Official Statistics and Demography
26	3	I	5	Design and Analysis of Algorithms
27	3	II	1	Nonparametric and Sequential Methods (C)
28	3	II	2	Design of Experiments (C)
29	3	II	3	Statistics Comprehensive (C)
30	3	II	4	Statistical Quality Control and Operations Research
31	3	II	5	Optional Course

There is a clear parameter of credit points for both mandatory and elective papers which a student has to score and if successful then the student gets direct admission to the M.Stat. programme to master and specialise in a particular field.

Name of the Course : B. MATHS (3 years Honours Programme)

This three-year degree programme offers comprehensive instruction in basic Mathematics along with basic courses in Probability, Statistics, Computing and Physics. It is so designed that, on successful completion, the students will be able to pursue higher studies in the areas of Mathematics, Statistics, Computer Science, Mathematical Physics, etc., or take up a career in applications of Mathematics. This programme is offered only at **Bengaluru**.

Institute Location	State	Fees	Number of Seats
ISI Bengaluru	Karnataka	(stipend)*	79

*It is to be noted that selected candidates get a stipend of **INR 3000** per month for successful completion of the programme. That is why the figure in the fees column is highlighted. Although it is only for the first semester. The amount of stipend to be awarded in each subsequent semester depends on academic performance, conduct, and attendance, as specified by the institutional constitution, provided the requirements for continuation in the academic programme (excluding repetition) are satisfied.

The coursework of the B.Maths (Honours) is as under :

Paper No.	Year	Semester	Paper	Subject
1	1	I	1	Analysis I (Calculus of one variable)
2	1	I	2	Probability Theory I
3	1	I	3	Algebra I (Groups)
4	1	I	4	Computer Science I (Programming)
5	1	I	5	Writing of Maths (non credit half course)
6	1	II	1	Analysis II (Metric spaces and multivariate Calculus)
7	1	II	2	Probability Theory II
8	1	II	3	Algebra II (Linear Algebra)
9	1	II	4	Physics I (Mechanics of particles and Continuum systems)
10	2	I	1	Analysis III (Vector Calculus)
11	2	I	2	Algebra III (Rings and Modules)
12	2	I	3	Statistics I
13	2	I	4	Physics II (Thermodynamics and Optics)
14	2	I	5	Optimization
15	2	II	1	Graph Theory
16	2	II	2	Algebra IV (Field Theory)
17	2	II	3	Statistics II
18	2	II	4	Topology
19	2	II	5	Computer Science II (Numerical Methods)
20	3	I	1	Complex Analysis
21	3	I	2	Introduction to Differential Geometry
22	3	I	3	Physics III (Electromagnetism and Electrodynamics)
23	3	I	4	Statistics III
24	3	I	5	Elective Subject I
25	3	II	1	Analysis IV (Introduction to Function Spaces)
26	3	II	2	Introduction to Differential Equations
27	3	II	3	Physics IV (Modern Physics and Quantum Mechanics)
28	3	II	4	Elective Subject II
29	3	II	5	Elective Subject III

NFSU

The National Forensic Sciences University with the status of an Institution of National Importance is the world's first and only University dedicated to Forensic, behavioural, cybersecurity, digital forensics, and allied Sciences. It was established by the Government of India through Act, 2020 (32 of 2020) with the objective of fulfilling the acute shortage against the increasing demand for forensic experts in the country and around the world.

There are 9 (nine) domestic campuses and 1 (one) international campus of the university and each campus has several schools of specialisation. The details are listed below : -
1. Gujarat Campus (Gandhinagar)
2. Delhi Campus (New Delhi)
3. Goa Campus (Ponda)
4. Tripura Campus (Agartala)
5. Bhopal Campus
6. Pune Campus
7. Guwahati Campus
8. Manipur Campus (Pangei)
9. Dharwad Campus
10. Uganda Campus (International Campus at Kampala)

Each of the campuses has a number of schools (that is equivalent to faculties/departments). Each such school offers a number of Undergraduate(UG) and Postgraduate (PG) courses. We shall discuss the UG courses here which can be opted after clearing the entrance test of NFSU.

Name of the course : B.Tech - M.Tech. Computer Science & Engineering (Cyber Security, 5 years)
Department /School : Department of Cyber Security & Digital Forensics

B.Tech – M.Tech Computer Science and Engineering (Cyber Security) is a 5-year program in which the student will complete the engineering program with a specialisation in Cyber Security in 5 years. The program is also known as an integrated 5 years program in engineering in Cyber Security. During this program, bachelor's and master's degrees in technology will be completed in 5 years. The students may get jobs in many sectors of engineering after completing the program. The program aims to provide computer science, programming, mathematics and cyber security knowledge to students. The program will give advanced technological knowledge of the specialisation that the student will choose during the program. One who has passed or appeared in 10+2 (or its equivalent) in Physics and Mathematics as compulsory subjects along with one subject out of Chemistry/ Biology/ Information Practices/ Biotechnology/ Technical Vocational Subjects/Business Studies/Entrepreneurship or any other equivalent subjects with a minimum of 60% marks (55 % for SC/ST/PwD category) in the above subjects taken all together (aggregate). 60% aggregate will be calculated on the basis of marks of Physics, Mathematics and maximum marks secured in Chemistry or Biology or Information Practices or Biotechnology or Technical Vocational Subjects or Business Studies or Entrepreneurship or any other equivalent subjects can take up the course.

Institute Location	State	Fees	Number of Seats
NFSU-Gandhinagar	Gujarat	900000	40
NFSU-Delhi	Delhi	650000	40
NFSU - Tripura	Tripura	To be checked with University	40

Name of the course : B.Sc. - M.Sc. Criminology and Forensic Science (as per NEP)
School : School of Behavioural Forensics

The course of Criminology and Forensic sciences are closely related. In the UG course, candidates are exposed to various elements of forensic sciences and they are equipped to manage the analysis of the crime scene. They develop the skill of understanding the cause and consequences of the crime. While in the PG level one can specialise a particular element of forensic science.

Eligibility criteria for pursuing the course is to pass Higher Secondary School examination or equivalent with science stream with 60% marks from a recognised board of education and clear the entrance examination NFAT. The entrance examination papers have 70% weightage on Physics, Chemistry, Biology and Mathematics while 30% of weightage is given to test the knowledge of Reasoning, English Grammar, General Knowledge and basics of Computer Science.

Institute Location	State	Fees	Number of Seats
NFSU-Gandhinagar	Gujarat	650000	30
NFSU-Delhi	Delhi	650000	30
NFSU-Ponda	Goa	650000	30
NFSU-Dharwad	Karnataka	650000	30
NFSU-Agartala	Tripura	650000	30

Name of the course : B.Sc.- Ll.B. (5 years integrated course)
School : School of Law, Forensic Justice and Policy Studies

The program is unique in its nature to integrate Law (Forensic Justice) and science. It develops a scientific approach to bring justice or establish the truth. Apart from pure legal studies it also exposes candidates to web programming, operating systems and statistics.

Institute Location	State	Fees	Number of Seats
NFSU-Gandhinagar	Gujarat	650000	40

Various campuses of NFSU offer 102 programs in total and among them 16 are either UG or Integrated PG programs. Being a very new Institution and unique of its kind - the University is expanding very fast. NFSU has been recognised as an **institution of national importance.** Please go through the original portal of the University for latest updates on courses/programs/campuses/fees.

Many of the PG programs are getting introduced as integrated programmes. B.Sc. - M.Sc. in Forensic Sciences is one such program.
There are following interesting programmes which are open for candidates from all streams :
BBA-MBA (with Specialization in Forensic Accounting and Fraud Investigation
- **BBA-MBA (with specialisation in Forensic Accounting and Fraud Investigation)**
- **BBA;LLB (Hons.)**
- **BA-MA (Criminology)**

AVIATION Sciences and Avionics

Aviation industry offers lucrative opportunities for candidates after completing their Higher Secondary Schooling with science stream. There are numerous aviation courses to take up after class 12. Students can choose certification, diploma, BSc, BBA, or BTech in aviation courses and its allied domain. Minimum eligibility is 50% - 60% in the class 12 board exam. Students of any stream can apply for BBA in Aviation or a Diploma in aviation. Most popular courses in Aviation are Aircraft Maintenance Engineering (AME) and Commercial Pilots. There are 48 institutions / Universities in India, which are recognised by the Directorate General of Civil Aviation (DGCA). Following are the institutions :

Sl. No.	Name of Institution	Location	UT/State
1	Star Aviation Academy	Gurugram	Delhi NCR / Haryana
2	JRN Institute of Aviation Technology	New Delhi	Delhi
3	School of Aeronautics	Alwar	Rajasthan
4	School for Aircraft Maintenance Engineering	Greater NOIDA	Delhi NCR / U.P.
5	Alpine Institute of Aeronautics	Dehradun	Uttarakhand
6	Indian Institute of Aircraft Engineering	Sonepat	Haryana
7	Indraprastha Institute of Aeronautics	Gurugram	Delhi NCR / Haryana
8	School of Aeronautics	New Delhi	Delhi
9	Punjab Aircraft Maintenance Engineering College	Patiala	Punjab
10	Aeronautical Training Institute	Lucknow	U.P.
11	Pawan Hans Limited	New Delhi	Delhi
12	Institute of Aircraft Maintenance Engineering	Gorakhpur	U.P.
13	Air Charter Services Private Limited	Aligarh	U.P.
14	Falcon Institute of Aircraft Maintenance Engineers	Lucknow	U.P.
15	Himachal College of Aircraft Engineering	Solan	H.P.
16	Utkal Aerospace & Engineering	Bhubaneshwar	Odisha
17	Bharat Institute of Aeronautics	Patna	Bihar
18	Thakur Institute of Aviation Technology Mumbai	Mumbai	Maharashtra
19	Pawan Hans Helicopter Training Institute	Mumbai	Maharashtra
20	Indira Institute of Aircraft Engineering	Pune	Maharashtra
21	Hindustan Aerospace & Engineering	Pune	Maharashtra
22	Pune Institute of Aviation Technology	Pune	Maharashtra
23	Indian Aerospace & Engineering	Mumbai	Maharashtra
24	Institute of Aeronautics & Engineering	Bhopal	M.P.
25	Sha-Shib Aerospace Engineering	Gurugram	Delhi NCR / Haryana
26	Carver Training and Services Pvt. Ltd.	Baramati	Maharashtra
27	Institute of Aircraft Maintenance Engineering	Aurangabad	Maharashtra
28	Sky College of Aeronautical Engineering	Bhopal	M.P.
29	Western India Institute of Aeronautics Pvt	Ahmedabad	Gujarat
30	NDC Institute of Aircraft Maintenance, Engineering	Vadodara	Gujarat
31	M/s HAL Pravara Aviation Institute	Nasik	Maharashtra
32	Wings College of Aviation Technology	Pune	Maharashtra
33	The Bombay Flying Club - AME Training Institute	Mumbai	Maharashtra
34	Nehru College of Aeronautics & Applied Science	Coimbatore	Tamil Nadu
35	Hindustan Institute of Engineering Technology	Chennai	Tamil Nadu
36	Vinayaka Missions Aviation Academy	Salem	Tamil Nadu
37	Flytech Aviation Academy	Secunderabad	Telangana
38	Rajiv Gandhi Aviation Academy	Secunderabad	Telangana
39	Telangana State Aviation Academy	Hyderabad	A.P.
40	Hyderabad College of Aviation Technology	Kanyakumari	Tamil Nadu
41	Academy of Aviation & Engineering	Bengaluru	Karnataka
42	Southern College of Engineering & Technology	Chalakudy	Kerala
43	Sha Shib Aviation Academy	Kochchi	Kerala
44	Regional Institute of Aviation	Thiruvananthapuram	Kerala
45	Mount Zion College of Aircraft Maintenance Engineering	Kadammanitta	Kerala
46	Hindustan Aviation Academy	Bengaluru	Karnataka
47	VSM Aerospace AME Training School	Bengaluru	Karnataka
48	M/s Jawaharlal Aviation Institute	Palakkad	Kerala

CHARITABLE FOUNDATION
TO CREATE A COMMUNITY OF 'RISHEY'

Above all were the list of Institutions recognised by DGCA for the course of Aircraft Maintenance Engineering. Let's learn briefly about the courses associated with Aviation / Avionics.

Aircraft Maintenance Engineering (AME)

Aircraft Maintenance Engineering (AME) is a critical discipline in the aviation industry that ensures the safety and airworthiness of aircraft. AME professionals play a crucial role in inspecting, repairing, and maintaining aircraft to meet stringent safety standards. A candidate must meet the following criteria before appearing the **AMECET** which is a common entrance test to get included in the course of Aircraft Maintenance Engineering -
- Either candidate appearing or passed 10+2 examination with Science (PCM) stream with 45% marks, from a recognized board , or
- 3 years engineering diploma in any stream from recognized university/board or Approved from AICTE.
- AME course can also be pursued by the one eligible for B.Tech in any stream.
- Candidate age can be between 16 to 28 years at the time of admission.
- Candidate must not have colour blindness and any physical disabilities.

The course duration is of either three years or four years and candidates are enabled to sharpen their observational, flexibility, proactive approach, problem solving ability, analytical and mathematical ability, communication, interpersonal skills.

B.Sc. in Aviation / Aeronautical Science (3 years UG Course)

BSc Aviation is a 3-year undergraduate course that primarily focuses on various operations, precautions, functions, and maintenance of aircraft. In addition, it also deals with airline management, air traffic control, airport operations, etc.
- Candidates are required to score a minimum of 50% marks in 10+2 with English, Physics, and Mathematics as compulsory subjects.
- Students applying for the course must be 17 years old to 24 years old. Students coming from engineering, computer science, electrical, and other relevant branches are eligible to apply for the said course. Individuals holding either ATPL (Airline Transport Pilot Licence) or Commercial Pilot Licence (CPL) can apply for the BSc Aviation course.

Intake happens through an entrance examination. **NPAT** (NMIMS Programs After Twelfth) is a popular examination.

B.B.A. Aviation (3 years UG Course)

BBA Aviation is a 3-year undergraduate course that puts emphasis on the basics of business communications, operations related to the airline business, etc. The courses teach organisational skills, team management, and airport management, among others. To enrol in BBA in Aviation students must get at least 50% in class 12 in any stream from a recognized board.

B.Sc. Airlines, Tourism and Hospitality Management (3 years UG Course)

BSc Airlines, Tourism, and Hospitality Management course is a 3 years long undergraduate course that involves the study of travel and tourism services in the airline sector. The students get to know about management, customer care services, recreation, and other services. Apart from these, get to develop their interpersonal and presentational skills. Aspiring students need to score a minimum of 50% marks in the class 12 board examination. The admission is based on either merit or an entrance exam. AMEEE, VITEEE, and MhCET are a few popular entrance exams for admission to the course.

Let us understand about the AMECET (Aircraft Maintenance Engineering Common Entrance Test).

AMECET

AME CET full form is Aircraft Maintenance Engineering Common Entrance Test. AME CET is the national-level common entrance test that offers admission in aviation courses in the premium colleges in India. This is the scholarship-based exam and it provides up to 100% scholarships based on your AIR (All India Rank). The test comprises following five sections with 90 MCQs in all :
- Mathematics
- Physics
- Chemistry
- English Grammar
- GK and Reasoning

Successful candidates are offered admission in following five categories of courses in various institutions across the country :

Licence category Courses :
1. Pilot
2. Aircraft Maintenance Engineering (DGCA)
3. Aircraft Maintenance Engineering (EASA - European Aircraft Safety Agency)

In the course number 2 and 3, the difference is the approving authority and a few standard parameters. DGCA is our local government body whereas EASA is as the name suggests.

Engineering category Courses :
1. Aerospace Engineering
2. Aeronautical Engineering

The above courses are AICTE (All India Council for Technical Education)

UGC (University Grant Commission) affiliated Undergraduate Courses :
1. B.B.A. in Aviation
2. B.Sc. in Aeronautical Science
3. B.Sc. in Airport Management
4. B.Sc. in AME
5. B.Sc. in Aviation

AICTE affiliated Undergraduate Diploma Courses :
1. AME Diploma
2. Aeronautical Engineering
3. Aerospace Engineering

Skill India Self approved Certification Courses :
1. Cabin Crew
2. Airport Management
3. Ground Staff

All the courses have a 100% placement guarantee record, as the aviation industry is expanding rapidly worldwide. The career also offers overseas appointments.

Science stream opens up fields to all careers and one can switch to any other stream to get a degree or eligibility for a particular career which is dominated by some other streams. Recently, CUET (common university entrance test) is conducted by NTA (National Testing Agency) to get admissions in several universities of National Importance like DU (Delhi University), BHU (Banaras Hindu University) and many more. Cut off marks for each university is decided by the respective universities each and every year and that varies for department to department and university to university every year.

Hope you utilise the information to select your best suitable career after passing XIIth Board examination with Science stream. For more information, please post your query with njcf.in.

2023

CONSORTIUM OF COURSES
NATA - Architecture

CHARITABLE FOUNDATION

2023

COLLEGE PREDICTOR COMPENDIUM
CLAT/AILET/BLAT/SLAT/IPMAT - Law & Management

CHARITABLE FOUNDATION

2023

COLLEGE PREDICTOR COMPENDIUM
JEE/JoSAA - Engineering

CHARITABLE FOUNDATION

2023

COLLEGE PREDICTOR COMPENDIUM
GUJCET - Engineering

CHARITABLE FOUNDATION

2023

COLLEGE PREDICTOR COMPENDIUM
NEET - Medical

CHARITABLE FOUNDATION

www.njcf.in