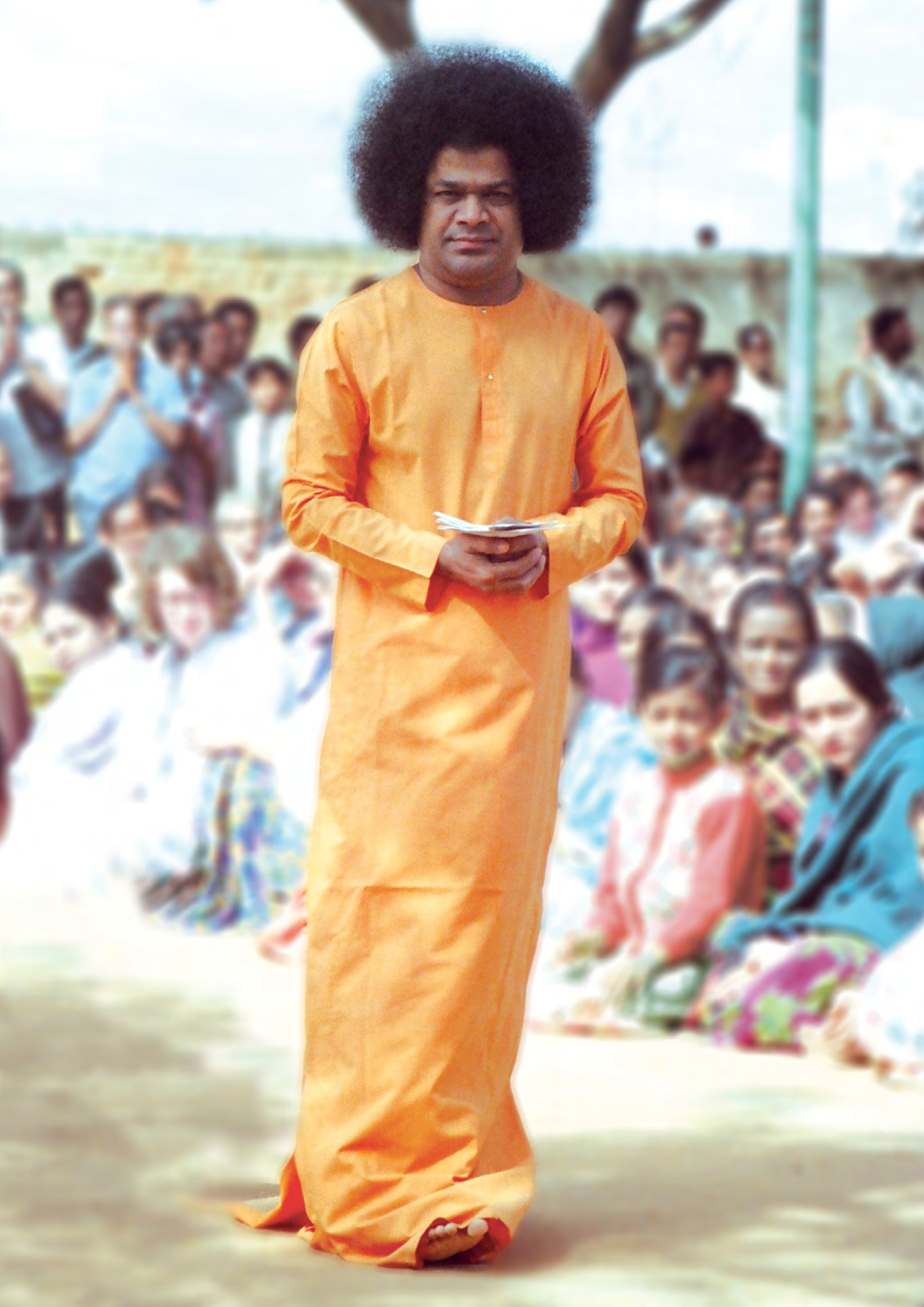
undergraduate

SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING
PRASANTHI NILAYAM
सत्यं वद धर्मं चर

Undergraduate Programmes

Admissions Prospectus

2024



The Underlying Philosophy

The Sai educational institutions have been established not merely to enable students to earn a living but to make them acquire good traits, lead ideal lives, and give them ethical, moral and spiritual strength. I have established them with a view to inculcate love and teach good qualities to students. They will learn here humility, discipline and faith.

I have established these institutions to impart spiritual education as a main component and worldly education as a secondary one. Education should enable one to cultivate good qualities, character and devotion. The teaching of the university curricula is only the means employed for the end, namely, spiritual uplift, self-discovery and social service through love and detachment.

This will be a Gurukula – a place where teachers and taught will grow together in love and wisdom - and like the ancient system of education, it will develop in its students a broad outlook and promote virtues and morals, which serve to foster noble ideals in society.

This Institute will be a temple of learning where youth are shaped into self-reliant, contented and enterprising heroes of action and self-sacrifice, for the purpose of serving humanity.

SRI SATHYA SAI BABA
Revered Founder Chancellor, SSSIHL

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Introduction

Undergraduate Programmes

From the admissions office

Welcome to Sri Sathya Sai Institute of Higher Learning (SSSIHL).

This prospectus is for students interested in applying for undergraduate study at SSSIHL.

The first few pages will give you an introduction to the institute and why SSSIHL is so unique. It will give you information on the application process, programme descriptions and detailed information on each undergraduate programme available for 2024 admissions.

Detailed information about the Institute and the admissions process can also be found on our website, **sssihl.edu.in/admissions**

Good Luck and Sai Ram!

Admissions Office
Office of the Registrar, SSSIHL

Sri Sathya Sai Values-based Integral Education

Sri Sathya Sai Institute of Higher Learning (Deemed to be University), Prasanthi Nilayam, Andhra Pradesh, India, is a visible manifestation of Bhagawan Sri Sathya Sai Baba's vision of education for human transformation.

Bhagawan Baba designed Sri Sathya Sai Values-based Integral Education to ensure deep inner transformation of students during their time at SSSIHL. This concept is unique at the university level of education.

The Institute hosts students from across the country at its four campuses located in Andhra Pradesh and Karnataka, India, and provides quality education free of cost for all programmes of study.

For Women:

- Anantapur Campus at Anantapur, Andhra Pradesh

For Men:

- Prasanthi Nilayam Campus at Puttaparthi, Andhra Pradesh
- Brindavan Campus at Kadugudi, Bangalore, Karnataka
- Muddenahalli Campus at Muddenahalli, Karnataka

Programmes offered include:

- Undergraduate: B.A., B.S. (Hons.), B.Com. (Hons.), B.S. & B.S. (Hons.), B.B.A., B.P.A.
- Postgraduate: M.A., M.Sc.
- Professional: B.Ed., M.B.A., M.Tech.
- Research: Ph.D.

A Modern Gurukula

Sri Sathya Sai Institute of Higher Learning (SSSIHL) was founded to inculcate ethical and moral values in students, along with secular education. This transformation (of students, teachers, and staff) has been the guiding principle right from its inception when it integrated ethics and values as the undercurrent of every subject taught at the Institute. Combined with academic and research excellence, the Institute provides its students with a holistic framework of interpersonal development. Its residential character trains the student's mind, body, and spirit in an environment similar to the ancient Indian 'gurukula' system of education in the most modern context.

Teachers and students live and grow together in an atmosphere of mutual trust and unity. This helps students develop a wholesome and balanced personality, where academic competence is intertwined with value systems.

Distinctive Features

Admissions

- Free, high-quality education for all students
- Merit-based open admissions policy for all, irrespective of income, religion or region

Residential Character

- A residential character where all students, doctoral research scholars and select teaching faculty reside together in the hostel, which enables the translation of lessons learned into practical skills through experiential learning
- Spiritual ambience in an environment of discipline and love
- Cultivation of the spirit of self-reliance, brotherhood and sacrifice through mentoring and personal example

Infrastructure

- Campuses set in spacious and peaceful surroundings
- Well-equipped, modern science laboratories and a cutting-edge Research Instruments Facility
- Automated Library using an Integrated Library Management System (ILMS) with a digitisation facility accessed through the online Public Access Catalogue (OPAC) within the campus premises
- Libraries across campuses with over 1,90,000 volumes
- Connected to the National Knowledge Network (NKN)
- Computer and Multimedia learning centres with ultra-high-speed internet connectivity
- International Centre for Sports at the Prasanthi Nilayam Campus and multiple sports facilities at other campuses

Academics & Research

- 4-year undergraduate curriculum aligned to NEP 2020, extending to Postgraduate studies
- Student-teacher ratio 8:1
- Research collaborations with premier Indian and International Institutions and Industry
- Interdisciplinary / multidisciplinary research for societal benefit
- Awareness Programmes and Moral Classes reinforcing human values

Integral Education

- Life lessons learned through the message of the Revered Founder Chancellor, Bhagawan Sri Sathya Sai Baba
- Integrating human values with secular knowledge
- Inculcating the spirit of self-reliance and service to society
- Synthesis of science and spirituality for societal benefit
- The concept of integral education that SSSIHL imparts is pursued by all teachers, staff, and students

The Process

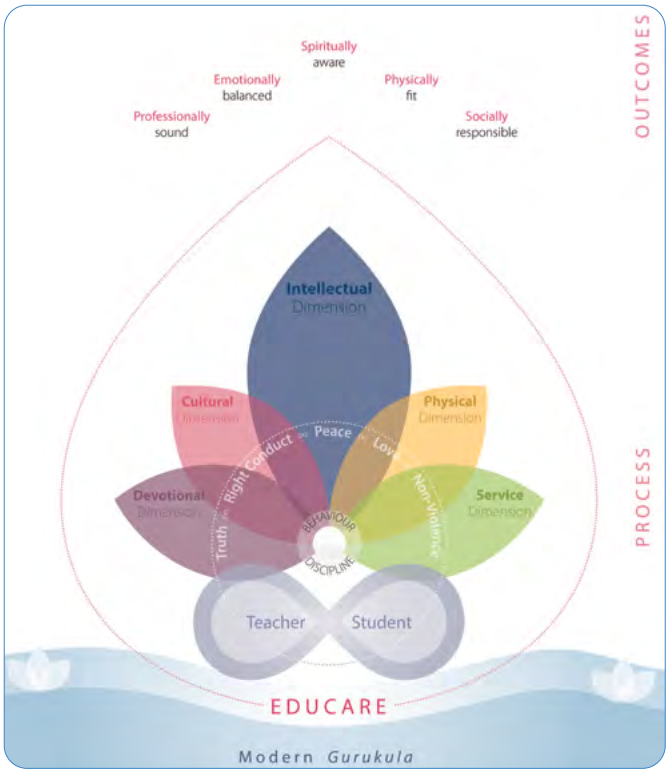
Sri Sathya Sai Values-based Integral Education is a modern, rational, scientific education system rooted in Indian ethos. It takes the best of both ancient and contemporary learning techniques.

As depicted in the diagram, the base is the concept of a modern Gurukula that sustains all relationships and activities at SSSIHL. It is responsible for creating and sustaining the congenial environment necessary for the teacher-student interaction to grow and develop.

Adherence to discipline and appropriate behaviour are the two important aspects that encompass all interactions. The five human values of Truth, Right Conduct, Peace, Love and Non-violence form the undercurrent of the integral education's dimensions.

These dimensions are Intellectual, Physical, Cultural, Devotional and Service. The key activities for each dimension form the basis of most of a student's time at SSSIHL.

Bhagawan Baba purposefully designed the system of Integral Education so that students spend their time on academics (intellectual capacities) and developing other qualities. See the Integral Education Activities for further details.



Sri Sathya Sai Values-based Integral Education

The Daily Routine

This is a crucial component of this process. Each student's day starts at 5:00 a.m., with a couple of hours spent in prayer, exercise and other vocational pursuits (such as practice sessions for music, band, traditional Indian music, etc.).

Classes commence at 8:45 a.m. After college ends at around 4:00 p.m., students move to the Sports Field / Mandir / Prayer Hall for participation in sports and games / congregational chanting (Veda), devotional singing (bhajans), and other spiritual activities. These also include talks by eminent speakers on a variety of spiritual topics. Post dinner, students continue to concentrate on their studies.

The Outcome

The outcomes of the system of Values-based Integral Education at SSSIHL are threefold. It prepares all graduates to be:

- Professionally sound
- Emotionally balanced
- Physically fit
- Socially responsible and
- Spiritually aware

It helps develop a strong character and positive qualities in students and nurtures virtues like adaptability, tolerance and sacrifice, shaping them into noble and responsible citizens.

LEARN MORE

Visit the About Us section of our website to learn more about the uniqueness of SSSIHL.

This includes information on our Revered Founder Chancellor, what makes SSSIHL a modern Gurukula, our vision and philosophy, campuses, facilities and more.

I have established these institutions to impart spiritual education as a main component and worldly education as a secondary one. Education should enable one to cultivate good qualities, character and devotion. The teaching of the university curricula is only the means employed for the end, namely, spiritual uplift, self-discovery and social service through love and detachment.

Sri Sathya Sai Baba
Revered Founder Chancellor, SSSIHL

Integral Education Activities

Students spend their time at SSSIHL on all five dimensions of the Sri Sathya Sai Values-based Integral education: Intellectual, Devotional, Cultural, Physical, and Service. These are highlighted below.

Devotional Dimension

- Bhajans (Sankirtan)
- Vedic chants and stotrams
- Meditation & Silent sitting
- Suprabhatam (prayer at dawn)
- Assembly (college prayer)
- Brahmarpanam (food prayer)
- Kshama Prarthana (night prayer)

The activities of the devotional dimension enable a student to connect to his/her Divine inner Self. This inner connection opens the heart and brings forth the feeling of love, compassion and empathy for fellow human beings.

Cultural Dimension

- Celebration of festivals: Guru Poornima, Ganesh Chaturthi Ugadi, Republic Day, Independence Day, Eid-al-Fitr, Christmas Sri Krishna Janmashtami, Sri Ramanavami, Buddha Jayanti, etc.
- Brass Band
- Nadaswaram & Panchavadyam ensemble
- Annual Sports & Cultural Meet
- Performing Arts: Music programmes, Drama & Dance
- Fine Arts: Rangoli, Cardmaking, Photography, Altar making
- Public Speaking
- Debates and Elocution

The cultural dimension is designed to give students wide opportunities to find an avenue for their individual artistic expression.

The Institute makes every effort to provide the best possible material and human resources so that students excel at their chosen activities.

Festivals of major world religions are celebrated, reinforcing the unity among all faiths. Every student is involved in one way or another in the celebration of these festivals.

Physical Dimension

- Sports
- Games
- Jogging
- Exercises and Yogasanas
- Annual Sports & Cultural Meet

Sports and games are a part of the daily routine of all students. From yoga classes to fitness training, team sports to individual sports, students are encouraged to overcome their limitations and excel in these activities. SSSIHL has excellent sports facilities.

Service Dimension

- Self-reliance departments:

  Electricals, Plumbing (water supply), Audiovisual, General store, Dispensary, Dietary services, Hostel mess, Arts & Crafts, costumes & props, etc.
- Community living
- Social work
- Voluntary work
- Grama Seva (Village Service)
- Prasadam distribution

The service philosophy at SSSIHL is based on the concept that divinity pervades all of humanity; hence, when you serve others, you are serving the Divine. Students learn to serve without expecting anything in return, other than the deep inner satisfaction of serving others.

The compulsory residential system, where students live in dormitory-styled accommodation with other students from totally different backgrounds (for a minimum of two years and up to five years or more), provides an excellent foundation for the service dimension.

Intellectual Dimension

Apart from academics and research, the activities in this dimension include:

Awareness Courses

These mandatory courses are designed to cultivate a broad view of the human condition in students. The course content (e.g. the Unity of Religions and Faiths, Study of the Indian Epics, etc.) helps trigger self-reflection and enquiry and sensitises students to the concerns of society, and gets them to think about practical solutions to these problems.

Moral Class (Thursday)

At each campus, Thursday mornings begin with an hour of inspiring and ennobling talks by speakers focusing on their personal spiritual experiences, messages from sacred scriptures and other elevated and socially relevant themes. It also highlights students' talents in music, dramatics, elocution, debates, quizzes, etc.

Some of the topics typically include: Why are Values Important?, Where There Is E-go, He Go-es, Indian Army, Origins of Life, The Divine Architect, Madhuram Sai Brindavanam, Just another Sai Alumnus 3 km away, Life Lessons of a Data Scientist, Life Lessons as a Manager, Life is a Challenge Meet it, Lessons from the Aadhar Story, Sai Student, Moral values from the Ramayana, Divine Directions, Role and Importance of Guru, Debate on Government Should Regulate Social Media, Panel Discussion on 'Corruption Free India for a Developed Nation', Yoga & Holistic Human Health, Significance of Ugadi and several sessions on Experiences, and teachings of our Revered Founder Chancellor.

Prayer Talks

Every morning before classes commence at the college, all students and teachers gather for the morning assembly. Prayers, Veda chanting, Bhajans and a few minutes of silent sitting are sometimes followed by a talk by students, faculty members or invited guests on topics related to morals and values.

Some of the topics typically include: God is Just a Call Away, How to Become a Beautiful Page in Swami's Scrap Book, Proximity With God is the Greatest Wealth of All, Trial and Errors with Swami: Realisation in His Presence, His Delays are Not His Denials, Positivity in Life, Trust in God's Timings and Have Faith in His Decisions, Power of Thoughts, Tough Love, Self-Love – A Path to your Inner Self, The Rat Race: Choice of Freedom, Certainty in Uncertainty.

SSSIHL in numbers 2022/23

28%

Admissions Acceptance Rates

73%

PhD

*20 pursuing

Teachers with PhDs

8:1

Student Teacher Ratio

2:1

Student Computer Ratio

41%

National Exams (Combined)

number of final year SSSIHL postgraduate students that qualified

GATE, CSIR, JRF, NET, LS, JEST, CTET, UPSC IAI, ACET, CB3, CM2, CP3, CP2, CS1, DS1 and MAS

SSSIHL Students represent

23

out of 28 states of India

Student Diversity

₹ 2.53 lakh

Expenditure per Student / per year

90%

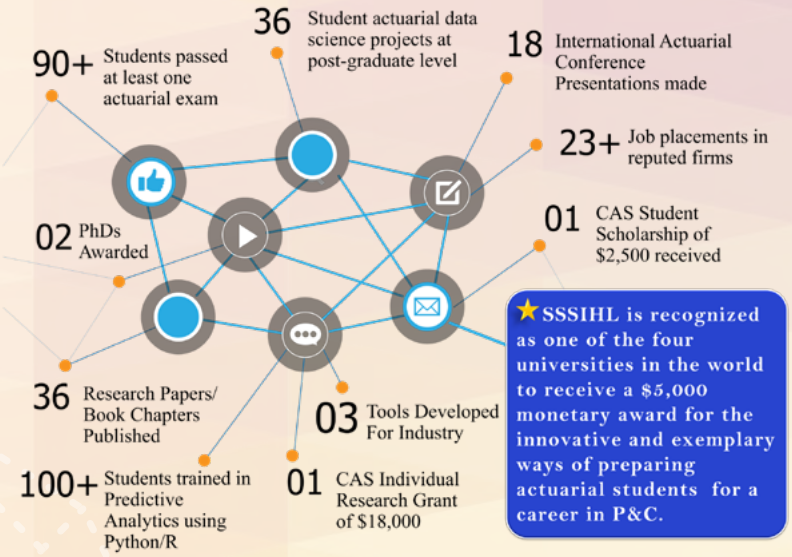
Undergraduate Programmes

95%

Postgraduate & Professional Programmes

Examinations Pass Rates


INDIAN
CULTURE
&
SPIRITUALITY


36 Student actuarial data science projects at post-graduate level
90+ Students passed at least one actuarial exam
18 International Actuarial Conference Presentations made
23+ Job placements in reputed firms
01 CAS Student Scholarship of $2,500 received
02 PhDs Awarded
SSSIHL is recognized as one of the four universities in the world to receive a $5,000 monetary award for the innovative and exemplary ways of preparing actuarial students for a career in P&C.
36 Research Papers/ Book Chapters Published
03 Tools Developed For Industry
100+ Students trained in Predictive Analytics using Python/R
01 CAS Individual Research Grant of $18,000


Ascend™ 400

Sai Student Life

Student Life @ SSSIHL

Campuses

SSSIHL campuses are all located in areas surrounded by mountains, greenery and nature, which helps create an ambience for integral education that the Institute curricula imparts Visit our **Campuses** page to learn more. You can also see the **Facilities** students have access to.




Hostel life

The philosophy of hostel life is based on the approach of community living: each one lives for the other and all live together for a common higher cause.

Students from different states of India, and varied economic and cultural backgrounds live in dormitory-styled accommodation with 10-14 students staying together in a room. the aesthetically pleasing hostel buildings also create a noble ambience for students to live in.

As a result, the hostel is a miniature model of the world outside with people of different habits, temperaments, lifestyles, language and outlook staying together and working. This develops the qualities of understanding, adjustment, sharing and caring amongst the students. It nurtures virtues like adaptability, tolerance and sacrifice; developing students into noble and responsible citizens.

The ambience is suffused with both discipline and loving care. All doctoral research scholars reside with the students in the hostel. The relationship between the students and teachers is very cordial and warm, and the teachers pay personal attention to the problems of each and every student. The teachers are chosen with extreme care to play an important role in this process. Many of them are alumni of the Institute, dedicated and well versed in integral education. They serve as facilitators and are available at all times for mentoring the students on personal and academic matters.

Personal cleanliness, punctuality and regularity, general behaviour, personal etiquette and room cleanliness are the major components of the discipline that is followed at SSSIHL hostels.

Self reliance

A major portion of the functioning of the hostel is taken care of by the students and resident staff members. The guiding principles of the hostel are a simple life coupled with self reliance. Students do their work with least dependence on external agencies. To inculcate the dignity of labour and respect for work, most functions and departments of the hostel are run by students under the able guidance of resident faculty.

The self reliance departments include:

- Electrical
- Plumbing (water supply)
- Audiovisual
- General store
- Dispensary
- Dietary services
- Hostel Mess
- Arts & Crafts
- Costumes & props

These self reliance activities enable students to become self-confident and independent. They also contribute to developing leadership and entrepreneurial skills. To maintain continuity and effective succession planning, senior students train the junior students in all aspects of respective self reliance departments before graduating.


Undergraduate Programmes

Application Process

SSSIHL is unique

As detailed in the **Introduction** pages above, SSSIHL is unique in several ways.

Firstly, aligned with the vision of Bhagawan Sri Sathya Sai Baba, **education at SSSIHL is provided FREE to all students for all programmes of study**.

This commitment aims to eliminate financial barriers and promote access to quality education for all deserving candidates, fostering an inclusive learning environment.

SSSIHL **does not** levy any of the following fees:

- **Tuition** fees
- **Admissions** fees
- **Infrastructure & Development** fees
- **Library** fees
- **Examination** fees
- **Basic amenities** fees
- **Sports** fees
- **Medical** fees*

**students have access to free medical treatment at Sri Sathya Sai General and Sri Sathya Sai Super Speciality Hospitals located at Prasanthi Nilayam and Whitefield, Bangalore.*

Hostel fees: Boarding and lodging charges will be communicated to selected candidates.

Secondly, owing to the unique system of education, we have the following notice that applies to all applicants (at all levels of study):

NOTICE TO ALL APPLICANTS

Given the unique modern Gurukula system of Values-based Integral Education at SSSIHL, it is mandatory that all students **study and reside at gender-specific campuses** during their entire period of study.

Programmes for Admissions

As a first step, carefully review in detail the descriptions of the programmes you are interested in. These can be found from page 19 onwards in this prospectus.

At the undergraduate level, there are several options for applications - in Humanities, Social Sciences, Management & Commerce and Sciences.

Each programme includes an **overview**, **eligibility requirements** (for that particular programme) and a comprehensive **list of courses** in each year (per semester of study).

Eligibility

The requirements for admissions vary from programme to programme. See the individual Programme pages for detailed information.

Candidates who do not meet all the admissions criteria listed for the programme they apply to will not be eligible for admissions.

Sri Sathya Sai Institute of Higher Learning (Deemed to be University) has a merit-based Admissions Policy open for all.

NOTE: Relaxation of admissions norms for special categories is applicable **as per the Govt. of India** guidelines.

Application Guide

NOTE: Applications for admissions to all programmes at SSSIHL are **ONLINE ONLY**.

After you have decided on what programme to apply for, head over to the Application Guide. This page will give you step-by-step guidance on how to successfully apply for a programme at SSSIHL.

Once you submit your online application, you will not be able to change it.

Therefore, it is **very important** you go through the Application Guide and read the important information it provides on various aspects of the application such as Registration for Online applications, what documents to upload, and what happens at each stage of your application process.

Dates & Deadlines

Next, to make sure you don't miss out on a chance to apply to SSSIHL, kindly visit the Dates & Deadlines page of the Admissions section of the website.

Documents Checklist

Before you fill in your application form, in order to save time, make sure you keep these key documents ready in a digital format before you register and apply online.

All documents uploads must be clear, legible and attested (where required). Failure to meet these requirements may result in your application being rejected.

The documents you must upload are:

1. **One passport-sized photograph**
   Latest photograph of the applicant in the prescribed format mentioned in the application form
2. **Statement of Marks**
   Self-attested (by the applicant) photocopies of the Statement of Marks for X Std. issued by your Higher Secondary School Board

   Self-attested (by the applicant) photocopies of the Statement of Marks for XII Std. (XI Std. if XII Standard exam results are not published) issued by the authority

   Note: Selected candidates are required to bring in their original, attested mark sheets for XII Std. for verification at the time of joining SSSIHL.
3. **Application fee payment receipt**
   A copy of the application fee payment receipt.
4. **Photo identification proof**
   A clear copy of any Government approved Photo ID, such as your

Aadhaar card.

5. **For special categories as per Govt. of India**
   A self-attested copy of the relevant certificate issued by the statutory authorities (state / central)

Apply Online

Once you are ready with the above, visit the **Apply Online** page.

Registration
The first step is to register online with a valid email address (email ID). This is done on the **Apply Online** page. Kindly refer to **Step 1** of the **Application Guide** for full details.

Filling and submission of your Application Form
You can then begin filling in the admissions application form online. Kindly refer to **Step 5** of the **Application Guide** for full details.

Note: All your information is transmitted through a secure server and is kept fully confidential. Your application information and accompanying credentials are reviewed only by authorized representatives of the Institute.

Admission Interviews

Next, you must wait to hear from the Institute in regards to the outcome of your application. Applicants who meet the eligibility criteria for the programme they applied for will then proceed to the next step of their application.

The list of candidates selected for the round of interviews will be published on the **Admissions Lists** page of the website.

Note: All notifications to applicants from SSSIHL during the entire admissions application process will be sent to your registered **email address**.

There is no admissions test for all Undergraduate programmes. Applications will be shortlisted based on merit. The shortlisted candidates will be asked to attend an online interview.

Applicants for the **Diploma in Music** programme will be required to take a Music Aptitude test.

Applicants for the **B.P.A. in Music** programme will be required to take a Music Aptitude and Competency test.

If you do not meet the eligibility criteria for the programme you applied for, you will be notified accordingly via email.

Results: Provisional List of Selected Candidates

Once you have attended the interview, the Institute will publish the list of selected candidates on the **Admissions Lists** page.

This page will be regularly updated as and when the Admissions team scrutinizes and processes applications at each stage of the admissions process.

Join SSSIHL!

Congratulations! You have got an opportunity to study at Sri Sathya Sai Institute of Higher Learning.

List of Documents to be submitted upon admission to SSSIHL

All newly admitted candidates must submit the following to the Director of the Campus on the opening day of the academic year:

- Original Marks Certificate of X and XII Standard.
  or XI Std. if your XII Std. results are not yet published
- Transfer certificate
- Conduct certificate
- Health Record
- Special category certificate (if applicable)

How do I contact the admissions Office if I need further help?

The **Admissions** pages of the website are designed to make sure that candidates have all the information that they require to successfully apply to SSSIHL.

If you still need further assistance please contact us either by email or telephone.

By Email:
For admissions related queries, please email us on **admissions@sssihl.edu.in**.

We will answer all email enquiries within two working days of receipt of your email.

By Telephone:
To contact the admissions office for Admissions related queries, please telephone:

+91 9441 911 391 or
+91 83310 34774 or
+91 8555 287239 (landline)

The above numbers are for admissions related queries for the Institute (SSSIHL) only.

Lines are open between 9:30 a.m. and 4:30 p.m., Monday to Saturday.

Outside of these hours, please email us on either one of the above addresses, depending on the nature of your query.

You are wished the very best.
Sai Ram!

1 July 2024

Academic year 2024/25 commences

Student Support

For information related to admission of international students, admissions policies, code of conduct, anti-ragging and grievance redressal mechanisms, etc., please visit the **Student Support** page of our website.

Undergraduate Programmes

Programmes for Admissions

There are separate programmes available for **Women** and **Men** applicants, as the Institute hosts separate campuses for women and men students.

Given below are the **Undergraduate** Programmes open for admissions in 2024.

National Education Policy (NEP)

SSSIHL has adopted the **National Education Policy (NEP) 2020** implementation across all departments and faculties.

Undergraduate Programmes (4 years)

For Women candidates

B.A. (Hons.) / (Hons. with Research) in **English Language & Literature**
B.A. (Hons.) / (Hons. with Research) in **Economics**
B.Com. (Hons.) / (Hons. with Research)

B.S. (Hons.) / (Hons. with Research) in **Mathematics**
B.S. (Hons.) / (Hons. with Research) in **Computer Science**
B.S. (Hons.) / (Hons. with Research) in **Physics**
B.S. (Hons.) / (Hons. with Research) in **Chemistry**
B.S. (Hons.) / (Hons. with Research) in **Biosciences & Biotechnology**
B.S. (Hons.) / (Hons. with Research) in **Food & Nutritional Sciences**

For Men candidates

B.A. (Hons.) / (Hons. with Research) in **English Language & Literature**
B.B.A. (Hons.)
B.Com. (Hons.) / (Hons. with Research)
B.A. (Hons.) / (Hons. with Research) in **Economics**

B.S. (Hons.) / (Hons. with Research) in **Economics**
B.S. (Hons.) / (Hons. with Research) in **Mathematics**
B.S. (Hons.) / (Hons. with Research) in **Computer Science**
B.S. (Hons.) / (Hons. with Research) in **Mathematical Sciences & Computing**
B.S. (Hons.) / (Hons. with Research) in **Actuarial Data Science**
B.S. (Hons.) / (Hons. with Research) in **Physics**
B.S. (Hons.) / (Hons. with Research) in **Chemistry**
B.S. (Hons.) / (Hons. with Research) in **Biosciences & Biotechnology**
B.S. (Hons.) / (Hons. with Research) in **Artificial Intelligence & Computational Biology**

B.P.A. (Hons.) in Music
Diploma in Music (2 years)

Programme descriptions

Common Courses for all Programmes

360 DEGREES LEARNING

The unique aspect of all degree programmes at SSSIHL is that the curriculum encompasses a wide variety of types of courses: Discipline Specific and Interdisciplinary Elective Courses, Ability Enhancement courses, Multidisciplinary courses, Major Discipline Specific Core courses, Interdisciplinary Minor courses, Skill Enhancement courses, Values-based courses and Research work & projects.

These are incorporated in the programme descriptions given in this prospectus.

In addition, students spend many hours of their courses on non-classroom study: seminars, conferences, tutorials, practical and laboratory work, internships, field trips and engaging with their communities.

PUBLIC SPEAKING

Students are also encouraged to come forward and speak in front of the SSSIHL community on topics ranging from science to metaphysics, thus giving them an appropriate platform to develop their public speaking skills and to refine their thought process.

THURSDAY MORAL CLASSES

At each campus, Thursday mornings begin with an hour of inspiring and ennobling talks by speakers focusing on their personal spiritual experiences, messages from sacred scriptures and other elevated and socially relevant themes. It is also used to highlight students' talents in music, dramatics, elocution, debates, quizzes, etc.

PRAYER TALKS

Every morning before classes commence at the college, all students and teachers gather for the morning assembly. Prayers/ veda chanting/bhajans and a few minutes of silent sitting are sometimes followed by a talk by students, faculty members or invited guests on topics related to morals and values.

AWARENESS COURSE

Each semester, students take an Awareness Course. These mandatory, credited courses are common to all programmes of study and are designed to cultivate a broad view of the human condition in students.

The course content helps trigger self-reflection and enquiry and sensitises students to the concerns of society, and gets them to think about practical solutions to these problems.

YEAR 1

Semester 1
Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Semester 2
Unity of Religions

YEAR 2

Semester 3
Study of Classics – I: Ramakatha Rasa Vahini

Semester 4
Study of Classics – II: Bhagavatha Vahini

YEAR 3

Semester 5
Ethos and Values for the Changing World

Semester 6
Life and its Quest

YEAR 4

Semester 7
Education for Life

Semester 8
God, Society and Man

PROGRAMME DESCRIPTIONS

The following pages will highlight the information for each individual undergraduate programme of study at SSSIHL for 2024 entry.

This includes: the length of the programme, whether it is applicable for women candidates or men or both, the eligibility criteria and a programme overview, and a full list of courses of study for each year (and semester).

Note: SSSIHL may revise or update any aspects of a programme based on the changing requirements of the employability, industry, entrepreneurship, skill development and research.

B.A. (Hons.) / (Hons. with Research) in English Language and Literature

For Women & Men | 2024 entry

Programme Overview

The Department provides a comprehensive four-year undergraduate programme in English Language and Literature.

The goal is to enhance proficiency in diverse areas of the subject. The curriculum covers English Literature, Literary Theory, Language Studies, and English Language Teaching, with specialization in the fourth year. It incorporates project work, internships, and dissertations, aligning with contemporary trends in interdisciplinary research in English Language and Literature.

Students have a range of options that they can pursue:

B.A. (Hons.) in English Language and Literature
For students who complete a 4-year (8-semester) programme of study.

B.A. (Hons. with Research) in English Language and Literature
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and pursue research in any one of the following specialized areas during the fourth year:

- Linguistics & Stylistics
- Literature & Literary Theory
- English Language Teaching
- English for Professional Purposes

Students who complete the 4-year B.A. (Hons. with Research) programme are eligible to directly pursue a Ph.D. programme in English Studies.

Exit options as per NEP 2020 Policy.

Minor

Additionally, students are required to take a minimum of 16 credits in minor subjects, with regard to which the Department offers the following two options:

Option 1: **Open Minors (16 credits)**

In Year 2 and 3 (Semesters 3-6), students are required to take 16 credits from any subjects from the following domains:

- Humanities
- Social Sciences & Languages
- Sciences
- Commerce & Management

If all 16 credits are from specific subjects within any one domain, the student is awarded a minor degree in that subject.

Option 2: **Double Minor (32 credits)**

In Year 1 and 2 (Semesters 1-4), students are required to take 32 credits; 16 credits each in any two subjects from the following:

- History
- Political Science
- Economics
- Sanskrit
- Hindi
- Philosophy (Women's campus only)
- Psychology (Women's campus only)
- Telugu (Women's campus only)
- Music (Men's campus only)

The student then gets awarded a double minor degree in those two subjects.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII level before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- English Language Skills I
- Second Language
- Environmental Studies
- Introduction to Literary Studies
- British Literature I: 1340-1660
- Awareness Course I: Sai Education for
- Transformation (Based on Bhagawan Baba's Life and Teachings)
- Minor subjects **(Option 2)**

Semester 2

- English Language Skills II
- Second Language
- Indian Constitution
- English for Professional Purposes I **(Option 1)**
- English for Technical and Content Writing **(Option 2)**
- Basic Linguistics
- Digital Fluency **(Option 1)**
- Awareness Course II: Unity of Religions
- Minor subjects **(Option 2)**

YEAR 2

Semester 3

- English Language Skills III
- Multidisciplinary Mandatory Course
- British Literature II: 1660 – 1798
- Indian Writing in English
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini
- Minor subjects **(Options 1 or 2)**

Semester 4

- Awareness Course IV
- British Literature III: 1798 – 1900
- ELT – Theories, Methods, and Testing
- English for Professional Purposes II **(Option 1)**
- Cyber Security
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini
- Minor subjects **(Options 1 or 2)**

YEAR 3

Semester 5

- British Literature IV: 1900 – Present Age
- Literary Theory and Criticism I
- Advanced Linguistics
- Elective: Indian Aesthetics **or** Indian Classical Literature
- Communicative Competence for Employability **(Option 1)**
- English for Script Writing **(Option 2)**
- Awareness Course V: Ethos and Values for the Changing World
- Minor subjects **(Option 1)**

Semester 6

- American Literature
- Eco-critical Studies
- Literary Theory and Criticism II
- Project Work (B.A. students)
- World Classics in Translation (B.A. Hons. Students)
- English for Professional Purposes II **(Option 1)**
- English for Ad Copy Writing and Media Reviews **(Option 2)**
- Awareness Course VI: Life and its Quest
- Minor subjects **(Option 1)**
- Internship

YEAR 4

Semester 7

- English for Media Writing
- Postcolonial Literatures
- ELE – Pedagogy of English
- Awareness Course VII: Education for Life
- Elective: Research Methods and Methodologies for English Language Studies **or** Research Methods and Methodologies for English Literature

B.A. (Hons.) Courses:

- Elective: Children's Literature or Gothic Literature
- Elective: Interdisciplinary Studies I: Literature and History & Literature and Philosophy **or** Interdisciplinary Studies II: Literature and Psychology & Literature and Science

B.A. (Hons. with Research) Courses:

- Specialization Paper I
- Specialization Paper II
- Dissertation

Semester 8

- Literature and Spirituality
- Women's Writing
- Awareness Course VIII: God, Society and Man

B.A. (Hons.) Courses:

- Elective: Trauma and Memory Studies or Disability Studies
- Elective: Life Writing **or** Folklore Studies
- Project Work

B.A. (Hons. with Research) Courses:

- Dissertation

B.B.A. (Hons.)

For Men | 2024 entry

Programme Overview

The B.B.A. (Hons.) programme provides a sound conceptual understanding of various aspects of business management across a wide range of areas including general management, finance and accounting, marketing, human resource management, operations management and business analytics.

The programme, with its two streams of Entrepreneurship and Digital & Analytics, kindles the entrepreneurial fire in the student while nurturing decision making skills through the use of modern tools of business analytics.

It helps the student to later pursue independent business ventures or take up academic advancement through professional management degrees.

It equips the students to be business leaders with sound abilities in critical thinking and analysis with conceptual purity and good communication skills to play a positive role in society as managers and leaders of organisations founded in moral and ethical values.

At the end of Years 2 and 3, students have to undergo internships during their summer vacations.

A 12-credit research exercise is pursued in the eighth semester in order to enhance research capabilities in students.

The existing programme is approved by the University Grants Commission (UGC). It will transition to the All India Council for Technical Education (AICTE) after the approval process is complete.

Specializations

In Year 2 (Semesters 4 and 5), students can opt for a minor in either **Entrepreneurship** or **Digital and Analytics** and in Year 3 (Semester 6), they can pursue either a **Massive Open Online Course (MOOC)** or a Minor in either Marketing Analytics in Digital and Analytics or Design Thinking in Entrepreneurship.

Electives

In addition to a minor, in order to hone their specialization skills, in Years 3 and 4 (Semesters 5-7), students can choose Electives from a pool of either Marketing or Finance subjects.

B.B.A. (Hons.)

For students who complete a 4-year (8-semester) programme of study.

Exit options as per NEP 2020 Policy.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII level before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Candidates who have successfully completed a two-year Industrial Training Institute (ITI) course are eligible to apply
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Accounting Fundamentals
- Values Oriented Management
- Communication Skills for Professionals
- Practical: Digital Fluency
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Semester 2

- Organizational Behavior
- Managerial Economics
- Fundamentals of Statistics
- Practical: Accounting Package
- Awareness Course II: Unity of Religions

YEAR 2

Semester 3

- Financial Management
- Human Resources Management
- Minor: E-Commerce in Digital and Analytics **or** Entrepreneurship Development
- Practical: Database Management System Tools
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Semester 4

- Marketing Principles
- Company Law and Corporate Accounting
- Minor: Management Information Systems in Digital and Analytics or Business Environment in Entrepreneurship
- Rural Development
- Practical: Tools for Visual Analytics
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

YEAR 3

Semester 5

- Principles of Income Tax
- Production and Operations management
- Minor: Decision making through Business Analytics
- Elective I: Marketing **or** Finance Pool
- Cyber security
- Practical: Financial Modelling using Excel
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Commercial Law
- Costing for Management
- Massive Open Online Course (MOOC) or Minor in Marketing Analytics in Digital and Analytics **or** Minor in Design Thinking in Entrepreneurship
- Elective II: Marketing **or** Finance Pool
- Management Accounting
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

- Strategic Management
- Indian Economy
- Massive Open Online Course (MOOC) **or** Minor in Business Modelling in Digital and Analytics or Minor in HR Analytics in Entrepreneurship
- Elective III: Marketing **or** Finance Pool
- Research Methodology
- Practical: Content Management System
- Awareness Course VII: Education for Life

Semester 8

- Sustainable Development
- Research Project
- Minor: Leadership and Decision-making skills for Business
- Awareness Course VIII: God, Society and Man

Electives

Marketing Pool

- Consumer Behaviour
- Brand Management
- Retail Management
- Digital Marketing

Finance Pool

- Financial Markets and Institutions
- Financial Services
- International Finance
- Investment Analysis and Portfolio Management
- Accounting for Financial Services

B.Com. (Hons.) / (Hons. with Research)

For Women & Men | 2024 entry

Programme Overview

This programme blends technical and foundational knowledge in finance, accounts, taxation, law, economics, management and insurance with analytical skills. It paves the way for professional certifications like CA, CS, ACCA, CIMA, and CFA, and also emphasise the use of current technological tools in data analysis.

The programme offers students a broad range of electives (links to Courses page) so that they can pursue subjects in their chosen areas of interest.

Students will be trained in the use of cutting-edge technological tools for accounting, data analysis, computation, visualization and presentation within most courses in the curriculum.

The programme is designed to nurture essential skills like critical thinking, effective communication, team-building, leadership and the ability to identify and solve complex problems. These outcomes are tailored to prepare students not just for advanced studies and employment but also to be responsible citizens who contribute positively to society.

Additionally, the curriculum instils ethical and moral values, preparing students for roles in business, industry, and financial sectors, with a focus on continuous skill enhancement and socially responsible project design.

B.Com. (Hons.)
For students who complete a 4-year (8-semester) programme of study.

B.Com. (Hons. with Research)
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and pursue a research project during the fourth year.

Exit options as per NEP 2020 Policy.

Minor Subjects

Additionally, students are required to take minimum credits in minor subjects.

Double Minor (32 credits)

In Year 1 and 2 (Semesters 1-4), students are required to take 32 credits; 16 credits each in any two subjects from the following:

- History
- Political Science
- English
- Philosophy (Women's campus only)
- Psychology (Women's campus only)
- Music (Men's campus only)

The student then gets awarded a double minor degree in those two subjects.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII level before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Business Economics
- Financial Accounting
- Computerised Accounting
- Effective Communication
- Business Communication – Digital Skills
- Introduction to Quantitative Techniques (Selective)
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Semester 2

- Math for Financial and Logical Decisions
- Corporate Accounting
- Principles of Management or any Interdisciplinary Course **or** Massive Open Online Course (MOOC)
- Spreadsheets Foundation
- Commerce Workshop – I: Review of Management Literature & Presentation skills
- Awareness Course II: Unity of Religions

YEAR 2

Semester 3

- Corporate Law
- Financial Reporting
- International Business
- Macro Economics – Theory and Policy **or** any Interdisciplinary Course **or** Massive Open Online Course (MOOC)
- Business Statistics
- Spreadsheets Excellence – Advanced Excel
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Semester 4

- Financial Services, Marketing and Institutions
- Elements and Methods of Costing
- Elective I
- Principles of Marketing **or** any Interdisciplinary Course **or** Massive Open Online Course (MOOC)
- People Management **or** any Interdisciplinary Course **or** Massive Open Online Course (MOOC)
- Software Skills (Python / MySQL / Oracle) **or** Massive Open Online Course (MOOC)
- Commerce Workshop – II: Team Building and Communication Skills
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

YEAR 3

Semester 5

- Income Tax
- Business Laws
- Financial Management
- Elective II
- Elective III
- Commerce Workshop – III: Selling Skills
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Indirect Taxes
- Elective IV
- Elective V
- E-Commerce **or** any Interdisciplinary Course or Massive Open Online Course (MOOC)
- Entrepreneurship Development or any Interdisciplinary Course **or** Massive Open Online Course (MOOC)
- Consumer Affairs and Customer Care
- Commerce Workshop – IV: Skills for Success
- Cybersecurity
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

B.Com. (Hons.) Courses:

- Project Management
- Elective VI
- Elective VII
- Basics of Design Thinking **or** any Interdisciplinary Course or Massive Open Online Course (MOOC)
- Software skills – Financial Modelling **or** Massive Open Online Course (MOOC)
- Awareness Course VII: Education for Life

B.Com. (Hons. with Research) Courses:

- Project Management
- Elective VI
- Elective VII
- Basics of Design Thinking **or** any Interdisciplinary Course or Massive Open Online Course (MOOC)
- Software skills – Financial Modelling **or** Massive Open Online Course (MOOC)
- Research Methodology
- Awareness Course VII: Education for Life

Semester 8

B.Com. (Hons.) Courses:

- Elective VIII
- Leadership and Team Development **or** any Interdisciplinary Course **or** Massive Open Online Course (MOOC)
- Internship **or** Apprenticeship
- Awareness Course VIII: God, Society and Man

B.Com. (Hons. with Research) Courses:

- Elective VIII
- Leadership and Team Development **or** any Interdisciplinary Course **or** Massive Open Online Course (MOOC)
- Research project
- Awareness Course VIII: God, Society and Man

Electives

Students can choose their electives from a broad range of subjects.

Note: Students of B.Com. (Hons. with Research) will also choose electives in and around their area of research in the last two semesters.

- Advanced Accountancy
- Foreign Trade Procedures
- Banking Theory and Practice
- Strategic Cost Management and Decision Making
- Retail Management
- Insurance: Principles, Contracts and Covers
- Auditing
- Digital Marketing
- Risk Management
- Cost Control and Performance Evaluation
- Management of International Business
- Insurance: Regulation, Functions and Covers
- Investments Analysis
- Consumer Behaviour
- Business Data Analytics
- Supply Chain & Procurement
- Sustainable Development
- Indian Accounting Standards (IND-AS)
- Advanced Financial Management
- Advanced Cost Management
- Financial Services Marketing
- Marketing Analytics with R Programming

B.A. (Hons.) / (Hons. with Research) in **Economics**

For Women & Men | 2024 entry

Programme Overview

Economics is the study of how consumers, firms and governments make decisions that together determine how resources are allocated. Studying economics at the undergraduate level is essential to understand government policy-making, the conduct of businesses, and the enormous changes in economic systems that are occurring in a rapidly changing and interconnected world.
Economists use mathematical and experimental methods in both the public and private sector to quantitatively analyse a range of real-world problems.

To this end, the Dept. of Economics provides two programmes at the undergraduate level – B.A. and B.S. The difference lies in the course structure, especially in the Minor options presented to students. Head over to the Courses page (links to Courses page of the B.S. programme) of the B.S. (Hons.) / (Hons. with Research) in Economics programme to see the difference.

The B.A. programme gives students more options in the Humanities whilst the B.S. programme is more quantitative in nature (hence the stress on a mathematical background).

Both programmes aim to provide students with a strong foundation in the principles and theories of economics, as well as the tools and techniques needed to analyze and understand the functioning of modern economies. Students will develop their critical thinking skills and the ability to apply economic concepts to real-world situations.

The programme will also provide students with a comprehensive understanding of micro and macroeconomic theories and their applications. Finally, it develops students analytical and quantitative skills to evaluate economic data and make informed decisions.

Courses are both comprehensive and varied. Apart from the discipline-specific core and elective courses, students will benefit from Ability Enhancement Courses (AEC), Multidisciplinary Courses (MDC), Skill Enhancement Courses (SEC), Value Added Courses (VAC), Internship and Industrial Visits.

In Years 3 and 4, students will choose electives to pursue a specialization in either one of the two streams: Financial Economics or Applied Economics.

B.A. (Hons.) in Economics
For students who complete a 4-year (8-semester) programme of study.

B.A. (Hons. with Research) in Economics
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and opt to pursue a research project during the fourth year.

Exit options as per NEP 2020 Policy.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII level before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Economics: Introductory Microeconomics
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Minor Options

- History: Ancient India
- Political Science: Elements of Political Science
- English: Introduction to Literary Studies
- Philosophy: Western Logic – Formal & Symbolic
- Psychology: General Psychology
- Music: Theory and Practical 1

Semester 2

- Economics: Introductory Macroeconomics
- SEC: Digital Fluency
- Awareness Course II: Unity of Religions

Minor Options

- History: Medieval India
- Political Science: Elements of Government
- English: Basic Linguistics
- Philosophy: Ethics – Normative & Applied
- Psychology: Personality theories and assessment
- Music: Theory and Practical 2

YEAR 2

Semester 3

- Economics: Mathematics for Economics
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Minor Options

- History: Modern India (1760-1950 AD)
- Political Science: Modern Governments I
- English: Literatures in English
- Philosophy: Indian Philosophy – From Vedic Wisdom to Classical Schools (Darshanas)
- Psychology: Social Psychology
- Music: Theory and Practical 3

Semester 4

- Economics: Statistics for Economics
- Economics: Cyber Security
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

Minor Options

- History: Ancient Societies of Egypt, Mesopotamia and China
- Political Science: Modern Governments II
- English: ELT – Theories, Methods and Testing or English for Professional Purposes
- Philosophy: Western Philosophy – Greek to Modern
- Psychology: Abnormal Psychology
- Music: Theory and Practical 4

YEAR 3

Semester 5

- Indian Economy: Structure and Development
- Intermediate Microeconomics
- Money and Banking
- International Economics
- Computer Applications in Economic Analysis – I
- Elective – I
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Public Finance and Fiscal Policy
- Intermediate Macroeconomics
- Econometrics
- Development Economics
- Computer Applications in Economic Analysis – II
- Elective – II
- Internship
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

B.A. (Hons.) Courses:

- Ethics, Economy and Society
- Time Series Modelling
- Research Methodology
- Computer Applications in Economic Analysis – III
- Elective – III
- Awareness Course VII: Education for Life

B.A. (Hons. with Research) Courses:

- Ethics, Economy and Society
- Time Series Modelling
- Research Methodology
- Computer Applications in Economic Analysis – III
- Elective – III
- Research: Project Review
- Awareness Course VII: Education for Life

Semester 8

B.A. (Hons.) Courses:

- Monetary Theory and Policy
- Environmental Economics
- Elective – IV
- Computer Applications in Economic Analysis – IV
- Awareness Course VIII: God, Society and Man

B.A. (Hons. with Research) Courses:

- Research: Project
- Computer Applications in Economic Analysis – IV
- Awareness Course VIII: God, Society and Man

Electives

Students must choose their electives from either one of the two streams offered:

Applied Economics (Stream – AE)

- Agricultural Economics
- Applied Econometrics
- Behavioural Economics and Finance
- Demography
- Economic Institutions, Systems and Theories
- Economics of Education and Health
- Economics of Insurance
- Industrial Economics
- International Economics and Finance
- International Trade
- Labour Economics
- Public Policy

Financial Economics (Stream – FE)

- Behavioural Economics and Finance
- Data Analytics
- Economics of Insurance
- Emerging Market Economies
- Financial Econometrics
- Financial Economics
- Financial Services
- Forecasting Methods for Economics and Finance
- International Economics and Finance
- International Finance
- Rural Finance
- Underwriting and Actuarial Applications

B.S. (Hons.) / (Hons. with Research) in **Economics**

For Men | 2024 entry

Programme Overview

Economics is the study of how consumers, firms and governments make decisions that together determine how resources are allocated. Studying economics at the undergraduate level is essential to understand government policy-making, the conduct of businesses, and the enormous changes in economic systems that are occurring in a rapidly changing and interconnected world.

Economists use mathematical and experimental methods in both the public and private sector to quantitatively analyse a range of real-world problems.

To this end, the Dept. of Economics provides two programmes at the undergraduate level – B.A. and B.S. The difference lies in the course structure, especially in the Minor options presented to students. Head over to the Courses page (links to Courses page of the B.A. programme) of the B.A. (Hons.) / (Hons. with Research) in Economics programme to see the difference.

The B.A. programme gives students more options in the Humanities whilst the B.S. programme is more quantitative in nature (hence the stress on a mathematical background).

Both programmes aim to provide students with a strong foundation in the principles and theories of economics, as well as the tools and techniques needed to analyze and understand the functioning of modern economies. Students will develop their critical thinking skills and the ability to apply economic concepts to real-world situations.

The programme will also provide students with a comprehensive understanding of micro and macroeconomic theories and their applications. Finally, it develops students analytical and quantitative skills to evaluate economic data and make informed decisions.

Courses are both comprehensive and varied. Apart from the discipline-specific core and elective courses, students will benefit from Ability Enhancement Courses (AEC), Multidisciplinary Courses (MDC), Skill Enhancement Courses (SEC), Value Added Courses (VAC), Internship and Industrial Visits.

In Years 3 and 4, students will choose electives to pursue a specialization in either **Financial Economics** or **Applied Economics**.

Additionally, students are required to take minimum credits in minor subjects.

Double Minor (32 credits)

In Year 1 and 2 (Semesters 1-4), students are required to take 32 credits; 16 credits each in Mathematics (mandatory) plus one minor from either Statistics or Actuarial Science

The student then gets awarded a double minor degree in those two subjects.

B.S. (Hons.) in Economics
For students who complete a 4-year (8-semester) programme of study.

B.S. (Hons. with Research) in Economics
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and opt to pursue a research project during the fourth year

Exit options as per NEP 2020 Policy.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII level before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- The candidate must study Mathematics at XI and XII Standard
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

Note: From Minor Options below – for each semester – students much choose **Mathematics** (compulsory) plus one minor from either **Statistics** or **Actuarial Science**.

YEAR 1

Semester 1

- Economics: Introductory Microeconomics
- Mathematics: Differential calculus
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Minor Options

- Statistics: Introductory Statistics
- Actuarial Science: Actuarial Probability and Statistics

Semester 2

- Economics: Introductory Macroeconomics
- Mathematics: Probability theory and Distributions
- Mathematics: Integral calculus
- SEC: Digital Fluency
- Awareness Course II: Unity of Religions

Minor Options

- Actuarial Science: Actuarial Mathematics
- Statistics: Probability Theory and Distributions

YEAR 2

Semester 3

- Economics: Mathematical Economics
- Mathematics: Linear Algebra
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Minor Options

- Actuarial Science: Actuarial Applied Statistical Methods
- Statistics: Statistical Inference

Semester 4

- Economics: Game Theory
- Economics: Cyber Security
- Mathematics: Optimization Techniques
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

Minor Options

- Statistics: Applied Statistics
- Actuarial Science: Business Economics with Actuarial Applications

YEAR 3

Semester 5

- Indian Economy: Structure and Development
- Intermediate Microeconomics
- Money and Banking
- International Economics
- Computer Applications in Economic Analysis – I
- Elective – I
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Public Finance and Fiscal Policy
- Intermediate Macroeconomics
- Econometrics
- Development Economics
- Computer Applications in Economic Analysis – II
- Elective – II
- Internship
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

B.S. (Hons.) Courses:

- Ethics, Economy and Society
- Time Series Modelling
- Research Methodology
- Computer Applications in Economic Analysis – III
- Elective – III
- Awareness Course VII: Education for Life

B.S. (Hons. with Research) Courses:

- Ethics, Economy and Society
- Time Series Modelling
- Research Methodology
- Computer Applications in Economic Analysis – III
- Elective – III
- Awareness Course VII: Education for Life
- Research: Project Review

Semester 8

B.S. (Hons.) Courses:

- Monetary Theory and Policy
- Environmental Economics
- Elective – IV
- Computer Applications in Economic Analysis – IV
- Awareness Course VIII: God, Society and Man

B.S. (Hons. with Research) Courses:

- Research: Project
- Computer Applications in Economic Analysis – IV
- Awareness Course VIII: God, Society and Man

Electives

Students must choose their electives from either one of the two streams offered:

Applied Economics (Stream – AE)

- Agricultural Economics
- Applied Econometrics
- Behavioural Economics and Finance
- Demography
- Economic Institutions, Systems and Theories
- Economics of Education and Health
- Economics of Insurance
- Industrial Economics
- International Economics and Finance
- International Trade
- Labour Economics
- Public Policy

Financial Economics (Stream – FE)

- Behavioural Economics and Finance
- Data Analytics
- Economics of Insurance
- Emerging Market Economies
- Financial Econometrics
- Financial Economics
- Financial Services
- Forecasting Methods for Economics and Finance
- International Economics and Finance
- International Finance
- Rural Finance
- Underwriting and Actuarial Applications

B.S. (Hons.) / (Hons. with Research) in **Mathematics**

For Women & Men | 2024 entry

Programme Overview

Mathematics provides a language and tools for understanding the physical world around us and the abstract world within us. It represents a broad spectrum of fields and applications, many of which students will learn during the bachelors programme at SSSIHL.

The programme is designed to provide students with a solid foundation in mathematical theory and practical problem-solving skills, covering a wide range of topics. These include calculus, linear algebra, abstract algebra, complex analysis, numerical analysis, etc., as well as software laboratory courses in Python programming, C programming, and data structures in C.

Emphasizing analytical thinking and logical reasoning, the programme guides students into advanced areas such as abstract algebra and real analysis, fostering a deeper understanding of mathematical structures.

In the first year (Semesters 1 and 2), students are offered courses in Physics and Chemistry in addition to Mathematics courses. The curriculum often incorporates real-world applications, allowing students to apply mathematical concepts to industry-specific challenges.

In Year 4, students who have achieved a CGPA of 7.5 or higher at the end of the 6th semester are eligible to pursue a research project in their chosen area of specialization. This research endeavour provides students with the opportunity to delve deeper into a specific topic within their field of study, fostering the development of critical research skills essential for academic and professional growth.

Overall, the B.S in Mathematics programme equips students with the knowledge and skills needed to appreciate the elegance of mathematics and tackle complex challenges in both theoretical and applied contexts.

It provide graduates an excellent base to build a career in government or industry (such as Teaching, Finance and Management, Actuarial Sciences, IT, Data Analysis, etc.). It also provides a particularly strong foundation for advanced study in science, engineering, and finance.

Depending on their performance, students can also continue their studies at SSSIHL and pursue the M.Sc. in Mathematics or the M.Tech. programme. They will also be able to take national eligibility tests such as CSIR-NET, JEST, NBHM, etc.

Specializations

In Years 3 and 4, students will choose electives (see the list of Courses) to pursue a specialization in either one of the following streams:

- Analysis and Applications
- Industrial Mathematics
- Theoretical Computer Science
- Mathematical Biology
- Actuarial Science

Minor

Additionally, students can pursue a minor degree in one of the following subjects:

- Data Science
- Computer Science
- Actuarial Science
- Physics/Chemistry

These will be taken in Years 2 and 3 (Semesters 3-6) for B.S. in Mathematics (12 credits) students and Years 2, 3 and 4 (Semesters 3-8) for B.S. (Hons.) in Mathematics (16 credits) students.

The student then gets awarded a minor degree in that subject

B.S. (Hons.) in Mathematics

For students who complete a 4-year (8-semester) programme of study.

B.S. (Hons. with Research) in Mathematics

For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and opt to pursue a research project during the fourth year.

Exit options as per NEP 2020 Policy.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII level before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Mathematics: Differential Calculus
- Physics: Analog and Digital Electronics
- Chemistry: Principles of Structure and Bonding
- Practical: Python Programming – I
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Semester 2

- Mathematics: Integral Calculus
- Physics: Introductory Mechanics
- Chemistry: Equilibria in Chemistry
- Practical: Python Programming – II
- Awareness Course II: Unity of Religions

YEAR 2

Semester 3

- Real Analysis – I
- Linear Algebra – I
- Practical: Programming Principles using C
- Minor Course
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Semester 4

- Real Analysis – II
- Algebraic Structures – I
- Ordinary Differential Equations
- Practical: Data Structures using C
- Minor Course
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

YEAR 3

Semester 5

- Complex Analysis
- Metric Spaces
- Optimization Techniques
- Specialization Elective – I
- Cyber Security
- Minor Course
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Methods of Differential Equations
- Numerical Analysis
- Linear Algebra – II
- Specialization Elective – II
- Mini Project / Summer Internship
- Minor Course
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

B.S. (Hons.) Courses:

- Algebraic Structures – II
- Specialization Elective – III
- Elective – IV
- Research Methodology
- Minor Course
- Awareness Course VII: Education for Life

B.S. (Hons. with Research) Courses:

- Algebraic Structures – II
- Specialization Elective – III
- Research Methodology
- Minor Course
- Project
- Awareness Course VII: Education for Life

Semester 8

B.S. (Hons.) Courses:

- Mathematical Modelling
- Elective – V
- Elective – VI
- Minor course
- Awareness Course VIII: God, Society and Man

B.S. (Hons. with Research) Courses:

- Mathematical Modelling
- Minor course
- Project
- Awareness Course VIII: God, Society and Man

Electives

Students must choose their electives from one of the following streams:

Analysis and Applications

- Number Theory
- Topology
- Theory of Ordinary
- Differential Equations
- Differential Geometry
- Mathematics for Image Processing
- Advanced Real Analysis
- Theory of Partial Differential Equations
- Functional Analysis
- Measure Theory

Industrial Mathematics

- Probability and Statistics
- Graph Theory
- Fuzzy Sets
- Operations Research
- Fluid dynamics
- Mathematical Ecology
- Applied Statistics
- Applied Cryptography
- Techniques in Applied Mathematics
- Combinatorics

Theoretical Computer Science

- Discrete Mathematics
- Mathematical Logic for Computer Science
- Mathematics for Image Processing
- Formal Language and Automata Theory
- Theory of Computation
- Compiler Design

Mathematical Biology

- Mathematical Ecology
- Mathematical Epidemiology
- Dynamical Systems
- Advanced Dynamical Systems
- Stochastic Modelling
- Deterministic Optimal Control Theory

Actuarial Science

- Actuarial Mathematics
- Actuarial Applied Statistical Methods
- Business Economics with Actuarial Applications
- Business Accounting and Finance with Actuarial Applications
- Regulation and Financial Reporting with Actuarial Applications

B.S. (Hons.) / (Hons. with Research) in **Computer Science**

For Women & Men | 2024 entry

Programme Overview

Computer science at the undergraduate level expands your understanding of programming logic, computer systems and networks at a deep level. It provides a solid foundation in various aspects of computing and technology.

This programme serves as a robust cornerstone for students venturing into the realm of Computer Science, encompassing vital facets such as foundational programming skills and computer system concepts. It focusses on creating links between theory and practice and applies the fundamental principles and methods of Computer Science to a wide range of applications.

Specialization in Artificial Intelligence

In Years 3 and 4 (Semesters 6, 7 and 8), students with Mathematics as a core subject in XII Standard, a have an option to pursue an elective in Artificial Intelligence (AI).

Artificial intelligence is the development of computer systems that can perform tasks that can replicate human-like cognitive functions to analyze and interpret data, adapt to changing environments, and improve performance over time human-like intelligence.

In its current state, the specialization in Artificial Intelligence comprises of the following subjects:

- Artificial Intelligence
- Machine Learning Operations
- Deep Learning
- Natural Language Processing

Minor Degree in Data Science

Additionally, students can pursue a minor degree in Data Science by taking the following subjects:

- Calculus
- Probability and Statistics
- Statistics for Data Science
- Data Analysis and Visualization
- Linear Algebra for Data Science
- Optimization for Machine Learning
- Data Mining and Machine Learning
- Big Data Analysis
- Cloud Computing

In its current form, these subjects are distributed as one per semester, on an average.
If opted for the Data Science minor, the student additionally gets awarded a minor degree in Data Science.

The course structure embellishes a student with multiple skills necessary to be a specialist in Computer Science, Artificial Intelligence and Data Science by initiating the students in multiple streams of learning. For example, the programming skill is initiated with Problem Solving in the first semester, leading to Data Structures and Algorithms in the second semester, further into Object Oriented programming concepts, Software Engineering culminating in a project work. In another stream of learning, a student understands foundations in Calculus, leading to Probability and Statistics, further into Linear Algebra, to culminate in Data Mining and Machine Learning.

Notwithstanding the theoretical and practical labs, students with research capabilities can take a research project and students with analytical capabilities can take a software development project in their final year. This adds tremendous confidence into students about their capability to join research, software development, AI, data engineering and data science organizations.

In essence, there is enough breadth offered in multiple streams of learning and critical depth offered by diving deep in each stream as the student progresses. This leads to the development of very mature professionals in Computer Science, Artificial Intelligence and Data Science.

The culmination of the four-year program results in an honours degree, symbolizing a deep comprehension of both Computer Science and Artificial Intelligence. Students emerge with a well-rounded skill set, having navigated through the foundational principles of computing to advanced AI applications.

B.S. (Hons.) in Computer Science
For students who complete a 4-year (8-semester) programme of study.

B.S. (Hons. with Research) in Computer Science
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and opt to pursue a research project during the fourth year.

Exit options as per NEP 2020 Policy.

Eligibility

- 10+2 years of schooling from a recognized board
- The candidate must study Mathematics as a major subject at XI and XII Standard
- Either passed or appeared for Final exams at XII level before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Calculus
- Problem Solving with Computer
- Practical : Software Lab in C – Part I
- Practical : Software Lab in Python – I
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Semester 2

- Probability and Statistics
- Data Structures and Algorithms
- Practical: Software Lab in C – Part II
- Practical: Software Lab in Python – II
- Awareness Course II: Unity of Religions

YEAR 2

Semester 3

- Statistics for Data Science
- Database Management System
- Discrete Mathematics for Computer Science
- Practical: Software Lab in SQL
- Minor Course Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Semester 4

- Linear Algebra for Data Science
- Computer Organization and Design
- Object Oriented Programming Concepts
- Practical; Software Lab in C++
- Practical: Software Lab in Data Visualization
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

YEAR 3

Semester 5

- Optimization for Machine Learning
- Data Mining and Machine Learning
- Operating Systems
- Computer Networks
- Practical: Software Lab in Java
- Cyber Security
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Big Data Analytics
- Elective – I
- Software Engineering
- Design and Analysis of Algorithms
- Practical: Software Lab in Web Programming
- Mini-Project / Internship
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

B.S. (Hons.) Courses:

- Cloud Computing
- Elective – II
- Elective – III
- Linux System Programming
- Research Methodology
- Project Work
- Awareness Course VII: Education for Life

B.S. (Hons. with Research) Courses:

- Cloud Computing
- Elective – II
- Elective – III
- Linux System Programming
- Research Methodology
- Research Project
- Awareness Course VII: Education for Life

Semester 8

B.S. (Hons.) Courses:

- Elective – IV
- Formal Languages
- Research Methodology
- Project Work
- Awareness Course VIII: God, Society and Man

B.S. (Hons. with Research) Courses:

- Elective – IV
- Formal Languages
- Research Project
- Awareness Course VIII: God, Society and Man

B.S. (Hons.) / (Hons. with Research) in Mathematical Sciences and Computing

For Men | 2024 entry

Programme Overview

Mathematical Sciences is a broad term that encompasses various disciplines within the field of mathematics. It refers to the collective study of mathematical concepts, theories, and applications across different areas. Mathematical Sciences provides a rigorous approach to applied, data and computational sciences.

This multidisciplinary programme offers students a thorough grasp of fundamental mathematical, computer science, and statistics concepts. It is geared towards preparing students for roles as robust computational experts and machine learning algorithm designers.

In the first two years (Semesters 1-4) of the programme, students focus on building a strong foundation in Mathematics, Computer Science, and Statistics. They undergo comprehensive training in subjects such as Differential and Integral Calculus, Problem Solving with Computers, Probability, Data Structures, and gain practical programming skills in Python, C, and C++.

In the final three semesters, students will have the option to choose from various specializations and may also opt for internships. The curriculum often incorporates real-world applications, allowing students to apply concepts to industry-specific challenges.

In Year 4, students will embark on a research project, collaboratively supervised by faculty from diverse disciplines, offering them the chance to integrate academic knowledge. Additionally, they will have opportunities for industry collaboration and internships, allowing them to apply theoretical concepts in real-world settings and further enrich their learning experience.

On completion, graduates will have diverse career paths, including opportunities in research, employment in government or industry sectors (such as Teaching, Finance, Management, IT, and Data Analysis), or pursuing higher studies like M.Tech. and Ph.D. Additionally, they will be equipped to undertake national eligibility tests such as CSIR-NET, JEST, NBHM, showcasing their readiness for various professional avenues.

Specialization

In Years 3 and 4 (Semesters 5-8), in order to earn a specialization, students have an option to take four electives from any one of the following streams:

- Actuarial Science
- Applied Mathematics
- Data Science

B.S. (Hons.) in Mathematical Sciences and Computing
For students who complete a 4-year (8-semester) programme of study.

B.S. (Hons. with Research) in Mathematical Sciences and Computing
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and opt to pursue research.

Exit options as per NEP 2020 Policy.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII Standard before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Mathematics: Differential Calculus
- Computer Science: Problem Solving with Computer
- Statistics: Introduction to Statistics
- Practical: Basic Programming in Python
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Semester 2

- Mathematics: Integral Calculus
- Computer Science: Discrete Mathematics
- Statistics: Probability and Distributions
- Practical: Basic Programming in C
- Awareness Course II: Unity of Religions

YEAR 2

Semester 3

- Mathematics: Basic Linear Algebra
- Mathematics: Basic Real Analysis
- Statistics: Statistical Inference
- Computer Science: Data Structures in C
- Practical: Object Oriented Programming in C++ – I
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Semester 4

- Mathematics: Numerical Analysis
- Mathematics: Differential Equations
- Computer Science: Design and Analysis of Algorithms
- Computer Science: Database Management Systems and SQL Programming
- Practical: Object Oriented Programming in C++
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

YEAR 3

Semester 5

- Mathematics: Advanced Real Analysis
- Mathematics: Optimization Techniques
- Computer Science: Computer Architecture and Organization
- Specialization Elective – I
- Specialization Elective – II
- Computer Science: Cyber Security
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Mathematics: Algebraic Structures
- Mathematics: Techniques in Applied Mathematics
- Mathematics and Statistics: Mathematics for Machine Learning
- Computer Science: Operating Systems
- Computer Science: Computer Network
- Mini-Project / Internship
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

B.S. (Hons.) Courses:

- Mathematics: Differential Geometry
- Computer Science: Machine Learning and AI
- Specialization Elective – III
- Elective – IV
- Research Methodology
- Awareness Course VII: Education for Life

B.S. (Hons. with Research) Courses:

- Mathematics: Differential Geometry
- Computer Science: Machine Learning and AI
- Specialization Elective – III
- Project
- Research Methodology
- Awareness Course VII: Education for Life

Semester 8

B.S. (Hons.) Courses:

- Mathematics: Mathematical Modelling
- Specialization Elective V
- Specialization Elective – VI
- Specialization Elective – VII
- Awareness Course VIII: God, Society and Man

B.S. (Hons. with Research) Courses:

- Mathematics: Mathematical Modelling
- Specialization Elective – V
- Project
- Awareness Course VIII: God, Society and Man

B.S. (Hons.) / (Hons. with Research) in **Actuarial Data Science**

For Men | 2024 entry

Programme Overview

Actuarial data science specializes in analyzing risk using multidimensional thinking, going beyond numerical calculations. It leverages data science tools like Artificial Intelligence and Machine Learning Models, integrating mathematics, statistics, human behavior, and business insights.

This approach anticipates real-world outcomes, assessing risks across emerging sectors such as Metaverse, Electric Vehicles, Cybersecurity, Gaming Industry, and Environmental, Social, and Governance (ESG) factors. Actuaries also tackle challenges in Fraud Detection, Cryptocurrency, International Financial Reporting Standards (IFRS), Real Estate Residual Values Insurance, and Enterprise Risk Management, playing a crucial role in societal risk management. They extend their expertise to traditional domains like life, pensions, health, crop, cancer, property damage, and catastrophe insurance, ensuring comprehensive risk mitigation strategies.

SSSIHL stands out as one of the four global universities honoured with the Casualty Actuarial Society (CAS) University Award in 2022 for pioneering Property & Casualty Insurance (P&C) actuarial education. Founded in 1914, CAS is the world's only actuarial organization focused exclusively on property and casualty risks and serves over 10,000 members worldwide.

Attaining Gold Level recognition and the Society of Actuaries (SOA) Universities & Colleges with Actuarial Programs (UCAP) Advanced Curriculum, SSSIHL is the only Institute in India to achieve all three prestigious distinctions.

This programme is suited for students who love numbers, especially modelling and probability, with an interest in the use of data science tools and techniques to solve real-world problems. It will set them up for a career in actuarial science.

The programme is strategically introduced based on relevance to industry demands, the integration of practical skills, fostering adaptability and future readiness, promoting ethical and integral education, and maintaining a balance between academia and industry engagement. The programme includes a comprehensive curriculum encompassing core actuarial and data science courses:

- 9 SOA Exams in the pathway to become an Associate of the Society of Actuaries (ASA)
- 9 CAS Exams in the pathway to become an Associate (ACAS)
- 4 CAS Institute Exams in the pathway to become Certified Specialist in Predictive Analytics (CSPA), and
- 5 Skill development courses to excel in programming and communication

There is a special focus on Actuarial Data Science hands-on projects using R and Python.

B.S. (Hons.) in Actuarial Data Science
For students who complete a 4-year (8-semester) programme of study.

B.S. (Hons. with Research) in Actuarial Data Science
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and opt to pursue research.

Exit options as per NEP 2020 Policy.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII Standard before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Probability & Statistics
- Financial Mathematics
- Business Economics – Micro
- Introduction to R
- Excel Basics for Actuarial Practice

Semester 2

- Fundamentals of Actuarial Mathematics
- Data Concepts and Visualization
- Business Economics – Macro
- Actuarial mathematics using R
- Excel Advanced for Actuarial Practice

YEAR 2

Semester 3

- Advanced Short-Term Actuarial Mathematics – I
- Advanced Long-Term Actuarial Mathematics – I
- Corporate Finance
- Introduction to Python
- Actuarial Communications – I

Semester 4

- Advanced Short-Term Actuarial Mathematics – II
- Advanced Long-Term Actuarial Mathematics – II
- Accounting for Financial Institutions
- Introduction to Machine Learning
- Property and Casualty Insurance Fundamentals
- Actuarial Communications – II

YEAR 3

Semester 5

- Statistics for Risk Modelling – I
- Introduction to Deep Learning
- Modern Actuarial Statistics – Part 1
- Advanced Actuarial Statistics – Part 1
- Predictive Analytics using R – I
- Predictive Analytics using R – II
- Course on Ethics and Professionalism

Semester 6

- Statistics for Risk Modelling – II
- Modern Actuarial Statistics – Part 2
- Advanced Actuarial Statistics – Part 2
- Predictive Modelling using Python
- Advanced Topics in Predictive Analytics
- Mini-Project

YEAR 4

Semester 7

B.S. (Hons.) Courses:
- Basic Ratemaking
- International Regulation P&C
- Actuarial Practice I
- Actuarial Practice II

B.S. (Hons. with Research) Courses:
- Basic Ratemaking
- International Regulation P&C
- Research Methodology
- Project

Semester 8

B.S. (Hons.) Courses:
- Estimating Claim Liabilities
- Financial Economics
- Financial Reporting
- Mini Project

B.S. (Hons. with Research) Courses:
- Estimating Claim Liabilities
- Project

B.S. (Hons.) / (Hons. with Research) in Physics

For Women & Men | 2024 entry

Programme Overview

Physics is the most fundamental of the natural sciences because it underlies and connects with other scientific disciplines, such as chemistry, biology, and astronomy. It is the study of the universe from the smallest to the largest scale: from the structure and laws that shape the galaxies and the universe to tiny particles, superconductors and the resonance of a sitar. It unravels the complexities in the world around us and the discoveries it has made have formed the foundation of countless technological advances and play an important role in many scientific areas.

Many techniques used in medical imaging, nanotechnology and quantum computing are derived from physics instrumentation. Physics' contribution towards solving global problems such as energy production, environmental protection, global warming and public health are essential and have an enormous impact on our society.

This programme has been designed to provide a strong foundation in fundamental physics concepts that form the very basis of advanced scientific inventions. The curriculum presents a blend of science and technology, with physics courses complemented by adequately equipped laboratory experiments and supplemented by courses in advanced electronics and microprocessors.

Additionally, students are trained in computational techniques, simulations, and computer programming, providing a holistic education at the bachelor's level.

In the first two semesters, students are offered courses in Mathematics and Chemistry in addition to Physics courses. The eight-semester program provides in-depth knowledge of various topics in physics through 18 theory courses and 11 laboratory courses. This allows for better assimilation of theoretical concepts.

Specializations

In Year 4 (Semesters 7 and 8), B.S. (Hons.) and B.S. (Hons. with Research) students have the opportunity to tailor their programme by choosing a specialization (via two Electives and a corresponding Laboratory course) in any one of the following three streams (see the list of Courses):

- Photonics
- Functional Materials Science
- Microelectronics

Minor

In Years 2 and 3 (Semesters 3-6), students are required to take Minor Courses (16 credits) in any subjects from the following domains:

- Data Science
- Chemistry
- Mathematics
- Economics

If all 16 credits are from specific subjects within any one domain, the student is awarded a minor degree in that subject.

Students will also acquire programming and computing skills through the five skill enhancement courses offered.

The programme gives graduating students the necessary analytical, problem-solving, and quantitative skills which are valuable in various sectors such as research and development, academic and education roles, engineering, data analysis and statistics, technology, environmental science, and more.

B.S. (Hons.) in Physics
For students who complete a 4-year (8-semester) programme of study.

B.S. (Hons. with Research) in Physics
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and pursue a research project during the fourth year.

Exit options as per NEP 2020 Policy.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII Standard before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Physics: Analog and Digital Electronics
- Physics: Electronics Laboratory
- Skill Enhancement Course: Python Programming – I
- Mathematics: Differential Calculus
- Chemistry: Principles of Structure and Bonding
- Chemistry: Laboratory Course in General Chemistry
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Semester 2

- Physics: Introductory Mechanics
- Physics: Mechanics Laboratory
- Skill Enhancement Course: Python Programming – II
- Mathematics: Integral Calculus
- Chemistry: Equilibria in Chemistry
- Chemistry: Laboratory Course in Titrimetry and Equilibria
- Awareness Course II: Unity of Religions

YEAR 2

Semester 3

- Mathematical Physics – I
- Electromagnetism
- Electromagnetism Laboratory
- Computational Physics Laboratory – I
- Minor Course
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Semester 4

- Mathematical Physics – II
- Modern Physics
- Modern Physics Laboratory
- Computational Physics Laboratory – II
- Minor Course
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

YEAR 3

Semester 5

- Classical Mechanics
- Modern Optics
- Thermal Physics and Statistical Mechanics
- Physics in Industry – I
- Optics Laboratory
- Experimental Methods in Physics
- Minor Course
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Mathematical Physics – III
- Quantum Mechanics
- Operational Amplifiers and Applications
- Physics in Industry – II
- Computational Quantum Mechanics Laboratory
- Operational Amplifiers and Applications Laboratory: Hardware and Circuit Simulation Lab
- Latex for Scientific Writing
- Minor Course
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

B.S. (Hons.) Courses:

- Atomic and Molecular Spectroscopy
- Solid State Physics
- Applied Physics Laboratory
- Specialization Elective – I
- Specialization Laboratory
- Research Methodology
- Seminar
- Open Elective
- Awareness Course VII: Education for Life

B.S. (Hons. with Research) Courses:

- Atomic and Molecular Spectroscopy
- Solid State Physics
- Applied Physics Laboratory
- Specialization Elective – I
- Specialization Laboratory
- Research Methodology
- Seminar
- Research Project
- Awareness Course VII: Education for Life

Semester 8

B.S. (Hons.) Courses:

- Nuclear and Particle Physics
- Specialization Elective – II
- Microprocessors and Microcontrollers
- Microprocessors and Microcontrollers Laboratory
- Mini project
- Awareness Course VIII: God, Society and Man

B.S. (Hons. with Research) Courses:

- Nuclear and Particle Physics
- Specialization Elective – II
- Research Project
- Awareness Course VIII: God, Society and Man

Specialization Electives

Stream 1: **Photonics**

- Photonics Technology Essentials – I
- Photonics Technology Essentials – II
- Specialization Laboratory – Photonics

Stream 2: **Functional Materials Science**

- Concepts in Materials Science
- Functional Materials
- Specialization Laboratory – Functional Materials Science

Stream 3: **Microelectronics**

- Semiconductor Device Physics
- Microelectronics – CMOS Technology
- Specialization Laboratory – Microelectronics

B.S. (Hons.) / (Hons. with Research) in **Chemistry**

For Women & Men | 2024 entry

Programme Overview

Chemistry is a wide-ranging branch of natural science concerned with matter at the atomic and molecular scale. It deals principally with the properties of substances, the changes they undergo, and the natural laws that describe these changes. It is often referred to as the central science because it connects and overlaps with other scientific disciplines, such as physics, biology, environmental science, and materials science. The work of chemists is fundamental to advancements in technology, healthcare, and our understanding of the natural world.

The B.S. (Hons.) / (Hons. with Research) in Chemistry programme at SSSIHL equips students with a comprehensive understanding of core chemistry concepts.

The curriculum cultivates a strong scientific grounding in methods and techniques employed in both academic research and advanced industrial processes. The theoretical coursework is complemented by meticulously designed laboratory experiments conducted in well-equipped facilities.

During Year 1 (Semesters 1 and 2), in addition to core Chemistry courses, students will pursue four interdisciplinary courses (equivalent to 16 credits) in either of the subjects below:

- Mathematics
- Physics
- Lifesciences
- Biosciences

The first three years of study (Semesters 1-6) provides in-depth coverage of various essential aspects of chemistry, through courses in Organic, Inorganic, Physical and Analytical chemistry, laying a strong foundation for further specialization.

Specializations

In Year 4 (Semesters 7 and 8), B.S. (Hons.) and B.S. (Hons. with Research) students have the opportunity to tailor their programme by choosing a specialization in any one of the following three areas:

- Applied Chemistry
- Applied Materials
- Drug Discovery and Design

Minor

Additionally, In Years 2, 3 and 4 (Semesters 3-8), students are required to take Minor Courses (16 credits) in any subjects from the following domains:

- Life Sciences
- Biosciences
- Food Products and Processing
- Data Science
- Physics
- Mathematics

If all 16 credits are from specific subjects within any one domain, the student is awarded a minor degree in that subject.

Additionally, students develop proficiency in computer programming and computational chemistry techniques through five dedicated skill enhancement courses. Furthermore, five ability enhancement courses hone their communication skills, ensuring their success in diverse professional settings.

The programme gives graduates an excellent base to build a career in research and development, quality control, environmental science, pharmaceuticals, education, and various other industries where analytical and scientific skills are valued.

B.S. (Hons.) in Chemistry
For students who complete a 4-year (8-semester) programme of study.

B.S. (Hons. with Research) in Chemistry
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and opt to pursue a research project during the fourth year.

Exit options as per NEP 2020 Policy.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII Standard before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Chemistry: Principles of Structure and Bonding
- Chemistry: Laboratory Course in General Chemistry
- Computer Science: Python Programming – I
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Interdisciplinary Minor Courses
(any two theory courses with lab practical – where applicable)

- Mathematics: Differential Calculus
- Physics: Analog and Digital Electronics
- Physics: Practical – Electronics Laboratory
- Plant Diversity
- Animal Diversity
- Practical course in Plant Diversity
- Practical course in Animal Diversity
- Cell Biology
- Animal Adaptations
- Practical Course on Cell Biology
- Practical Course on Animal Adaptations

Semester 2

- Chemistry: Equilibria in Chemistry
- Chemistry: Laboratory Course in Titrimetry and Equilibria
- Computer Science: Python Programming – II
- Awareness Course II: Unity of Religions

Interdisciplinary Minor Courses
(any two theory courses with lab practical – where applicable)

- Mathematics: Integral Calculus
- Physics: Introductory Mechanics
- Physics: Practical – Mechanics Laboratory
- Microbiology
- Cell Biology
- Practical Course in Microbiology
- Practical Course in Cell Biology
- Microbial Diversity
- Plant Diversity – I (Algae and Fungi)
- Practical Course in Microbiology
- Practical Course on Algae and Fungi

YEAR 2

Semester 3

- Chemistry of Elements
- Qualitative Inorganic Analysis
- Fundamentals in Organic Chemistry
- Laboratory Course in Basic Techniques in Organic Chemistry
- Computational Techniques in Chemistry – I
- Minor Course
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Semester 4

- Coordination Chemistry
- Laboratory Course in Synthesis and Analysis of Coordination Compounds
- Structure and Reactivity in Organic Chemistry
- Laboratory Course in Functional Group Analysis and Structural Aspects
- Chemical Thermodynamics
- Computational Techniques in Chemistry – II
- Minor Course
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

YEAR 3

Semester 5

- Organometallic and Bio-inorganic Chemistry
- Applications of Equilibria, Kinetics and Surface Chemistry
- Laboratory Course in Equilibria, Kinetics and Surface Chemistry
- Basics in Synthetic Organic Chemistry
- Laboratory Course in Synthetic Organic Chemistry
- Cybersecurity
- Minor Course
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Spectrometric Identification of Organic Compounds
- Analytical Chemistry
- Laboratory Course in Analytical Chemistry
- Electrochemistry
- Laboratory Course in Electrochemistry
- General Elective – I
- Minor Course
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

B.S. (Hons.) Courses:

- Specialization Elective – I
- Specialization Elective – II
- General Elective II
- General Elective III
- Research Methodology
- Project
- Minor Course
- Awareness Course VII: Education for Life

B.S. (Hons. with Research) Courses:

- Specialization Elective – I
- Specialization Elective – II
- General Elective II
- General Elective III
- Research Methodology
- Research Project
- Minor Course
- Awareness Course VII: Education for Life

Semester 8

B.S. (Hons.) Courses:

- Specialization Elective – III
- General Elective – IV
- Project
- Awareness Course VIII: God, Society and Man

B.S. (Hons. with Research) Courses:

- Specialization Elective – III
- Research Project
- Awareness Course VIII: God, Society and Man

B.S. (Hons.) / (Hons. with Research) in **Biosciences and Biotechnology**

For Women & Men | 2024 entry

Programme Overview

This multidisciplinary programme is an academic journey that contributes significantly to the understanding of life on Earth, by exploring the intricate world of living organisms and their interactions with each other and the environment. This programme integrates fundamental biological sciences with the latest cutting-edge advancements in biotechnology.

The curriculum is structured to create a strong foundation in essentials such as cell biology, microbiology and biodiversity along with fundamental concepts in chemistry that are critical to understand and appreciate advanced topics in the biological sciences. The students then delve into the molecular mechanisms governing life, studying about the biomolecules that serve as building blocks in development and as intermediaries in physiological processes and genetics. The programme then gradually transitions to the applied aspects of biosciences. A strong emphasis on hands-on laboratory experience immerses students in the practical aspects of research and experimentation. This curated blend of classical and modern biology equips students with a holistic understanding of life sciences fostering critical thinking and problem-solving skills essential for success in the field.

During their period of study, students benefit from close interactions with faculty members who are active researchers to enhance the learning experience and obtain valuable insights into current trends and future directions in biosciences and biotechnology. Additionally, students have the opportunity to participate in research projects and internships, further enriching their practical skills and preparing them to contribute ethically and responsibly to the rapidly evolving field.

Upon successful completion of this programme, students with a solid foundation in biological sciences and hands-on laboratory skills will be well-equipped for diverse career paths – pursuing further studies or entering the biotechnology industry. The program will nurture their ability to think critically, adapt to emerging challenges, and contribute meaningfully to advancements in the discipline.

B.S. (Hons.) in Biosciences and Biotechnology
For students who complete a 4-year (8-semester) programme of study.

B.S. (Hons. With Research) in Biosciences and Biotechnology
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and opt to pursue research

Exit options as per NEP 2020 Policy.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII Standard before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- The candidate must study Biology at XI and XII Standard
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Biosciences: Cell Biology (Theory and Practical)
- Biosciences: Animal Diversity and Adaptations (Theory and Practical)
- Chemistry: Principles of Structure and Bonding
- Chemistry: Laboratory Course in General Chemistry (Practical)
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Semester 2

- Biosciences: Microbiology (Theory and Practical)
- Biosciences: Plant Diversity and Evolution (Theory and Practical)
- Chemistry: Equilibria in Chemistry
- Chemistry: Laboratory Course in Titrimetry and Equilibria
- Awareness Course II: Unity of Religions

YEAR 2

Semester 3

- Biosciences: Molecular Biology (Theory and Practical)
- Biosciences: Ecology (Theory and Practical)
- Chemistry: Fundamentals in Organic Chemistry
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Semester 4

- Biochemistry (Theory and Practical)
- Developmental Biology (Theory and Practical)
- Biostatistics
- Computational Biostatistics (Practical)
- Plant Taxonomy
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

YEAR 3

Semester 5

- Human Physiology (Theory and Practical)
- Bioinformatics (Theory and Practical)
- Molecular Cell Biology (Theory and Practical)
- Instrumentation
- Genetics and Evolution
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Immunology (Theory and Practical)
- Plant Physiology
- Biotechnology (Theory and Practical)
- Elective – 1
- Mini Project
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

B.S. (Hons.) Courses:

- Gene Regulation and Expression
- Intermediary Metabolism
- Elective – 2
- Elective – 3
- Project Work
- Awareness Course VII: Education for Life

B.S. (Hons. with Research) Courses:

- Gene Regulation and Expression
- Intermediary Metabolism
- Elective – 2
- Research Methodology
- Research Project
- Awareness Course VII: Education for Life

Semester 8

B.S. (Hons.) Courses:

- Genetic Engineering
- Bioanalytical Techniques
- Elective – 4
- Project Work
- Awareness Course VIII: God, Society and Man

B.S. (Hons. with Research) Courses:

- Genetic Engineering
- Bioanalytical Techniques
- Research Project
- Awareness Course VIII: God, Society and Man

Elective Courses

Students will be offered a wide choice of electives including:

- Stem Cell and Regenerative Biology
- Genomics, Transcriptomics, Proteomics and Metabolomics
- Plant Tissue Culture
- Plant Genetic Engineering
- Molecular Developmental Biology
- Environmental Biotechnology
- Molecular Evolution and Human Genetics
- Neurobiology
- Pharmacology and Drug Designing
- Industrial Microbiology
- Environmental Microbiology
- Mycology, Pathology and Fungal Biotechnology
- Advanced Bioinformatics

B.S. (Hons.) / (Hons. with Research) in **Artificial Intelligence and Computational Biology**

For Men | 2024 entry

Programme Overview

We are at the cusp of a revolution where the intersection of Artificial intelligence (the development of computer systems that can perform tasks requiring human-like intelligence) and Computational Biology (the use of data analysis, mathematical modeling and computational simulations to understand biological systems and relationships) will positively impact our life as human beings in several areas, such as Healthcare, Pharmaceuticals, Biotechnology, Data science, Bioinformatics, AI research and development, Environmental studies and Forensics.

This innovative programme is designed to build core competencies in the areas of biological sciences, computer sciences and data sciences. This will allow students to seamlessly operate across the frontier areas of Artificial intelligence (AI), Computational Biology and Data Science and apply them to solve biological problems.

In the first year, the students will be trained in the fundamentals of Mathematics, Computer Programming and Modern Biology. In Year 2, they will be introduced to Statistics and AI. In Year 3, the focus will be on learning the applications of Biotechnology, Bioinformatics, AI and Machine Learning followed by training on the skills required to undertake research projects.

In Year 4, the research project (under the joint supervision of faculty across disciplines) will give students an opportunity to apply AI, Computational Biology and Data sciences to develop potential solutions to real-world challenges in the field of biomedical sciences.

As graduates of this programme, students will have several career options across these multiple disciplines. They can also pursue research in diverse areas ranging from biological algorithm development to structural analysis of biological entities, genomic diversity studies, comparative genomics, genomic engineering, molecular medicine design, and Multi-Omic* data studies.

**a field of study in biological sciences that ends with -omics, such as genomics, transcriptomics, proteomics, or metabolomics.*

B.S. (Hons.) in Artificial Intelligence and Computational Biology
For students who complete a 4-year (8-semester) programme of study.

B.S. (Hons. With Research) in Artificial Intelligence and Computational Biology
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and opt to pursue research

Exit options as per NEP 2020 Policy.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII Standard before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- The candidate must take either one of the following subject combinations at XI and XII Standard:
  - Mathematics, Biology, Physics and Chemistry
  - Mathematics, Physics and Chemistry
  - Biology, Physics and Chemistry with an equivalent course (XII Standard / Intermediate) in Mathematics (online/distance mode)
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Mathematics: Differential Calculus
- Computer Science: Introduction to Algorithms
- Biology: The Dynamic Cell
- Biology: Introduction to Laboratory Science (Practical)
- Computer Science - Basic Programming in Python
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Semester 2

- Mathematics: Integral Calculus
- Computer Science: Discrete Mathematics
- Biology: Microbiology
- Biology: Cell and Microbiology (Practical)
- Computer Science: Programming, Data Structures and Algorithms Using Python
- Awareness Course II: Unity of Religions

YEAR 2

Semester 3

- Mathematics: Linear Algebra
- Statistics: Introduction to Statistics
- Biology: Biochemistry
- Biology: Biochemistry (Practical)
- Computer Science: Data visualization with R
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Semester 4

- Mathematics: Differential Equations
- Design and Analysis of Algorithms in Mathematical Sciences and Computing
- Biology: Principles of Genetics
- Statistics: Probability Theory and Distributions
- Artificial Intelligence: An Introduction to Artificial Intelligence
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

YEAR 3

Semester 5

- Biology: Molecular Biology
- Biology: Molecular Biology (Practical)
- Statistics: Statistical Inference
- Computational Biology: Bioinformatics and Computational Biology
- Specialization Elective – I
- Computer Science: Cyber security
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Computer Science: Database Management Systems
- Artificial Intelligence: Artificial Intelligence for Computational Biology – I
- Mathematics: Mathematics for Machine Learning
- Biology: Epidemiology and Public Health
- Specialization Elective – II
- Mini Project
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

B.S. (Hons.) Courses:

- Biology: Multi-OMICS
- Artificial Intelligence: Machine Learning and AI
- Specialization Elective – III
- Specialization Elective – IV
- Specialization Elective – V
- Project / Interim Review
- Awareness Course VII: Education for Life

B.S. (Hons. with Research) Courses:

- Biology: Multi-OMICS
- Artificial Intelligence: Machine Learning and AI
- Specialization Elective – III
- Research Methodology
- Massive Open Online Course (MOOC) (e.g. Swayam)
- Research Project / Interim Review
- Awareness Course VII: Education for Life

Semester 8

B.S. (Hons.) Courses:

- Mathematics: Mathematical Modelling
- Specialization Elective – VI
- Project
- Awareness Course VIII: God, Society and Man

B.S. (Hons. with Research) Courses:

- Mathematics: Mathematical Modelling
- Research Project
- Awareness Course VIII: God, Society and Man

Electives

Students will be offered a choice of electives cutting across the disciplines of Biotechnology, Bioinformatics, Computer Sciences, Data Science and Artificial Intelligence. Some of these electives will be Industry-oriented and will be delivered by experts from the relevant Industry.

Research Project

Interdisciplinary project with Research Supervisors from the Department of Biosciences and the Department of Mathematics & Computer Sciences

B.S. (Hons.) / (Hons. with Research) in **Food and Nutritional Sciences**

For Women | 2024 entry

Programme Overview

Food and Nutritional Sciences is a multidisciplinary field that combines principles from food science and nutrition to understand the relationship between food, health, and well-being. It encompasses various aspects such as food science, nutritional science and assessment, public health nutrition, food processing and preservation, food safety and quality.

Professionals in this field play a critical role in promoting individual and public health by bridging the gap between food and its impact on our bodies. They have the responsibility to make a positive impact of diet on human health and disease prevention.

Food technology specialists use their knowledge of Food processing, innovation, and preservation to create safe, wholesome food products that take advantage of new technical developments.

This multidisciplinary, comprehensive programme at SSSIHL integrates a wide range of areas. The degree offers ample career opportunities, addressing the growing demand for expertise in the field. The curriculum focuses on providing in-depth theoretical knowledge and practical skills in various subjects essential for success in the field.

The programme is structured to provide strong academic training in food science, nutrition, dietetics, food processing and preservation, and related disciplines such as physiology, microbiology, biochemistry, and food technology. The diverse scope of subjects covered provides students with a unique blend of scientific and technical skills designed to meet the needs of careers in the clinical and public health sectors, nutrition, healthcare, and the food industry.

The inclusion of value and activity-based courses cultivates entrepreneurial skills essential for students' employability. The internship and research project components in the programme prepare students for career opportunities in food and nutritional sciences.

B.S. (Hons.) in Food and Nutritional Sciences
For students who complete a 4-year (8-semester) programme of study.

B.S. (Hons. With Research) in Food and Nutritional Sciences
For students who secure a CGPA of 7.5 or more after the first six semesters (3 years of study) and opt to pursue a research project during the fourth year.

Exit options as per NEP 2020 Policy.

Specializations

In Years 3 and 4 (Semesters 6 and 8), students will choose specialization courses and electives (see the list of Courses) to pursue a specialization in either one of the following two major areas:

- Applied Nutrition
- Food Technology

Students can then build on this as a career for further postgraduate or doctoral research.

Minor

Additionally, students can pursue a minor degree in one of the following subjects:

- Nutrition and Food Studies
- Food Products and Processing
- Chemistry
- Biosciences
- others

These courses will be taken in Years 2 and 3 (Semesters 4-6) for B.S. in Food and Nutritional Sciences (12 credits) students and Years 2, 3 and 4 (Semesters 4-8) for B.S. (Hons.) in Food and Nutritional Sciences (16 credits) students.

The student then gets awarded a minor degree in that subject.

Eligibility

- 10+2 years of schooling from a recognized board
- Either passed or appeared for Final exams at XII level before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

Courses Taught

YEAR 1

Semester 1

- Introductory Food Science
- Introductory Food Science (Practical)
- Fundamentals of Nutrition
- Fundamentals of Nutrition (Practical)
- Human Physiology
- Human Physiology (Practical)
- Computer Basics and Applications (Practical)
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Semester 2

- Principles of Contemporary Culinary Science and Art
- Culinary Skills, Food Photography and Art (Practical)
- Food Chemistry
- Food Chemistry (Practical)
- General Microbiology
- General Microbiology (Practical)
- Awareness Course II: Unity of Religions

YEAR 2

Semester 3

- Fundamentals of Food Processing and Preservation
- Techniques in Processing and Preservation of Foods (Practical)
- Food Analysis (Practical)
- Biochemistry
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Semester 4

- Human Nutrition
- Nutrition in Health
- Nutrition in Health (Practical)
- Institutional Food Management
- Institutional Food Management (Practical)
- Minor Course
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

YEAR 3

Semester 5

- Food Product Development and Sensory Evaluation
- Food Product Development and Sensory Evaluation (Practical)
- Indian Traditional Foods and Cuisines
- Indian Traditional Foods and Cuisines (Practical)
- Community Nutrition
- Community Nutrition (Practical)
- Minor Course
- Awareness Course V: Ethos and Values for the Changing World

Specialization Electives – **Applied Nutrition**

- Dietetics
- Dietetics (Practical)

Specialization Electives – **Food Technology**

- Technology of Cereals, Pulses and Oilseeds
- Technology of Cereals, Pulses and Oilseeds (Practical)

Semester 6

- Functional Foods and Nutraceuticals
- Baking Technology
- Wellness Nutrition or Techniques in Baking and Confectionary
- Internship
- Minor Course
- Awareness Course VI: Life and its Quest

Specialization Electives – **Applied Nutrition**

- Sports Nutrition
- Sports Nutrition (Practical)
- Group I Elective

Specialization Electives – **Food Technology**

- Fruit and Vegetable Technology
- Fruit and Vegetable Technology (Practical)
- Group I Elective

YEAR 4

Semester 7

B.S. (Hons.) Courses:

- Food Microbiology
- Food Microbiology (Practical)
- Research Methodology
- Computer Applications in Food and Nutrition Research
- Community Connect
- Minor Course
- Awareness Course VII: Education for Life

Specialization Electives – **Applied Nutrition**

- Public Health Nutrition and Epidemiology
- Public Health Nutrition and Epidemiology (Practical)
- Biostatistics – Massive Open Online Course (MOOC)

Specialization Electives – **Food Technology**

- Dairy Technology
- Dairy Technology (Practical)
- Applied Statistics – Massive Open Online Course (MOOC) (e.g. Swayam)

B.S. (Hons. with Research) Courses:

- Food Microbiology
- Food Microbiology (Practical)
- Research Methodology
- Computer Applications in Food and Nutrition Research
- Research Project
- Research Techniques (Practical)
- Minor Course
- Awareness Course VII: Education for Life

Specialization Electives – **Applied Nutrition**

- Public Health Nutrition and Epidemiology
- Public Health Nutrition and Epidemiology (Practical)
- Biostatistics – Massive Open Online Course (MOOC)

Specialization Electives – **Food Technology**

- Dairy Technology
- Dairy Technology (Practical)
- Applied Statistics – Massive Open Online Course (MOOC)

Semester 8

B.S. (Hons.) Courses:

- Group II Specialization Elective or Massive Open Online Courses (MOOCs)
- Group II Specialization Elective (two papers)
- Mini Project / Internship
- Seminar / Workshop
- Minor Course
- Awareness Course VIII: God, Society and Man

B.S. (Hons. with Research) Courses:

- Group II Specialization Elective or Massive Open Online Courses (MOOCs)
- Research Project
- Seminar / Workshop
- Minor Course
- Awareness Course VIII: God, Society and Man

Electives

Students must choose their electives from one of the following streams (A or B) in each Group:

Group I

A) **Applied Nutrition**

- Maternal Nutrition
- Pediatric Nutrition
- Geriatric Nutrition
- Space Nutrition
- Nutritional Psychology
- Nutritional in Weight Management

B) **Food Technology**

- Food Packaging
- Food Labelling
- Food Laws and Regulations
- Extrusion Technology

Group II

A) **Applied Nutrition**

- Entrepreneurship and Marketing
- Food Fortification and Fermentation
- Exercise and Fitness Nutrition
- Advances in Women Nutrition
- Health Promotion through Nutrition Communication
- Ayurvedic Nutrition and Dietetics
- Food Intolerance and Allergies
- Functional Foods and Molecular Nutrition
- Nutrition in Metabolic and Degenerative Diseases
- Medical Nutrition Therapy

B) **Food Technology**

- Entrepreneurship and Marketing
- Food Fortification and Fermentation
- Emerging Food Processing Technologies
- Technology of Plantation Products
- Food Additives and Preservatives
- Flavour Technology
- Food Valorization and Waste Management

B.P.A. (Hons.) in Music

For Men | 2024 entry

Programme Overview

The Bachelor of Performing Arts (B.P.A.) in Music aims to realize and nurture the cultural heritage of traditional music in a student. The programme is designed to have a holistic approach towards the development of a student by enabling him to understand and improve upon his innate potentiality.

This full-time residential programme is offered in two streams: Carnatic (South Indian) and Hindustani (North Indian) systems, in the following five disciplines of music: Carnatic Vocal, Carnatic Instrumental Veena, Carnatic Instrumental Mridangam, Hindustani Vocal and Hindustani Instrumental Tabla.

Minor Subjects

In Year 1 and 2 (Semesters 1-4), students have the option to earn 16 credits from any one subject from the following options:

- History
- Political Science
- Economics
- English
- Actuarial Science

The student is then awarded a minor degree in that subject.

The programme enables graduates to pursue higher education in music and take up teaching jobs in schools and institutions along with music performances.

B.P.A. (Hons.) in Music
For students who complete a 4-year (8-semester) programme of study.

Exit options as per NEP 2020 Policy.

Facilities

The Department of Music has facilities not just for imparting education in Music but is also equipped with a computerized audio recording facility, a well-equipped library with a good number of books relating to Music as well as Sai spiritual literature. A huge digital music collection of great maestros with the latest multipurpose music system is available in the library for the benefit of the students. Musical instruments required for classroom teaching and practice sessions are provided.

Visiting Artistes
Eminent artistes from various corners of the country and abroad visit Prasanthi Nilayam. Many a time, they interact with students of the department and give lecture demonstrations.

Some of the renowned artists who have visited are: Sri Umayalpuram Sivaraman (Mridangam Vidwan), Sri Komanduri Sheshadri (Violin Vidwan), Sri Hariharan (Ghazal Singer), Sri Naiveli Santana Gopalan (Carnatic Vocal Vidwan), Sri Suresh Wadkar (North Indian Classical Singer), Smt Anuradha Krishnamurthy (Carnatic Vocal Vidwan), Padmashri Palanivel (Thavil Vidwan), Prof. Yella Venkateswara Rao (Mridangam Vidwan), Pandit Jayateerth Mevundi (Hindustani Vocalist) and Sri Santosh G Kulkarni (Tabla Artist & Lead Instructor).

Visiting Faculty: Padma Shri Sumitra Guha (Hindustani Classical Vocalist)

Eligibility

- 10+2 years of schooling from a recognized board (CBSE or equivalent), with Music as one of the subjects
  or a Diploma certificate in Music
  or a minimum of two years' music training in the concerned subject, for which, a letter/certificate has to be produced from the teacher during the Music Aptitude Test
- Either passed or appeared for Final exams at XII Standard before Admissions. If not appeared for XII Standard exams, X and XI Standard marks will be considered
- Consistent academic performance of 60% aggregate marks in X and/or XII Standard
- Age: Preferably below 19 years as of 30th June in the year of admission

The selection of the candidate for the programme is solely subject to his performance in the Music Aptitude and Competency test.

Note: Candidates who are especially talented, with a family background in Professional Music and other Fine Arts will also be considered. In such cases, the candidate must produce documentary evidence.

Courses Taught

Students can opt for one Major and one Minor subject (out of two) from the table given below. Major and Minor subjects are taught in the first two years. Only the chosen Major subject is taught in the third and fourth years of study. The Minor subjects offered will be based on the aptitude of the candidates.

Major Subject	Minor Subject
Carnatic Vocal	Carnatic Instrumental Veena **or** Carnatic Instrumental Mridangam
Carnatic Instrumental Veena	Carnatic Vocal **or** Carnatic Instrumental Mridangam
Carnatic Instrumental Mridangam	Carnatic Vocal **or** Carnatic Instrumental Veena.
Hindustani Vocal	Hindustani Instrumental Tabla **or** Carnatic Instrumental Mridangam
Hindustani Instrumental Tabla	Hindustani Vocal **or** Carnatic Vocal

YEAR 1

Semester 1

- Theory – I
- Practical – I
- Minor: Theory – I
- Minor: Practical – I
- Awareness Course I: Sai Education for Transformation (Based on Bhagawan Baba's Life and Teachings)

Semester 2

- Theory – II
- Practical – II
- Minor: Theory – II
- Minor: Practical – II
- Awareness Course II: Unity of Religions

YEAR 2

Semester 3

- Theory – III
- Practical – III
- Minor: Theory – III
- Minor: Practical – III
- Awareness Course III: Study of Classics I – Ramakatha Rasavahini

Semester 4

- Theory – IV
- Practical – IV
- Minor: Theory – IV
- Minor: Practical – IV
- Information Technology
- Awareness Course IV: Study of Classics II – Bhagavatha Vahini

YEAR 3

Semester 5

- Theory – V
- Practical – VA
- Practical – VB
- Music & Spirituality – I
- Awareness Course V: Ethos and Values for the Changing World

Semester 6

- Theory – VI
- Practical – VIA
- Practical – VIB
- Music & Spirituality – II
- Awareness Course VI: Life and its Quest

YEAR 4

Semester 7

- Theory – VII
- Practical – VIIA
- Practical – VIIB
- Internship
- Awareness Course VII: Education for Life

Semester 8

- Practical – VIIIA
- Practical – VIIIB
- Project Work
- Awareness Course VIII: God, Society and Man

Diploma in Music

For Men | 2024 entry

Programme Overview

The programme aims at understanding and learning the basics of Music and laying a strong foundation for pursuing advanced courses. It also focusses on improving English language skills, which is applicable to the theory of music through writing / communication.

This Diploma Course is offered in two streams: Carnatic (South Indian) and Hindustani (North Indian) systems, in the following five disciplines of music: Carnatic Vocal, Carnatic Instrumental Veena, Carnatic Instrumental Mridangam, Hindustani Vocal and Hindustani Instrumental Tabla.

After the programme, students can pursue the Bachelor of Performing Arts (B.P.A.) in Music at SSSIHL (or elsewhere) or take up teaching jobs in schools and institutions.

Eligibility

- 10 years of schooling ((passed X Std.) from a recognized board, preferably with Music as one of the subjects
- If the Music is not offered as a subject in X Standard, the candidate must have:
  completed a Foundation / Certificate course in Music **or**
  have had at least six months of training in Music **or**
  should have basic knowledge of Music in the concerned subject
- Age: Preferably below 19 years as of 30th June in the year of admission

The selection of the candidate for the programme is solely subject to his performance in the Music Aptitude test.

Note: Candidates who are especially talented, with a family background in Professional Music and other Fine Arts will also be considered. In such cases, the candidate must produce documentary evidence.

Courses Taught

Students can opt for one Main and one Ancillary subject (out of the two options) from the table given below.

The subjects of the Main stream comprise Theory and Practical papers. The subjects of the Ancillary stream comprise only Practical papers. Ancillary subjects offered will be based on the aptitude of students.

Main Subject	Ancillary Subject
Carnatic Vocal	Carnatic Instrumental Veena **or** Carnatic Instrumental Mridangam
Carnatic Instrumental Veena	Carnatic Vocal **or** Carnatic Instrumental Mridangam
Carnatic Instrumental Mridangam	Carnatic Vocal **or** Carnatic Instrumental Veena.
Hindustani Vocal	Hindustani Instrumental Tabla **or** Carnatic Instrumental Mridangam
Hindustani Instrumental Tabla	Hindustani Vocal **or** Carnatic Vocal

YEAR 1
Theory
Main Practical
Ancillary Practical
General English

YEAR 2
Theory
Main Practical
Ancillary Practical
General English

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