FAQ for Incoming Batch of 2018

Contents

1 Academic Programmes (UGs)

1. What are the B.Tech branches that are available at IIT Hyderabad?

   The following B.Tech branches are currently available:

   - Chemical Engineering

   - Civil Engineering

   - Computer Science and Engineering

   - Electrical Engineering

   - Engineering Physics

   - Engineering Science

   - Material Science and Metallurgical Engineering (MSME)

   - Mechanical & Aerospace Engineering

   - Mathematics and Computing.

2. What are the advantages of studying at IITH?

   At IITH, the faculty is overwhelmingly young and hip. The average age of a faculty member is likely to be between 30 and 35. In an older IIT, it may be between 40 and 50. Additionally, since the academic programmes are being set up from scratch, it is easier to inculcate the best practices that are prevalent at IITs and elsewhere. The following are additional advantages at IITH:

   - IITH has introduced a new academic program called Fractal Academics. It is essentially trying to atomise the courses and introducing excitement and challenges in engineering early in the curriculum. More details can be found here.

   - IITH emphasises on active learning, and this involves having a lot of project work in most of the courses at IITH.

   - IITH has a Digital Fabrication (3D Printing) Lab at the first year level for all incoming undergraduate students. It is the only institute in India to offer this lab and perhaps the only institution in the world to offer such a lab to first-year students. DigFab lab equips students with future manufacturing technology.

- All first-year students do a project of their choice which is on display and demo during 26th January celebration and graded during this display.

- Having a stream of Creative Arts courses (drama, photography, music, sculpture, etc.)

- Opportunity for Double Major, i.e., getting a B.Tech degree in two disciplines.

- Opportunity for Minor and Honors program.

- Opportunity for a minor in Entrepreneurship for all registered students.

- Novel B.Tech programs in Engineering Science and Mathematics and Computing. These programs are designed to enable students to pursue careers in a vast range of domains.

- A large number of electives in all programs in the final 3 semesters.

3. What are the requirements for a B.Tech Degree?

It is necessary to earn a minimum of $125 - 130$ credits (will vary within this range for each branch) and also fulfil the category-wise credit requirements such as core courses, core electives, liberal arts electives, etc. Also, satisfactory completion of NSS/NSO activities is mandatory. Further, there exists a minimum residency requirement of four years. This means that one cannot complete the B.Tech programme in less than four academic years or eight semesters.

4. How many courses/credits do I have to take per semester?

On an average, one registers for about 15 to 20 credits of coursework per semester. This usually varies based on the student, the department, and the semester. Students can also take extra credits by doing additional courses.

5. What is a credit?

Credit is a measure of the teacher-student interaction in a classroom. A theory course having three credits implies three hours of classroom contact with the course instructor per week throughout the semester. For a laboratory course, three hours of laboratory time per week is worth two credits.

6. What is Fractal Academics?

To foster interdisciplinary learning and facilitate flexibility in academic curriculum, IITH has introduced a new academic approach called "Fractal Academics". The name is inspired from the fractals which are self-similar across different scales.

A typical three credit lecture course has 42 lecture hours in a semester, whereas in Fractal Academics the credits can vary from 0.5, 1, 1.5, 2, 2.5, and 3 having 7, 14, 21, 28, 35, and 42 lecture hours, respectively. This enables the student to choose not only the course he/she like but also the amount of depth in that course. For example, a Chemical engineering student interested in a quick outline of IC engines may take a one credit course on the same and a Mechanical engineering student interested in depth knowledge of IC engines can, later on, choose a three credit course advanced course on IC engines. More Information can be found here.

7. How is Fractal Academics curriculum scheduled?

Fractal Academics is based on the concept of "Continuous Evaluation". Instead of two exams in each semester (Mid and End Semester exams), the students are evaluated based on interaction in class, a series of assignments, pop quizzes, etc. This reduces the last-minute-exam-pressure on the students and emphasises continuous learning.

8. How are the academic programmes structured at IITH?

The academic programme that leads to a B.Tech degree is based on a four-year/eight-semester programme. There is scope for a student to take an additional academic load or even go slow and finish in nine or more semesters. For a typical B.Tech degree programme, about 30% of the credits are for common courses, about 50% are for the core courses in the discipline of the student, and the rest of the 20% is set aside for the student to choose in terms of core electives, liberal arts electives, and free electives. In addition to this, an interested student can opt for a Minor programme, an Honours programme, or both. They require additional course/project work. Both are optional and come into force from the beginning of the third year. The minimum time for B.Tech is 4 years while the maximum is 5 years.

9. How are the academic programmes different from those in other IITs?

To foster interdisciplinary learning and facilitate flexibility in academic curriculum, IITH has introduced new academic approach called "Fractal Academics". More information is available here.

The basic B.Tech programme consists of a core, common programme which reinforces basic sciences and introduces basic engineering skills (such as programming, workshop, engineering drawing); and a core engineering programme consisting of about 12 to 15 core theory courses,

4 to 6 laboratory courses, and 4 to 6 electives. There is also a fairly good consensus on what constitutes the overall syllabus for each branch. There is certainly some variability from IIT to IIT in terms of the course structure, focus and emphasis but one could say that about 75% of what we teach in any branch for the B.Tech degree can also be found in the corresponding programmes of the other IITs.

A typical B.Tech programme at IIT Hyderabad enables a student to build his/her own programme around a core. One-fifth or about a dozen courses of the B.Tech programme are left to the student's choice. There is further scope for shaping the B.Tech programme in the form of the Minor and the Honours options. There is also the possibility for a student to take up to one semester off to pursue professional interests. IITH facilitates grade improvement by allowing the student to retake a course. Further information may be sought from the faculty advisor.

10. What is a Minor?

We always have a passion or some fascination for a particular subject or a line of thinking or study. However, there may not be much scope for exploring it formally within the context of the engineering discipline that one is pursuing. The Minor option enables one to nurture this interest without compromising on the major engineering branch programme that one is already committed to. It comes into force from the third year onwards, i.e., after a student has spent a couple of years at IITH and has taken several courses in the major discipline. At this stage, i.e., towards the end of the second year (and not right at the beginning of the B.Tech programme), an interested student may opt to take up one of the available minor streams by registering for one from a basket of courses associated with the minor stream. After successful completion of this course, he/she may continue in the minor stream by taking one additional course each semester. In order to get formal recognition for the Minor, a student has to earn 12 credits by taking courses from the basket of courses associated with that Minor. Biomedical, Computer Science, Economics, Entrepreneurship, and Electrical Engineering are some of the minors currently being offered. This list of minors is constantly expanded, so look out for the same on the academic website. It should be kept in mind that taking up a minor is optional and a student does not have to register for a minor. Further, a student can always opt out of a minor, if he/she finds the additional load too heavy or is not interested in pursuing it anymore.

11. **What is the Honours programme?**

The Honours programme is for those who wish to do more in their major branch of engineering. It is also a recognition of excellence in that field of engineering. Thus, in order to earn the Honours in the major field of engineering, a student has to earn 12 additional credits through course work and project work in topics related to the major discipline.

12. **How does one get into the Minors and/or Honors programme(s)?**

One needs to pass all the courses till the end of their 2nd year to be eligible to apply for these programmes. A CGPA criterion for Honours can be set by the respective Departments but no CGPA criterion for a minor.

13. **Can I choose my own courses?**

To some extent, a student can choose his/her own courses. In the B.Tech programme, for example, a student chooses all the liberal/creative arts they want to take, and several courses as department elective or free electives. As the name suggests, department electives should be taken from amongst the courses offered by the same department the student is in, and a free elective can be taken from any course offered in the institute. A student can also choose the minor stream that he/she wishes to take if any, and may also choose the electives if the Honours programme is being pursued.

14. **What is the branch change policy?**

At IITH, branch change is done at the end of the first semester itself and is based solely on the first-semester grade point average of those who apply for a change of branch. In the case of a tie, the All India Rank (AIR) in the qualifying JEE examination is used to decide on who gets the branch change. Further, the number of students in any branch should not increase by more than 10% nor should it decrease by more than 10% as a result of the branch change.

15. **What is a double Major option?**

Double Major means you can get two B.Tech degrees from two different departments at the same time. A student may join the IITH in any particular discipline. He may then do required additional courses (24 credits) in a different discipline to earn two separate B.Tech degrees from each of those disciplines. A student can take up to 5 years to complete the credit requirements.

16. Can B.Tech degree be continued to M.Tech or Ph.D.?

Yes. A B.Tech can apply for conversion to M.Tech or even directly convert to Ph.D..

2   Academic Programmes (PGs)

1. What are the Post graduate courses offered at IITH?

   IITH presently offers (1) M.Tech (2) M.Sc. (3) M.Phil. (4) M.Des. and (5) Ph.D. in the following departments:

   - M.Tech
     - Biomedical Engineering
     - Biotechnology Engineering
     - Chemical Engineering
     - Civil Engineering
     - Computer Science and Engineering
     - Material Science
     - Mechanical and Aerospace Engineering
   - M.Sc.
     - Chemistry
     - Mathematics
     - Physics
   - M.Phil.
     - Liberal Arts
   - M.Des.
     - Design
   - Ph.D.
     - All departments

   The information regarding specialisations offered in each department can be obtained through the respective departmental web sites.

2. How to select thesis supervisor?

   Selection process of thesis supervisor is usually different in each department. In general, the student is given freedom to choose his/her supervisor based on the area of research interest. Once the student joins, they are advised to consult their faculty advisors regarding the same.

3. What are the leave and scholarship rules for TA category students?

   The monthly scholarship will be released after satisfactory completion of TA responsibilities by the students. The students are required to seek approval of the advisor. The approval is online. Students can take up to 15 days of leave in an academic year (subject to individual course attendance requirements).

4. What is a 3 year M.Tech?

   A 3 year M.Tech has exactly same credit requirements as that of 2 years M.Tech. In this, the student takes lesser number of credits per semester compared to 2 years M.Tech while simultaneously working on a sponsored research Project.

5. What is a 1 year M.Tech?

   IITH has started an All courses M.Tech that can be completed in one calendar year. Students typically take courses in winter and summer semesters in addition to the usual academic semesters. More details can be seen here.

6. What are the minimum credit requirements for M.Tech/M.Sc./M.Phil./M.Des. degree?

   A minimum of approximately 50 credits (this again varies according to the department) that consists of credits earned from courses and thesis should be completed to get the degree. The credit requirement is less for the 1 year M.Tech program.

7. What is a credit?

   Credit is a measure of the teacher-student interaction in a classroom. A theory course having three credits implies three hours of classroom contact with the course instructor per week. For a laboratory course, three hours of laboratory time per week is worth two credits.

8. What is the eligibility criteria to convert from M.Tech to Ph.D.?

   A student should have the minimum CGPA of 7.0 in their course work (usually first and second semesters for a 2-year M.Tech) to convert directly from M.Tech to Ph.D..

3 Research and Career Opportunities

1. Is it possible to do research while being a B.Tech student at IITH?

   Invention and innovation are the bywords for IITH. Most courses have some form of project work included in them. IITH is also unique in terms of the credit requirements: a 120 credit B.Tech program facilitates a minimalistic coursework footprint ensuring that the students have ample scope for research work. There are also a number of funded research projects being carried out by our faculty, and there is an opportunity for any interested student to participate in these.

2. What opportunities are there for interaction with other institutes?

   There is a formal agreement with a consortium of Japanese institutions which run the JE-NESYS programme which is aimed at providing research opportunities for students. We also have MOUs with reputed universities around the world which facilities academic exchange and a joint Ph.D. program with Swinburne university in Australia is already underway. More details can be obtained from the academic office regarding these foreign exchange programs. We also encourage our undergraduate students to apply for summer internship programmes offered by IISc and IITs, and our faculty are also hosting students from other institutions.

3. What opportunities are there at campus for entrepreneurially motivated students?

   Academically, there is a minor offered in Entrepreneurship with active participation from renowned industrial leaders for all students (B.Tech, M.Tech, Ph.D., MDes, etc.). There is an active e-cell, a student club at IITH. In addition to these, IIT Hyderabad has a registered incubation centre called i-TIC (IIT Hyderabad Technology Incubation centre). Its purpose is to provide support to budding start-ups. A research park is also planned at IITH in the near future. The i-TIC is open to all IITH fraternity. The incubation centre can be contacted via email to itic@iith.ac.in

4. Can I do internship during my undergraduate studies?

   While summer internship is not a specific part of our undergraduate curriculum, our students are doing summer internships and research programmes in the industry as well as in the academia. The summer break at IITH lasts for about three months (and a semester break of about one month in December) which is at the disposal of the student to do internships. We also have a Placement Cell which coordinates internship activities and opportunities.

4 Studies at IITH

1. How much time do I have to spend on my studies?

   We expect a student to spend about 40-50 hours per week on academics, including attending classes and laboratories.

2. What is the grading policy at IITH?

   The grading is IITH is relative and is based on the Instructors perception of what an average performance is. At the end of the course, based on continual evaluation throughout the course (in the form of assignments, pop quizzes, and examinations), a student is given one of eight passing letter grades, namely, A+, A, A-, B, B-, C, C-, and D carrying credit points of 10, 10, 9, 8, 7, 6, 5, and 4, respectively, or one of the two failing grades, namely, FS and FR, each carrying zero credit points. The grade point average is calculated using the number of credits for a course and the letter grade (i.e., the corresponding credit points associated with the grade) for all the courses taken by a student. If a student gets an FS or FR grade, no credits are earned for that course. An FS grade entitles the student to take a supplementary examination while an FR grade implies that the student has to go through the entire course again if the course is a core course. A student has to earn a minimum of approximately 120 credits for a B.Tech degree. The final grade point average will be based on the courses completed successfully.

3. What are laboratory facilities that are available?

   All laboratories, workshops, etc. for all programmes are available at IITH. All laboratories have been set up from scratch at Kandi campus of IITH. This, along with the small class strength has given the opportunity to introduce new experiments that are not available in some of the older IITs. In addition, sophisticated research labs exist in every department, see the respective departmental websites for more details. IITH has a total of more than 110 research and teaching labs.

4. Is the library well-stocked?

   A library with all the necessary textbooks has been set up. It is open until late in the evening. More and more books are being continually acquired for teaching as well as research needs of the students, research scholars and faculty alike. We also subscribe to a range of scientific and

technical journals in all disciplines. Further, many subscriptions to a wide variety of Online Journals and Digital Libraries are made.

5. Can I also gain experience as a Teaching Assistant (TA) during my UG?

Yes, interested senior undergraduate students can act as Teaching Assistants for beginner courses. Usually, the students are expected to put in six hours of work every week for this. They will also be eligible for some stipend for the Teaching Assistantship.

5 Fees and Scholarships

1. What are the fees that I have to pay?

   Our fees, both for tuition and hostel, are about the same as those at other IITs. Please visit the following page for more details: http://academics.iith.ac.in/feestructure.html

2. What scholarships are available?

   The government-sponsored scholarships available at IITH are similar to those at other IITs. Please visit the following page for more details: http://academics.iith.ac.in/scholarship.html

3. Is it possible to get educational loans?

   Yes, the in-the-campus branch of State Bank of India offers educational loans, as may do other banks and financial institutions.

6   Life on Campus

1. How many students are there?

   IITH is now home to more than 2000 students.

2. How is the hostel accommodation?

   IITH is a fully residential campus, and students are offered on-campus accommodation inside permanent campus in Kandi within a walking distance from the academic zone. In the unlikely event if accommodations are filled, the temporary accommodation may be arranged.

3. Is there good access to the Internet?

   We have excellent access to the Internet. The whole academic and hostel zone is WiFi-enabled.

4. How many students are allotted per room?

   Single/Double rooms are allotted for students in the campus. However, students in double rooms will be gradually shifted to single rooms as the construction progresses.

5. How are roommates chosen?

   Roommates are chosen based on random allotment. More details will be given on the day of joining.

6. What does one do for food?

   Private agencies offer mess facilities for students in the hostel zone. Additionally, there is a Canteen, fast food centre and juice shop available near the hostels inside the campus. You can even order food from several restaurants in Sangareddy and Shankarpally. ShiruCafe in the Academic Block serves complimentary beverages for the students.

7. Are there separate girls hostels?

   Yes, all girl students are housed in separate hostels. Extra security is provided for these units by posting round-the-clock security men. Males are not permitted to enter the girls hostel. The girls are also required to take permission from the warden if they need to stay out of the hostel overnight. The is dedicated Womens Cell that assists girls with their issues. Please visit the link for more details: http://womencell.iith.ac.in/

8. What sports facilities are there?

   IITH has facilities for almost all sports activities including volleyball, tennis, badminton, table tennis, swimming, cricket, football, basketball, hockey, athletics and fully equipped gyms. Students participate enthusiastically in sports activities.

9. What are the main fests of the college and what is the scope for cultural/extra-curricular activities?

   We have NVision (Inter-college Techno-Management festival) and ELAN (Cultural and Technical Fest of IITH). There are active TEDx and Spicmacay chapters at IITH organising regular talks and concerts, respectively. In addition to these, there are clubs, societies, sports leagues and programmes that students can participate in, as per their choice.

10. Do IITH students take part in inter-IIT competitions?

    Yes, IITH students do participate in inter-IIT competitions. As the student strength increases, one can foresee more participation in many more team events.

11. Is IITH a safe place?

    Absolutely. All IITH zones (academic, hostel and research) are under constant surveillance by a reputed private security agency.

12. Is ragging prohibited?

    IITH operates a policy of zero tolerance on ragging. Those indulging in ragging will be severely punished. IITH also runs an anti-ragging telephone helpline and also has student counsellors acting as mentors to new students.

13. What is the expected code of conduct by students at IITH?

    Students are expected to adhere to the rules and regulations of the Institute. Any kind of unethical activities such as plagiarism will attract strict action including rustication. Drug abuse, smoking, and liquor consumption are prohibited on campus. Please visit the link to view the set of rules and regulations laid out by the IITH Student Gymkhana http://gymkhana.iith.ac.in/rules.php

14. What kind of help is provided to a student in trouble?

IITH has a system of faculty advisors where a faculty member is assigned to look after the general welfare of a set of students. The faculty advisors offer all the necessary guidance and help in academic matters, and, if need be, in personal matters. We also have a guidance and counselling cell called the Sunshine consisting of two professional counsellors, available on campus and student mentors who can help and offer advice in all kinds of matters. Please visit the following link for more information: http://sunshine.iith.ac.in/

For your information,

- SBI - IITH branch is located well within the campus.

- The ATM's of SBI' and Canara bank' are available on the campus.

- The route map to reach IITH from all nearby railway stations, airport and bus stands are provided in the Orientation booklet available here.

- IITH has a dedicated permanent medical officer to cater to students medical needs.

7   Location and Access

1. Where is IIT Hyderabad?

   IIT Hyderabad is currently operating from permanent campus in Kandi which is about 5 km from Sangareddy. Classrooms, labs and hostels are located in Kandi campus.

2. Where is the Permanent Campus and when will it be ready?

   The permanent campus site of IIT Hyderabad is a 576-acre plot abutting NH-9 at Kandi village, Medak District, Telangana state. It is planned as a residential campus to accommodate a total population of 30,000, including 20,000 students with a total built up area of 2.1 million square meters. The campus consists of academic area, residential area for students, residential area for faculty and staff and other support facilities. The growth of the campus is planned in three phases with a corresponding increase in the physical infrastructure and support facilities to accommodate an increase in the number students in established programs and new programs of the future. A number of buildings are ready and in use in the permanent campus at Kandi. Almost all academic activities, barring a few labs, take place on the permanent campus.

3. Is it well connected with the outside world?

   The permanent campus is on Mumbai highway and is located about 1.5 hour drive from the airport. There are regular buses to and from Patancheru (the key hub to get transport to all other locations in Hydeabad/Secunderabad) which stop on request in front of the permanent campus gate. Ola Cabs and several other private operators provide taxi services to and from Kandi campus.

4. Are there any medical facilities inside the campus?

   IITH has a dedicated medical officer and a dedicated ambulance stationed in the permanent campus. There is a 24x7 Apollo pharmacy located inside the permanent campus at Kandi.

5. What amenities, e.g., shopping, are available at IITH?

   There exist stationary, Xerox, salon and laundry facilities in the campus. In addition, Sangareddy town which is within 5 kms from the Kandi campus offers a lot of shopping and dining options.

6. What does one do in an emergency?

Medical staff is available round the clock in addition to the medical officer who is available during the day time. 24x7 ambulance service is available for accessing hospitals outside the campus.

More medical facilities are available in Sangareddy and BHEL/Ramchandrapuram in Hyderabad city. IITH can arrange private taxis and ambulances on short notice.