

# FAQ (Frequently Asked Questions)

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## I. Courses and Electives

**Upgrade from 4-year B.Tech Degree programme to 5-year Dual Degree (B.Tech & M.Tech) programme is allowed in the same department.**

### **Criteria for transfer**

- Should have a minimum of 8.00 CGPA at the end of 5th semester.
- Should not have any backlog courses.

The students who will be given Dual Degree discipline as per the above rule will have the following benefits in their 9th and 10th semester:

- They will be eligible for HTTA of Rs.12,400/- per month for a maximum period of 12 months
- They will have to pay the fees as applicable to M.Tech. students

### **Criteria for HTTA**

- Students with CGPA  $\geq 8.00$  at the end of 8th semester
- (Or)
- With valid GATE Score and should have earned 400 credits at the end of 8th semester.

**(1) Can I know why a particular elective (EE5xxx) is not offered in this sem? Will it be offered next sem? (B.Tech/DD)**

Ans: Offering of elective courses is prerogative of respective faculty. Please check with the specific faculty member as to when the elective will be offered next time.

**(2) Is it possible to drop a course elective after the grade is given? (B.Tech/DD)**

Ans: No it is not permitted to drop a course after the grade has been given. Any elective course can be dropped before the Drop deadline for a particular semester. If this did not happen, then the course grade will be reported in the Academic Transcript. **For the exercise of CGPA calculation, the extra course elective may not be counted. However, it will still be reflected in the Academic Transcript.**

**(3) Can you please explain me about the electives and their credits for DD? (B.Tech/DD)**

Ans: A total of 207 elective credits (171 BTech + 36 MTech level) have to be completed, out of which 36 elective credits should be from electrical engineering department. 85 credits of DD project will be taken in the summer after the 8th semester and in the 9th and 10th semesters. A maximum of 60 credits can be taken per semester. ([Link](#), Refer pg. 33-34)

**(4) Can I credit Mini Project (EE4902) under Basket Elective instead of ID4100 (which is a basket course)? (B.Tech/DD)**

Ans: You need to discuss with FacAd; For the course ID4100 Creative Engineering Project, the project must be on a topic that is core to Electrical Engineering. ([Link](#), Refer pg. 34)

**(5) Can 1st year and 2nd year students register for 5xxxx courses?**

Ans: 1st year students cannot register for 5xxxx courses. The 2nd year students who are in the 3rd sem are eligible for registering in the 5xxxx courses. ([Link](#), Refer pg. 34)

**(6) What are the recommended courses for the first sem EE5 M.Techs?**

Ans: The four core courses in EE5 for the first sem are: (1) Wave Propagation for Communication, (2) Analog and Digital Circuits, (3) Introduction to Photonics, (4) Photonics Lab. Apart from these 4 core courses, one can choose electives such as Digital Signal Processing (EE5130, for those from ECE background), or Introduction to Digital Signal Processing (EE5xxx, for those from non-ECE background) ([Link](#), Refer pg-32)

**(7) Do extra credits from the basket courses spill over into the 29 core elective credits or the 88 free elective credits?**

Ans: Apart from the 29 core electives, the 88 free elective credits can be taken from any department including the core department also. So the extra credits from the basket courses can also be counted in the 88 free credits. ([Link](#), Refer pg-34)

**(8) I am falling behind 1 or 2 credits in my total credit requirements. Do I need to take a 9 or 12 credit course? (added by DN)**

You can do that or take a 3 credit seminar course like EE5004 or EE6000.

**(9) Can I postpone ME3100 to a later semester? (added by DN)**

This is a core course in your 6th semester. Postponing a core course to the 8th semester is not a good idea in case you have plans like going for semester exchange in the next year. Also, getting a U in a core course in the 8th semester is not a good situation. **Doing it later as a contact course isn't an option.** (See the rules in. Page 11 of [Link](#))

**(10) Can the slot of a course be changed after the registration has started? (added by DN)**

The slots are assigned after consulting all faculty and taking the feedback of students. Instructors should not request for slot change based on 1 or 2 requests. Instructor should get the consent of all currently registered students on this change request. In such a case, the TTC member will request the DR Courses to add the course in the new slot. Then, all students should drop the course and then add it in the new slot. Once this is done, DRcourses will delete the course in the old slot.

**(11) Is the completion of Control Engineering compulsory for converting to DD?**

It is not a core requirement. At the time of approving the program, the senate approved the following. If you want to specialize in control and dynamical systems, you must do this course.

"The courses EE3004 Control Engineering, and PH5250 Advanced Electronics & Lab can be considered as professional elective courses as it helps the DD student specializing in certain areas of Electrical Engineering."

## **II. NPTEL Courses/Credits**

**(1) I would like to know where will the NPTEL credits will be reflected? (added by DN)**

Ans: It will be reflected in your IITM transcript. If the student wants to credit an NPTEL course as an elective in any category (E, H, P, S) , he/she should generate a student ticket on workflow uploading the copy of the NPTEL certificate and claiming the category. This will have to be approved by Faculty advisor and corresponding HoD for credits to be added. Corresponding HoD means CY HoD for Chemistry ELECTIVE courses under S category, PH HoD for Physics ELECTIVE courses under S category, MA HoD for mathematics ELECTIVE courses under S category, HS HoD for H category, Student's department HoD for P (ELECTIVE) category. Students cannot credit an NPTEL course that has overlap with a core course or an elective course already credited.

**(2) What is the maximum number of credits that can be transferred from NPTEL or online BS?**

Ans: B.Tech and DD students are permitted to earn up to 36 credits through NPTEL or online BS courses.

**(3) Can I do any of the courses available on NPTEL? What type of credits (E/P/S/H) can be transferred?**

Ans: Yes, any course on NPTEL can be credited. Depending on the type of course done, the category may be slotted under P, E, S or H Elective credits.

Examples: Management department's MS course on Human resource or soft skills will be entered under H but will count for only 9 credits and will not count for the mandatory 18 H credits from HSS department. MS course on Operations Research will be under E category, again will not count towards the minimum E credit requirement. Similarly if a student earns 18 H credits under NPTEL, only 9 will be counted as H credits and the other 9 will be counted as free elective credits. Thus NPTEL or DoMS or GN courses even though categorized as P or H or E or S will count only towards 9 H credits (if H credits are earned from NPTEL / DoMS / GN) and the rest will be accommodated in 72 free elective credits. (from Dean AC email on July 9, 2020)

**(4) Can one credit a NPTEL course to substitute the mandatory mathematics/applied sciences credits ?**

Ans: NPTEL courses cannot be used for core courses and compulsory electives or basket electives. (Reference: Andrew Thangaraj email on 03/08/22).

### **III. Projects (UGRC/DDP/BTP/MTP)**

**(1) When to choose our DDP project guide?**

Ans: The DD project work commences from 1st of June following the 8th sem. So the project guide can be chosen in the 8th sem itself. ([Link](#), Refer R.18.0)

**(2) What is the maximum number of credits that can be earned through mini-projects, UGRC, BTP etc?**

Ans: Through UGRC one can earn 27 credits (from the basket of three Mini projects - EE4901/2/3 and ID4100) and 27 credits from the BTP. (I have edited this - DN, need a link)

**(3) How will the grades for M.Tech Project 1 (registered in Summer) be given?**

Ans: The EE Department evaluates the M.Tech project into two phases --- Project Phase-1 carrying 55-credits (to be carried out usually over the summer and the odd semester), and Project Phase-2 carrying 30-credits (to be carried out in the even semester). Project Phase-1 is mandated for all students. On the other hand, Project Phase-2, which is the continuation of Phase-1, can be pursued only if it is approved by the evaluation committee. At the end of Project Phase-1 (typically December), the student should submit a report and make a presentation. The committee will provide an appropriate grade, and then recommend whether or not the student is eligible to pursue Project Phase-2. If the student is not found eligible, additional course work has to be done so as to meet the total credit requirements for obtaining the M.Tech degree. ([Link](#), Refer Pg. 29)

**(4) I have a W grade in M.Tech Project 2 as I was not asked to give any presentation etc. Does this mean I will be graded at once for parts 2 and 3 after my final viva/presentation?**

Ans: It is the student's responsibility to discuss the project evaluation with the respective Guide and schedule the viva. As mentioned above, the MTech project will be evaluated in two phases. ([Link](#), Refer Pg. 29)

**(5) Sir I want to know how I can get project work (being a second year student) run by professors in the institute. Do I need to approach the professors for project work? Or is it too early to do projects in sophomore year?**

Ans: Yes, you need to approach the appropriate faculty for the project work in your area of interest. It is usually done during the semester previous to the one in which the project commences.

**(6) Can an honors student take 27 BTP credits among the 56 elective credits? (added by DN)**

Ans: Total credit requirement for BTech honors is  $430 + 27 \text{ (BTP)} = 457$ . BTP cannot be counted among the extra 56 elective credits. So, it is BTP (27 credits) + 56 (27 in 5xxx level) + 36 (stream/basket) credits. Only a non-honors student can do BTP in lieu of 27 credits among 29 elective credits. ([Link](#), Refer Pg. 9)

## IV. TA Duty

**(1) Is it mandatory for DD students to be a Teaching Assistant in both the semesters of their 5th year? For instance, if the DDP work is completed, can I choose to drop HTTA to do a research internship outside IITM in my 10th semester?**

Ans: If a DD / MTech student does not want to claim HTTA, he/she can opt out of TA duties. He/she needs to write a mail to the HOD regarding the same. (Source? need to confirm with Dean Acad)

**(2) What is the requirement for becoming TA in a course?**

Ans: DD in 5th year with CGPA  $>8.0$  and Earned Credits  $>400$ . For M.Tech, the criteria is to choose the HTTA offer (through GATE or B.Tech graduates from IIT). However, the awardance of HTTA for DD students will be in accordance with the regulations of the senate of the institute. ([Link](#), Refer Pg. 4). The CGPA requirement for M.Tech students for the payment of stipend is as follows: CGPA  $>6.5$  (for payment of full stipend i.e Rs.12,400/- per month) and for students with CGPA  $<6.5$ , Rs. 6000 is deducted per month.(same thing said by Jai Shri Madam. Source? need to confirm with Dean Acad)

**(3) Where can I find the relevant documents to submit for UGC NET/JRF Scholarship?**

Ans: You can request for such documents by raising a student ticket in Workflow.

## V. Internships and Fellowships

**(1) What are the exact guidelines for the mandatory corporate internship, and can it not be done in the winters for students who would wish to go for research internships during summers? More so, can it not be changed to any internship rather than only corporate internships?**

Ans: Internships have been optional during the pandemic period. This is proposed to be extended for the future as well. This proposal is currently under consideration (same thing said by Jai Shri madam).

**(2) What options do I have regarding this internship?**

Ans: There are many options in this regard. The most common ones are listed below. You can intern at any of the premiere research institutes across the country, such as IISc, NCBS, CCMB, IITs, IISERs and many others. Find a non-exhaustive list of research institutes across the country [here](#). You can apply for such internships both by cold-mailing professors and by applying for fellowships. Secondly, you can intern at an industry. Some industries send out emails advertising internship positions, so check your email regularly for the same. Some of them can be approached via their HR teams/websites, or through personal contacts, if you have any. Finally, you can intern at one of the many fledgling biotech startups across the country. IIT Madras has a [Bioincubator](#) with a roster of over 13 companies. (Source?)

**(3) How and when do I apply for internships?**

Ans: These are subjective questions, and depend on what kind of internship you want to pursue, and the kind of organization you'd like to join. It is recommended that you reach out to any seniors you know, or to the current branch legislator ([biotech.dept.legislator@smail.iitm.ac.in](mailto:biotech.dept.legislator@smail.iitm.ac.in)) and request them to hold a session to clarify all your questions. A good place to get started would be to build a resume (template) and start looking at places you think interest you. A good time to start would be towards the end of your odd semester in your second year, around October-November. However, it is **very important** to note that starting later than the dates given above **does not** preclude you from scoring excellent internships. The early dates are mentioned so as to give you a headstart and reduce the pressure you will inadvertently place on yourself as time passes. The early dates also make it useful to apply for research fellowships such as the IAS Fellowship, which offer you stipends and connect you with researchers that interest you. Aside from the fellowships, emailing is an excellent method of reaching out to researchers in your field of interest and exploring work in a domain, especially given the degree of randomness associated with fellowships. It is also a backup worth having as fellowships have very few spots and results are often declared much later in the year. The task may seem daunting to reach out

to complete strangers, but this is a process most of us have gone through so do reach out to your seniors for help and support. [Attached](#) is a blogpost by Prof. Vishwesh Guttal at IISc with some tips on how to go about crafting such an email. In general, make sure you don't write generic emails. Be very specific about what it is about that lab's work that excites you. Do connect with your seniors who have managed to successfully score an internship in your institute and department of interest to learn more about the specifics of what they may be looking for in your emails. (Source?)

#### **(4) What are fellowships? How do I apply to them?**

Ans: Fellowships are programs offered by certain institutions, which serve to connect you with professors across the country whose work aligns with your interests. Such fellowships often also come with a stipend to cover living expenses. A list of fellowships, with their immediate deadlines, is available [here](#). Do note that fellowships take very few students every year, and it is important that you speak to people who scored such fellowships in the previous year so as to understand the application and selection process for each of them. A list of students who scored such fellowships in recent years can be found [here](#). (Source?)

#### **(5) How do I handle the logistics of my stay at the host institution, including food, travel and accommodation, during my internship?**

Ans: This question will not have a single answer. Again, it is recommended that you speak to seniors who have pursued internships here before to get an idea of the options that are available. It is possible to also check with the host PI to suggest options for accommodation and provide guidance on the same. (Source?)

## **VI. Honours**

#### **(1) What is the Honours program?**

Ans: It is a means to graduate with an added remark or distinction on your final degree certificate. A student must successfully enroll in the program, maintain their CGPA above 8.5, and successfully complete a number of advanced courses to be awarded Honors degree upon graduation. There are a few important conditions in order to successfully graduate with Honors. The student gets an expanded credit limit of 75 credits per semester post application to aid with the fulfillment of criteria. (Source?)

#### **(2) How to apply for Honors?**

Ans: *Procedure pre-COVID*: Write a letter to the Dean's Office and obtain permission (signatures) from the Faculty Advisor and HOD.

*During COVID*: Email Dean AC with request to apply for honors and copy DR courses. You will be enrolled if you are eligible. At the time of graduation, the academic section will verify that you

have fulfilled the requirements and award Honors. Mail the coordinator (Prof. Vignesh MuthuVijayan currently) for any further queries. (Source?)

### **(3) What are the requirements to apply and post-application?**

Ans: You can apply until last semester but it's preferable to apply by 6th semester so that you have enough time to finish the extra high-level courses. You must have a **CGPA of 8.5 or above, and no backlogs** (U/W) at the time of application. Additionally, the faculty advisor and HOD might take into consideration your performance up till the time of application to evaluate if you will be able to successfully complete the Honours requirements without too much stress (for example, if your workload for the coming semesters isn't too much or if your CGPA has consistently been well above 8.5). You **must finish 27 additional credits** (i.e., about 3 courses) doing **5000+ level courses** in your department, but which are not in your prescribed curriculum already. The CGPA must be **maintained** above 8.5 consistently for each semester after enrollment, and no backlogs (U/W) in any course are allowed. (Source?)

### **(4) Can I opt out of the program?**

Ans: Yes, you can drop out of the program at any time. (Source?)

### **(5) What are the benefits of applying for the honors program?**

Ans: It might add to applications for higher studies/ research internships and positions. The increased credit limit per semester (75 credits) can be used to take up more courses to fulfill other requirements such as for an IDDD or specialization/minor. (Source?)

## **VII. Exchange Programs**

### **(1) How do you find out about places that are currently pursuing exchange programs?**

Ans: You can find it in this [Link](#).

### **(2) How do you apply for the exchange programs? Are there fees involved? What other formalities are involved?**

Ans: Instructions given on the website. It involves filing nomination (with fac.ad & dean acad permissions on coursework to be done), filling the foreign university application, and then applying for visa/residence permit. Institute tuition fees need to be paid. No tuition at foreign universities. Accommodation has to be taken care of separately. Other formalities include transferring credits after return from exchange. (Source?)

### **(3) What are the logistical concerns to handle, and how did you handle them? (Tickets, Currency, insurance, accommodation, food, etc)**



Ans: All of the logistical concerns vary for the different countries.

Tickets: Buy from any of the online vendors like Cleartrip or Golbibo. Use services like Kayak to compare prices.

Currency: Consider buying a forex prepaid card from vendors like unimoni or any of the big banks like Axis and HDFC. Forex cards ensure safety and remove the worry of floating rates. Do compare the cost of overheads at different vendors/services before buying.

Insurance: Every country has different insurance requirements for its immigrants. Check out what is needed for your insurance policy from the embassy's website. Then seek and compare policies on websites like policybazar. Many times a cheap Bajaj Allianz insurance could be just enough.

Accommodation: Check the foreign university's website's international section for common accommodation plans. Lists of dorms/student apartment renters are often found there. Also, consider checking university/city facebook groups for information on accommodation opportunities.

Food: Accommodation abroad often includes kitchen facilities. Familiarize yourself with cooking enough to feed yourself and not burn the building down in the process. Student mess halls, if they exist, won't serve three meals a day; and they're never as cheap as food in the institute. Learn to cook. If you share the kitchen with foreign flatmates/dorm-mates, cooking and eating together itself becomes a fun experience.

I recommend seeking accommodation that houses loads of foreign exchange students together as opposed to renting a flat with other institute buddies. (Source?)

#### **(4) What must you take into consideration while applying for exchange?**

Ans: You must consider first that it costs a lot of money, more so than it costs to live in India anyway. Travel and accommodation itself costs a lot. But after that, you can be the kind of person who'd go to Lapland to spend €70 skiing or stay in Helsinki and ski for €5. Be smart about your money if you need to. Also, you could find a part-time job to cover some of your expenses/trips. Waitressing and janitorial jobs are often available at hourly rates. (I found a job assisting in a plant bio lab in the university. I worked there part-time for a month and then three months the following summer. This was enough to cover all expenses of my seven month exchange.) You must then consider that you will be in a foreign country, alone. You'll face new situations. You might feel overwhelmed at times. Do remember that help is always available, either formally or just a kind stranger on the street, unless you're at a tourist attraction (there's always people there who try and rob you). Keep your passport safe. Keep your univ foreign office's/your univ buddy's phone number handy. Travel safely. Also, I recommend going alone. That way you will force yourself to make new friends and travel and party with them. I wouldn't find traveling across Europe with four other Indian twenty year olds a fun semester exchange experience. Finally, consider the courses available at the foreign university. A university without a molecular biology/biotech department would be a bad choice. While shortlisting universities, ensure that at least a few of the courses you want to study are offered in the period you will be there. I don't mention "semester" because some of them do not have the semester system. For

example, UTU Finland has five terms in an year and each course spans one or two terms. (Source?)

#### **(5) What semesters are ideal to apply in, and why?**

Ans: Let us try to figure this out by elimination. Semesters one through four are not ideal. They are full of compulsory coursework, and you are not nearly as tired of institute to need a break from it. Semesters nine and ten are not ideal either. One, you will have project work and teaching assistance to do. Unless you can forgo/scam them, semex is out of the picture. (@Sai, is DDP abroad easy to do now? Does that count as semex?) Two, you might have some pending coursework to finish. Having some final bit of coursework to complete in a foreign country would be risking graduating in time and that is a risk kit worth taking. Three, placements/apping. Four, spending the last few semesters with your institute friends. After graduation, people often end up in different corners of the world. (My half-wing of people (6) will be in at least 5 different time zones three months after graduation.) So, what's left is semesters five through eight. Those are the most ideal for a semester exchange. There's fewer compulsory courses. And you can miss compulsory courses and still have time to come back and finish it with your juniors. I (BS16 batch) went to UTU Finland in my sixth sem and did all the three compulsory theory courses there. I just had to do the lab course the following year. A batchmate of mine did just his fifth sem lab in a foreign uni and did the theory courses the following year. As long as you do not have backlogs, courses are easily managed. (Source?)

#### **(6) What are the criterias for credit transfer and course mapping?**

Ans: Whatever courses you complete in the foreign university (as indicated by the transcript from the foreign uni), you will get equivalent credits for it. The going rate for ECTS is ~2.2-2.5 institute credits per ECTS credit. It is determined by Dean AC on a case-by-case basis. Any course you do will fall under one of the four institute course categories: Professional, Engineering, Science, or Humanities. Your transfer credits will count toward the corresponding category requirements for your degree, as in, if you do a HS course during your semex and get 10 institute credits for it after transfer, that will count toward the 27 credits required to graduate. Finally, there is the core course mapping. Insti mandates that there needs to be a 70% overlap between the core course syllabus taught here and the course syllabus taught at the foreign uni to be considered mapped and completed. For example, for the core bioinformatics course in sixth sem to be mapped to another course you do on your semex, the course there should have a seventy percent overlap with what Gromiha teaches. The name of the course does not matter. Only syllabus does. This is the rule. But the enforcement of the rule is governed by your faculty advisor. The HoD and Dean AC sign off on it without verification of the facts if the faculty advisor has signed off already. So, you have to convince your faculty advisor that there is a seventy percent overlap for a core course to be mapped. Faculty advisors come in a variety of flavors. My fac. advisor (Rayala) signed off on my request while traveling in a lift without even bothering to look at the course names I had written down. Some others (like Kesavan) require you to print out the syllabi of all the courses you mention and then assess them astutely before signing off. So ease of course mapping depends on your fac. advisor and your ability to convince

them. Also, why course mapping? If you complete a core course abroad and map it, you don't have to do it here to graduate. (Source?)

## VIII. IDDD Programs

### (1) How to apply for IDDD?

Ans: Procedure: The application is done during the end of 3rd Year, fundae session and form for different programs will be released, and we can give 2-3 preferences. We need to submit a form to the academic section. CGPA requirement varies for each program (Data Science has got the highest cutoff, Robotics, Energy Science, Biomedical, Nanotechnology) The requirements are: Only CGPA cutoff. 7-8 extra courses, need to be able to handle the course load and extra credits. Hard to handle courses outside your domain. Courses may be hard to catch up with in non-UG departments as well. No department cutoff, any qualifying department can take any program. May have labs etc. You can drop it whenever you want. Your DDP necessarily has to be in your IDDD domain. It Shows up on your final certificate. (Interdisciplinary M Tech in bla bla). Core (necessary courses) + some electives allowed. 4 core courses + 4 electives (check the split). (Source?)

### (2) What IDDDs are available to BE and BS students?

Ans: Nearly all IDDDPs are open to BE and BS students. BS students might have difficulties in getting into the Robotics program, but in any case, you can contact the respective IDDDP in-charge and request them to accept you to the program by providing them with a proper career map, or a plan of action and your thought process. For BS students, you will get B.S. in Biological Sciences and an M.Tech. in XXXX. (Source?)

### (3) What's the procedure for applying to an IDDD program and are there any requirements apart from a minimum CGPA?

Ans: In the 5th semester, DR courses/acad section sends an email asking for interested students to submit an application to the Dean (Academic Courses) approved/signed by the Faculty Advisor and the Head of the Department. Parental agreement/approval is also asked for in the application. There are no additional requirements. However, due to the high competition for certain IDDDP branches, one might require higher CGPAs to get one of the fixed number of seats. If you have a good enough record and CG, professors will be flexible and accepting. (Source?)

### (4) Will you still have to complete core BE/BS courses if you're doing an IDDD? If so, what type of credits (professional, free, etc.) do the IDDD courses come under?

Ans: Yes, all the core BE/BS courses and labs have to be completed. Even though your IDDD program starts from the 7th semester, BE/BS core courses in the 7th and 8th semester also have to be completed. IDDD credits are taken from the free elective and department elective

credits. A separate IDDD credits requirement is present depending on your chosen IDDDP. A clear division of credits between professional (core+electives), unallotted and IDDDP credits is mentioned in the Dual Degree curriculum. [Link](#)

**(5) Is there anything in particular that you think someone should take into consideration before applying to an IDDD program?**

Ans: Have a detailed discussion with the IDDDP in-charge professor or seniors regarding the prospects of the IDDD program and your interests. Having a biotech background will not be a hindrance in your conversion to an IDDD M.Tech. If you have decided on your IDDDP program early on, you can start to take IDDDP core courses and electives even before your 7th semester. This can help you avoid slot clashes in the semesters to come. (Source?)

## **IX. Minors and Specialization**

**(1) What is a specialization?**

Ans: A specialization in a particular field indicates that you have been exposed to in-depth concepts in that field and have been tested for the same. Specializations also *usually* include a laboratory course affiliated with the field. Specializations are only open to students under the department that offers the specialization. A specialization would hold greater value than a minor, as, by definition, a specialization indicates a much more in-depth understanding of a field. The obtained specialization will appear on your grade card upon graduation. (Source?)

**(2) What are the available specializations for BE and BS branch students?**

Ans: Biological Engineering students can claim a specialization in one of the three fields: 1. Computational Biology, 2. Bioprocess Engineering, and 3. Biomedical Engineering. Biological Sciences students can a specialization in one of the three fields: 1. Computational Biology. 2. Biomedical Sciences. (Source?)

**(3) What courses need to be taken within each specialization?**

Ans: All specializations require students to complete certain mandatory courses, and a set number of courses to be selected from a pool of electives. Students need to complete a total of 32 credits in these select courses to be eligible for a specialization. The courses required for each specialization are specified in the [Annexure A](#). The elective course that is used to fill the last slot is usually flexible, but it is highly recommended that students take a 5XXX course or higher to claim the specialization. (Source?)

**(4) Is there a limit to the number of specializations I can claim?**

Ans: Yes, a student can claim only one of the offered specializations. (Source?)

**(5) What is the procedure to claim specialization?**

Ans: Ensure that you have completed the required (32+) credits in the field. Approach your faculty advisor, and request them to attest the same. If you are claiming your specialization using a course that is not specified in [Annexure A](#), you will have to ask them to forward your request to the HoD for approval. Contact the academic section of the IITM Administration showing proof for the completion of the courses and the approval from your faculty advisor. The specialization will duly be noted and will reflect in your grade card. (Source?)

**(6) Can I claim other specializations that have not been listed above?**

Ans: Specializations and their requirements are decided by the department and passed on to the Board of Academic Courses and the Senate for approval. If you think there is a specialization you'd like the department to consider, contact your student representative [Email address](#) and request them to bring it up at the DCC. (Source?)

**(7) What is a minor?**

Ans: A minor indicates that the student has a considerable amount of expertise in the field which has been tested via assignments, examinations etc. The student who qualifies and applies for a minor will be provided with a separate minor certificate upon graduation. The minor will not be listed on the grade card. (Source?)

**(8) What are the minors available for students of the BT department?**

Ans: All students of the biotech department are eligible to claim all the minors offered by departments across the institute. The minors offered by the biotech department are 1. Minor in Computational Biology, 2. Minor in Bioprocess Engineering. The specific requirements for the minors listed above are listed in [Annexure B](#). The minors offered by other departments are listed below: 1. Physics (Dept. of Physics) 2. Systems Engineering (Dept. of Chemical Engineering) 3. Biomedical Engineering (Dept. of Applied Mechanics). Apart from the 5 listed above, students can also claim self defined minors. (Source?)

**(9) What is the criteria for claiming a minor?**

Ans: You must have completed the suggested/proposed set of courses stated for the corresponding minor. The basket of courses that has been proposed for the minor should correlate with each other and likely belong to one particular field. You cannot claim a minor in their major. Minor streams are only open if they are sufficiently interdisciplinary in nature, and do not completely intersect with your major. For e.g., a Physics student cannot claim a minor in Physics, but a Chemical Engineering student can claim a minor in Systems Engineering, and a Biotech student can claim a minor in Computational Biology, due to the interdisciplinary nature of the latter two. (Source?)

### **(10) What is a self-defined minor?**

Ans: Apart from minors offered by the institute, IIT Madras also allows students to define minors and claim them as long as they satisfy the specified requirements. 1. The basket of courses should correspond to a specific field. The courses should be from an interdisciplinary/ multidisciplinary field and could potentially belong to different departments. 2. The list of courses for a self-defined minor can comprise a maximum of 1 core course. 3. You are expected to complete 4 courses and at least 36 credits from the specified field. 4. The course list needs to be approved by the department the minor is primarily based out of, the Faculty Advisor of the student and the Dean of Academic Courses. The Dean of Academic Courses and the relevant Head of Department enjoy discretion in the approval of self-defined minors, so it is highly recommended that you approach them in advance. 5. For example - you can claim a minor in *Neuroscience* if you complete the following courses. a. BT5270 Principles of Neuroscience, b. BT6270 Computational Neuroscience, c. AM6516 Neuromechanics of Human Movement, d. An ML/DL based course from other departments. (Source?)

## **X. Grade improvement**

### **(1) Can I improve my grade for any course?**

Ans: 1) If it is a core course, the student can write the supplementary exam, if available, and based on the marks obtained, may have the grade upgraded up to a maximum of D only. This option can be exercised only in the immediately following supplementary exam as per the academic calendar. A student is not allowed to take a make-up exam as well as a supplementary exam. This option is not available for students with P grade in attendance

2) For all courses, core as well as elective, if there is an equivalent NPTEL course or OB course, as identified by the DCC (for core course) or course faculty (for elective), student can complete this course using standard NPTEL/OB process, and submit the certificate by the end of the subsequent semester. Successful clearing of the course will enable an upgrade of the grade of the in-campus course from E to D. This option is not available for students with P grade in attendance. Double counting of NPTEL/OB courses towards credits as well as grade improvement is not permitted.

3) Student cannot use both option 1 and option 2

4) Faculty will upload the revised grade on workflow, as applicable.

5) These options will not be available to students in the graduating semester.

6) These options are not available to students for courses with DWC action related grades

## **XI. Others**

### **(1) Can we audit any course in IIT Madras, if so what is the procedure?**

Ans: A course can be audited, but it will not get reflected in the grade card. **We do not have any formal option for auditing a course in the way that it appears in the Academic Transcript.**

