



A comprehensive guide to
the courses at IIT-B

COURSE **INFORMATION** **BOOKLET**

2022-23



**INDIAN INSTITUTE
OF TECHNOLOGY,
BOMBAY**



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DISCLAIMER

The information written in the booklet is only a guideline to the students to help them with their choices in the courses they make and also in the various important features of the Institute academic system.

It may happen that the actual details of courses or rules mentioned in the booklet may face an amendment during the course of time. Please confirm the rules/details from relevant authorities before making any decisions.

The Undergraduate Academic Council members can be contacted for this purpose (details shared on the last page of the booklet). You may also refer to the [Undergraduate Rule book](#).

PREFACE

Dear Students,

As a vertical of UGAC, it is our duty to bring you the right kind of resources and provide you with an intricately researched array of both old and new curricula that prevail in the institute. The Course Information Booklet, a product of the same ideology, shall open doors in the field of academics and help you make a choice beyond your core curriculum.

This booklet includes information about various courses, like minors, electives, etc, that you can choose from, after the first year. We believe that since learning is a vital part of our lives as students, it is imperative that you opt for courses that will make the entire process of learning more affable. This booklet, therefore, strives to give you the information and exposure that you need to decide on taking any particular course.

In today's world of cutting-edge competition, where no single expertise is enough, we believe that this booklet is a complete guide to unearthing the interdisciplinary field and following a passion you couldn't otherwise.

We are open to suggestions and ideas from your side to improve this booklet.

Hope you have a nice time reading it!

Prapti Sao
Institute Secretary of Academic Affairs
Head – Student Support Services (2022-2023)



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In addition to this, we thank the UGAC Design team for bringing up this booklet in this amazing form. We would like to express our gratitude to all the department officials for their suggestions, efforts, and assistance. We also apologize to those in case we forgot to mention their name.

Lastly, we are indebted to all the readers of this booklet for their constant support and motivation. Any suggestions for the further improvement of this booklet are always welcome!



UG ACADEMIC COUNCIL 2022-23

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1. REGISTRATION

IIT Bombay follows a specialized credit-based semester system, therefore registration at the beginning of each semester is mandatory for you till you complete your program (lookout for the dates in the Academic Calendar). Without registration, any academic activity (course/seminar/project, etc.) that you undergo will not be counted towards the requirements of your degree.

1.1. COURSE ADJUSTMENT

A student has the freedom of deletion/addition of one or more courses (after discussing and taking permission from the Fac-Ad) provided the total credits do not exceed the overload rule (discussed in Section 3) or fall below 18 credits by such adjustments. The last date for doing so is about 1 week after the commencement of the semester.

1.2. DROPPING OF COURSES

If a student finds their academic load too heavy, even after the date for course adjustment has passed, they may drop some courses out of the registered ones provided the minimum credit limit (18 credits) hold, after taking permission from the Fac-Ad. The last date for doing so is generally 20-30 days after the end of the mid-semester examination and is set in the academic calendar. Such dropping of courses results in a W grade in the transcript for that particular course.

1.3. SEMESTER WISE REGISTRATION

You can register for the courses you intend to take during a given semester on the basis of the program for your discipline as given in your curriculum and as per the advice given by your Faculty Advisor (Fac-Ad). The Faculty Advisor is expected to discuss with the student their academic performance during the previous semester and decide the number and nature of the courses for which they can register during the semester within the framework of the guidelines as



1. REGISTRATION

approved by the Institute. You can check a particular semester's curriculum on ASC. Follow the path: **Academic --> All about courses --> Curriculum.**

Kindly note: **From the third semester onwards, registration is dependent on the Academic Standing of the student.**

The registration process (which is online) involves filling up an Online Course Registration Form (CRF) stating the courses and project/seminar etc, that the student proposes to complete during that semester as per the prescribed curriculum. All students having outstanding dues to the institute or a hostel shall not be permitted to register online.

You can find a detailed guide on ASC and the registration process in the [ASC Video Series](#).



2. CATEGORY OF COURSES

2.1. CORE COURSES

Core courses are those courses which you have to do compulsorily for obtaining your degree. These courses count towards your final degree in all respects and count in your CPI (Cumulative Performance Index). These courses are NOT optional and have to be completed within the stipulated duration of your coursework (4 or 5 years). They give you a lot of exposure to your own departmental subjects and research; They also have an elective component, details regarding which are explained in the section on electives.

2.2. MINOR COURSES

A Minor is an additional credential a student will earn if they do minimum 30 credits worth of additional learning in a discipline other than their major discipline. Many academic units in the Institute offer minors in their disciplines and prescribe a specific set of courses and/ or other activities like projects for earning a minor in that discipline. Note that courses equivalent in content to any of these specified courses from the same department can be taken as a minor course with the approval of the concerned HOD. After the completion of credits under the stipulated time period, a minor degree is awarded to the student. It is mentioned in the Degree Certificate "Bachelor of Technology in xxx with Minor in yyy." The fact will also be reflected in the transcript, along with the list of courses taken.

Minor courses are allocated to students only through a pre-registration process before the start of every semester and the allocation for every minor course is done on the basis of the CPI of the student as the seats are limited in every minor course. You can opt for as many courses of your choice during the process of pre-registration (in particular preference order). You will be allotted the minor course based on your CPI and preference order after the pre-registration window closes. The waitlist that is maintained for the minor courses (for students who have missed out on the course of their choice) is also sorted on the basis of the CPI of the students, **such that if any student who has got the minor**



2. CATEGORY OF COURSES

course drops it during the process of registration, the next student in the waitlist will get the minor course.

Note - The only way to get a minor is through the pre-registration window. It would not be possible to register for a minor on the main registration window.

Please refer to the [UG Rulebook](#) to check the eligibility criteria to register for minor courses.

The pre-registration process for minors is explained in this [video](#).

2.3. HONOR COURSES

Honor is an additional credential a student will earn if they opt for the extra 24 credits (in some cases, 30) needed for this in their own discipline. The concerned department specifies the course requirements for earning the honors. An honor is like a specialization in your own discipline.

Honor courses are either advanced-level courses in your discipline or are courses designed to give you more exposure to different areas of your discipline.

This will be mentioned in the Degree Certificate as “Bachelor of Technology in xxx, with honors” on the successful accumulation of credits at the end of the program. The fact will also be reflected in the transcript, along with the list of courses, etc., taken.

Dual Degree students have to do the honors courses by default. They are considered as their core courses. honor courses do not count in your CPI other than for dual degree students.

Please refer to the [UG Rulebook](#) to check the eligibility criteria to register for honor courses.



2. CATEGORY OF COURSES

2.4. ELECTIVES

Every program (B.Tech/Dual degree/BS) in IIT Bombay will have its own curriculum defined, which will define your core courses and the total credit requirement for the award degree. According to your curriculum, your course completion may require doing courses of your own choice, wish and interest from:

- **Dept. of Humanities and Social Sciences**

All undergraduates are required to do a Humanities elective from the HSS department in a particular semester, depending on the department, and have to choose this elective from the following set:

HS 301	Philosophy
HS 303	Psychology
HS 305	Reading Literature
HS 307	Sociology

- **Your own department - Department Elective**

As per your curriculum, you may be required to choose a few courses (number varying across programs) of higher-level (Say 4xx or 5xx) from your department across a pool of courses put forward by your department. In some cases (varying across departments), you might be allowed to take up courses from other departments and tag them as a department elective. It is best to check up with your departments regarding the same.



2. CATEGORY OF COURSES

- **A department other than yours - Institute Elective**

As per your curriculum, you may be required to choose a few courses (number varying across programs) from a foreign department. Generally, you are free to choose any course out of your department as Institute electives. Departmental-based restrictions may be there for a few courses.

Note: 1xx courses are generally not allowed to be taken as institute electives (except for some departments).

For IDC and SJMSOM courses, you can ask the Department General Secretary/ Department Undergraduate Committee of your department if they will allow a particular IDC / SJMSOM course to be tagged as an institute elective. All these electives are a part of the core curriculum and will count in your CPI.

2.5. ADDITIONAL LEARNING COURSES

Based on the academic standing of a student, there is an upper cap on the number of credits they can take. You can find details about academic standing in the UG Rulebook.

Apart from core courses, a student can take some extra courses. Additional learning courses (ALCs) can be credited or audited. These ALC courses don't constitute the core CPI/SPI of a student. The tag of such a course can be changed during the retagging period, which is explained later.

Note: Exceeding any of the criteria for credits is NOT admissible under any circumstances.

2.6. AUDIT COURSES

Audit courses refer to the courses for which there are no credits; you want to complete the course simply for knowledge with no concern about a grade. Registrations for such courses are done along with the main registrations, with prior permission from the instructor. Only students belonging to categories I and II are permitted to 'Audit' a course during regular semesters and summer terms, and one can audit a maximum of two courses during their entire program.



2. CATEGORY OF COURSES

If completed, the course will be mentioned in the transcript as an 'Audit.' The instructor will award the 'AU' grade if the attendance is satisfactory and additional requirements as set out by the instructor are met. If the attendance and performance are not satisfactory, the instructor will NOT award any grade, and the student would be deregistered from the course. The "AU" grade doesn't carry any grade point and is not included in the SPI/CPI calculations.

2.7. SIT THROUGH

There may be a case where you are really interested in a particular course but are unable to register for the same due to some constraints (generally happens with popular minor courses). However, you may be willing to sit in that course just for knowledge, without any privilege for credits or mention in the transcript. In that case, you can ask the faculty in charge's for permission to 'sit through' that course.

Note that there are no registrations for a Sit-Through.

2.8. SUPERVISED LEARNING PROJECT (SLP)

Supervised Learning Project (SLP), also known as RnD in some departments, is a project-based course - generally for 6 credits, where a student can work for one entire semester on a project under a professor. It is not always necessary to do a project under a professor in your department. The professor you choose can be from a different department, but it is subject to rules and conditions laid down by your department.

2.9. IR LANGUAGE COURSES

International Relations (IR) language courses are the courses that are offered for the benefit of students as well as staff of IIT Bombay. These courses are offered in many languages such as Japanese, French, Italian and German.

You can contact the Institute Secretary International Relations (ISIR - UG) for more details about the IR language courses.

2. CATEGORY OF COURSES

To summarise the above:

Type of Course	Description	Effect on CPI
Minors	30 credits worth of additional learning in a discipline other than your own major.	Don't count towards CPI
Honors Electives	30 credits worth of additional learning in a discipline other than your own major.	Don't count towards CPI
Institute Electives	Extra courses taken in any department other than your own given you fulfil the prerequisites.	Count towards your CPI
HSS Electives	HS3xx courses, Humanities and Social Sciences department.	Count towards your CPI
Department Electives	Additional courses in your own department.	Count towards your CPI
Additional Learning Courses (ALCs)	Any extra course, in any department, by your choice, taken up for extra learning.	Don't count towards CPI
Audit Courses	Wanting just an exposure to a course - without obtaining a good grade - maximum of 2 audit courses in the entire period of study.	Don't count towards CPI
Sit through	Sitting through a course only for exposure without registering for it	Don't count towards CPI

NOTE: All courses which count towards major CPI are compulsory to complete the minimum requirement for a degree.



3. WHY SHOULD ONE TAKE UP A MINOR

Minor courses allow you to officially explore a department other than yours while at the same time getting credit for it. It adds value to your major degree and can be a gateway to get opportunities in the field you have completed your minor in. Your minor degree can give you sufficient knowledge to enable you to take part in interdisciplinary research and even pursue your higher studies in such fields. Though a minor degree can be pursued simply out of genuine and deep interest in a particular department without any specific end goal in view, for the general majority, you should select it in such a way that it either suits your major degree in a research-oriented interdisciplinary manner or in a generic way to any engineer or scientist.

Before you select a minor, try to find what you are truly interested in. It is surely not easy for everyone to be crystal clear about this, but even a vague idea will help you enjoy the minor courses and truly enrich the experience. You can always sample courses from various departments to find this interest, but you lose the benefit of a minor degree in doing so.

You can select any minor course from any department, but to draw the complete benefit out of it, you should look for overlap between them and your discipline so that it supplements your learning. You should also look at how all the minor courses fit in with each other for a more holistic approach; some departments draw up a suggested schedule of when each minor course must be taken to reap the full benefits out of the curriculum. Minor courses don't count in your CPI, so you should select a minor based on your interest.

Listed next is a suggested set of minor programs which may suit each branch. This matching is done by looking at how much overlap each discipline has with respect to other fields so that the minor programs can support the interdisciplinary learning of each student, depending on their career plans. Use it only as a guide and not a binding set of rules; don't let it dissuade you from pursuing what interests you.



3. WHY SHOULD ONE TAKE UP A MINOR

NOTE: This table is just to give you an idea about interdisciplinary research, some minors from the table may have been discontinued.

Minor Programme	Suitable Branches
Aerospace Engineering	Electrical, Mechanical
Biosciences and Bioengineering	Chemistry, Engineering Physics, Chemical, Electrical, Metallurgical Engineering and Material Sciences, Energy
Chemistry	Engineering Physics, MEMS, Electrical, Chemical, Energy
Chemical Engineering	Chemistry, Mechanical, Electrical, Energy
Centre of Studies in Resources Engineering (CSRE)	Electrical, Computer Science, Engineering Physics
Centre for Machine Intelligence and Data Science (C-MInDS)	Suits all!
Computer Science and Engineering	Suits all!



3. WHY SHOULD ONE TAKE UP A MINOR

Minor Programme	Suitable Branches
Electrical Engineering	Engineering Physics, Chemistry, Chemical, Mechanical, MEMS, Energy, Aerospace, CSE
Energy	Mechanical, Chemical, Aerospace
Entrepreneurship	Suits all!
Environmental Sciences and Engineering	Chemistry, Chemical, Civil
Humanities and Social Sciences	Suits all!
Industrial Design Centre	Suits all!
IEOR	Suits all!
Koita Centre for Digital Health (KCDH)	Suits all!
Mathematics	Suits all!
Mechanical Engineering	Civil,Electrical,Aerospace
Management	Suits all!
Physics	Chemistry, Chemical, Electrical, Mechanical, MEMS



3. WHY SHOULD ONE TAKE UP A MINOR

Minor Programme	Suitable Branches
Statistics and Informatics	Suits all!
Systems and Control Engineering	Engineering Physics, Electrical, Mechanical, Civil, Chemical, Aerospace



4. WHY SHOULD ONE TAKE UP HONORS

Honor courses are either advanced-level courses in your department or are courses designed to give you more exposure to different areas in your department. They help you get deeper knowledge in your department to prepare you for higher studies or to take a job in a particular specialized area so that you can compete with, say, an M.Tech who has specialized in the same area. You are likely to develop strong subject skills by completing an honor successfully and sincerely. Undergraduate classes introduce you to a wide breadth of topics and challenges, and an Honors project enables you to explore one in much greater depth. Honors research topics are varied and negotiable – if you are really interested in a topic and want to learn more about it, you'll be encouraged and supported.

From a potential employer's perspective, whatever your department, it appears laudable to have demonstrated the ability to achieve a complex and demanding goal and have in-depth knowledge in your department. Honor courses also help you if you want to pursue further studies or research in the future. Honors provide you with a deeper understanding and chance to explore sub-domains and make an informed choice about the topic of future exploration. Also, since you have more dedicated knowledge in your specialization, there are higher chances that your profile will get noticed by universities for their MS/Ph.D. programs.

To complete the honor, 24 credits must be completed by tagging courses in your department as honor electives. They don't count in your CPI; a separate honors CPI is maintained. This means that taking some honor courses but not being able to complete the entire 24 credits does not harm you in any way; it, in any case, enables you to delve further into your department.

5. TAGGING RULES

Every course you do in the institute falls under one of the categories of courses as described in section 1. Tags are given to courses to classify them. The tags of electives can be changed as per the rules that follow.

This facility allows students to do additional courses and finally make select courses count towards 'Core CPI' (the CPI of prescribed curriculum credits)

Rules:

- Re-tagging will be available to students **ONLY TWICE** in their entire program duration, the first time before placements (Second Last Semester Starting) and second time post curriculum completion (Last Semester).
- The courses that have been re-tagged during the opportunity given during the previous window will be debarred from the re-tagging process.

NOTE: From the year 2017 onwards, the tagging window for DD (Category I) Students will also be the same as the re-tagging window of their B.Tech counterparts (those who are graduating). For them (Category I DD students), the second window for re-tagging will be made available at the time of graduation. This has been done to ensure a fair process of selection for the institute medals.

For the rest of the categories' DD students, the first tagging window will be opened in the Autumn Semester before placements and the second one at the time of their graduation.

5. TAGGING RULES

Tags of courses:

1. Core Course - C
2. Department Elective - D
3. Institute Elective - I
4. Minor Course - M
5. Additional Learning Courses - T
6. Honors course - O

An approved change of tag will result in fresh calculation of SPI/ CPI from the semester. The tag change has been made effective due to the fact that additional learning course(s) do NOT constitute the core SPI/ CPI of a student.

Following is a table specifying the current rules about the changing of tags from one to another and the restrictions put on the same:

TAG CODE	TAG DESCRIPTION	CHANGEABLE INTO
T	Additional Learning	D, I, O, E
C	Core Course	Not changeable
D	Department Elective	O, T, E
O	Honours Course	D, E, T
E	Honors Elective	D, O, T
H	Humanities Elective	T

5. TAGGING RULES

TAG CODE	TAG DESCRIPTION	CHANGEABLE INTO
I	Institute Elective	T
M	Minor Course	I, T

Please check for the updated retagging rules [here](#) before making any decision as these are subject to change.

NOTE: For any special requests i.e. a change, which cannot be implemented on the tagging interface, the student has to get approval from the HOD of the concerned department (other department in case of minors).



6. PREVIOUS YEAR MINOR CUTOFFS

NOTE: These cutoffs have been calculated with the resources available to us. We duly apologize in case of any discrepancy.

6.1. 2021-22 AUTUMN SEMESTER CUTOFFS

Course code	Min. CPI
AE 153	6.23
AE 223	2.22
AE 225	6.73
AE 227	3.05
AE 308	7.71
AE 333	4.63
AE 407	4.93
AE 410	6.95
BB 413	5.75
BB 415	5.25
BB 600	5.81
BB 603	6.53
BB 607	7.53
BB 627	8.51
CL 203	4.41
CS 218	7.21
CS 224	7.47
CS 228	7.09
CS 310	6.09
DE 403	6.95

Course code	Min. CPI
ES 401	7.22
GNR401	6.75
GNR405	7.56
GNR409	7.31
HS 490	5.79
IE 501	8.37
IE 503	7.83
IE 609	7.27
IE 621	7.37
MA 403	8.28
MA 419	7.6
ME 201	3.57
ME 219	4.21
MG 401	8.01
MG 403	8.23
MM 201	7.61
MM 209	5.70
PH 251	5.32
PH 253	7.72
PS 619	5.56



6. PREVIOUS YEAR MINOR CUTOFFS

Course code	Min. CPI
DE 405	6.20
DH 301	4.90
DH 302	7.62
DS 203	8.26
EE 207	5.18
EE 321	5.49
EN 301	4.61
ENT603	7.15
ENT606	7.62
ENT609	8.17
ES 203	4.22
ES 303	5.00

Course code	Min. CPI
SC 301	6.87
SC 601	6.05
SC 617	5.20
SC 625	4.38
SC 629	5.59
SC 639	7.11
SC 643	7.55
SC 645	5.53
SC 648	7.12
SC 701	6.70
SI 424	8.32
SI 427	8.18

6.2. 2021-22 SPRING SEMESTER CUTOFFS

Course Code	Min. CPI
AE 234	6.11
AE 238	5.20
AE 240	6.67
AE 305	7.13
AE 332	5.95
BB 400	6.12
BB 404	6.72
BB 610	7.93
CH 224	6.96

Course Code	Min. CPI
ES 458	7.29
GNR402	5.70
GNR408	5.90
GNR410	5.32
HS 457	6.52
IE 504	5.92
IE 616	8.03
IE 617	7.32
IE 622	7.90



6. PREVIOUS YEAR MINOR CUTOFFS

Course code	Min. CPI
CH 408	6.04
CH 438	6.76
CH 481	8.87
CH 504	8.18
CH 588	9.33
CS 213	8.27
CS 347	7.40
CS 419	7.82
DE 402	4.01
DE 403	6.36
DE 405	6.39
DE 408	5.42
DE 410	6.26
DH 304	6.08
DS 303	7.78
EE 204	4.83
EE 229	5.74
EE 325	5.87
EN 301	6.07
EN 302	7.37
ENT602	8.50
ENT608	7.12
ENT610	7.50
ES 204	5.25
ES 306	6.33

Course code	Min. CPI
IE 630	4.53
IE 683	5.25
IE 709	5.74
MA 412	6.23
MA5106	5.40
ME 206	7.11
ME 209	7.76
ME 316	7.61
ME6114	8.82
MG 402	8.15
MG 405	7.75
MG 406	7.86
MM 318	7.53
PH 252	7.08
PH 352	7.43
PH 353	8.24
SC 202	7.79
SC 602	6.08
SC 607	5.17
SC 618	5.73
SC 624	5.83
SC 627	5.05
SC 646	5.29
SI 422	7.01
SI 527	8.21



7. REVIEWS: RESOBIN

All the Minors and Honors reviews for this year have been collated on [ResoBin](#). Seperate Minor and Honor tabs have been created on ResoBin.

Developed in collaboration with DevCom, ResoBin entails several features like searching for courses using a range of filters, and viewing all reviews and past year resources under one head. You can not only view and request reviews and resources but also contribute from your experiences and add them to the courses undertaken. We have incorporated a 'Minor' and 'Honors' tab which house the respective reviews of various departments, providing easy access to a particular review at any moment of time. Refer to [this](#) video to get familiar with ResoBin.

Following is the list of Minor and Honors reviews uploaded on ResoBin. **Click on the program name to read the review for it!**

LIST OF MINOR REVIEWS:

1. [Aerospace Engineering](#)
2. [Biosciences & Bioengineering](#)
3. [Centre for Digital Health](#)
4. [Centre for Machine Intelligence and Data Science](#)
5. [Computer Science and Engineering](#)
6. [Electrical Engineering](#)
7. [Energy Science and Engineering](#)
8. [Engineering Physics](#)
9. [Humanities and Social Sciences](#)
10. [Industrial Design](#)
11. [Industrial Engineering and Operations Research](#)
12. [Mathematics](#)
13. [Mechanical Engineering](#)
14. [Shailesh J. Mehta School of Management](#)
15. [Statistics](#)
16. [Systems and Control Engineering](#)



7. REVIEWS: RESOBIN

LIST OF HONORS REVIEWS:

1. Aerospace Engineering
2. Chemical Engineering
3. Chemistry
4. Civil Engineering
5. Computer Science and Engineering
6. Electrical Engineering
7. Engineering Physics
8. Mathematics
9. Mechanical Engineering
10. Metallurgical Engineering and Materials Science

LIST OF UNCONVENTIONAL COURSE REVIEWS:

1. HS 642 - Notation and Musical Analysis
2. SLP-IDP (CL 445) - Industry Defined Problem
3. MG 403 -Accounting and Finance
4. HS 4110 - Experimental Archaeology: An Introduction
5. BB 602 - Research Philosophy

LIST OF HSS ELECTIVE REVIEWS:

1. HS 303 - Psychology
2. HS 307 - Sociology
3. HS 305 - Reading Literature
4. HS 301 - Philosophy



8. IR LANGUAGE REVIEWS

8.1. JAPANESE

Review by Sakshi Priya

INTRODUCTION

Japanese can be a very daunting language to start as it's ranked the toughest language to learn for the native English speakers, which I think most of you would use as the language of conversion while learning. It has sounds that aren't present in English or even Hindi, so it can be a bit challenging in the start to grasp it but otherwise it should be fine with practice and more classes. The sentence structure is also quite different from English. Some phrases do not have a direct translation in English so it could be a nice experience to understand a language in a more intuitive sense.

WHY JAPANESE?

I have been fascinated by the language for a long time now. I used to do calligraphy and that's where I started writing in Japanese even before I understood what exactly they meant. I had a very personal attachment to the Japanese culture and the place (mostly due to calligraphy and stationery), so it felt right to take up a language course. I also am very passionate about learning languages in general and that gave me the last push I needed.

I would suggest you take up the course only if you have some sort of "why" to learn the language cause it can get hard to manage the academic load and give enough attention to a non credit course.

COURSE LOAD

The course load wasn't a lot on paper but a lot in all other sense, as we didn't really get any assignments regularly but if you really want to make some progress in the course, it would be advisable to put extra effort in learning the language. The class timings were like your regular classes as slots.



8. IR LANGUAGE REVIEWS

REGISTRATION

There will be a webmail about it during the start of the autumn semester where you would get the class slots and registration guidelines, you'd have to pay a fee of around 1500 (at my time) for a two semester course.

INSTRUCTOR

The course instructor was one of the sweetest professors I have had and he made it easier to gather motivation to learn the language. He is quite structured and have enough experience in teaching. He'd give the documentation for the class beforehand so you can go through it. He also conducts tea parties to learn about Japanese culture but sadly I did it all online :(

Online, the course was harder to follow due to network and other constraints on the instructor's side but I believe offline would be a wonderful experience.

MYTHS

I think the major myth about this course specifically is that you'd be able to talk fluently by the end of the course. The instructor would say that you can but that's a lot dependent on you and how much you can keep up the motivation till 2 semesters.

OVERALL EXPERIENCE

The major thing to keep in mind is that don't take this course if it clashes with your core courses slot as it would be very very difficult to manage and attend regular classes. You should also treat this as a more fun and enjoyable experience rather than a course you have to give an exam (you have to btw) for. It would be a good experience to gain proficiency in this language and also, with a bit of more practice you can write the JLPT, so that's one other plus ;)



8. IR LANGUAGE REVIEWS

8.2. GERMAN

Review by Darade Vaibhav Vinayakrao

INTRODUCTION

The German language is widely spoken in four European countries: Germany, Austria, Belgium, and Luxembourg. German is also an official language in Switzerland and Liechtenstein.

Alphabets are quite similar(except for a few - ä, ö, ü and ß) to the English language but grammatically German and English are quite different(You must have seen the memes!). Sometimes we used to relate the things with the Hindi(in my case I used to relate them with Marathi as well) so that it becomes easy to break down and understand. Formal and informal structures of speaking are very important in the German language.

WHY GERMAN?

I was interested in German culture(more from the academic point of view, I like their educational structure a lot). Along with that Germany is the most preferred country to work in for Mechanical engineers(which is my interest) so it was natural for me to choose this language.

Motivation to study the language only for doing the job is necessary but won't be sufficient in the long run so little cultural interest will help. It will help you when you start losing interest in it after some time and also you will have to find the time on a regular basis for this commitment during the hectic semester schedules(some students from my batch ditched it because of this). So if you are interested and can assure yourself of time commitment then go for it! (Just to note - this is not the credit course whose grade will be counted towards the CPI)

Note: It is not very easy to attain a working level proficiency in any language. At the end of this course, you will have knowledge almost equivalent to an A1 certificate certified by CEFR (Common European Framework of Reference for



8. IR LANGUAGE REVIEWS

Languages). After successful completion of the course, you get a certificate which is issued by DAAD (Deutscher Akademischer Austauschdienst) certifying the completion of the course with the score/grade obtained in the course. Generally, companies demand at least a B1 level of proficiency. There are 6 levels A1 A2 B1 B2 C1 C2 (increasing order of proficiency from left to right) certified by Goethe Institut.

COURSE LOAD

The course is for one complete academic year. There were two batches, one had lectures on Monday and Thursday and the other one had lectures on Tuesday and Friday. For both batches timing was 5 pm to 7 pm on these days. There are a total of 100 hours of classes throughout the academic year (50 in each semester). After every class, we used to get small exercises that can be completed in a max of 60 minutes. Course load is quite manageable. One piece of advice I would like to give is that - try to give time for the language every day however small it is like keep in touch with the language!

Books we used to refer to are Netzwerk_A1_KURSBUCH and Netzwerk_A1_ARBEITSBUCH for exercises.

REGISTRATION

The course is organized and conducted by the Office of the Dean of International Relations along with the other Language courses. We had received the mail on student notices about the IR language courses and following the instructions in it will get you registered. We had gotten the form that needed to be filled out. It had questions like motivation and where will you use it etc which were evaluated and selections were made based on it (condition of small interviews was also there in some cases)...

If any doubts you can always contact the ISIR (Insti Sec of International Relations) or IR office or check the IR website.

INSTRUCTOR

For our batch, Mr. Samer Khader was the instructor. He conducted the course



8. IR LANGUAGE REVIEWS

quite well. Classes were kept as interactive as possible. Our first semester was online but breakout rooms were used effectively which helped us to have one-to-one conversations which are important in learning any language. He used to ask students as well for any improvement or activities which will help in enhancing the overall learning. His understanding of language was really good and also could give satisfactory explanations of the doubts(his English was also quite good).

MYTHS

‘German is spoken only in Germany’ or ‘German is a very difficult language’, Sometimes it feels that way though! ;) or ‘German doesn’t sound nice’. Myths are always there but if you are really interested, go for it don’t waste time thinking about the myths. (to be honest, to write this answer I had to google the myths (LOL) - so you should get that they don’t matter really)

OVERALL EXPERIENCE

As I said earlier, after some time it’s hard to find time for the languages but it was the other way round for me. I used to consider them as taking my mind out of hectic sem work and this helped me to attend almost all the classes(more than all other batchmates for sure! ;)). Also, a group was formed which was helpful throughout the year to keep up with language studies. I would like to re-iterate that finding the time on a regular basis (as it gets difficult during the semester after midsems) will be really helpful so try to do it.

In overall it was a nice experience to learn a new language and would suggest you as well to try it! (only if you are interested though, haha ;))

9. EQUIVALENT COURSES FOR CLEARING BACKLOG

For the purpose of clearing backlogs, a list of equivalent courses which can be done has been given below.

It is to be noted that these courses are not equivalent by default; but due to the similarity in the course structure, students are allowed to take them in lieu of the corresponding backlog courses. This is of course subject to approval from the competent department authority. Approval needs to be taken from the DUGC for tagging two courses as equivalent that are not given in this list.

Backlog	Equivalent Course
ME 346: Heat Transfer	CL 246: Heat Transfer
AE 460: Heat Transfer - Aerospace Applications	ME 346: Heat Transfer
AE 102 - Data Analysis and Interpretation	MM 217 - Data Analysis and Interpretation
AE 209 - Solid Mechanics	EP 219 - Data Analysis and Interpretation
AE 308 - Control Theory	EE 302 - Control Systems
MM 203 - Mechanics of Materials	EN 211 - Mechanics of Materials
CL 409 - Material Science	MM 152 - Introduction to Material Science

NOTE: Please confirm with your respective department's General Secretary regarding the current status of equivalent courses before making any decisions regarding the same.

10. FAQs

Q. If I get an FR Grade in a minor course, do I need to repeat the course? And will it reflect in my final transcript?

A. No, you do not need to repeat the course. However, an 'FR' grade will reflect on the course, under the additional courses done.

Q. What's the difference between an ALC, Audit and sitting through a course?

A. Additional Learning Courses (ALCs) do not count towards your CPI but are involved in tagging - if you tag it later as an elective, the grade you get then counts in your CPI. When you audit a course, you do it without obtaining a grade - you get an 'AU' on successful completion of the course, which does not carry grade points. Formal registration is required for both these, and they appear on your transcript. But for sitting through a course, you don't need to register for it, nor does it appear on your transcript.

Q. If one gets an FR in Elective HS *xxx*, do they need to repeat the same course or can they take up Elective HS *yyy* in its place?

A. Yes, they can take *yyy* as their HSS elective by changing the tag of HS *xxx* to additional learning and registering for *yyy* in the next semester as HSS-Elective.

Q. What about the credits when one does some honor courses but not enough for an honors degree?

A. If one has completed some honor courses but not enough to acquire an honors degree, then those courses would be counted under Additional learning Courses. Some departments allow to tag these as Department/other electives as well.

Q. Suppose I take up any other random subject course, but I don't want to get a minor; will that course show up anywhere while passing out?

A. The grade that you obtained in the course will show up in the transcript. All the courses taken up as a minor are converted to an ALC unless you have completed 30 prescribed minor credits in a particular department.



11. SOME USEFUL NOTES

- » If you have successfully done the pre-registration of a course (Minors/ HSS Electives), then at the time of registration, the allotted pre-registered course comes under the heading “Pre Registered Courses” on your ASC interface, and you need not register for the course again under any other heading say Institute elective, Non-Credit Course, Additional course etc.
- » Course not listed - If you get a message on the interface saying that the course is not running this semester even though it is, please check the division (‘M’, ‘S1’, etc.) in the list of running courses and enter the correct division on the interface while registering for it.
- » Entering the division as ‘M’ will not change your tag to a minor (All about courses → Running Courses) e.g. CE 310 - M, MM 474 - M, CS 101 - D1/D2/D3/D4, etc.
- » Prerequisites pains - If there are errors, please send a mail to asc.help@iitb.ac.in with a screenshot using your LDAP ID only; if the grade for the prerequisite course is not out want to take a course without clearing the prerequisite, please get permission from the course instructor.
- » If your category has been mentioned wrongly on ASC, you need to mail asc.help@iitb.ac.in to get the issue resolved.



12. SOME USEFUL LINKS

Access by clicking on the following:

» ResoBin

» Internal ASC

» External ASC

» Course info booklet 2021

» Course info booklet 2020

» Course info booklet 2019

» Pre-reg video

» SSS Blog

» UG Rulebook



13. REACHING THE ACADEMIC COUNCIL

The UGAC, IIT Bombay, or the Undergraduate Academic Council of IIT Bombay, is a student body dedicated to improving the academic system and culture of the institute by working on various policies and conducting sessions to disseminate information. It has the following seven primary pillars on which it functions :

1. **Student Support Services:** SSS mainly takes care of the basic requirements of the students like tutorials, registration, personality development, language and communication skills, faculty-student relations, learning issues, and so on.
2. **Career Cell:** The Career Cell aims at equipping the students with all the required information and insights into every single career opportunity coming its way and provides an impartial, fair account of every possible detail about various careers and job profiles.
3. **EnPoWER:** Engineering-oriented Promotion of Work Experience and Research, EnPoWER aims to promote research among the undergraduate students of IIT Bombay and encourages them to use their skills to tackle problems faced by the industry.
4. **Finance Club:** The Finance Club conducts many sessions and competitions on various topics related to finance.
5. **Consult Club:** The Consult Club conducts sessions and workshops to help students gain an understanding of consulting and its nuances.
6. **Analytics Club:** The Analytics Club organizes sessions of various kinds that teach students various skills and software related to analytics and their applications.
7. **International Relations:** International Relations coordinates international activities of IIT Bombay, including semester exchange, scholarships, and international programs.



13. REACHING THE ACADEMIC COUNCIL

The Academic Council strives to help the students and is always available in any kind of problem. Feel free to contact us anytime. You can reach the Council through :

1. **UGAC website** - All the information regarding the Academic Council is available on its website.
2. **Social Media** - One can ask any query and clear any doubt/confusion they have, even anonymously or through direct messages.

The social media handles of Student Support Services are:

- Facebook: <https://www.facebook.com/sss.iitb/> AND [Student Support @IITB Facebook group](#)
 - Instagram: https://www.instagram.com/studentsupportservices_iitb/
3. **Email ID** - For any of your problems and doubts to you can also send an e-mail to gsecaaug@iitb.ac.in or isaa.sss.iitb@gmail.com or sss.iitb@gmail.com



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