

भारतीय प्रौद्योगिकी संस्थान मण्डी  
कमांद-175075, हिमाचल प्रदेश

**INDIAN INSTITUTE OF TECHNOLOGY MANDI  
KAMAND – 175075, HIMACHAL PRADESH**



कार्य सूची  
**AGENDA**  
पैंतीसवीं सीनेट बैठक सूची

**AGENDA FOR THE 35<sup>th</sup> SENATE MEETING**

बैठक सं०	:	पैंतीसवीं
MEETING NO.	:	THIRTY FIFTH
स्थान	:	सभा कक्ष, सी. वी. रमन अतिथि गृह, आई. आई. टी. मण्डी
VENUE	:	CONFERENCE ROOM, C. V. RAMAN GUEST HOUSE, IIT MANDI
दिनांक	:	2 जून 2022
DATE	:	2 <sup>nd</sup> June, 2022
समय	:	09:30 पूर्वाह्न
TIME	:	09:30 A.M.

**INDIAN INSTITUTE OF TECHNOLOGY MANDI  
KAMAND, HIMACHAL PRADESH**



**35<sup>th</sup> SENATE MEETING  
THURSDAY, 2<sup>nd</sup> June, 2022**

**AGENDA**

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# **PART – ‘A’**

**Item No. 35.1: To confirm the minutes of the 34<sup>th</sup> Senate meeting held on 15<sup>th</sup> March, 2022.**

The minutes of the 34<sup>th</sup> Senate meeting held on 15<sup>th</sup> March, 2022 at IIT Mandi were circulated to members of the Senate on 31<sup>st</sup> March, 2022 (through email) for comments, if any (**Annexure -1; Page No. 18**)

One comment was received on the minutes of the 34<sup>th</sup> Senate meeting on Item No. 34.7, enclosed as **Annexure-1; Page No. 18**, regarding waiving the GATE/NET exam for fresh appointed candidates in the MS (by Research) programme who are supported by sponsored research or consultancy projects. The comment so received is already as per the resolution of the Senate i.e., MS scholars funded by projects or sponsored research etc. are waive of by GATE/NET exam.

In view of the above, the Senate may consider confirming the minutes of 34<sup>th</sup> Senate meeting of the Institute.

**Item No. 35.2: To receive a report on the actions taken for the decisions taken in the 34<sup>th</sup> Senate meeting held on 15<sup>th</sup> March, 2022.**

Given below are the details of actions taken for the decisions taken in 34<sup>th</sup> Senate meeting held on 15<sup>th</sup> March, 2022.

Item No.	Particulars	Status of Action Taken
34.3	To consider revisions in the Regulations for the MS and PhD programme.	Approved and Notified vide Notification No. IIT Mandi/Acad/Senate/2022/48-51 dated 06-04-2022
34.4	To consider minimum performance in M.Tech./M.S. (by Research)/Ph.D/I-PhD etc. programmes for continuation of Assistantship/Fellowship/Scholarship.	Approved and Notified vide Notification No. IIT Mandi/Acad/Senate/2022/52-56 dated 06-04-2022
34.5	To consider proposal for Conversion from Master of Technology (M.Tech.) Program to Master of Science by Research (M.S.) Program.	Approved and Notified vide Notification No. IIT Mandi/Acad/Senate/2022/57-61 dated 06-04-2022
34.6	To consider renaming of Master of Science (by Research) to Master of Technology (by Research).	To be presented to the Board.
34.7	Any other agenda item with the permission of the Chairman, Senate  (i) Dr. Manoj Thakur, Dean (Students) presented a proposal regarding offering Post Doc. Position for Ph.D. students of IIT Mandi, who submitted	(i) No action required.

	<p>their thesis. After discussion, the Senate rejected the proposal.</p> <p>(ii) Prof. Rahul Vaish, Dean (Academics) presented a proposal regarding establishment of “<b>School of Management</b>” at the Institute.</p>	<p>(ii) The Senate recommended the proposal to the Board for approval.</p>
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**Item No. 35.3: To consider a policy across the Institute regarding Academic Dishonesty Policy.**

In the 45<sup>th</sup> meeting of the Board of Academics held on 18<sup>th</sup> February, 2022, Dr. P. Anil Kishan, Chair of the committee presented a proposal regarding Academic Dishonesty Policy/Plagiarism etc. After discussions, the BoA recommended the proposal, as placed at **Annexure-2; Page No. 19 to 27** to the Senate for consideration and approval.

**Item No. 35.4: To consider the proposal for modification in Minor in German.**

In the 45<sup>th</sup> meeting of the Board of Academics held on 18<sup>th</sup> February, 2022, Dr. Rajeshwari Dutt, Course Coordinator, SHSS presented a proposal for modification in Minor in German. After discussions, the BoA recommended the proposal, as placed at **Annexure-3; Page No. 28 to 31** to the Senate for consideration and approval.

**Item No. 35.5: To consider the recommendations of the Committee for Academic Organization / Structure of the Schools.**

In the 46<sup>th</sup> meeting of the Board of Academics held on 09<sup>th</sup> May, 2022, Prof. Rahul Vaish, Dean (Academics) presented a proposal/ recommendations of the Committee for Academic Organization/Structure of the Schools. After discussions, the BoA recommended the proposal, as placed at **Annexure – 4; Page No. 32** to the Senate for consideration and approval.

**Item No. 35.6: To consider a proposal to establish a Center on Indian Knowledge System and Mental Health (CIKSMH).**

In the 46<sup>th</sup> meeting of the Board of Academics held on 09<sup>th</sup> May, 2022, Dr. Varun Dutt and Dr. Arnav Bhavsar, presented a proposal to establish a Center on Indian Knowledge System and Mental Health (CIKSMH) at IIT Mandi. After discussions, the BoA recommended the proposal, as placed at **Annexure-5; Page No. 33 to 34** to the Senate for consideration and approval.

**Item No. 35.7: To consider a proposal to start a new MBA programme from Academic Year 2022-23.**

In the 46<sup>th</sup> meeting of the Board of Academics held on 09<sup>th</sup> May, 2022, Dr. Manoj Thakur, Chair of the Committee, presented a proposal to start a new MBA programme from AY 2022-23. After discussions, the BoA recommended the proposal, as placed at **Annexure-6; Page No. 35 to 42** to the Senate for consideration and approval.

**Item No. 35.8: To consider the revision in fee waiver policy for UG Female students.**

Prof. Rahul Vaish, Dean (Academics), will present a proposal for revision in fee waiver policy for UG Female Students as placed at **Annexure- 7; Page No. 43 to 44** to the Senate for consideration and approval.

**Item No. 35.9: To consider a proposal for modification in Fee Structure for AY 2022-23.**

Dr. Sandip Kumar Saha, Committee Chair, will present a proposal for modification in Fee Structure for AY 2022-23 to the Senate for consideration and approval.

**Item No. 35.10: To consider the revision in the Regulations of the MS/PhD programme regarding course selection approval by Supervisor/Guide.**

In the 46<sup>th</sup> meeting of the Board of Academics held on 09<sup>th</sup> May, 2022, Dr. Atul Dhar, Chairperson, SE presented the below mentioned proposal regarding course registration of MS/Ph.D.:

**Existing clause:** R.11 The Doctoral Committee will prescribe the courses to complete minimum 12 credits for the students.

**Proposed Modification:** The student will select the relevant courses in consultation with the thesis supervisor.

The same should also be applicable to the MS students.

The Senate may consider the proposal for approval.

**Item No. 35.11: To consider the revision in the Regulations for the MS/PhD programme regarding ERP/Part-Time scholars and amendment in allotment of caretaker faculty-in-charge/ co-guide in the absence of guide.**

In the 46<sup>th</sup> meeting of the Board of Academics held on 09<sup>th</sup> May, 2022, Prof. Prem Felix Siril, Chair of the designated committee presented the following proposals:

1. Proposal regarding revision in the Regulation for the MS/PhD programme regarding ERP/Part-Time scholars.
2. Amendment in allotment of caretaker faculty-in-charge/co-guide in the absence of guide from the Institute for longer duration (> 3 months).

After due deliberations, the BoA recommended the proposal, as placed at **Annexure – 8; Page No. 45 to 46** for consideration of the Senate and approval.

**Item No. 35.12: To consider the modified proposal regarding Exit options for IDD (Bioengineering) students after 4<sup>th</sup> year.**

In the 46<sup>th</sup> meeting of the Board of Academics held on 09<sup>th</sup> May, 2022, Dr. Shubhajit Roy Chowdhury, Programme Coordinator for B.Tech-M.Tech (Dual Degree (Bioengineering)) programme presented the modified proposal regarding exit options for IDD (Bioengineering) students after 4<sup>th</sup> year.

After due deliberations, the BoA recommended the proposal, as placed at **Annexure – 9; Page No. 47** for consideration of the Senate and approval.

**Item No. 35.13: To consider the proposal for Second Major in Bioengineering programme.**

In the 46<sup>th</sup> meeting of the Board of Academics held on 09<sup>th</sup> May, 2022, Dr. Shubhajit Roy Chowdhury, Programme Coordinator for B.Tech-M.Tech (Dual Degree (Bioengineering)) programme presented a proposal regarding second major in Bioengineering.

After due deliberations, the BoA recommended the proposal, as placed at **Annexure – 10; Page No. 48** for consideration of the Senate and approval.

**Item No. 35.14: To consider revision in the curriculum for M.Tech. in VLSI programme.**

In the 46<sup>th</sup> meeting of the Board of Academics held on 09<sup>th</sup> May, 2022, Dr. Srinivasu Bodapati, Course Coordinator for M.Tech in VLSI programme presented a proposal regarding revision in the curriculum for M.Tech. in VLSI programme.

After due deliberations, the BoA recommended the proposal, as placed at **Annexure – 11; Page No. 49 to 51** for consideration of the Senate and approval.



**Item No. 35.15: To consider the minor modification in FTE programme.**

In the 46<sup>th</sup> meeting of the Board of Academics held on 09<sup>th</sup> May, 2022, Dr. Atul Dhar presented a proposal for minor modification in FTE programme. After discussions, the BoA recommended the proposal, as placed at **Annexure-12; Page No. 52 to 53** to the Senate for consideration and approval.

**Item No. 35.16: To consider a proposal for Entrepreneurship Practicum.**

In the 46<sup>th</sup> meeting of the Board of Academics held on 09<sup>th</sup> May, 2022, Mr. Bhumanyu Goyal, Academic Affairs Secretary, presented a proposal for Entrepreneurship Practicum. After discussions, the BoA recommended the proposal, as placed at **Annexure-13; Page No. 54 to 56** to the Senate for consideration and approval.

**Item No. 35.17: Any other agenda item with the permission of the Chairman, Senate.****Item No. 35.18: To report decisions/action taken by the Chairman, Senate.**

(i) **To conduct Mid Semester Examination in place of Quiz I and II:** Consequent to the plan of the Institute COVID Task Force, to bring all the students back to the campus in phase-wise manner (slot wise). Considering all the factors, Quiz I (scheduled from 14<sup>th</sup> March to 24<sup>th</sup> March 2022) and Quiz II (schedule from 25<sup>th</sup> April to 5<sup>th</sup> May 2022) was cancelled and in their place, Mid-Semester Examination (in offline mode) conducted from 11<sup>th</sup> April to 22<sup>nd</sup> April, 2022. **(Approved on 28<sup>th</sup> February, 2022)**

(ii) **A Proposal to rename the degree programme Master of Science by Research (M.S.) to Master of Technology by Research [M.Tech. (R)]:**

A proposal presented in 34<sup>th</sup> Senate Meeting (34.6) held on 15-03-2022 to rename the degree programme Master of Science by Research (M.S.) to Master of Technology by Research [M.Tech.(R)]. The Senate approved proposal should be reported to the BoG. **(Approved on 31<sup>st</sup> March, 2022).**

(iii) **A Proposal regarding format of academic documents of Digilocker of National Academic Depository (NAD):**

A proposal presented in 46<sup>th</sup> Board of Academics Meeting held on 9<sup>th</sup> May, 2022 regarding format of degree and other academic documents to be uploaded on Digilocker (NAD).

Also complete the registration process on Academic Bank of Credits (ABC) as part of National Education Policy - 2020 (**Approved on 23<sup>rd</sup> May, 2022**).

**(iv) Withdrawal from the programme during (19<sup>th</sup> March, 2022 – 20<sup>th</sup> May, 2022):**

The following students resigned and requested for withdrawal which was recommended by their Faculty Advisor/Guide/DC/School Chair. Consequently, Chairman, Senate approved their withdrawal from the programme.

SI.No.	Roll No.	Student Name	School /Branch	Program	Date of Joining	Date of Resignation Accepted
1	D21046	Harshul Kapoor	SBS	Ph.D.	9 <sup>th</sup> August, 2021	19-03-2022
2	D21025	Teli Snaket Nemichand	SBS	Ph.D.	9 <sup>th</sup> August, 2021	19-03-2022
3	S21021	Shivam Shukla	SCEE	M.S.	15 <sup>th</sup> February, 2022	24-03-2022
4	V21053	Krishna Garg	SBS	M.Sc.	09 <sup>th</sup> August, 2021	24-03-2022
5	D21008	Nitin Chauhan	SCEE	Ph.D.	09 <sup>th</sup> August, 2021	24-03-2022
6	T21140	Ankit Pandey	SCEE	M.Tech.	09 <sup>th</sup> August, 2021	24-03-2022
7	T21314	Ankush Kasaudhan	SE	M.Tech.	09 <sup>th</sup> August, 2021	01-04-2022
8	D21043	Arpit Kumar Pandey	SE	Ph.D.	09 <sup>th</sup> August, 2021	09-04-2022
9	D21026	Alok Kumar	SBS	Ph.D.	09 <sup>th</sup> August, 2021	09-04-2022
10	D21063	Zahid Bashir Dar	SCEE	Ph.D.	15 <sup>th</sup> February, 2022	19-04-2022
11	T21091	Asif Khan Kayamkhani	SCEE	M.Tech	09 <sup>th</sup> August, 2021	19-04-2022
12	T21092	Saket	SCEE	M.Tech	09 <sup>th</sup> August, 2021	27-04-2022
13	D20007	Pankaj Kumar Behera	SCEE	Ph.D.	16 <sup>th</sup> September, 2020	04-05-2022
14	T21249	Pratul Kant Choudhary	SE	M.Tech	09 <sup>th</sup> August, 2021	17-05-2022
15	B18082	Ritika Sagar	SCEE	B.Tech	July, 2018	20-05-2022

**(v) Cancellation of registration/termination from the programme during (19<sup>th</sup> April, 2022 – 17<sup>th</sup> May, 2022):**

The following students registrations were cancelled/terminated from the programme which was recommended by their Faculty Advisor/Guide/DC/School Chair. Consequently, Chairman,

Senate approved their cancellation of registration from the programme.

Sl.No.	Roll No.	Student Name	Branch School	Program	Date of Joining	Date of Cancellation	Reasons for cancellation
1	D19007	Ravi Kumar Sandal	SE	Ph.D.	01-08-2019	19-04-2022	Not completed Comprehensive Exam, non-registration and non-payment of semester fee
2	T21089	Abhishek Ranjan	SCEE	M.Tech.	09-08-2021	19-04-2022	Not attended the classes, did not respond the email communication, on academic probation , non-registration and non-payment of fee
3	D21010	Hanumanthu Ravi Teja	SCEE	Ph.D.	09-08-2021	25-04-2022	Not attended the classes, did not respond the email communication
4	T21134	Chandan Kumar Maurya	SCEE	M.Tech.	09-08-2021	25-04-2022	Not attended the classes, did not respond the email communication, on academic probation , non-registration and non-payment of fee
5	T21257	Umme Rumman	SE	M.Tech.	09-08-2021	17-05-2022	Not attended the classes, did not respond the email communication, non-registration and non-payment of fee
6	T20014	Rahul Kumar	SE	M.Tech.	16-09-2022	17-05-2022	Not attended the classes, did not respond the email communication, non-registration and non-payment of fee
7	T20004	Kola Rajkumar	SE	M.Tech.	16-09-2022	17-05-2022	Not attended the classes, did not

							respond the email communication, non-registration and non-payment of fee
8	T20002	Vageesh Kumar Dixit	SE	M.Tech	16-09-2022	17-05-2022	Not attended the classes, did not respond the email communication, non-registration and non-payment of fee

**(vi) Provisional Certificate issued to M.S. / Ph.D. scholars after 9<sup>th</sup> Convocation (approved during 08<sup>th</sup> March, 2022 – 25<sup>th</sup> April, 2022):**

On completion of all requirements of M.S./Ph.D., Provisional Degree Certificates have been issued to following students:

Sl.No	Roll No.	Student Name	Programme	School	Date of Joining	Provisional Certificate issued on
1	S19013	Abhishek Dhyani	M.S.	SCEE	01 <sup>st</sup> August, 2019	08 <sup>th</sup> March, 2022
2	D16006	Arshdeep Singh	Ph.D.	SCEE	25 <sup>th</sup> July, 2016	24 <sup>th</sup> March, 2022
3	D16082	Rimanpreet Kaur	Ph.D.	SBS	10 <sup>th</sup> February, 2017	01 <sup>st</sup> April, 2022
4	D15059	Chandrasekhara Pratap GC	Ph.D.	SE	08 <sup>th</sup> February, 2016	01 <sup>st</sup> April, 2022
5	D16078	Niraj Kumar Singh	Ph.D.	SBS	01 <sup>st</sup> February, 2017	06 <sup>th</sup> April, 2022
6	D15037	Suman	Ph.D.	SBS	17 <sup>th</sup> August, 2015	09 <sup>th</sup> April, 2022
7	D15020	Moumita Ganguly	Ph.D.	SBS	27 <sup>th</sup> July, 2015	12 <sup>th</sup> April, 2022
8	S18001	Preethi S	M.S.	SCEE	01 <sup>st</sup> August, 2018	23 <sup>rd</sup> April, 2022
9	D15004	Prabhjot Kaur	Ph.D.	SCEE	22 <sup>nd</sup> July, 2015	23 <sup>rd</sup> April, 2022
10	D17007	Smriti Sharma	Ph.D.	SE	03 <sup>rd</sup> August, 2017	23 <sup>rd</sup> April, 2022
11	D16009	Aditi Jangid	Ph.D.	SBS	28 <sup>th</sup> July, 2016	25 <sup>th</sup> April, 2022

**(vii) Conversion from Regular Ph.D. to M.S. (by Research) Programme (Approved on 24<sup>th</sup> March, 2022):**

On the recommendations of the Guide, School Chair, AD (Research) and Dean (Academics), Chairman Senate has approved the conversion from regular Ph.D. to M.S. (by Research) of the given below student:

Sl.No.	Roll No.	Student Name	School	Guide	Date of Joining	Date of Conversion
1	D17023	Ankita Deo	SCEE	Dr. Gopi Shrikanth Reddy	01 <sup>st</sup> February, 2018	24 <sup>th</sup> March, 2022

**(viii) To report approval of the courses by the Board of Academics (BoA):**

List of courses approved by the BoA during its 46<sup>th</sup> Board of Academics meeting held on 09<sup>th</sup> May, 2022:

Sl. No.	Course No.	Course Title	Credits (L-T-P-C)
1	CY 523	Colloids and Interface Science and Technology	3-0-0-3
2	MA 526	An Introduction to Wavelets	3-0-0-3
3	MA 527	Field and Galois Theory	3-1-0-4
4	MA 560	Nonlinear Dynamics and Chaos	3-0-0-3
5	ME 522	High-Performance Scientific Computing	2-0-1-3
6	PH 528	Introduction to General Relativity	3-0-0-3
7	PH 607	Physics of Ultracold Quantum Gases	3-0-0-3
8	IC 141	Product Realization Technology	2-0-4-2

**(ix) Provisionally admitted students during AY 2021-22 (Even Semester):**

In addition to the Provisionally admitted students list reporting during 34<sup>th</sup> Senate meeting, the following students were also admitted in the Academic Year 2021-22.

**(a) Provisionally admitted International students in Ph.D.:**

Sl.No.	Roll No.	Name	School
1	D21113	Asaminew Yerango Shimolo	SBS

2	D21114	Million Mulugeta Habtegebrel	SBS
3	D21115	Mamaru Bitew Alem	SBS

**(b) Provisionally admitted student in Part Time M.S.:**

Sl.No.	Roll No.	Name	School
1	PTS2101	Nalini	SCEE

**(x) To report Seat Matrix for PG programme for AY 2022-23  
(Approved on 26<sup>th</sup> April, 2022)**

Seat Matrix for PG programme for AY 2022-23:

Program	Intake	General	EWS	OBC (NCL)	SC	ST	PD*	Foreign Nationals
		40.50%	10%	27%	15%	7.50%	5%	5%
M.Sc. (Chemistry)	50	20	5	14	7	4	3	3
M.Sc. (Physics)	40	16	4	11	6	3	2	2
M.Sc. (Applied Mathematics)	50	20	5	14	7	4	3	3
M.Tech (MES)	21	9	2	5	3	2	1	1
M.Tech (MEE)	21	9	2	5	3	2	1	1
M.Tech (SE)	21	9	2	5	3	2	1	1
M.Tech (VLSI)	36	15	3	10	6	2	2	2
M.Tech (PED)	36	14	4	10	5	3	2	2
M.Tech (SPCOM)	35	14	4	9	6	2	2	2
M.Tech (Bio-Tech)	28	11	3	8	4	2	1	1
M.Tech (CSE)	18	7	2	5	3	1	1	1
M.Tech (FTE)	18	7	2	5	3	1	1	1
M.Tech (ET)#	21	9	2	6	3	1	1	1
M.A.	19	8	2	5	3	1	1	1
I-Ph.D.	9	4	1	2	1	1	0	0
<b>Total</b>	<b>423</b>	<b>172</b>	<b>43</b>	<b>114</b>	<b>63</b>	<b>31</b>	<b>22</b>	<b>22</b>

*\*PD (Persons with Disability) reservations @ 5% will be horizontal (i.e., PD candidates will consume seats from their birth category quota).*

**(xi) To report Seat Matrix for MS/Ph.D. programme for AY 2022-23  
(Approved on 04<sup>th</sup> May, 2022)**

Program	Intake	General	EWS	OBC (NCL)	SC	ST	PD*	Foreign Nationals
		40.50%	10%	27%	15%	7.50%	5%	10%
MS SCEE	26	10	3	7	4	2	1	3
MS SE	30	12	3	8	5	2	2	3
PhD SCEE	70	28	7	19	10	6	3	7
PhD SE	126	51	13	34	19	9	6	13

PhD SBS	123	50	12	33	19	9	6	12
PhD SHSS	31	13	3	8	4	3	2	3
<b>Total</b>	<b>406</b>	<b>164</b>	<b>41</b>	<b>109</b>	<b>61</b>	<b>31</b>	<b>20</b>	<b>41</b>

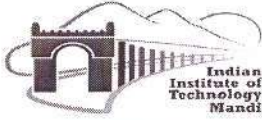
*\*PD reservations @ 5% will be horizontal (i.e., PD candidates will consume seats from their birth category quota).*

# **PART – ‘B’**



**Item No. 35.19: Issues to be discussed by the Senate without Student Members being present.**

-None-



Registrar IIT Mandi &lt;registrar@iitmandi.ac.in&gt;

## Minutes of the 34th Senate meeting of IIT Mandi held on 15.03.2022-reg.

3 messages

Kamal Kumar Bajre &lt;registrar@iitmandi.ac.in&gt;

Thu, Mar 31, 2022 at 12:29 PM

To: senate@iitmandi.ac.in

Cc: Associate Dean Courses <adcourses@iitmandi.ac.in>, Associate Dean SRIC <adsric@iitmandi.ac.in>, Associate Dean IR <adintrel@iitmandi.ac.in>, adresearch@iitmandi.ac.in, Kaustav Sarkar <srkr@iitmandi.ac.in>, Chair CPC <chaircpc@iitmandi.ac.in>, "AR Acad." <aracad@iitmandi.ac.in>, Director office <diroffice@iitmandi.ac.in>, "Registrar, Office, IIT Mandi" <registraroffice@iitmandi.ac.in>

Dear Senators,

The minutes of the 34th Senate meeting of IIT Mandi held on 15.03.2022, approved by the Chairman, Senate are attached herewith for information and record.

With regards,

Kamal Kumar Bajre  
Registrar & Secretary, Senate

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=====  
Registrar  
Indian Institute of Technology Mandi  
Kamand Campus, VPO Kamand,  
Distt. Mandi - 175005  
Himachal Pradesh, India  
URL : <http://iitmandi.ac.in/>  
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=====

 **Minutes of the 34th Senate Meeting held on 15.03.2022.pdf**  
11757K

Varun Dutt &lt;varun@iitmandi.ac.in&gt;

Tue, Apr 26, 2022 at 1:17 PM

To: Kamal Kumar Bajre &lt;registrar@iitmandi.ac.in&gt;

Cc: Associate Dean Courses <adcourses@iitmandi.ac.in>, Associate Dean SRIC <adsric@iitmandi.ac.in>, Associate Dean IR <adintrel@iitmandi.ac.in>, adresearch@iitmandi.ac.in, Kaustav Sarkar <srkr@iitmandi.ac.in>, Chair CPC <chaircpc@iitmandi.ac.in>, "AR Acad." <aracad@iitmandi.ac.in>, Director office <diroffice@iitmandi.ac.in>, "Registrar, Office, IIT Mandi" <registraroffice@iitmandi.ac.in>, Dean Academics <deanacad@iitmandi.ac.in>, senate@iitmandi.ac.in

Dear Sir,

I had raised a point in the last 34<sup>th</sup> Senate meeting regarding waiving the GATE / NET exam requirements for freshly appointed candidates in the MS (by research) program who are supported by sponsored research or consultancy projects. The rationale was that GATE / NET requirements are for getting HTRA and not for project funds. This provisioning is already present for the Ph.D. program, where candidates supported by sponsored research or consultancy projects do not require GATE / NET at the time of their fresh admission into the Ph.D. program. In the meeting, Dean (Academics) had mentioned that this point for waiving off of GATE / NET requirements for new MS (by research) admissions supported by sponsored or consultancy projects would be incorporated into the Senate meeting minutes. To my best reading of the minutes, this point has been accidentally left out. As this point was discussed and agreed upon in the 34<sup>th</sup> Senate meeting, I would request you to please get it added as part of the Senate meeting minutes.

Best regards,

Varun

## Academic Dishonesty Guidelines

### What is not Academic Dishonesty?

- A student submitting the work done alone or in the knowledge of Course Instructor.
- Submitting a single group project wherever permitted.
- Students discussing the methodology of solution.
- Students discussing the course material for understanding.

### Academic Dishonesty and Suggested Penalties

Offense	Punishment
<p><b>Cheating</b></p> <ul style="list-style-type: none"> <li>● Carrying <i>cheat sheets</i> or <i>chits</i> during exams. The student may or may not use the sheets during the exams. But possessing the chits will be treated as cheating [Severe].</li> <li>● Keeping books/chits etc. in toilets [Severe].</li> <li>● Possessing the electronic items/gadgets (smart phones, smart watches, tablets, similar items) during the exam. Calculators, wherever permitted, can be carried for the exam.</li> <li>● Using the electronic items/gadgets (smart phones, smart watches, tablets, similar items) during the exam. [Severe].</li> <li>● Exchanging the answer books or question papers with some of the answers on it [Severe].</li> <li>● Sharing answers, soliciting answers, peeking into the answer sheets of others.</li> </ul>	<p><b>Cheating</b></p> <ul style="list-style-type: none"> <li>● Expel from the examination hall</li> <li>● Award 0 (zero marks) for the exam component.</li> <li>● "F" grade, if it is end exam.</li> <li>● No makeup Exam.</li> <li>● "F" grade for all serious offences.</li> <li>● Disciplinary action to be taken for severe issues, in addition to the punishments / penalties.</li> </ul>

<p><b>Plagiarism</b></p> <ul style="list-style-type: none"> <li>● Submitting a portion or portions or all the work done by someone else's works, without proper citation or quotation marks.</li> <li>● Rephrasing/paraphrasing the original source, without proper citation.</li> <li>● Presenting existing idea/ source as own idea. [severe]</li> </ul>	<p><b>Plagiarism</b></p> <ul style="list-style-type: none"> <li>● Rewriting the journal article.</li> <li>● Redoing the assignment, without support from others.</li> <li>● The plagiarism discussed are mainly related to exams and college projects.</li> <li>● Dean Academics will handle the situation, related to submissions to the journals</li> <li>● Students are sensitized regarding the Plagiarism, using the document provided.</li> </ul>
<p><b>Information Falsification or Fabrication</b></p> <ul style="list-style-type: none"> <li>● Falsification of data. [severe]</li> <li>● Date fabrication. [severe]</li> </ul>	<p><b>Information Falsification or Fabrication</b></p> <ul style="list-style-type: none"> <li>● Students are warned and scholarship may be temporarily stopped for a period of time</li> <li>● Student need to attend workshop on "Academic Honesty .</li> <li>● These issues will be handled by Dean Academics separately.</li> </ul>
<p><b>Facilitation of Academic Dishonesty</b> (Applicable to TAs also)</p> <ul style="list-style-type: none"> <li>● Providing the materials or others to the students without permission.</li> <li>● Providing the question papers or others to the students without permission. [severe]</li> </ul>	<p><b>Facilitation of Academic Dishonesty</b> (Applicable to TAs also)</p> <ul style="list-style-type: none"> <li>● TAs are warned and their scholarship may be suspended for a 6 months of time.</li> <li>● The students (both student and TA) may be suspended for next semester, or the student is not allowed to register for the next semester.</li> <li>● If the TA is the main culprit, s/he may be given more punishment.</li> </ul>
<p><b>On-line Cheating</b></p> <ul style="list-style-type: none"> <li>● Creating instant <u>Whatsapp</u> or other groups and sharing the answers or solutions. [Severe]</li> <li>● Participating in Whatsapp or other groups while being aware that the group is used for dishonest academic</li> </ul>	<p><b>On-line Cheating</b></p> <ul style="list-style-type: none"> <li>● Award 0 marks for the whole group or class.</li> <li>● Fail the student. Disciplinary actions, including suspension may be taken.</li> <li>● Makeup Exam is not offered.</li> </ul>

<p>purposes [Severe].</p> <ul style="list-style-type: none"> <li>● Impersonation. [Severe]</li> <li>● Online screen sharing</li> <li>● Exchange answers with others. [Severe]</li> <li>● At the beginning, exchange <u>pdfs</u> to verify the sets. [severe]</li> <li>● Keeping phones, books <u>etc.</u> out of camera region. [severe]</li> </ul>	
<p><b>Others</b></p> <ul style="list-style-type: none"> <li>● Faking identities to get third party assistance. [severe]</li> <li>● Impersonation (both online and offline). [severe]</li> </ul>	<p><b>Others</b></p> <ul style="list-style-type: none"> <li>● Disciplinary action will be taken</li> <li>● Exam component is cancelled</li> <li>● Suspension / stopping scholarship for a period of time</li> </ul>
<p><b>Severe Issues</b></p> <ul style="list-style-type: none"> <li>● Student impeding the investigation on academic dishonesty</li> <li>● More than one incidents</li> <li>● Forging signatures of a faculty/staff member</li> <li>● Tampering or modifying the evaluated answer sheets.</li> <li>● Leakage of Question Papers</li> <li>● Data Fabrication</li> </ul>	<p><b>Severe Issues</b></p> <ul style="list-style-type: none"> <li>● Redoing/re-attending the course, in subsequent year. All the assignments, tests, quizzes <u>etc.</u> need to be submitted afresh.</li> <li>● For TAs, scholarship may be suspended for a period of time.</li> <li>● The student may be suspended for next semester, or the student is not allowed to register for the next semester.</li> <li>● Mandatory attendance in academic honesty workshop.</li> <li>● Academic and/or disciplinary probation</li> <li>● A "<u>FX</u>" grade will be placed in transcript, to indicate that the student has failed due to violation of Academic Dishonesty.</li> <li>● An intimation regarding the student's academic dishonesty will be sent to the parents.</li> <li>● "F" grade in all registered courses</li> <li>● Student is not allowed to fill the teacher and course feedback.</li> <li>● Barring from contesting in elections, applying for internships, placements etc.</li> </ul>

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**Some More Comments:**

- The items mentioned are some general issues. List can be exhaustive. Faculty / committee will take the relevant action upon the incident.
- All the serious issues to be should be authorized or to be penalized by the concern committee appointed by Dean Academics.
- Serious issues should attract disciplinary actions, in addition to the above mentioned academic penalties.
- Issues related to Plagiarism related to external submissions, Data fabrication etc. should be handled by the Dean Academics through a different committee, specific to the case.
- All serious issues attract more than one punishment.
- Institute needs to sensitize the students about plagiarism, ethics, academic honesty etc., during the orientation programs. This document should be made available on the intranet.

# PLAGIARISM

## WHAT IS PLAGIARISM

Stealing someone else's ideas and words and passing it on as your own.

## WHY IS PLAGIARISM WRONG?

- Plagiarism defeats the purpose of writing assignments. When you plagiarise you are using someone else's ideas and words. These actions do not help you build any skills (other than that of copy-pasting). Thus in committing plagiarism the person you are really cheating is yourself.
- Plagiarism is like lying. When you pass someone else's work as your own you are engaging in unethical behavior. This can also destroy the mutual respect which exists between a professor and a student.
- The basis of academia is trust. When we read an academic piece we trust that the author has represented facts to the best of his ability. Plagiarism undercuts this very foundation of trust.
- Plagiarism defeats the purpose of scholarship, i.e., your ability to learn and grow

Source: University of Oklahoma, Academic Integrity website

## TYPES OF PLAGIARISM

One of the most common types of publication misconduct is plagiarism—when one author deliberately uses another's work without permission, credit, or acknowledgment. Plagiarism takes different forms, from literal copying to paraphrasing some else's work and can include:

- Data
- Words and Phrases
- Ideas and Concepts

Source: [ethics.elsevier.com](http://ethics.elsevier.com)

Action	What is it?	Is it unethical?	What should you do?
<b>Literal Copying</b>	Reproducing a work word for word, in whole or in part, without permission and acknowledgment of the original source.	<b>Yes.</b> Literal copying is only acceptable if you reference the source and put quotation marks around the copied text.	<ul style="list-style-type: none"> <li>· Keep track of sources you used while researching and where you used it in your paper.</li> <li>· Make sure you fully acknowledge and properly cite the original source in your paper.</li> <li>· Use quotation marks around word-for-word text and reference properly</li> </ul>
<b>Substantial copying</b>	This can include research materials, processes, tables, or equipment	<b>Yes.</b> "Substantial" can be de-fined as both quantity and quality of what was copied. If your work captures the essence of another's work, it should be cited.	<ul style="list-style-type: none"> <li>· Ask yourself if your work has benefited from the skill and judgment of the original author?</li> <li>· The degree to which you answer "yes" will indicate whether substantial copying has taken place.</li> <li>· If so, be sure to cite the original source.</li> </ul>



<p><b>Paraphrasing</b></p>	<p>Reproducing someone else's ideas while not copying word for word, without permission and acknowledgment of the original source.</p>	<p><b>Yes.</b></p> <p>Paraphrasing is only acceptable if you properly reference the source and make sure that you do not change the meaning intended by the source.</p>	<ul style="list-style-type: none"> <li>· Make sure that you understand what the original author means.</li> <li>· Never copy and paste words that you do not fully understand.</li> <li>· Think about how the essential ideas of the source relate to your own work, until you can deliver the information to others without referring to the source.</li> <li>· Compare your paraphrasing with the source, to make sure you retain the intended meaning, even if you change the words.</li> </ul>
<p><b>Text-recycling</b></p>	<p>Reproducing portions of an author's own work in a paper, and resubmitting it for publication as an entirely new paper.</p>	<p><b>Yes.</b></p> <p>See our separate factsheet on duplicate submission.</p>	<ul style="list-style-type: none"> <li>· Put anything in quotes that is taken directly from a previously published paper, even if you are reusing something in your own words.</li> <li>· Make sure to reference the source accordingly</li> </ul>

Source: [https://www.elsevier.com/\\_data/assets/pdf\\_file/0008/653885/Ethics-in-research-and-publication-brochure.pdf](https://www.elsevier.com/_data/assets/pdf_file/0008/653885/Ethics-in-research-and-publication-brochure.pdf)

**PLAGIARISM-SOURCES NOT CITED**

- The author submits an assignment copied word for word from a source different from his or her own

- The author uses some of his or her own words in his or her submission, but substantial parts are taken without modification from a single source
- The author tries to pass off a work as his or her own that has been stitched together from various sources with a few words being altered here and there to try to disguise the original phrasing.
- The author tries to cover his or her lifting of the essential content of a source by minimally altering key words and phrases.
- The author meticulously changes all phrases and words from one source into his or her own but neglects to cite the source.

[https://www.slideshare.net/acwinger/plagiarism-types?qid=0b5e4ab0-2a5e-4dab-a163-43b7b0bf7429&v=default&b=&from\\_search=1](https://www.slideshare.net/acwinger/plagiarism-types?qid=0b5e4ab0-2a5e-4dab-a163-43b7b0bf7429&v=default&b=&from_search=1)

### **SOURCES CITED (BUT STILL PLAGIARIZED)**

- The author notes a source but does not include a specific in-text citation that leads to a reference citation that denotes the exact bibliographic information from the text. Therefore, the link between the in-text citation reference and reference page reference is broken.
- The author scrambles information so that inaccurate information regarding the sources is noted. This makes the source impossible to find and accuracy cannot be determined.
- The writer inserts a direct quote but tries to pass it off as a paraphrase because he or she did not put the direct quote in quotation marks but DID supply an in-text citation.
- The writer accurately cites all paraphrases and gives credit where it is due, but the author neglected the requirement of submitting original work. Remember that all paraphrases should be based on excerpts from expert sources, not the entire source. Paraphrases, after being accurately cited, should also be accompanied by the writer's personal analysis of the paraphrase.
- In this situation of plagiarism, large sections of the author's work are original but interspersed within the original are sections of un-cited paraphrases. In this way, the paraphrased material is passed off as the writer's own.

[https://www.slideshare.net/acwinger/plagiarism-types?qid=0b5e4ab0-2a5e-4dab-a163-43b7b0bf7429&v=default&b=&from\\_search=1](https://www.slideshare.net/acwinger/plagiarism-types?qid=0b5e4ab0-2a5e-4dab-a163-43b7b0bf7429&v=default&b=&from_search=1)

### **HOW TO PREVENT PLAGIARISM**

**Take good notes.** Whenever you are reading a book or article for an assignment keep notes of the citation information and put in quotation mark any direct quotes

**Take time to think.** When you are writing your report, think about the topic and your findings, results and analysis. When you understand what you are doing you will be able to express yourself in your own words.

**Begin writing.** Remember writing is an art. You need to be able to write multiple drafts. With each iteration your work will get better. Remember that grammatical error and spelling mistakes are easy to fix. As instructors we don't mind if your English is a little weak, but plagiarism under any circumstances is unacceptable

Follow proper citation methods.

## **CITATION**

*Crediting* the work of others (including your advisor's or your own previous work) by citation is important for at least three reasons:

- It places your own work in context, and
- It acknowledges the findings of others on which you have built your research
- It maintains the credibility and accuracy of the scientific literature

Examples:

- Previously we (Attwood and Florence, 2002) reported that the...
- The work of Illumand Davis (1988) drew attention to ....
- According to Illumand Davis (1988)....

**“Plagiarism”** Presented by: Alexander T Florence, Elsevier

## **DATA**

Data, statistics, illustrations also need to be cited. If something is common knowledge it need not be cited. But any time specific data is used which is not part of common knowledge it needs to be cited.

### Minor in German Language (earlier version)

The minor stream in German Language is intended to encourage B. Tech. students to acquire adequate skills in reading comprehension, writing and oral expression conforming to the B 2 level of the Common European Frame of Reference (CEF)\*. The program seeks to equip students for intercultural understanding; also, it offers sufficient value-addition to professional prospects in terms of international language competence; besides, it facilitates student exchange with TU-9 partner universities of the IIT Mandi.

Students are expected to take three of the following courses in order to qualify for a minor.

1. HS 352 German II
2. HS362 German III
3. HS 372 German IV
4. HS 373 Readings from German History
5. HS 363 Post-War Germany: A Literary Perspective

\* **B 2.** Can understand the main ideas of complex texts on both concrete and abstract topics, including technical discussions in his/her field of specialization. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subject and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.

#### Proposal:

**To Include HS 'HS539 - Post-War Germany' in the German Minor basket.**

The course seeks to develop an understanding of German history through reading, discussing and analysing various texts, newspaper articles, stories, novels as well as movies. This allows students to test their language skills, if they are already learning German, since a few posters or movies are in German language.

#### NEW PROPOSED BASKET OF COURSES FOR GERMAN MINOR

1. HS 352 German II
2. HS362 German III
3. HS 372 German IV
4. HS 373 Readings from German History
5. HS 363 Post-War Germany: A Literary Perspective
6. HS 539 Post War Germany: Politics, Society and Culture

<b>Course Number</b>	: HS-539
<b>Course Name</b>	: Post-War Germany: Politics, Society, and Culture
<b>Credits</b>	: 3-0-0-3
<b>Prerequisites</b>	: None
<b>Intended for</b>	: Ph.D./Masters/B.Tech. (3 <sup>rd</sup> and 4 <sup>th</sup> year)
<b>Distribution</b>	: HSS Free Elective
<b>Semester</b>	: Odd/Even

### 1. Preamble:

The course will introduce the students to a brief social and cultural history of Germany during the second half of the twentieth century. The students will gain an insight into the political and economic situation prevalent at the time, beginning with the post-war period, which saw Germany being divided into the FRG and GDR, and ending with the reunification of the two in 1990. A brief overview of the history of the European Union is also given to facilitate an understanding of present-day Europe so that the students have a broad understanding of culture and diversity as a whole. In addition, students will examine contemporary issues that impact Europe like the current migrant crisis in Germany, the debate around Brexit, rise of Euro-sceptic parties in addition to the far-right ones.

### 2. Course Modules:

#### Module I:

(2 hours)

This module provides the students with a background on the events leading up to the Second World War, briefly outlining topics like the First World War, Weimar Republic, and National Socialism among others.

#### Module II: Allied Occupation of Germany

(4 hours)

- Zero hour/*Stunde Null*
- Denazification
- Four occupation zones

#### Module III: Germany-US relations

(2 hours)

- Bizone/Trizone
- Berlin Blockade
- European Recovery Program/Marshall Plan

#### Module IV: GDR and FRG

(12 hours)

- Formation of GDR and FRG
- Comparison of political and economic systems. Basic Law
- Democratisation of education
- NATO and Warsaw Pact
- Adenauer era
- Brandt's Ostpolitik

**Module V: Anti Government Protests (2 hours)**

- East German uprising
- Students' movement
- Green movement (anti-nuclear movement, environmentalism)

**Module VI: Migrants in Germany (4 hours)**

- Gastarbeiter/'Guest Worker'
- Debate over Multiculturalism
- Current migrant crisis
- Emergence of far-right parties like AfD

**Module VII: The reunification of Germany (2 hours)**

- Fall of the Berlin Wall
- Reunification
- Problems in the process of internal integration

**Module VIII: Post-War German Cinema/Literature (6 hours)**

The students will engage with selected works of German literature/cinema, which will offer them a historical as well as a cultural perspective of the German society as it existed during the postwar period. It will include dealing with themes like *Heimat* ('homeland'), *Vergangenheitsbewältigung* ('coming to terms with the past'), and *Wende* ('turn').

**Module IX: European Union as it exists today (8 hours)**

- European Integration (ECSC, EEC)
- Expansion of the EU (1993 – today)
- Germany's role within the EU
- Euroscepticism
- Brexit

**3. Textbooks:**

- Judt, Tony: *Postwar. A History of Europe since 1945*, New York, Penguin Press, 2005
- Staab, Andreas: *The European Union Explained: Institutions, Actors, Global Impact*, Bloomington, Indiana University Press, 2008

**4. Reference:**

- Brauntal, G, *Right-Wing Extremism in Contemporary Germany*, Palgrave Macmillan UK, 2009
- Childs, David, *The Fall of the GDR: Germany's Road To Unity*, Longman, 2001
- Dennis, Mike, *The Rise and Fall of the German Democratic Republic 1945-1990*, London: Routledge, 2000
- Dinan, Desmond: *Europe Recast: A History of European Union*, Boulder, Lynne Rienner Publishers, 2014
- Fulbrook, Mary, *A History of Germany 1918-2014: The Divided Nation*, Wiley-Blackwell 2014
- Gilbert, Mark: *European Integration: A concise History*, Rowman & Littlefield, 2012

- Göktürk, Deniz, David Gramling and Anton Kaes (eds.), *Germany in Transit: Nation and Migration, 1955-2005*, California: University of California Press, 2007
- Hofmann, Arne, *The Emergence of Détente in Europe: Brandt, Kennedy and the Formation of Ostpolitik*, London, New York: Routledge: 2007.
- Jones, Erik, Anand Menon and Stephen Weatherill (eds.): *The Oxford Handbook of the European Union*, Oxford, Oxford University Press, 2012
- Kitchen, Martin: *A History of Modern Germany 1800-2000*, Malden, Blackwell, 2006
- Maier, C.S. and G. Bischof (eds.) *The Marshall Plan and Germany: West German Development within the Framework of the European Recovery Programme*, Oxford: Berg, 1991.
- McCormick, John: *Understanding the European Union*, New York, Palgrave, 2008
- Müller, Jan-Werner (ed.): *German ideologies since 1945; studies in the political thought and culture of the Bonn republic*, New York 2003
- Pulzer, Peter: *German Politics 1945-1995*, New York, Oxford University Press, 1996
- Smith, Helmut Walser (ed.): *The Oxford Handbook of Modern German History*, Oxford, 2011
- Vorländer, Hans, Maik Herold, Steven Schäller, *PEGIDA and New Right-Wing Populism in Germany*, Palgrave Macmillan, 2018.
- Warleigh-Lack, Alex: *European Union: The Basics*, London, Routledge, 2008
- Wilhelm, Cornelia (ed), *Migration, Memory and Diversity: From 1945 to the Present*, New York: Berghahn Books, 2016.

#### 5. Similarity Content Declaration with Existing Courses

S.N.	Course Code	Similarity Content	Approx. % of Content
	<b>HS363: Post-war Germany: A Literary Perspective</b>	The course examines the trajectory of German history from the 'Stunde Null' or 'Zero Hour' in 1945 to the Fall of the Wall in 1989 through its literary reflexes. It focuses on advanced reading comprehension by a thorough study of select short stories and poems besides short excerpts from novels that dwell on major defining moments in post-war Germany.	5%

#### 6. Justification for new course proposal if cumulative similarity content is > 30%:

NA

**Recommendations of the committee constituted to look into the Academic Organization/  
Structure of the Schools**

The matter was discussed in the faculty meetings of School of Basic Sciences, School of Computing and Electrical Engineering and School of Engineering. After due deliberation the committee proposes the following.

School of Basic Sciences may be broken into four separate Schools:

1. School of Biosciences and Bioengineering
2. School of Chemical Sciences
3. School of Mathematical and Statistical Sciences
4. School of Physical Sciences

School of Engineering may be broken into two Schools

1. School of Mechanical and Materials Engineering
2. School of Civil and Environmental Engineering

The School of Computing and Electrical Engineering and School of Humanities may remain unchanged. *for the time being.*



## Center on Indian Knowledge System and Mental Health (CIKSMH)

The Indian Institute of Technology Mandi (IIT Mandi) conducted a Workshop on Indian Knowledge System and Mental Health (IKSMH) between 25th and 27th March 2022. The workshop was widely attended by renowned researchers in the Indian Knowledge System (IKS) and Mental Health (MH) from India and abroad. Also, 20+ faculty and staff from IIT Mandi participated in this Workshop. As a part of the deliberations that took place in the Workshop, the following IKS topics emerged: Mind, brain, and consciousness with applications from yoga, meditation, Ayurveda, traditional Indian medicine research, and other Indian performing arts (like dance, music, Indian languages, etc.).

Consequent to the IKSMH Workshop, it is proposed to establish a **Center on Indian Knowledge System and Mental Health (CIKSMH)** at IIT Mandi. The CIKSMH will focus on research in topics concerning IKS, which have several benefits for the human body, mental health, and wellbeing. In fact, IKS has deep roots grounded in Indian history, philosophy, society, arts, languages, science and technology, and life sciences. IKS may incorporate the study of mind, brain, and consciousness and include applications from several areas like yoga, meditation, Ayurveda, traditional Indian medicine research, and other Indian performing arts.

The Center's main objective are:

1. To be a world leader and serve Indian society via research and translation activities concerning IKS and mental health (MH). It plans to do so by banking on state-of-the-art scientific methods in answering questions related to the effectiveness of IKS on the human body, mental health, and wellbeing.
2. To actively engage in skill development and impart education on IKS and mental health (MH) topics to the general public. This skill development program would involve teaching and workshop programs and undergraduate or postgraduate students grounded in IKS.
3. To serve the society with IKS-related research interventions, knowledge, and tools via a retreat center, which would be open to both national and international visitors.
4. To translate research into possible product prototypes for mental health diagnostics, therapy, and general wellbeing.
5. To generate monetary resources via teaching, skill development, clinical research, retreat center, and leasing the bleeding-edge lab equipment and other facilities to eventually become self-sustaining over time.

As shown in Figure 1, the CIKSMH is intended to be designed under the main theme of mind, body, and consciousness.

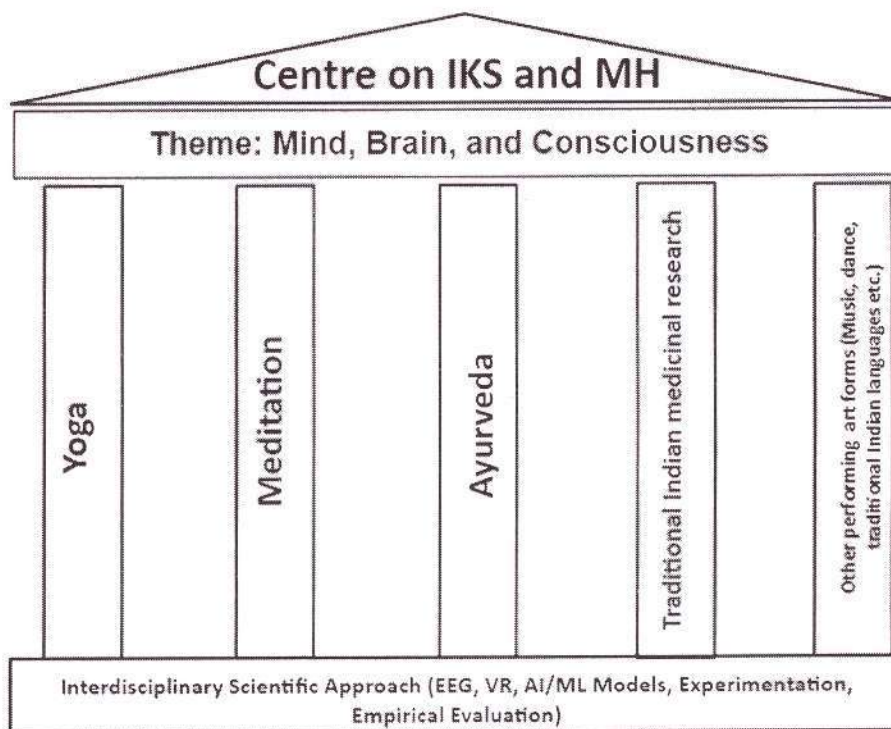


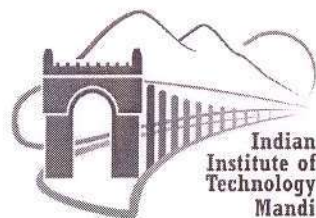
Figure 1. The conceptualization of CIKSMH grounded in mind, brain, and consciousness via applications from yoga, meditation, Ayurveda, traditional Indian medicinal research, and other performing arts.

The research and teaching under the Center would include the following IKS areas: Yoga, meditation, Ayurveda, traditional Indian medicine research, and other Indian performing arts. The Center's research would be grounded in the interdisciplinary scientific methods and it would involve a number of methodologies from cognitive science, neuroscience, computer science, sports science, chemistry, biology, and experiment design.

The Center would establish research labs like EEG/MEG lab, Neurostimulation lab, Eye-tracking lab, AR/VR and Motion lab, Psychology, data collection, and AI/ML lab, Dance and Music lab, Biosensors lab, Cellular, Molecular, and Analytical lab, IKS Retreat Center, and teaching labs. The Center would also cater to a number of degree programs at the undergraduate and postgraduate levels. These programs include B. Tech. in Computer Science (with specializations in Cognitive Science/IKS/MH/neuroscience/AI and ML). Furthermore, some of the postgraduate programs include MH-focused M.Tech. programs in Cognitive Science/IKS/MH/neuroscience/AI and ML. Finally, the Center would also include a Ph.D. program in IKS and MH areas. The teaching programs would be supported via a number of teaching labs.

# Master of Business Administration

School of Management



Indian Institute of Technology Mandi

## Preamble

The managerial landscape is rapidly changing due to the advancement in ICT and web enabled business platforms. Leadership in an organization are required to make appropriate decisions which is a judicious combination of the context data available and other subjective aspects. Optimal solution is no more the requirement, rather an appropriate solution is the key for success in the context of an organization. Rational decision making driven by the data has now evolved to incorporate tools and techniques of data sciences, artificial intelligence, machine learning etc. To be an impactful leader in the context of an organization, there is a need to combine softer aspects with purely data driven solutions in order to solve problems efficiently and effectively.

The proposed MBA program is a blend of management of contemporary concepts, softer skills towards developing individuals, and relevant applications of data science tools.

More specifically, the program objectives are

- To provide an exposure to fundamentals of business management with special emphasis on contemporary and emerging topics.
- To help the individuals to develop their personality by adequate exposure to soft skills like communication, creativity, and emotional intelligence etc.
- To provide an in-depth exposure to tools and techniques of data science, artificial intelligence, and machine learning etc. with a strong emphasis on problem solving approach.
- Prepare the graduate of the course to evolve as leaders of an organization who can combine rational and subjective skills in the context of an organization to make appropriate decisions.

## Description:

The proposed MBA program is a blend of management of contemporary concepts, softer skills towards developing individuals, and relevant applications of data science tools. MBA is a 2-year long full-time Masters programme, distributed in 4 semesters. The credit requirement is 70. The program aims to provide an in-depth exposure on data science tools and techniques like analytics, artificial intelligence machine learning, deep learning, natural language processing, and neural networks with a strong emphasis on problem solving approach.

The course structure has three major components as detailed below:

### Discipline Cores (46 credits):

Discipline Cores are designed to give the students appropriate exposure to different thoughts and theories of 'management' and 'Data science'. These include course in managerial competence such as communication skills, Legal aspects of business, HR management, creative thinking problem solving and decision making, organizational behaviour; as well as data science course such as Neural networks fundamentals for business, Mathematical foundations, disruptive technologies for data science, Introduction to AI and automation etc.

### Electives (8+4 credits):

A pool of discipline and free elective courses help students to go deeper into selected areas of application of data science and artificial intelligence in business. While discipline cores are more theme oriented and interdisciplinary in nature, the discipline electives have greater disciplinary grounding. The pool of discipline electives courses is dynamic in nature and more courses may be added in the future depending upon suitability. Students also have to take 4 credits offered in the institute from outside the pool of discipline electives for the MBA Programme.

### Project and internship (12):

Students would get exposure to real world problems, research methodology and industry experience through the Qualitative research workshop, social immersion project, Industry internship and two semester long Management project.

**Curriculum:**

The distribution of credits across types of courses is proposed to be the following:

1	Discipline Core	46
2	Discipline Electives	8
3	Free Electives	4
4	Project and Internship	12
Total		70

Sl. No.	Semester I	Break	Semester II	Break	Semester III	Break	Semester IV
1	Communication Skills for Managers	Qualitative Research (2 credits in Workshop mode) Social Immersion (0 credits)	Operations Management	Industry Internship (2 credits)	Legal Aspects of Business		Electives (6 – 10 credits)
2	Financial Statement Analysis		Fundamentals of Data and Analytics		Neural Networks fundamentals for Business		
3	Mathematical Foundations for DS/AI ML		Human Resource Management		Digital Business Strategy, Models and Transformations		
4	Creative Thinking, Problem Solving and Decision Making		Disruptive Technologies for Data Science		Entrepreneurship		
5	Marketing Management		Strategic Management		Electives (2 – 6 credits)		
6	Python Programming		Machine Learning for Business				
7	Decision Analysis		Introduction to AI and Automation		Management Project I (4 credits)		
8	Probability and Statistics for Data Science/AI ML		Financial Management				
9	Managerial Economics		Organizational Behavior		Management Project II (6 credits)		
Credits	18	2	18	2	14-18		12 - 16
Summary	18 credits compulsory		18 credits compulsory		12 credits compulsory		6 credits compulsory
Total Credits Completed	18	20	38	40	54-58		70

**Discipline Elective Minimum 2 courses each in 3<sup>rd</sup> and 4<sup>th</sup> semester**

Sl No	Course Title	Credits
1	AI in Marketing	2
2	Causal Analytics	2
3	AI for Finance	2
4	Fintech	2
5	Blockchain for Business	2
6	Deep Learning for Business Application	2
7	Natural Language Processing for Business	2
8	Devops In ML and AI	2
9	Intelligent Automation	2
10	Fuzzy logic for business decision making	2
11	Evolutionary computation for business solutions	2
12	DevOps	2

**Free Electives One course each in 3<sup>rd</sup> and 4<sup>th</sup> semester**

Sl No	Course Title	Credits
1	Product Management	2
2	Design Thinking	2
3	Social Analytics	2
4	Cloud Computing For Business	2
5	Cyber Securities, Ethics and Privacy	2
6	Negotiation Analysis	2
7	Data Strategy	2
8	AI Strategy and Implementation	2
9	Leadership	2

Following are the possible title of the proposed program:

- MBA (Data Science)
- MBA (AI&ML)
- MBA Technology

## **Minutes of the Meeting of the Core Committee constituted for framing guidelines, admission, and eligibility of mode of selection in the MBA program at IIT Mandi**

**Date:** 18th May 2022

**Venue:** A4 small conference room, South Campus, IIT Mandi, and online via Zoom

### **Committee**

Prof. Anjan Kumar Swain, IIM Kozhikode, Member

Dr. Puran Singh, IIT Mandi, Member

Dr. Saumya Dixit, IIT Mandi, Member

Dr. Manoj Thakur, IIT Mandi, Member

Dr. P Anil Kishan, IIT Mandi, Member

Dr. Rahul Vaish, IIT Mandi, Invited Member

Dr. Varun Dutt, IIT Mandi, Chair

### **Discussion and decisions**

The core committee discussed different aspects for framing guidelines, admission, and eligibility of mode of selection in the MBA program at IIT Mandi. The following outcomes came out:

#### **1. The call for admission, shortlisting, and selection criteria:**

School of Management invites applications for admission to the MBA (Data Science) program for the academic year commencing in August 2022.

#### **Minimum Eligibility Criteria for Admission**

##### **• Application category 1**

- GN/OBC (NCL)/EWS Indian national applicants: Minimum 7 CGPA on a 10-points scale or 70% marks in Bachelor's degree of a minimum 4-year duration from any of the Centrally Funded Technical Institutions (CFTIs) (IITs/IIITs/NITs/IISERs etc.). Such candidates are exempted from the requirement of CAT. SC/ST/PwD Indian national applicants: Minimum 6.5 CGPA on a 10-points scale or 65% marks in Bachelor's degree of a minimum 4-year duration from any of the Centrally Funded Technical Institutions (CFTIs) (IITs/IIITs/NITs/IISERs etc.). Such candidates are exempted from the requirement of the CAT.

**and**

- All applicants must have studied Mathematics at +2 level (or equivalent).

- **Application category 2**

- Indian national applicants: A CAT score obtained any time in the years 2020, 2021, and 2022.

**and**

- Bachelor's degree (of minimum 3-years duration) with
  - § GN/OBC (NCL)/EWS Indian national applicants: Minimum of 6 CGPA on a 10-points scale or 60% marks.
  - § SC/ST/PwD Indian national applicants: Minimum of 5.5 CGPA on a 10-points scale or 55% marks.

**and**

- All applicants must have studied Mathematics at +2 level (or equivalent).

**Notes:**

- A 5-year integrated Bachelor's and Master's degree would be considered equivalent to a 4-year Bachelor's degree for the Admission process.
- Those appearing for the final degree examination can also apply. The admission in such cases will be subject to their fulfilling the minimum eligibility criteria as stated above at the time of joining the program.
- Foreign applicants/NRIs need to have a GMAT score obtained at any time in the years 2020, 2021, and 2022 and would be treated at par with general category Indian national candidates for other degree requirements. Foreign applicants/NRIs must have studied Mathematics at +2 level (or equivalent).

**Shortlisting and selection:**

- A certain number of candidates will be shortlisted for further processing.
  - Shortlisting of Indian national candidates with a 4-year Bachelor's degree from CFTIs will be done based on their performance in the Bachelor's degree, previous academic records, and work experience with appropriate weightage.
  - Shortlisting for other Indian national candidates will be done based on CAT score and/or performance in the Bachelor's degree, previous academic records, and work experience with appropriate weightage.



- Shortlisting for foreign national/NRI candidates will be done based on GMAT score and/or performance in the Bachelor's degree, previous academic records, and work experience with appropriate weightage.
- The further process may involve online/in-person interviews/interactions.
- The school may set an *additional* and/or *higher* shortlisting criteria than the minimum eligibility criteria for different application categories mentioned above.
- The school may set different criteria to shortlist/select suitable candidates from the two application categories mentioned above.
- The school reserves the right to make changes to the selection process at any stage.
- The school reserves the right to select or not select any candidate.

### **Application Procedure**

- Apply only online through: <http://oas.iitmandi.ac.in/External/Admission/Login.aspx>
- For any queries, please contact: Add email address
- For any technical issues please contact: [oassupport@iitmandi.ac.in](mailto:oassupport@iitmandi.ac.in)

### **Important Dates:**

**Applications open:** 30 May 2022

**Last date of application:** 13 June 2022

**Tentative date for declaration of first shortlisting:** 24 June 2022

**Tentative date for selection process:** 25th June 2022 - 3rd July 2022

**Tentative date final result:** 8th July 2022

2. The application fees for:

- GN/OBC (NCL)/EWS applicants is INR 2400/-.
- SC/ST/PwD applicants is INR 1200/-.

- All Female candidates is INR 1200/-.
- Foreign nationals/NRIs
  - From SAARC Countries: USD 100
  - From Non-SAARC Countries: USD 200

The application fee is nonrefundable.

3. In addition to preparing the advertisement, brochure, and application link, the committee may also circulate a poster and other publicity material among prospective candidates for attracting talent to the MBA program.

4. The list of responsibilities for different activities is the following:

1. Advertisement, brochure, and application link (via Google/Type/OAS form - details that need to be recorded in the application form may be taken from the academic section) - Dr. Puran Singh, Dr. Manoj Thakur, and Dr. Anil Kishan
2. Publicity materials and emailers to attract talent - Dr. Saumya Dixit and Dr. Varun Dutt.
3. Shortlisting of candidates after application deadline - Led by Dr. Anil Kishan with the whole committee.
4. The subsequent process of selection - Led by Dr. Saumya Dixit with the whole committee.
5. First list and the subsequent process of exercising the waiting list - Led by Dr. Puran Singh, Dr. Manoj Thakur, and Dr. Anil Kishan with the whole committee.

The meeting ended with a vote of thanks to all attendees.

## Annexure - 7

To consider revision of fee waiver policy for UG Girl Students and for the preparation of comprehensive proposal, the following committee was formed by Institute Standing Committee (ISC) in its meeting held on 01<sup>st</sup> September, 2021.

Dr. Rahul Vaish (Dean Academics)  
Dr. Vishal Singh Chauhan (Dean Finance & Accounts)  
Dr. Shyamasree Dasgupta (AsP, SHSS)

A meeting of Committee to review the impact and implementation of the JAB (Joint Admission Board) sub-committee recommendation (as per Annexure A) at IIT Mandi was held on 09<sup>th</sup> May, 2022.

The JAB (Joint Admission Board) sub-committee recommended a review of the policies/schemes once the target of 20% girl student in undergraduate is met. Below is data of the girls admitted in UG degree programmes (year wise) in IIT Mandi that shows IIT Mandi has successfully achieved the target of 20% girls admissions (consistently over a period of 2 successive years) in UG programmes.

Year	Intake	Female Admitted	% of Female admitted Vs Total Intake
2017	150	22	14.67
2018	200	36	18.00
2019	282	53	18.79
2020	329	68	20.67
2021	329	66	20.06

In view of this, the committee also assessed the financial implications of the ongoing and any revised schemes to promote girl students and discussed the need of encouraging girl students to excel in academics with a high CGPA. Since the institute has already achieved and maintained the target of enrolling 20% girl students in the undergraduate programmes, the revised policy/scheme will help achieve the target of on the institute and achieving goals of the scheme, committee proposed revised schemes as follows:

- A scholarship of Rs. 1000/- per month will be awarded to all girl students.
- The Fee waiver will be applicable semester II onward.
- To be eligible for the fee waiver, semester II onward, the following criteria are to be fulfilled by the girl students: (i) SGPA of 8.50 or more in the previous semester, (ii) No disciplinary action at any point of time.

Dr. Vishal Singh Chauhan (Member)

Dr. Shyamasree Dasgupta (Member)

Prof. Rahul Vaish (Chair)

**IIT Mandi is currently providing tuition fee waiver and monthly scholarship (Rs 1000/- per month) to all undergraduate girl students with the following conditions.**

- Minimum SGPA of 7.00 for the previous two semesters
- No disciplinary action.

These provisions were started based on JAB (Joint Admission Board) recommendations (Report dated 12<sup>th</sup> April, 2017, Section 3.2) where the committee recommended the following strategies to increase the enrolment of girl students in the undergraduate programmes at IITs;

1. Kickstart higher enrolment: Immediately increase the number of women in B.Tech. in IITs to serve as a role model for schoolgirl.
  - a. Create a limited number of supernumerary seats for women in each IIT for a limited time until the number of women in BTech reaches 20% of the sanctioned strength in each IIT. These supernumerary seats to be filled only by female candidates who have qualified JEE (Advanced).
  - b. All women students to be awarded merit scholarships regardless of parental income, academic eligibility similar to MCM.
  - c. Prizes to be instituted in the Convocation, Institute Day, Foundation Day, etc for meritorious women students.
  - d. Preferential treatment in Items a and b above to be applicable in each IIT only for either a maximum time period (say 8 years), or until the percentage of women in that IIT reaches 20% consistently over a period of successive years, or if it is found that over a period of 3 years the nominal female percentage does not increase.
2. Encourage early achievers: Identify high achievers among schoolgirl at say 8<sup>th</sup> Std, motivate them towards an engineering career and provide them with systematic help in preparing for the highly competitive JEE (Advanced). Leverage the IIT-PAL scheme to improve the performance of schoolgirls in sciences.
3. Promote Societal change: Provide counseling for parents, school teachers and schoolgirls in a variety of ways to change their mindset towards encouraging girls to aim for the top engineering colleges.
  - a. Every IIT to have a Women's Centre for generating awareness on gender issues and providing a forum for women students, faculty and staff.
  - b. Every IIT to have a Women in Science and Engineering (WISE) professional group. This provides a forum for women students to discuss their professional problems and aspirations, to organise competitions etc. for women students.

Step 1 is necessary to catalyse the process of attitudinal and societal change in Step 2 and 3. For steps 2 and 3 to be effective, there must be a critical number of women in each IIT. **The committee recommends 20% of the sanctioned strength as a minimum target to be achieved.** Once this target is achieved, the increase of women in BTech in IITs will become organic.

**The part time programme at the Institute provides opportunities to**

- (1) individuals employed in R & D environments in scientific institutions (including IIT Mandi) or industries and
- (2) faculty members of all Engineering Colleges/Universities recognized by appropriate government agencies.

**Eligibility**

The required qualification remains the same as for the regular candidates except for the requirement of qualifying in one of the national entrance tests. Further, the candidate should have atleast two years work experience.

**Additional Requirements**

DC/APC can recommend requirement (if any) of co-guide from the sponsoring organization. A co-guide from the sponsoring organisation is not mandatory.

There is a desirable 16 weeks campus residential semester requirement to complete course work. However, DC can recommend to complete courses (from IIT Mandi) via online mode. In such cases not less than 50% assessment of individual courses should be evaluated in offline mode. The residential requirement may be made flexible as courses are recommended partially in online mode. Hence, the scholars may be allowed to complete the residential semester requirement in **multiple visits** adding up to at least 16 weeks on campus (i.e. equivalent to one semester). However, the minimum period of residency for each visit **should not be less than 2 weeks**.

In case of Part-Time scholars employed at radial distance in the range of **50-60 KM from IIT Mandi** campus, the scholar will be permitted by the Dean (Academics) to complete course work without residential requirement as these scholars can be treated day-scholars.

Candidate admitted to the programme on part-time basis must continue to remain in the same organization and place of work until the research work is completed. If the candidate is transferred or joins a new organization before the submission of the thesis, he/she should get the approval from the new organization for continuation of the programme and IIT Mandi.

**Amendment in allotment of caretaker faculty in-charge/co-guide in the absence of guide from the institute for longer duration (> 3 months)**

In case the guide leaves the Institute/ retires from the Institute, the doctoral committee needs to propose co-guide/caretaker faculty in-charge (depending on fraction of thesis completed by the candidate).

In case of long leaves (>3 months and < 1 year) of the supervisor, DC needs to propose co-guide/caretaker faculty in-charge depending upon the nature of research and progress made by the candidate.

Role of caretaker faculty in-charge is to look into administrative matters pertaining to the candidate.

If the leaves are more than a year, there should be an allotment of co-guide, on the recommendation of DC and school chair.

Dean, Academic will appoint (in above mentioned cases) the suitable guide/co-guide/caretaker in consultation with the school chair.

**Proposal on Exit option of IDD (Bioengineering) students after 4 years**

1. Students enrolled in 5 years Integrated Dual Degree programme in Bioengineering can exit after 4 years.
2. Students planning to exit after 4 years can give their exit option at the end of 5<sup>th</sup>, 6<sup>th</sup> or 7<sup>th</sup> semesters. No request for exit option will be entertained after the add/drop date of 8<sup>th</sup> semester.
3. Students leaving after 4 years will leave with B.Tech in Bioengineering or B.Tech (Hons.) in Bioengineering subject to fulfillment of requirements of Honors degree. For Honours the rules laid down for B.Tech (Hons.) ordinance of IIT Mandi will be applicable.
4. Institute core and Discipline Core course criteria remains as it is for students exiting after 4 years.
5. If a student gives exit option after 5<sup>th</sup> semester, then the 6 credits of M.Tech (core) already done will be renamed as Discipline Electives. He is required to do 6 more credits of Discipline Electives as per B.Tech ordinance. Bioethics and regulatory affairs which is to be taken by the IDD student in the 5<sup>th</sup> semester will be credited to the free elective basket. He may do 4 credits of Discipline Electives or Interactive Socio Technical Practicum in the 6<sup>th</sup> semester. He is also required to complete credit requirements of free electives and 8 credits of Major Technical Project or Discipline Electives in the remaining three semesters, apart from fulfilling the requirements of HSS credits.
6. If a student gives exit option after 6<sup>th</sup> semester, then the 9 credits of M.Tech (core) already done will be renamed as Discipline Electives. Of the 9 credits of Specialization Electives already done, 3 credits will go to Discipline Elective basket and the remaining 6 credits of Specialization electives will go to the free elective basket. Bioethics and regulatory affairs which is to be taken by the IDD student in the 5<sup>th</sup> semester will be credited to the free elective basket. He may do 4 additional credits of Discipline Electives or Interactive Socio Technical Practicum in the 8<sup>th</sup> semester. He is also required to complete credit requirements of free electives and 8 credits of Major Technical Project or Discipline Electives in the remaining two semesters (as per B.Tech ordinance), apart from fulfilling the requirements of HSS credits.
7. If a student gives exit option after 7<sup>th</sup> semester, then the 9 credits of M.Tech (core) already done will be renamed as Discipline Electives. Of the 9 credits of Specialization Electives already done, 9 credits will go to Discipline Elective basket. Bioethics and regulatory affairs which is to be taken by the IDD student in the 5<sup>th</sup> semester will be credited to the free elective basket. He may do 4 additional credits of Discipline Electives or Interactive Socio Technical Practicum in the 8<sup>th</sup> semester. He is also required to complete credit requirements of free electives, apart from fulfilling the requirements of HSS credits. 1 credit of Technical Communication can go to Free Elective or HSS basket. However, since Major Technical Project is not possible in this case, the student is required to substitute it suitably with 8 credits of Discipline Electives. The student is also required to ensure minimum 12 credits are registered in each semester.

**Proposal on second major programme in Bioengineering**

1. Students pursuing B.Tech in streams other than Bioengineering can pursue a second major in Bioengineering. All the norms for Double major programme for B.Tech students as approved in the 32nd Senate meeting of IIT Mandi held on September 22, 2021, will be applicable for Double major in Bioengineering.
2. Students need to pursue a set of foundational courses and a set of electives in Bioengineering to earn a second major in Bioengineering. The total number of credits should add up to 40 as approved in the 32nd Senate meeting of IIT Mandi.
3. The following are the foundational courses being identified:
  - BE201 Cell Biology - 4 credits (3-0-2-4)
  - BE202 Biochemistry and Molecular Biology - 3 credits (2-0-2-3)
  - BE203 Enzymology and Bioprocessing - 3 credits (2-0-2-3)
  - BE304 Bioinformatics - 3 credits (2-0-2-3)
  - BE503 Biosensing and Bioinstrumentation - 4 credits (3-0-2-4)This adds up to 17 credits
4. The remaining 23 credits can be taken as electives. The list of electives in the area of Bioengineering can be opted with faculty advisor and PFG (Bioengg) chair's consent.



## Revision in the curriculum of M.Tech VLSI programme

To get a degree in M.Tech [VLSI] from IIT Mandi, a student has to complete 70 credits (minimum). The course structure has discipline core, mostly offered in the first semester of the program. The core practicum courses will be going in parallel to the theory courses. A student can choose any of the discipline electives as per his/her choice of interest. Some general details about the M.Tech in VLSI at IIT Mandi are as follows.

1. There are six discipline core courses with a total of 17 credits.
2. There are three discipline elective courses with a total of 9 credits (minimum).
3. Two electives from outside discipline with a total of 6 credits.
4. A student can choose the elective (discipline and outside electives) courses in any semester.
5. The post graduate project is of one year in duration. Evaluated in two parts (17 credits for each semester) with a total of 34 credits.
6. A technical communication course of 1 credit as institute core.
7. A research study course as a discipline core course, which will be offered in the winter break is of 3 credits.

### Overall credit structure:

Category	Discipline Core	Discipline Elective	Free Elective	Institute Core	Project	Total
Credits	17+3*	9	6	1	34	70

\*Research study (3 credit) course as a discipline core for M.Tech VLSI program, which will be offered in the winter break after first semester.

### List of Core courses for M.Tech in VLSI

(Total credits for discipline core = 17)

S. No	Course Code	Name	L-T-P-C	Semester
1	EE 524	Digital MOS LSI Circuits	3-0-0-3	I
2	EE 519P	CMOS Digital IC Design Practicum	0-0-3-2	I
3	EE 520	Microelectronic Devices and Modelling	3-0-0-3	I
4	EE 512	CMOS Analog IC Design	3-0-2-4	I
5	EE 611	VLSI Technology	3-0-0-3	II
6	EE 611P	VLSI Fabrication Practicum	0-0-3-2	II

**Semester wise Course Schedule for M.Tech (VLSI)**

Total No. of Credits	70
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**FIRST SEMESTER (1<sup>st</sup> Sem)**

Number	Title of the Course	L-T-P-C	Credits
EE 524	Digital MOS LSI Circuits	3-0-0-3	3
EE 519P	CMOS Digital IC Design Practicum	0-0-3-2	2
EE 520	Microelectronic Devices and Modelling	3-0-0-3	3
EE 512	CMOS Analog IC Design	3-0-2-4	4
	Open Elective Outside Discipline – I	3-0-0-3	3
HS 541	Technical Communication	1-0-0-1	1
EE xxx	Research Study*	0-0-6-3	3
Total Credits			19

\*The course will be part of winter vacation and grades to be submitted at the beginning of second semester.

**SECOND SEMESTER (2<sup>nd</sup> Sem)**

Number	Title of the Course	L-T-P-C	Credits
EE 611	VLSI Technology	3-0-0-3	3
EE 611P	VLSI Fabrication Practicum	0-0-3-2	2
	Open Elective Outside Discipline - II	3-0-0-3	3
	Discipline Elective - I	3-0-0-3	3
	Discipline Elective - II	3-0-0-3	3
	Discipline Elective - III	3-0-0-3	3
Total Credits			17

**THIRD SEMESTER (3<sup>rd</sup> Sem)**

Number	Title of the Course	L-T-P-C	Credits
EE 650P	Post Graduate Project-1	0-0-34-17	17
Total Credits			17

**FOURTH SEMESTER (4<sup>th</sup> Sem)**

Number	Title of the Course	L-T-P-C	Credits
EE 651P	Post Graduate Project-2	0-0-34-17	17
Total Credits			17

**List of Discipline Electives:**

1. EE 516 - Biomedical systems (2.5-1.5-0-4)
2. EE 523 - Digital VLSI Architecture (3-0-2-4)
3. EE 526 - Power semiconductor devices (3-0-0-3)
4. EE 529 - Embedded System Design (3-0-2-4)
5. EE 560 - Reconfigurable Computing (3-0-2-4)
6. EE 592 - Selected topics on Formal Verification (3-0-0-3)
7. EE 593 - Selected topics on Low Power VLSI Design (3-0-0-3)

8. RFIC Design
9. CAD for VLSI Design
10. Mathematical optimization
11. EE 507 - Transmission lines and Basic Microwave engineering
12. EE 615 - Nano electronics and Microfabrication (3-0-0-3)
13. EE 619 - Mixed signal VLSI Design (3-0-2-4)
14. EE 621 - Microwave integrated circuits (3-0-0-3)
15. CS 541P - IOT systems and cloud (1-0-3-3)
16. CS 507 – Computer Architecture (4-0-0-4)
17. PH 502 - Photonics (3-0-0-3)
18. ME 509 - Nanomanufacturing (3-0-0-3)
19. PH 504 - Organic opto electronics (3-0-0-3)
20. PH 511 - Mathematical Physics (4-0-0-4)



## Proposed Change in Course Structure of M.Tech. in Fluid and Thermal Engineering

## Mathematical Core Course (MC)

- ❖ Existing: Advanced Analytical Techniques for Engineers (ME517)
- ❖ Proposed Change: Mathematical Core (MC) course
  - Advanced Analytical Techniques for Engineers (ME517)
  - Numerical Methods for Engineering Computation (ME504)
  - Any suitable courses with prior permission of FA
  
- ❖ The motivation of this suggestion is to effectively handle the teaching load of the faculty of SE given that we are handling many MTech courses now. Note that this modification will not restrict the offering of ME517 or the students from taking it. If a faculty is available for teaching, ME517 the course will be offered.

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# Entrepreneurship Practicum Proposal

## IIT Mandi

### Preamble

The proposal intends to introduce an option for the students of the institute by virtue of which they would be able to gain academic credits based on their entrepreneurial work.

### Background

IITs have always been the hub of entrepreneurs and job creators. The New Education Policy ([NEP 2020](#)) and National Innovation and Start-up Policy ([NISP 2019](#), section: Components of Guiding Framework, point-5) also have a futuristic vision for radical transformation of job seekers to job creators by promoting students' driven innovations & start-ups in higher educational institutes. In this line, it becomes highly significant to support and foster the entrepreneurial spirit among the students of our institution.

### Implementation

- Students may opt for 6-months long entrepreneurship during which they have to initiate a start-up or execute an already set up start-up which must be recognised under an incubator and registered under the name of the students themselves latest by the end of the semester.
- **Approval:** Students willing to opt for this, must pitch the start-up idea to IIT Mandi Catalyst as part of "Exploration program" and get approval. The student will need to share the approval of the catalyst to the academic office to register for the entrepreneurship practicum program.
- **Duration & Credits:** The duration of this practicum will be around 6 months, including a regular semester (13-14 weeks) and a preceding vacation period (8-10 weeks). The initial 2 months will be focused on learning/training through materials and lectures provided by the incubator and will be counted towards 2 months industrial internship (IC010) under the incubator for 2 P/F credits. The next 4 months will be focused on implementation of the start-up idea and prototype. Thus students will get 2 + 9 = 11 P/F credits and a duration of 6 months for working on the startup.

Thus the 6 months entrepreneurship practicum can be divided as follows -

Period	Objectives	Credits
First 2 months (vacation)	Training (through workshops) and Idea Validation	2
Next 4 months (semester)	Prototype Building and marketing the product	9

- **Evaluation:**
  - The student will be mentored and evaluated by industrial mentors from the incubator.
  - At the start of the semester, the student must lay out time-bounded goals for his/her entrepreneurial work. These goals, after approval by the mentors, will serve as the basis for the evaluation of the Entrepreneurship Practicum.
  - A checkpoint meeting will be held every month by the mentors to assess the progress of the student towards the goals defined above. The students will need to present the details of his/her progress in entrepreneurial work, and the mentors reserves the right to cross verify every detail presented thereof.
  - At the end of the semester, a report on the work done during entrepreneurship should be submitted by the student to the FA.
  - Subject to satisfaction of the requirements and feedback received from the mentors from the incubator, the student shall be awarded 11 credits. These 11 credits will be considered from the P/F category of the degree program.
  
- **Exit Option:** The mentor will have an option to ask the team to drop the idea after 2 months, if he/she feels that the idea cannot be pursued further or the team is not working seriously towards the idea. Also, if the mentor accepts the team for the next 4 months, then also the team should have an option to drop the practicum with only 2 credits. These 2 drop options, first for mentor and second for the team, is to ensure that only self-motivated teams with workable ideas work on the idea for the semester as the nature of the entrepreneurial work is mostly self-guided.
  
- **Semester of eligibility:** 5th semester onwards

**Note:** IIT Mandi student teams will be required to pay Rs. 4500 to the Catalyst for registering in Catalyst's Exploration program. The amount should be directly paid by the student teams to the incubator.

## Similar programs in other IITs

1. **IIT Delhi:** At IIT Delhi, students can also opt for a break in coursework for a semester to initiate or work for his / her start-up, upon successful completion of which students would be eligible for 5 DPE units (Design and Practical Experience P/F credits). Students desiring to opt for semester break for start-up are required to plan well in advance and submit a project proposal in consultation with their faculty mentor. [source - [Academic Handbook IITD](#), section: 9.6.2.5]
2. **IIT Kanpur:** IIT Kanpur allows students to take up and pursue their entrepreneurial aspirations as a part of their academic journey while pursuing their degrees. The policy allows undergraduate students in 3rd year and the postgraduate students immediately after completion of the minimum course work to gain academic credit while pursuing entrepreneurial activities. The students can also avail semester leave to pursue their ideas by using facilities both inside and outside the campus. [source - [Student Entrepreneurship Policy, IITK](#)]
3. **IIT Jodhpur:** At IIT Jodhpur, students can take a break from semester and work on their start-up and earn 20 credits as a part of engineering innovation. Students may opt for Entrepreneurship as a part of the curriculum from the beginning of the 8th Semester. A student would be required to complete a minimum of six months for Minor in Entrepreneurship, and would earn 20 credits on successful completion of a minimum of six months of Entrepreneurship. The students would be exempted from the requirement of 10 open elective credits in lieu of credits earned against Entrepreneurship. However, the remaining coursework is required to be completed by taking extra credits in the earlier semesters or can be completed after completion of Entrepreneurship. A student should have earned minimum required credits with at least 6 CGPA at the end of 7th semester to opt for dual-degree M. Tech. Programme. [source - [IITJ's Exclusive Entrepreneurship Programme](#)]
4. **IIT Palakkad:** UG/PG students can earn co-curricular academic credits for pursuing startup-related activities at any Business Incubator (BI) approved by the I&E (Innovation and Entrepreneurial ) council. The exact number of credits awarded will depend on the nature of the activity and as decided by the Senate from time to time. [source - [IIT Palakkad Innovation and Startup Policy](#)]