

**ACADEMIC AFFAIRS OFFICE
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
Roorkee – 247667**

No. Acd./41 /Senate-89

Dated: January 06, 2022

Subject: Revised structures of M.Des. and MIM (Item No. 89.7)

The Senate in its 89th meeting held on 09.12.2021 approved the proposal of Department of Design to revise the structures of M. Des. (Industrial Design) and MIM (Masters in Innovation Management) programs.

The revised structures of M.Des. and MIM are attached as **Appendix-A**.


Assistant Registrar (Curriculum)

Copy to (through e-mail):-

1. Chairman Senate & Director
2. All faculty
3. Head of all Departments/ Centres / School
4. Dean, Academic Affairs
5. ADoAA (IT Systems & Admission)/ (Curriculum)/ (Evaluation)
6. Meeting Section
7. Channel i / AIS (Acad. Portal) / Academic webpage of iitr.ac.in

M. Des. (Industrial Design)**Teaching Scheme****I Year: Autumn Semester**

Teaching Scheme					Contact Hrs Per Week			Exam Duration		Relative Weightage %				
S. No.	Course Code	Course Title	Subject Area	Credits	L	T	P	T	P	CWS	PRS	MTE	ETE	PRE
1	IDN-501**	Introduction to Design and Prototyping	PCC	Audit	15	5	10	02	-	35	35	-	30	-
2	IDN-503	Design Thinking	PCC	3	1	0	4	2	0	10-25	25	15-25	-	30-40
3	IDN-505	Elements and Principles of Visual Design	PCC	3	2	1	0	2	0	20-35	-	20-30	40-50	-
4	IDN-507	Human Factor Design	PCC	3	1	2	0	2	0	20-35	-	20-30	40-50	-
5	IDN-509	Materials and Manufacturing	PCC	3	1	1	2	2	0	10-25	25	15-25	-	30-40
6	IMN-503	Effective Communication	PCC	2	1	1	0	0	2	20-35	20-30	-	-	40-50
7	IDN-513	Ideation Project	PCC	4	1	0	6	-	-	-	100	-	-	-
8		Program Elective I	PEC	3/4	-	-	-	-	-	-	-	-	-	-
		Sub Total	21/22											

** This is a foundation course which will be running for 7-10 days to give orientation of Design course. It will be held before actual start of the semester teaching.

I Year: Spring Semester

Teaching Scheme					Contact Hrs Per Week			Exam Duration		Relative Weightage%				
S. No.	Course Code	Course Title	Subject Area	Credits	L	T	P	T	P	CWS	PRS	MTE	ETE	PRE
1	IDN-502	Design Methodology	PCC	3	2	0	2	2	0	10-25	25	15-25	30-40	-
2	IDN-504	Form Design	PCC	3	1	0	4	0	4	20-35	20-30	-	-	40-50
3	IDN-506	Design for Sustainability	PCC	3	2	1	0	2	0	20-35	-	20-30	40-50	-
4	IDN-508	Creation Project	PCC	5	-	-	10	-	-	-	100	-	-	-
5	IDN-510	Design Seminar	PCC	2	-	-	4	-	-	-	100	-	-	-
6		Program Elective II	PEC	3/4	-	-	-	-	-	-	-	-	-	-
7		Program Elective III	PEC	3	-	-	-	-	-	-	-	-	-	-
	Sub Total			22/23										

II Year: Autumn Semester

Teaching Scheme					Contact Hrs Per Week			Exam Duration		Relative Weightage%				
S. No.	Course Code	Course Title	Subject Area	Credit	L	T	P	T	P	CWS	PRS	MTE	ETE	PRE
1	IDN-702	Internship (Industrial Training/ Project/ Interaction)	SEM	4	-	-	-	-	-	-	-	-	100ss	-
2		Program Elective IV	PEC	3/4	-	-	-	-	-	-	-	-	-	-
3		Program Elective V*	PEC	3	-	-	-	-	-	-	-	-	-	-
4	IDN-701A	Design Project (Phase-I)	DIS	5	-	-	-	-	-	-	-	-	100	-
	Sub Total			15/16										

\$\$ Evaluation scheme: (Industry: 40 + Institute: 60) Internship will be completed during summer break.

*May be completed through online mode (for example, NPTEL).

II Year: Spring Semester

Teaching Scheme					Contact Hrs Per Week			Exam Duration		Relative Weightage %				
S. No.	Course Code	Course Title	Subject Area	Credit	L	T	P	T	P	CWS	PRS	MTE	ETE	PRE
1	IDN-701 B	Design Project (Phase – II)	DIS	12	-	-	-	-	-	-	-	-	100	-
	Sub Total			12										
	Total			70/73										

Basket of Elective Courses for M. Des. (Industrial Design)

Basket 1 Engineering Group

Teaching Scheme					Contact Hrs Per Week			Exam Duration		Relative Weightage%				
S. No.	Course Code	Course Title	Subject Area	Credits	L	T	P	T	P	CWS	PRS	MTE	ETE	PRE
	First Semester													
1	IDN-521	Sensors, Actuators and IOT	PEC	3	2	0	2	2	0	10-25	25	15-25	30-40	-
2	IDN-522	Computer Aided Design	PEC	3	2	0	2	2	0	10-25	25	15-25	30-40	-
3	IDN-523	Rapid Prototyping	PEC	3	2	0	2	2	0	10-25	25	15-25	30-40	-
4	IDN-546	Product Design	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
5	EEN-524	Intelligent Sensors and Instrumentation	PEC	4	3	0	2	3	0	10-25	25	15-25	30-40	-
	Second Semester													
1	ECN-578	Digital Systems Design	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
2	IDN-525	CAE in Product Design	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
3	IDN-526	Reverse Engineering	PEC	3	2	0	2	2	0	10-25	25	15-25	30-40	-
	Third Semester													
1	IDN-527	Artificial Intelligence and Data Science	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
2	IDN-547	Manufacturing Guidelines for Product Design	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
3	AID-505	Machine Learning	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-

Basket 2 Management Group

Teaching Scheme					Contact Hrs Per Week			Exam Duration		Relative Weightage%				
S. No.	Course Code	Course Title	Subject Area	Credits	L	T	P	T	P	CWS	PRS	MTE	ETE	PRE
	First Semester													
1	IDN-528	Product Planning and Marketing	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
	Second Semester													
1	IMN-505	Business Valuation	PEC	3	2	1	0	2	0	20-35	-	20-30	40-50	-
2	IDN-530	Business and Service Innovation	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
3	IMN-506	Intellectual Property Management	PEC	3	2	1	0	2	0	20-35	-	20-30	40-50	-
4	IMN-510	Product Innovation Management	PEC	2	2	0	0	2	0	20-35	-	20-30	40-50	-
	Third Semester													
1	IDN-531	Legal Standards/IPR	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
2	IDN-532	Systems Thinking	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-

Basket 3 Design Group

Teaching Scheme					Contact Hrs Per Week			Exam Duration		Relative Weightage%				
S. No.	Course Code	Course Title	Subject Area	Credits	L	T	P	T	P	CWS	PRS	MTE	ETE	PRE
	First Semester													
1	IDN-533	User Experience Design	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
	Second Semester													
1	IDN-534	Interaction Design	PEC	3	2	0	2	2	0	10-25	25	15-25	30-40	-
2	IDN-536	Service Design	PEC	3	2	1	0	2	0	20-35	-	20-30	40-50	-
3	IDN-537	Research into Design	PEC	3	2	1	0	2	0	20-35	-	20-30	40-50	-
4	IDN-538	Bio Inspired Design	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
5	IDN-548	Inter-Disciplinary Design	PEC	3	2	0	2/2	2	0	15-30	20	15-25	30-40	-
6	IDN-549	Design for Social Inclusion	PEC	3	2	0	2/2	2	0	15-30	20	15-25	30-40	-
	Third Semester													
1	IDN-535	Mobility Design	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
2	IDN-539	Computer Game Design	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
3	IDN-540	Design for Society	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
4	IDN-541	Graphic Design	PEC	3	2	0	2	2	0	10-25	25	15-25	30-40	-
5	IDN-542	Product Detailing	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
6	IDN-543	Contemporary Visual Design	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
7	IDN-544	Representation Techniques for Animation	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
8	IDN-545	Visual Narrative	PEC	3	3	0	0	3	0	20-35	-	20-30	40-50	-

Basket 4 On-line mode: NPTEL

A list of approved NPTEL courses by DAPC will be provided to students.

☐ Course duration: 20hrs

The courses will be PEC without laboratory work

MIM (Masters in Innovation Management)

Teaching Scheme

I Year: Autumn Semester

Teaching Scheme					Contact Hrs Per Week			Exam Duration		Relative Weightage%				
S. No.	Course Code	Course Title	Subject Area	Credits	L	T	P	T	P	CWS	PRS	MTE	ETE	PRE
1	IDN-503	Design Thinking	PCC	3	1	0	4	2	0	10-25	25	15-25	-	30-40
2	IMN-503	Effective Communication	PCC	2	1	1	0	0	2	20-35	20-30	-	-	40-50
3	IMN-505	Business Valuation	PCC	3	2	1	0	2	0	20-35	-	20-30	40-50	-
4	IMN-507	Innovative Entrepreneurship Strategies	PCC	3	2	0	2	2	0	10-25	25	15-25	30-40	-
5	IMN-509	Legal Aspects of Business	PCC	2	2	0	0	2	0	20-35	-	20-30	40-50	-
6	IMN-511	Business Decision Making	PCC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
7	IMN-513	Contemporary Management Practices	PCC	2	2	0	0	2	0	20-35	-	20-30	40-50	-
Sub Total				18										

I Year: Spring Semester

Teaching Scheme					Contact Hrs Per Week			Exam Duration		Relative Weightage%				
S. No.	Course Code	Course Title	Subject Area	Credits	L	T	P	T	P	CWS	PRS	MTE	ETE	PRE
1	IMN-502	Technology Management	PCC	2	2	0	0	2	0	20-35	-	20-30	40-50	-
2	IMN-504	Contemporary Strategic Management	PCC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
3	IMN-506	Intellectual Property Management	PCC	3	2	1	0	2	0	20-35	-	20-30	40-50	-
4	IMN-508	Process Innovation Management	PCC	2	2	0	0	2	0	20-35	-	20-30	40-50	-
5	IMN-510	Product Innovation Management	PCC	2	2	0	0	2	0	20-35	-	20-30	40-50	-
6	IMN-512	Innovative Services and Business Models	PCC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
7	IMN-514	Financing and Marketing of Innovation	PCC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
Sub Total				18										

II Year: Autumn Semester

Teaching Scheme					Contact Hrs Per Week			Exam Duration		Relative Weightage%				
S. No.	Course Code	Course Title	Subject Area	Credits	L	T	P	T	P	CWS	PRS	MTE	ETE	PRE
1	IMN-601	Summer Training	SEM	3	-	-	-	-	-	-	-	-	100	-
2	IMN-602	Project	RP	2	-	-	-	-	-	-	-	-	100	-
3		Elective I	PEC	3	-	-	-	-	-	-	-	-	-	-
4		Elective II	PEC	3	-	-	-	-	-	-	-	-	-	-
5		Elective III	PEC	3	-	-	-	-	-	-	-	-	-	-
6		Elective IV	PEC	3	-	-	-	-	-	-	-	-	-	-
7		Elective V	PEC	3	-	-	-	-	-	-	-	-	-	-
	Sub Total			20										

II Year: Spring Semester

Teaching Scheme					Contact Hrs Per Week			Exam Duration		Relative Weightage%				
S. No.	Course Code	Course Title	Subject Area	Credits	L	T	P	T	P	CWS	PRS	MTE	ETE	PRE
1	IMN-603	Project (Continued from Sem III)	RP	18	-	-	-	-	-	-	-	-	100	-
	Sub Total			18										
	Grand Total			74										

List of Elective Courses for MIM (Masters in Innovation Management):

S. No.	Course Code	Subject Name	Credit	L	T	P	Exam Dur. (Hrs)		Relative Weightage (%)				
							T	P	CWS	PRS	MTE	ETE	PRE
1	IMN-521	IP Portfolio Management	3	2	1	0	2	0	20-35	-	20-30	40-50	-
2	IMN-522	Intellectual Value and Corporate Value Creation	3	2	1	0	2	0	20-35	-	20-30	40-50	-
3	IMN-523	Licensing and Commercialization of IP	3	2	1	0	2	0	20-35	-	20-30	40-50	-
4	IMN-524	Diffusion of Innovations in Social networks	3	2	1	0	2	0	20-35	-	20-30	40-50	-
5	IMN-525	Design for Extreme Affordability	3	2	1	0	2	0	20-35	-	20-30	40-50	-

*** All the elective subjects for M.Des Course are also available for the students of MIM as PECs.**