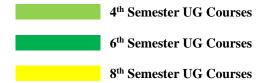# APPENDIX K

Time Table

Department
of
Material Science and Engineering

for

B.Tech (2nd Year Onwards)
M.Tech
Ph.D

MSE Department
4th / 6th / 8th and PG (even) Semester Time Table
Section for 4th Semester Courses MSE: D5, D6, D7(25)

Day	Semester	8:00-8:50	9:00-9:50	10:00-10:50	11:00-11:50	12:00-12:50	14:00-14:50	15:00-15:50	16:00-16:50	17:10-18:00
M	4th	HSS-I		MSE202 (L)		MSE205 (L)				ESC201 (L)
	6th		MSE306 (L)	HSS-II (1)	OE (T) / HSS-II (2)		MSE353 LAB. (G1) [14:00 – 16:50] / MSE360 LAB. (G2) [14:00 – 16:50] / TA211 (TA201A#)			OE-2 [17:10 – 18:25] MSE616
	8th	DE-4 OE-4	OE-1 MSE667	DE-9 OE-9 / DE (T)	DE-10 OE-10	DE-1 [12:00 – 13:15] MSE604 TA201A#	DE-7 OE-7 [14:00 – 15:15] MSE638		DE-8 OE-8 [15:35 – 16:50] MSE643	
	10th / PG	PG-15	PG-7	PG-1 PG (T) MSE617	PG-2 MSE888	PG-4 MSE647 MSE204A#	PG-10	PG-11		PG-8 17:10 – 18:25
T	4th	HSS-I		MSE202 (T)	MSE203(L)		MSE251 LAB / MSE353 LAB. (G2) [14:00 – 16:50] / MSE360 LAB. (G1) [14:00 – 16:50]			ESC201 (T)
	6th					DE-3 [12:00 – 13:15] MSE624 MSE676				OE-3 [17:10 – 18:25] MSE631 ESO205A#(L)
	8th	DE-12	DE-1 (L) [9:00 – 10:15] MSE604	DE-2 [10:35 – 11:50] MSE639 MSE684			DE-5 OE-5 [14:00 – 15:15] MSE648		DE-6 OE-6 [15:35 – 16:50]	
	10th / PG	PG-14	PG-4 MSE647	PG-5 MSE677		PG-6	PG-12	PG-13	PG LAB.	PG-9 [17:10 – 18:25]
W	4th	HSS-I		MSE202 (L)	MSE203(L)	MSE205 (L)	ESC201 LAB. [D5] [14:00 – 16:50]			ESC201 (L)
	6th		MSE306 (L)	HSS-II (1)	OE (T) / HSS-II (3)	DE-3 [12:00 – 13:15] MSE624 MSE676	TA211 (TA201A#)			OE-2 [17:10 – 18:25] MSE616
	8th	DE-4 OE-4	OE-1 MSE667	DE-9 OE-9 / DE (T)	DE-11 OE-11		DE-7 OE-7 [14:00 – 15:15] MSE638		DE-8 OE-8 [15:35 – 16:50] MSE643	
	10th / PG	PG-15	PG-7	PG-1 PG (T) MSE617	PG-3	PG-6	PG-10	PG-11	PG LAB.	PG-8 17:10 – 18:25
TH	4th	HSS-I			MSE203 (T)	MSE205 (T)	MSE251 LAB			ESC201 (L)
	6th			HSS-II (2) DE-10 OE-10	HSS-II (3) DE-11 OE-11		MSE360 LAB. (G2) [14:00 – 16:50] ESO205A# Lab			OE-3 [17:10 – 18:25] MSE631 ESO205A#(L)
	8th	DE-12	OE (T) DE (T)			DE-2 [12:00 – 13:15] MSE639 MSE684	DE-4 OE-4			
	10th / PG	PG-14	PG-4 PG (T) MSE204A#	PG-2 MSE888 MSE300A#	PG-3	PG-5 MSE677	PG-15	PG-10	PG-11	PG-9 [17:10 – 18:25]
F	4th	DE-12		MSE202 (L)	MSE203(L)		ESC201 LAB. [D6, D7)] [14:00 – 16:50]			
	6th		MSE306 (L)	HSS-II (2) DE-10 OE-10	HSS-II (3) DE-11 OE-11	HSS-II (1) DE-9 OE-9 / DE (T) OE (T)	MSE360 LAB. (G1) [14:00 – 16:50]			OE (T) DE (T)
	8th		OE-1 MSE667				DE-5 OE-5 [14:00 – 15:15] MSE684 MSE648		DE-6 OE-6 [15:35 – 16:50]	
	10th / PG	PG-14	PG-7	PG-2	PG-3	ESO205A# (T) PG-1 PG (T) MSE617	PG-12	PG-13 / PG LAB.		PG-9 PG (T)

Legend:

- 4th Semester UG Courses
- 6th Semester UG Courses
- 8th Semester UG Courses

DE, OE and PG courses to be scheduled by the Department in the respective slots provided and strictly as per given instructions.

Even Semester: Slot Assignments

OE-1:	Lec. MWF9:00 – 10:15;
OE-2:	Lec. MW17:10 – 18:25;
OE-3:	Lec. TTh17:10 – 18:25;
OE-4:	Lec. MW8:00, Th14:00;
OE-5:	Lec. TF14:00 – 15:15;
OE-6:	Lec. TF15:35 – 16:50;
OE-7:	Lec. MW14:00 – 15:15;
OE-8:	Lec. MW15:35 – 16:50;
OE-9*:	Lec. MW10:00, F12:00
OE-10:	Lec. M11:00, ThF10:00
OE-11	Lec. WThF11:00
OE (T):	Tut. MW10:00, (Th9:00, F12:00; F17:10) **Any one of them**
DE-1:	Lec. M12:00; T9:00;
DE-2:	Lec. T10:35, Th12:00 ;
DE-3:	Lec. T12:00, W12:00;
DE-4:	Lec. MW8:00, Th14:00;
DE-5:	Lec. TF14:00;
DE-6:	Lec. TF15:35;
DE-7:	Lec. MW14:00;
DE-8:	Lec. MW15:35;
DE-9*:	Lec. MW10:00, F12:00
DE-10:	Lec. M11:00, ThF10:00
DE-11:	Lec. WThF11:00
DE-12:	Lec. TThF 8:00;
DE (T):	Tut. MW10:00, (Th9:00, F12:00; F17:10) **Any one of them**

*OE-9, DE-9 Clashes with HSS-II (1) and OE(T) and DE (T) Slots

PG-1*:	MW10:00, F12:00;
PG-2:	M11:00, ThF10:00;
PG-3:	WThF11:00;
PG-4*: (4-hr Slot)	M12:00-13:15; T9:00-10:15; Th9:00;
PG-5:	T10:35-11:50, Th12:00-13:15;
PG-6:	T12:00-13:15, W12:00-13:15;
PG-7:	MWF9:00;
PG-8:	MW17:10-18:25;
PG-9*: (4-hr. Slot)	TTh17:10-18:25; F17:10
PG-10: (4-hr Slot)	MW14:00-15:15; Th15:00
PG-11: (4-hr Slot)	MW15:35-16:50; Th16:00
PG-12:	TF14:00-15:15;
PG-13:	TF15:35-16:50;
PG-14:	TThF8:00;
PG-15:	MW8:00, Th14:00;
PG (T):	Tut. MW10:00, (Th9:00, F12:00; F17:10) **Any one of them**
PG LAB.:	TWF14:00

 *PG-1Clashes with PG(T) Slots; 4th hour of PG-4 and PG-9 Clashes with PG (T) Slots

OE: Open Elective/Minor Course Slots;

OE (T): Open Elective Tutorial Slots;

DE: UG Departmental Elective Slots;

DE (T): Departmental Elective Tutorial Slots;
PG: PG Slots;
PG(T): PG Slots that can be used for PG tutorials
HSS-II: Humanities Courses;
PG LAB.:PG Laboratory Slots;

Department of Material Science and Engineering: Schedule of Even Semester Courses

UG Compulsory Courses (D)

S. No.	Course No.	L-T-P-A (Units)	Course Title	Instructor	Slot	Lecture	Tutorial	Laboratory
1.	MSE202*	3-1-0-0 (11)	Rate Processes	Arunabh Meshram @arunabhm	4-1	MWF10:00	T10:00	--
2.	MSE203*	3-1-0-0 (11)	Structure and Characterization of Materials	Nilesh P. Gurao @npgurao	4-3	TWF11:00	Th11:00	--
3.	MSE205*	2-1-0-0 (08)	Physics Of Materials	Monica Katiyar @mk	3-1-1	MW12:00	Th12:00	--
4.	MSE251*	0-0-3-0 (03)	Physical Metallurgy And Materials Characterization Laboratory	Sudhanshu S. Singh @sudhanss				TTh 14:00
5.	MSE306*	3-0-0-0 (09)	Iron Making & Steel Making	Rahul Sarkar rsarkar@iitk.ac.in	OE-1	MWF9:00	--	--
6.	MSE353*	0-0-3-0 (03)	Instrumentation for Materials Engg. Lab	Sandeep Sangal @sangals + Somnath Bhowmick @bsomnath + Tanmoy Maiti @tmaiti + Sarang Ingole @sarang	--	--	--	M/W14:00 **[Wednesday slot moved to Tuesday, to accommodate ESO207 students]**
8.	MSE360*	0-0-6-0 (06)	Capstone Project Laboratory	Shashank Shekhar @shashank + Shikhar Mishra @shikharm	--	--	--	MWThF14:00 **[Wednesday slot moved to Tuesday, to accommodate ESO207 students]**
9.	TA211	0-0-3-0 (03)	Introduction to Manufacturing	Kallol Mondal @kallol				MW 14:00
10.	MSE497		UGP-2	DUGC				
11.	MSE498		UGP-3	DUGC				
			For students from old UGARC having backlogs					
12.	MSE300A#	0-0-0-2 (02)	Professional and Technical Communication	Kantesh Balani @kbalani		PG-2 Th10:00 (once a week only)		
13.	MSE204A#	2-0-0-0 (06)	Introduction to Biomaterials	Kantesh Balani @kbalani		PG-4 (twice a week only) M12:00 Th9:00		
14.	TA201A#	1-0-3-0 (06)	Manufacturing Processes I	Kallol Mondal @kallol		DE1 M12:00 (once a week only)		MW 14:00
15.	ESO205A#	3-1-3-0 (14)	Nature and Properties of Materials	Anish Upadhyaya @anishu		OE-3 TTh17:10–18:25	F12:00	Th 14:00

 # For back loggers only. MSE300A runs with MSE888; TA201A runs with TA211

*These courses will be offered for B.Tech and BS Y22 Batch only.

UG Departmental Electives (DE)
[List all Courses (including OE and PG courses) declared as Departmental Electives]

S. No.	Course No.	L-T-P-A (Units)	Course Title	Instructor	Slot
1	MSE604	3-0-0-0 (09)	Science and Technologies Thin Films and Device Fabrication	Anshu Gaur @agaur	DE-1 M12:00; T9:00
2	MSE624	3-0-0-0 (09)	Energy Materials and Technologies	Sarang Ingole @sarang	DE-3 T12:00, W12:00
3	MSE631	3-0-0-0 (09)	Electroceramic Materials and Applications	Shobit Omar @somar	OE-3 TTh17:10 – 18:25
4	MSE638	3-0-0-0 (09)	Symmetry and Properties of Crystals	Sandeep Sangal @sangals	DE/OE-7 MW14:00
5	MSE639	3-0-0-0 (09)	Interfaces and Material Properties	Rajdip Mukherjee @rajdipm	DE-2 T10:35, Th12:00
6	MSE676	3-0-0-0 (09)	Materials Failure Analysis and Prevention	Srinu Gangolu @srinu	DE-3 T12:00, W12:00
7	MSE667	3-0-0-0 (09)	Selection and Design of Engineering Materials	Niraj M. Chawake @nchawake	OE-1 MWF9:00 – 9:50
8	MSE647	3-0-0-0 (09)	Advanced Secondary Steelmaking and Special Steelmaking	Amarendra K. Singh @amarendra	PG-4 M12:00-13:15, T9:00-10:15
9	MSE684	3-0-0-0 (09)	Introduction to Semiconductor Packaging	Nilesh Badwe @nbadwe	DE-2 T10:35, Th12:00
10	MSE677	3-0-0-0 (09)	Field Emission and Atom Probe Tomography	Krishanu Biswas @kbiswas	PG-5 T10:35-11:50, Th12:00-13:15
11	MSE648	3-0-0-0 (09)	Diffusion in Solids	Kaustubh Kulkarni @kkaustub	DE/OE-5 TF14:00 – 15:15
12	MSE643	3-0-0-0 (09)	Artificial Intelligence and Machine Learning in Materials Engineering	Krishanu Biswas @kbiswas	DE/OE-8 MW15:35 – 16:50

Department of Material Science and Engineering: Schedule of Even Semester Courses

UG Open Electives (OE)
[List All Courses (Including D, DE and PG Courses) Declared as Open Elective]

S. No.	Course No.	L-T-P-A (Units)	Course Title	Instructor	Slot
1	MSE604	3-0-0-0 (09)	Science and Technologies Thin Films and Device Fabrication	Anshu Gaur @agaur	DE-1 M12:00; T9:00
2	MSE624	3-0-0-0 (09)	Energy Materials and Technologies	Sarang Ingole @sarang	DE-3 T12:00, W12:00
3	MSE631	3-0-0-0 (09)	Electroceramic Materials and Applications	Shobit Omar @somar	OE-3 TTh17:10 – 18:25
4	MSE638	3-0-0-0 (09)	Symmetry and Properties of Crystals	Sandeep Sangal @sangals	DE/OE-7 MW14:00
5	MSE639	3-0-0-0 (09)	Interfaces and Material Properties	Rajdip Mukherjee @rajdipm	DE-2 T10:35, Th12:00
6	MSE676	3-0-0-0 (09)	Materials Failure Analysis and Prevention	Srinu Gangolu @srinu	DE-3 T12:00, W12:00
7	MSE667	3-0-0-0 (09)	Selection and Design of Engineering Materials	Niraj M. Chawake @nchawake	OE-1 MWF9:00 – 9:50
8	MSE647	3-0-0-0 (09)	Advanced Secondary Steelmaking and Special Steelmaking	Amarendra K. Singh @amarendra	PG-4 M12:00-13:15, T9:00-10:15
9	MSE684	3-0-0-0 (09)	Introduction to Semiconductor Packaging	Nilesh Badwe @nbadwe	DE-2 T10:35, Th12:00
10	MSE677	3-0-0-0 (09)	Field Emission and Atom Probe Tomography	Krishanu Biswas @kbiswas	PG-5 T10:35-11:50, Th12:00-13:15
11	MSE648	3-0-0-0 (09)	Diffusion in Solids	Kaustubh Kulkarni @kkaustub	DE/OE-5 TF14:00 – 15:15

| 12 | MSE643 | 3-0-0-0 (09) | Artificial Intelligence and Machine Learning in Materials Engineering | Krishanu Biswas @kbiswas | DE/OE-8 MW15:35 – 16:50 |

UG Minors [List All Courses (including D, DE, OE and PG courses) Declared as Minor]					
S. No.	Course No.	L-T-P-A (Units)	Course Title	Instructor	Slot
			Devices and Bio-Engineering Stream		
1	MSE604	3-0-0-0 (09)	Science and Technologies Thin Films and Device Fabrication	Anshu Gaur @agaur	DE-1 M12:00; T9:00
2	MSE624	3-0-0-0 (09)	Energy Materials and Technologies	Sarang Ingole @sarang	DE-3 T12:00, W12:00
3	MSE631	3-0-0-0 (09)	Electroceramic Materials and Applications	Shobit Omar @somar	DE/OE-7 MW14:00
			Structure-Characterization-Property Stream		
4	MSE638	3-0-0-0 (09)	Symmetry and Properties of Crystals	Sandeep Sangal @sangals	DE/OE-7 MW14:00
5	MSE639	3-0-0-0 (09)	Interfaces and Material Properties	Rajdip Mukherjee @rajdipm	DE-2 T10:35, Th12:00
6	MSE676	3-0-0-0 (09)	Materials Failure Analysis and Prevention	Srinu Gangolu @srinu	DE-3 T12:00, W12:00
			Metals Processing Stream		
7	MSE667	3-0-0-0 (09)	Selection and Design of Engineering Materials	Niraj M. Chawake @nchawake	OE-1 MWF9:00 – 9:50
8	MSE647	3-0-0-0 (09)	Advanced Secondary Steelmaking and Special Steelmaking	Amarendra K. Singh @amarendra	PG-4 M12:00-13:15, T9:00-10:15

Department of Material Science and Engineering: Schedule of Even Semester Courses

S. No.	Course No.	L-T-P-A (Units)	Course Title	Instructor	Slot
	PG Courses [List all PG courses, including those declared DE, OE or part of minor]				
	Following courses are PG Compulsory (NOT open to UGs)				
1	MSE616	3-0-0-0 (09)	Thermodynamics of Materials	Raghupathy Yuvaraj @raghu	OE-2 MW17:10 – 18:25
2	MSE617	3-0-0-0 (09)	Mathematics and Computational Methods	Shivam Tripathi @shivamt	PG1 MW10:00, F12:00
3	MSE888	2-0-0-0 (06)	Introduction to Professional and Communication Skills	Kantesh Balani @kbalani	PG-2 (twice a week only) M11:00, Th10:00
4	MSE801	0-0-0-0	Seminar Participation	Tanmoy Maiti @tmaiti + Vivek Verma @vverma + Amarendra K. Singh @amarendra	PG-9 TTh17:10-18:25
5	MSE699		MTech Thesis		
6	MSE799		PhD Thesis		
	Following PG Courses are open to UGs				
4	MSE604	3-0-0-0 (09)	Science and Technologies Thin Films and Device Fabrication	Anshu Gaur @agaur	DE-1 M12:00; T9:00
5	MSE624	3-0-0-0 (09)	Energy Materials and Technologies	Sarang Ingole @sarang	DE-3 T12:00, W12:00
6	MSE631	3-0-0-0 (09)	Electroceramic Materials and Applications	Shobit Omar @somar	OE-3 TTh17:10 – 18:25
7	MSE638	3-0-0-0 (09)	Symmetry and Properties of Crystals	Sandeep Sangal @sangals	DE/OE-7 MW14:00
8	MSE639	3-0-0-0 (09)	Interfaces and Material Properties	Rajdip Mukherjee @rajdipm	DE-2 T10:35, Th12:00
9	MSE676	3-0-0-0 (09)	Materials Failure Analysis and Prevention	Srinu Gangolu @srinu	DE-3 T12:00, W12:00
10	MSE667	3-0-0-0 (09)	Selection and Design of Engineering Materials	Niraj M. Chawake @nchawake	OE-1 MWF9:00 – 9:50
11	MSE647	3-0-0-0 (09)	Advanced Secondary Steelmaking and Special Steelmaking	Amarendra K. Singh @amarendra	PG-4 M12:00-13:15, T9:00-10:15
12	MSE684	3-0-0-0 (09)	Introduction to Semiconductor Packaging	Nilesh Badwe @nbadwe	DE-2 T10:35, Th12:00
13	MSE677	3-0-0-0 (09)	Field Emission and Atom Probe Tomography	Krishanu Biswas @kbiswas	PG-5 T10:35-11:50, Th12:00-13:15
14	MSE648	3-0-0-0 (09)	Diffusion in Solids	Kaustubh Kulkarni @kkaustub	DE/OE-8 MW15:35
15	MSE643	3-0-0-0 (09)	Artificial Intelligence and Machine Learning in Materials Engineering	Krishanu Biswas @kbiswas	DE/OE-4 MW8:00, Th14:00

General Instructions:

The timings of UG compulsory, some UG elective (DE/OE/Minor courses) and some PG (including M.Sc/MS) courses are fixed and cannot be changed by the department

Other courses being offered by the department may be scheduled only in the slots provided for this purpose, after due consideration to the schedules of the fixed courses.

The forms above should be filled before pre-registration for a semester and submitted to the OARS office. The information provided will be transferred to OARS before the pre-registration date.

No course shall be scheduled except in the slots provided. A course for which no slot is specified or a course which is not scheduled appropriately in a slot will not be listed in OARS. **This is absolutely essential to ensure that mid semester and end semester examination time tables can be generated based on the time table.**

Instructions for Scheduling DE Courses

1. All declared DE (departmental elective) courses (including PG courses declared as DE) must be scheduled preferably in DE-1, DE-2 and DE-3 slots.

2. If indicated in the departmental time table, slots DE-4 to DE-11 may also be used for scheduling DE courses.

3. If required, a department may schedule more than one DE course in each of the assigned DE slots.

4. All declared DE courses must be scheduled as above, **unless it has also been declared an OE* or part of a minor**.

5. If allowed by the department, students may also take departmental courses not declared as DE to fulfill the departmental elective requirements. Such courses need not necessarily be scheduled in the DE slots.

Instructions for Scheduling OE or Minor Courses

All UG or PG courses (other than UG core and ESO/SO courses) **which have been declared an OE or part of a minor,** by the department must be scheduled preferably in the OE-1 – OE-3 slots of the time table. OE-4 to OE-11 may be used as a second preference if so indicated in the time table. OE/Minor courses include the following type of courses,

- **Departmental UG Compulsory Course (D)** which has also been declared an OE or part of a minor.

- **Departmental PG Course (PG)** which has also been declared an OE or part of a minor.

- **Departmental UG Elective course (DE)** which has also been declared an OE or part of a minor.

- **Departmental UG Course which is not a D or DE** but which has been declared an OE or part of a minor.

*OE or Minor: These are courses for which it has been declared that students from other departments can register.

(*Students from other departments can also register in courses which have **not** been declared as OE with the consent of the instructor. Such courses (which have not been declared as OE) need not be scheduled in the OE slot*).

Instructions for Scheduling PG Courses

1. PG courses declared as OE or part of a minor to be scheduled in OE slot.

2. PG courses declared as DE must be scheduled in DE slot unless also declared OE or part of a minor.

Other PG courses must be scheduled as follows,

- For the benefit of dual degree students, 1st year M. Tech./M.Sc/MS courses must be scheduled only in the specific PG slots indicated for this purpose in the time table.

- Other PG courses can be scheduled in all indicated PG slots in the time table.

- PG laboratories must be scheduled only in the slots indicated in the time table.

-     If required, more than 1 PG course/lab may be scheduled in each PG slot.

AY 2024-25 Sem-2

Tutors/Instructors for IC from MSE Dept.

	Course	Tutors	Instructor	Email of instructor
1	**TA111 Engineering Graphics**	Names of Student Tutors will be provided at the beginning of semester		
2	**TA211 Introduction to Manufacturing (Lab course)**	Prof. Kallol Mondal Prof. Rajiv Shekhar	Prof. Kallol Mondal	kallol@iitk.ac.in
3	**ETH111 Practical Ethics**		Prof. Vivek Verma	vverma@iitk.ac.in