



भारतीय प्रौद्योगिकी संस्थान मुंबई
INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
पवई / Powai, मुंबई / Mumbai 400 076



Date of Issue : 10-August-2023 , liable to change since student has not yet graduated

Roll Number: 200010034 Academic Unit: Aerospace Engineering
Name of the Student: Isha Mukherjee
Programme: Bachelor of Technology (B.Tech.) Joining Month & Year: November 2020

Code	Name	Credits	Tag	Grade/ Marks	Code	Name	Credits	Tag	Grade/ Marks
Academic Year: 2020 - 2021, Term: Semester Autumn									
CH 105	Organic & Inorganic Chemistry	4.0	MA	BC	MA 111	Calculus II	4.0	MA	BC
CH 107	Physical Chemistry	4.0	MA	BB	ME 119	Engineering Graphics & Drawing	5.0	MA	AA
CS 101	Computer Programming and Utilization	6.0	MA	BC	NOCS01	NCC/NSS/NSO	0.0	MA	PP
MA 109	Calculus I	4.0	MA	BC	PH 107	Quantum Physics and Application	6.0	MA	CC
SPI= 7.39/10					CPI= 7.39/10				
Academic Year: 2020 - 2021, Term: Semester Spring									
AE 102	Data Analysis and Interpretation	6.0	MA	BC	MA 108	Differential Equations	4.0	MA	BC
AE 152	Introduction to Aerospace Engg.	6.0	MA	BB	NOCS02	NCC/NSS/NSO	0.0	MA	PP
BB 101	Biology	6.0	MA	CC	PH 108	Basics of Electricity & Magnetism	6.0	MA	AB
MA 106	Linear Algebra	4.0	MA	BC					
SPI= 7.38/10					CPI= 7.38/10				
Academic Year: 2021 - 2022, Term: Semester Autumn									
AE 223	Thermodynamics and Propulsion	6.0	MA	AA	GNR401	Remote sensing and Image Processing	6.0	MA	AA
AE 225	Incompressible Fluid Mechanics	6.0	MA	BB	HS 101	Economics	6.0	MA	AB
AE 227	Solid Mechanics	6.0	MA	BB	MA 207	Differential Equations II	4.0	MA	AB
EE 101	Introduction to Electrical and Electronics Circuits	8.0	MA	AB					
SPI= 9.00/10					CPI= 8.02/10				
Academic Year: 2021 - 2022, Term: Semester Spring									
AE 219	Supervised Learning	6.0	MA	AA	AE 240	Spaceflight Mechanics	6.0	MA	AA
AE 234	Aircraft Propulsion	6.0	MA	BB	AE 242	Aerospace Measurements Laboratory	6.0	MA	AA
AE 236	Compressible Fluid Mechanics	6.0	MA	AA	GNR408	Mini Project	6.0	MA	AA
AE 238	Aerospace Structural Mechanics	6.0	MA	AB	MA 214	Introduction to Numerical Analysis	8.0	MA	CD
SPI= 8.84/10					CPI= 8.28/10				
Academic Year: 2022 - 2023, Term: Semester Autumn									
AE 308	Control Theory	6.0	MA	AA	AE 419	Supervised Learning	6.0	MA	AB
AE 314	Aircraft Structures Laboratory	5.0	MA	AA	AE 651	Aerodynamics of Compressors and Turbines	6.0	HO	BC
AE 326	Vibrations and Structural Dynamics	6.0	MA	BB	GC 101	Gender in the workplace	0.0	MA	NP
AE 330	Aerospace Propulsion	6.0	MA	BC	HS 307	Sociology	6.0	MA	AB
AE 333	Aerodynamics	6.0	MA	BB	TA 101	Teaching Assistant Skill Enhancement & Training (TASET)	0.0	MA	PP
SPI= 8.68/10					CPI= 8.36/10				

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Name of the Student: Isha Mukherjee

Roll Number : 200010034

Code	Name	Credits	Tag	Grade/ Marks	Code	Name	Credits	Tag	Grade/ Marks
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Academic Year: 2022 - 2023, Term: Semester Spring

AE 305 Flight Mechanics II	6.0	MA	AA	AE 427 Control Systems Laboratory	5.0	MA	AB
AE 312 Aerodynamics Laboratory	5.0	MA	AB	AE 493 BTP - I	6.0	HO	AA
AE 316 Aircraft Propulsion Laboratory	5.0	MA	AB	AE 667 Rotary Wing Aerodynamics	6.0	MA	AB
AE 332 Aircraft Design	6.0	MA	AA	GC 101 Gender in the workplace	0.0	MA	PP
SPI=9.36/10				CPI=8.51/10			

Mandatory Course Credits (MA)	= 231.0	Overall CPI	= 8.51/10
Overall Credits Completed	= 243.0		
Overall Grade Points	= 2067.0		

Current Status

The academic requirements for the degree are yet to be completed.

Signature & Seal of Transcript Issuing Authority:

Joint/Assistant Registrar (Academic), IIT Bombay

Date: 10-August-2023

Place: Mumbai

General Information

The medium of instruction at the Institute is English.

Course credits and grade: Each course is associated with credits which are an indicator of its relative weight in calculating the academic performance. A two-letter grade is awarded to students on the basis of their performance in examinations and assignments of a specific course. The letter grades have numerical equivalents on a 0-10 scale as given below.

Letter Grade	AP	AA	AB	BB	BC	CC	CD	DD	FF	FR	W	DX	PP	NP	AU
Numerical Equivalent	10	10	9	8	7	6	5	4	0	0	-	-	-	-	-

FF: Fail, FR: Fail and repeat, W: Withdrawn, DX: Insufficient attendance, AU: Satisfactory performance in an audit course, PP: Pass, NP: Not Pass. The minimum passing grade in a course is DD. The grade AP is awarded to students with exceptional performance in core courses of a programme. Numerical equivalents of letter grades are referred to as grade points.

The numerical grade points are not convertible into marks or percentages.

Performance Indicators: The performance of a student in a semester is given by a number called the Semester Performance Index (SPI), which is the weighted average of the earned grade points in the courses during the semester.

If a student has courses with credits C_1, C_2, \dots, C_n , with grade points of G_1, G_2, \dots, G_n respectively, then

Semester Credits = $C_1 + C_2 + \dots + C_n$	Semester Grade Points = $C_1G_1 + C_2G_2 + \dots + C_nG_n$	SPI = Semester Grade Points ÷ Semester Credits
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Cumulative Performance Index (CPI) is the weighted average of the grade points in the courses in all semesters. The indices SPI and CPI are calculated upto two decimal places.

Courses are tagged as MA: Mandatory (Core/Elective), MI: Minor, HO: Honours, AL: Additional Learning, AU: Audit

- Each degree programme has mandatory credits consisting of core courses, elective courses, and non credit courses. These courses are tagged as MA.
- For calculation of SPI and CPI, grades obtained only in mandatory courses (MA) are considered.
- Students can supplement the learning experience by crediting additional courses. Credits earned in these courses, when appropriate, can earn additional credentials either in the form of "Honours" (HO) in the chosen discipline or "Minor" (MI) in another discipline or both.
- "Honours" is not indicative of proficiency, and can be earned by completing the additional prescribed set of advanced core and elective courses in the chosen discipline. "Minor" can be earned by completing the prescribed set of courses in a discipline other than the chosen discipline. Additional courses that are not used for earning "Honours" or "Minor" are tagged as "Additional Learning" (AL).
- The AU is awarded based on satisfactory attendance and fulfilling the minimum requirements as set by the course instructor. It carries no grade points and does not figure in SPI or CPI calculations.
- PP or NP is awarded in some credit courses that are not earmarked with a letter grade. Correspondingly, PP/NP does not carry a grade point.
- O-IITB is/are the Course(s) completed by a student outside IIT Bombay (NPTEL/ Swayam/ Semester Exchange). These course(s) contribute towards the completion of credits for a degree requirement. However, grades/marks earned for such course(s) is/are not considered for SPI / CPI calculation.

The Institute does not award any class or division. Notionally, the CPI may be multiplied by a factor of 10 to obtain a numerical percentage.

The veracity of this document can be ascertained by using the verification ticket number in the URL given at the bottom of this page.

END OF TRANSCRIPT

Roll Number : 200010034