Jaypee University, Anoopshahr

Bachelor of Science (BSc) (H) Maths
Course Curriculum

(Applicable to batches admitted in 2024-25)

Faculty of Mathematical and Physical Sciences

BSc -2024-27/28 Batch
As per UGC FYUGP Guidelines Dec 2022

First Semester									
		Course		Contact Hours					Course Type Univ.
Sr.No	Category	Code	Name	L	T	P	Total	Credit	
1	DSCC	24H11MA101	Real Analysis	3	1	0	4	4	Core
2	DSCC	24H11MA102	Abstract Algebra	3	1	0	4	4	Core
3	SEC	24H17ME161	Mechanical Design and Prototyping	0	1	4	5	3	Core
4	VAC	24H11GE101	Constitution and Development	3	0	0	3	3	Core
5	MSC	24H11PH101	Mechanics	3	0	2	5	4	Core
6	AEC	24H11HS103	Fundamentals of Communication	2	0	0	2	2	Core
Total				16	1	6	23	20	

Second Semester									
		Course		Contact Hours					Course Type univ.
Sr.No	Category	Code	Name	L	T	P	Total	Credit	
1	DSCC	24H11MA201	Linear Algebra	3	1	0	4	4	Core
2	DSCC	24H11MA202	Calculus	3	1	0	4	4	Core
3	SEC	24H11HS211	English Enhancement-I	3	0	0	3	3	Core
4	VAC	24H11VA103	Yoga and Wellness	2	0	0	2	2	Core
5	MSC	24H11CS202	Computer Application	3	0	0	2	3	Core
6	AEC	24H11BB206	Business Communication	3	0	0	3	3	Core
7	MSC	24H17CS263	Computer Application Lab	0	0	2	2	1	Core
Total				**13**	**2**	**8**	**24**	**20**	

Third Semester

		Course		Contact Hours					Course Type univ.
Sr.No	**Category**	**Code**	**Name**	**L**	**T**	**P**	**Total**	**Credit**	
1	DSCC	24H11MA301	Probability and Statistics	4	0	0	4	4	Core
2	DSCC	24H11MA302	Multivariate Calculus	4	0	0	4	4	Core
3	SEC	24H11PH303	Basic Electronics	3	0	0	3	3	Core
4	VAC	24H11GE301	Environmental Science	3	0	0	3	3	Core
6	MSC	23H17CA303	Python Programming	3	0	0	3	3	Core
7	AEC	24H11HS306	English Enhancement-II	2	0	0	2	2	Core
8	DSCC	24H17PH362	Basic Electronics Lab	0	0	2	2	1	Core
9	MSC	23H17CA393	Python Programming Lab	0	0	2	2	1	Core
Total				**19**	**0**	**4**	**23**	**21**	

Fourth Semester

		Course		Contact Hours					Course Type univ.
Sr.No	**Category**	**Code**	**Name**	**L**	**T**	**P**	**Total**	**Credit**	
1	DSCC	24H11MA401	Differential Equations	4	0	0	4	4	Core
2	DSCC	24H11MA402	Numerical Methods	3	0	0	3	3	Core
3	DSCC	24H11MA616	Complex Analysis	4	0	0	4	4	Core
4	MDC	24H11PH404	Digital Electronics	2	0	0	2	2	Core
5	MSC	24H11PH403	Electromagnetic theory	3	1	0	4	4	Core
6	AEC	24H11HS406	Academic Writing	2	0	0	2	2	Core
7	MDC	24H17PH464	Digital Electronics Lab	0	0	2	2	1	
8	MSC	24H11MA462	Numerical Methods Lab	0	0	2	2	1	Core
Total				**18**	**1**	**4**	**23**	**21**	

Internship

		Course		Contact Hours					Course Type univ.
Sr.No	**Category**	**Code**	**Name**	**L**	**T**	**P**	**Total**	**Credit**	
1	DSCC	24H19GE491	Internship	-	-	-	-	4	Core
			Total					**4**	

Fifth Semester									
		Course		Contact Hours					Course Type univ.
Sr.No	**Category**	**Code**	**Name**	**L**	**T**	**P**	**Total**	**Credit**	
1	DSCC	24H11MA501	Ring Theory	4	0	0	4	4	Core
2	DSCC	24H11MA502	Partial Differential Equations	4	0	0	4	4	Core
3	DSE	xxxx	DSE-I	4	0	0	4	4	Elective
4	MDC	24H11BB511	Intellectual Property Rights	3	0	0	3	3	Core
5	MSC	xxxx	MSC-I	4	0	0	4	4	Elective
6	DSCC	24H11MA562	Partial Differential Equations-Lab	0	0	2	2	1	core
Total				**19**	**0**	**2**	**20**	**20**	

Sixth Semester									
		Course		Contact Hours					Course Type univ.
Sr.No	**Category**	**Code**	**Name**	**L**	**T**	**P**	**Total**	**Credit**	
1	DSE	xxxxx	Group Theory	4	0	0	4	4	core
2	DSE	xxxx	DSE-II	4	0	0	4	4	Elective
3	DSE	xxxxx	Metric Space	4	0	0	4	4	core
4	MSC	xxxxx	MSC-II	4	0	0	4	4	Elective
5	Core	24H19MA681	Project	0	0	8	8	4	Core
Total				16	0	8	24	20	

Seventh Semester									
		Course		Contact Hours					Course Type univ.
Sr.No	Category	Code	Name	L	T	P	Total	Credit	
1	DSE	xxxx	DSE-III	4	0	0	4	4	Elective
2	DSE	xxxx	DSE-IV	4	0	0	4	4	Elective
3	DSE	xxxx	DSE-V	4	0	0	4	4	Elective
4	MSC	xxxx	MSC-IV	4	0	0	4	4	Elective
5	Core	24H19MA781	Research Project-I	0	0	8	8	4	Core
Total				16	0	8	24	20	

Eighth Semester									
		Course		Contact Hours					Course Type univ.
Sr.No	Category	Code	Name	L	T	P	Total	Credit	
1	DSE	xxxx	DSE-VI	4	0	0	4	4	Elective
2	DSE	xxxx	DSE-VII	4	0	0	4	4	Elective
3	MSC	xxxx	MSC-VII	4	0	0	4	4	Elective
4	Core	24H19MA881	Research Project-II	0	0	16	16	8	Core
Total				12	0	16	28	20	

Total Credits:
BSc (3 Year): 120 credits
BSc (4 Year): 160 credits

Optional Minors: A minimum of 16 credits through Minor-related courses to be taken as MSCs.

i. Computational Sciences
ii. Data Analytics and Decision Studies
iii. Sustainability Studies
iv. Community Empowerment and Development
v. Artificial Intelligence, Business, and Society

Discipline Specific Electives (DSEs)

More will be added

1. Number Theory
2. Operations Research
3. Theory Of Real Function
4. Functional Analysis
5. Cryptography
6. Coding Theory
7. Advanced Linear Algebra
8. Advanced Complex Analysis
9. Advanced Numerical Techniques
10. Topology
11. Cryptography
12. Advanced Real Analysis
13. Differential Geometry
14. Mathematical Methods
15. Advanced Statistics with Programming
16. Advanced Group and Ring Theory
17. Advanced Differential Equations
18. Computational Fluid Dynamics
19. Advanced Graph Theory
20. Fixed Point Theory
21. Theory of Real Function

Faculty	Faculty coordinator	CoE	Assoc. Dean (A)	Deputy Registrar	Vice-Chancellor