VIBRANT ACADEMY

JEE (Advanced) | JEE (Main) | Pre-Medical (NEET-UG) | EDGE (Class V to X)

COURSE PLANNER

For Students of

CLASS-XII | MEGA+

Academic Session: 2021-22

Target: JEE (Main+Advanced) 2022

Mode: Classroom | Medium: English

COURSE CONCEPT

The course progresses with basic fundamental study; covering upon the syllabus of boards (At Kota Study Centre) alongwith the preparation for JEE (Main + Advanced). The Course helps in development of concepts, rigorous practice for board exams, enhancement of analytical thinking and increasing the confidence level of aspirants. Syllabus of Class XI* & XII will be covered.

Course Commencement: 05.04.2021 | Course End: 31.12.2021

VIBRANT TEACHING METHODOLOGY

Preparation for JEE (Main+Advanced)

- Classroom Teaching
- Daily Practice Problems (DPPs)
- Study Material (Sheets/Modules)
- Advanced Pattern Part Tests(APTs)
- Advanced Pattern Cumulative Tests(ACTs)
- Main Pattern Cumulative Tests(MPTs)
- Doubt Removal Sessions

Preparation for Board Examination

- Classroom Teaching
- Vibrant Board Worksheets
- Study Material (Sheets/Modules)
- Board Pattern Tests(BPTs)
- Support for English
- Support for Physical Education
- Support for Practical (Physics & Chemistry)

TOTAL ACADEMIC HOURS

- **Course Duration:** 39 Weeks
- **Total Number of Lectures: 653** (P: 183 | C: 298 | M: 172)
- **Duration of One lecture:** 1.5 Hrs = 90 Minutes
- **Total Duration of Classroom Teaching:** 980 Hrs
- **Total Duration of Testing Hours: 87**Hrs
- **Total Academic Hours: 1067** Hrs (980 Hrs + 87 Hrs)

TEACHING/ LEARNING TOOLS

- **Daily Practice Problems (DPPs):** A handout having problems for home assignment, practice and classroom discussion covering current and previous topics. A DPP for JEE (Advanced) has 7-10 problems and DPP for JEE (Main) contains upto 20 problems approximately.
- **Study Material (Sheets/Modules):** Topic wise study material having key concepts, problems for practice in various Exercise Levels and questions asked in previous years (Board/JEE (Main)/JEE (Advanced)).
- **Board Worksheet:** Questions on board pattern with blank spaces (to write their answers) are provided to students in the form of worksheets. Students after completing the worksheet; have to submit it for evaluation. It ensures written practice of students for board examinations.
- **Review / Practice Tests:** Review/Practice Tests to be conducted having Part/Cumulative/Full Syllabus with problems of seen/unseen nature and Tests comprising of the syllabus taught till date. Both the Tests are conducted on the pattern of JEE (Main) and JEE (Main + Advanced) in offline and online mode. Board Practice Tests(BPTs) are also conducted.

Disclaimer:

- The Institute reserves the right to increase/decrease the number of lectures allotted to any topic and also make changes in the sequence of the topics of each subject depending upon the course requirements.
- This Course Planner in all respects is applicable only at Kota (Rajasthan). At other Vibrant Study Centres, Students/Parents may find some 'minor' variations to accommodate City specific features/factors.
- The Topic Start Date mentioned here might vary for batches starting on different dates of the particular course. However the coverage of the content in any topic shall remain the same, it is done by altering the frequency of proposed/planned lectures in a particular week.
- The information given in this Course Planner is proposed for Academic Session 2021-22. The institute reserves the right to make changes in it in the interest of students.

*Most of the topics of Class XI.

SUBJECT WISE SYLLABUS PLAN

- Topic Name
- Topic Sequence
- Topic Commencement
- No. of Lectures allotted to each Topic

PHYSICS

S. No.	Topic Name/Sequence	No of Lectures	Start Date	End Date
1	Basic Mathematics	4	05.04	13.04
2	Geometrical Optics	20	14.04	29.05
3	Wave Optics	6	31.05	12.06
4	Electrostatics	18	14.06	21.07
5	Gravitation	3	22.07	24.07
6	Current Electricity	9	26.07	04.08
7	Capacitance	7	05.08	12.08
8	Magnetism	9	13.08	23.08
9	EMI	10	24.08	03.09
10	Alternating Current	4	04.09	08.09
11	Modern Physics & Nuclear Physics	10	09.09	20.09
12	Electromagnetic Wave	1	21.09	21.09
13	Semi-Conductors	4	21.09	25.09
14	Communication System	2	27.09	28.09
15	Rectilinear Motion	4	29.09	02.10
16	Projectile Motion	2	04.10	05.10
17	Relative Motion	3	06.10	09.10
18	NLM & Friction	6	11.10	16.10
19	Work, Power & Energy (WPE)	5	18.10	23.10
20	Circular Motion	5	25.10	30.10
21	Centre of Mass	6	08.11	13.11
22	Rigid Body Dynamics	6	15.11	20.11
23	Simple Harmonic Motion (SHM)	5	22.11	27.11
24	String Waves	5	29.11	04.12
25	Sound Waves	5	06.12	11.12
26	Fluid Mechanics	4	13.12	16.12
27	Calorimetry & Thermal Expansion	4	17.12	21.12
28	Surface Tension	8	22.12	31.12
29	KTG & Thermodynamics (E*)	4	SUNDAY	
30	Heat Transfer (E)	2	SUNDAY	
31	Elasticity & Viscocity (E)	2	SUNDAY	
Total No. of Lectures (P)		**183**		

CHEMISTRY

S. No.	Topic Name/Sequence	No of Lectures	Start Date	End Date
	PHYSICAL			
1	Chemical Kinetics	13	05.04	08.05
2	Radioactivity	4	10.05	18.05
3	Thermodynamics	18	19.05	26.06
4	Thermochemistry	6	28.06	13.07
5	Electrochemistry	13	14.07	14.08
6	Liquid Solution	8	16.08	04.09
7	Solid State	8	06.09	25.09
8	Surface Chemistry	6	27.09	12.10
9	Redox	6	13.10	26.10
10	Chemical Equilibrium	4	08.11	16.11
11	Ionic Equilibrium	8	17.11	04.12
12	Real Gas	2	06.12	09.12
Total No. of Lectures (PC)		**96**		
	INORGANIC			
1	Periodic Table & Properties	3	05.04	10.04
2	Chemical Bonding	20	12.04	27.05
3	Coordination	18	28.05	10.07
4	Metallurgy	12	12.07	07.08
5	Types Of Reaction	15	09.08	11.09
6	Hydrogen & its Compounds	1	13.09	14.09
7	S-Block Elements	2	15.09	18.09
8	P-Block Elements	8	20.09	07.10
9	D-Block Elements	2	08.10	12.10
10	F-Block Elements	1	13.10	14.10
11	Salt Analysis	15	15.10	27.11
12	Environmental Chemistry	1	29.11	30.11
Total No. of Lectures (IOC)		**98**		
	ORGANIC			
1	Isomerism	17	05.04	12.05
2	General Organic Chemistry	6	14.05	26.05
3	Applications of Isomerism	14	27.05	25.06
4	BOC	3	28.06	03.07
5	Alkyl Halide (Substitution & Elimination)	16	05.07	09.08
6	Grignard Reagent	4	10.08	18.08
7	Carbonyl Compound	12	19.08	15.09
8	POC	5	16.09	27.09
9	Carbene & Nitrene	6	29.09	11.10
10	Aromatic Chemistry	10	13.10	10.11
11	Biomolecule	5	12.11	22.11
12	Polymer	2	24.11	27.11
13	Chemistry in Everyday Life	2	29.11	01.12
14	IUPAC	2	03.12	07.12
Total No. of Lectures (IOC)		**104**		
Total No. of Lectures (C)		**298**		

MATHEMATICS

S. No.	Topic Name/Sequence	No of Lectures	Start Date	End Date
1	Function	10	05.04	29.04
2	Inverse Trigonometric Function	6	30.04	13.05
3	Limits	8	14.05	01.06
4	Continuity	4	02.06	10.06
5	Differentiability	4	11.06	19.06
6	Method of differentiation	6	21.06	03.07
7	Indefinite integration	9	05.07	27.07
8	Definite integration	9	28.07	19.08
9	Application of derivatives	14	20.08	23.09
10	Differential Equation	6	24.09	07.10
11	Area Under Curve	4	08.10	16.10
12	Vector & 3D	16	18.10	30.11
13	Complex Number	8	01.12	18.12
14	Conic Section	15	20.12	31.12
15	Mathematical Reasoning & Statistics (E)	5	SUNDAY	
16	Set & Relation (E)	3	SUNDAY	
17	Linear Programming (E)	1	SUNDAY	
18	Logarithms (P*)	2	05.04	10.04
19	Quadratic Equation(P)	3	12.04	17.04
20	Compound Angles, Trigonometric Angles & Inequalities(P)	3	19.04	24.04
21	Straight Line & Circle (P)	10	26.04	17.05
22	P & C (P)	6	18.05	31.05
23	Binomal Theorem (P)	3	01.06	07.06
24	Probability (P)	5	08.06	19.06
25	Sequence & Series (P)	3	21.06	26.06
26	Solution of Triangle (P)	3	28.06	03.07
27	Determinants & Matrices (P)	6	05.07	17.07
Total No. of Lectures (M)		**172**		

Holidays/ Vacations (Total: 10-Days): 1. Independence Day: 15 August, 2021 : One Day, 2. Raksha Bandhan: 22 August, 2021: One Day, 3. Deepawali Holidays: From 01 November, 2021 to 07 November, 2021: 8 Days, 4. Republic Day: 26 January, 2022: One Day (Applicable only at Kota SC and at other SC's Deepawali vacation will be informed to students as per respective SC holiday calender.

*(E): Extra Class | (P): Parallel

PERIODIC TEST SCHEDULE & RESULT COMMUNICATION

S. No.	Test Pattern	Test Date	PHYSICS	MATHEMATICS	CHEMISTRY			Testing Hours
					PHYSICAL	INORGANIC	ORGANIC	
1	Main	**02-05-2021**	Basic mathematics, Geometrical Optics	Logarithums, Quadratic Equation, Compound Angles, Trigonomatric Angles & Inequalities, Function	Chemical Kinetics	Periodic Table & Properties, Chemical Bonding	Isomerism	3
2	Advanced	**23-05-2021**	Basic mathematics, Geometrical Optics	Logarithums, Quadratic Equation, Compound Angles, Trigonomatric Angles & Inequalities, P & C, Function, ITF, Limits	Chemical Kinetics, Radioactivity, Thermodynamics	Periodic Table & Properties, Chemical Bonding	Isomerism, General Organic Chemistry	6
3	Main	**16-06-2021**	Basic mathematics, Geometrical Optics, Wave Optics	Logarithums, Quadratic Equation, Compound Angles, Trigonomatric Angles & Inequalities, P & C, Binomal Theorem, Probability, Function, ITF, Limits, Continuity	Chemical Kinetics, Radioactivity, Thermodynamics	Periodic Table & Properties, Chemical Bonding, Coordination	Isomerism, General Orgainc Chemistry, Applications of Isomerism	3
4	Advanced	**04-07-2021**	Basic mathematics, Geometrical Optics, Wave Optics, Electrostatics	Logarithums, Quadratic Equation, Compound Angles, Trigonomatric Angles & Inequalities, P & C, Binomal Theorem, Probability, Sequence & Series, Solution of Triangle, Function, ITF, Limits, Continuity, Differentiability, Method of differentiation	Chemical Kinetics, Radioactivity, Thermodynamics Thermochemistry	Periodic Table & Properties, Chemical Bonding, Coordination	Isomerism, General Orgainc Chemistry, Applications of Isomerism, BOC	6
5	Main	**25-07-2021**	Basic mathematics, Geometrical Optics, Wave Optics, Electrostatics, Gravitation	Logarithums, Quadratic Equation, Compound Angles, Trigonomatric Angles & Inequalities, P & C, Binomal Theorem, Probability, Sequence & Series, Solution of Triangle, Determinants & Matrices, Function, ITF, Limits, Continuity, Differentiability, Method of differentiation, Indefinite Integration	Chemical Kinetics, Radioactivity, Thermodynamics Thermochemistry, Electrochemistry	Periodic Table & Properties, Chemical Bonding, Coordination, Metallurgy	Isomerism, General Orgainc Chemistry, Applications of Isomerism, BOC, Alkyl Halide (Substitution & Elimination)	3
6	Advanced	**22-08-2021**	Basic mathematics, Geometrical Optics, Wave Optics, Electrostatics, Gravitation, Current Electricity, Capacitance, Magnetism	Logarithums, Quadratic Equation, Compound Angles, Trigonomatric Angles & Inequalities, P & C, Binomal Theorem, Probability, Sequence & Series, Solution of Triangle, Determinants & Matrices, Function, ITF, Limits, Continuity, Differentiability, Method of differentiation, Indefinite Integration, Definite Integration	Chemical Kinetics, Radioactivity, Thermodynamics Thermochemistry Electrochemistry, Liquid Solution	Periodic Table & Properties, Chemical Bonding, Coordination, Metallurgy, Types of reaction	Isomerism, General Orgainc Chemistry, Applications of Isomerism, BOC, Alkyl Halide (Substitution & Elimination), Grignard Reagent	6
7	Board (Physics & English)	**05-09-2021**	Till taught	-	-	-	-	3
8	Main	**12-09-2021**	Basic mathematics, Geometrical Optics, Wave Optics, Electrostatics, Gravitation, Current Electricity, Capacitance, Magnetism, EMI, Alternating Current, Modern Physics & Nuclear Physics	Logarithums, Quadratic Equation, Compound Angles, Trigonomatric Angles & Inequalities, P & C, Binomal Theorem, Probability, Sequence & Series, Solution of Triangle, Determinants & Matrices, Function, ITF, Limits, Continuity, Differentiability, Method of differentiation, Indefinite Integration, Definite Integration, Application of derivative	Chemical Kinetics, Radioactivity, Thermodynamics Thermochemistry, Electrochemistry, Liquid Solution, Solid State	Periodic Table & Properties, Chemical Bonding, Coordination, Metallurgy, Types of reaction	Isomerism, General Orgainc Chemistry, Applications of Isomerism, BOC, Alkyl Halide (Substitution & Elimination), Grignard Reagent, Carbonyl Compound	3
9	Advanced	**03-10-2021**	Basic mathematics, Geometrical Optics, Wave Optics, Electrostatics, Gravitation, Current Electricity, Capacitance, Magnetism, EMI, Alternating Current, Modern Physics & Nuclear Physics, Electromagnetic Wave, Semi-Conductors, Communication system, Rectilinear Motion	Logarithums, Quadratic Equation, Compound Angles, Trigonomatric Angles & Inequalities, P & C, Binomal Theorem, Probability, Sequence & Series, Solution of Triangle, Determinants & Matrices, Function, ITF, Limits, Continuity, Differentiability, Method of differentiation, Indefinite Integration, Definite Integration, Application of derivative, Differential Equation	Chemical Kinetics, Radioactivity, Thermodynamics Thermochemistry, Electrochemistry, Liquid Solution, Solid State, Surface Chemistry	Periodic Table & Properties, Chemical Bonding, Coordination, Metallurgy, Types of reaction, Hydrogen & its Compounds, S-Block Elements, P-Block Elements.	Isomerism, General Orgainc Chemistry, Applications of Isomerism, BOC, Alkyl Halide (Substitution & Elimination), Grignard Reagent, Carbonyl Compound, POC, Carbene & Nitrene	6
10	Board (Chemistry & Maths)	**17-10-2021**	-	Till taught	Till taught	Till taught	Till taught	3
11	Main	**24-10-2021**	Basic mathematics, Geometrical Optics, Wave Optics, Electrostatics, Gravitation, Current Electricity, Capacitance, Magnetism, EMI, Alternating Current, Modern Physics & Nuclear Physics, Electromagnetic Wave, Semi-Conductors, Communication system, Rectilinear Motion, Projectile Motion, Relative Motion, NLM & Friction, Work power & Energy	Logarithums, Quadratic Equation, Compound Angles, Trigonomatric Angles & Inequalities, P & C, Binomal Theorem, Probability, Sequence & Series, Solution of Triangle, Determinants & Matrices, Function, ITF, Limits, Continuity, Differentiability, Method of differentiation, Indefinite Integration, Definite Integration, Application of derivative, Differential Equation, Vector & 3D	Chemical Kinetics, Radioactivity, Thermodynamics Thermochemistry, Electrochemistry, Liquid Solution, Solid State, Surface Chemistry, Redox	Periodic Table & Properties, Chemical Bonding, Coordination, Metallurgy, Types of reaction, Hydrogen & its Compounds, S-Block Elements, P-Block Elements, D-Block Elements, F-Block Elements, Salt Analysis	Isomerism, General Orgainc Chemistry, Applications of Isomerism, BOC, Alkyl Halide (Substitution & Elimination), Grignard Reagent, Carbonyl Compound, POC, Carbene & Nitrene, Aromatic Chemistry	3
12	Advanced	**28-11-2021**	Basic mathematics, Geometrical Optics, Wave Optics, Electrostatics, Gravitation, Current Electricity, Capacitance, Magnetism, EMI, Alternating Current, Modern Physics & Nuclear Physics, Electromagnetic Wave, Semi-Conductors, Communication system, Rectilinear Motion, Projectile Motion, Relative Motion, NLM & Friction, Work power & Energy, Circular Motion, Centre of Mass, Rigid Body Dynamics, Simple Harmonic Motion(SHM)	Logarithums, Quadratic Equation, Compound Angles, Trigonomatric Angles & Inequalities, P & C, Binomal Theorem, Probability, Sequence & Series, Solution of Triangle, Determinants & Matrices, Function, ITF, Limits, Continuity, Differentiability, Method of differentiation, Indefinite Integration, Definite Integration, Application of derivative, Differential Equation, Vector & 3D, Area Under Curve	Chemical Kinetics, Radioactivity, Thermodynamics Thermochemistry Electrochemistry, Liquid Solution, Solid State, Surface Chemistry, Redox, Chemical Equilibrium, Ionic Equilibrium	Periodic Table & Properties, Chemical Bonding, Coordination, Metallurgy, Types of reaction, Hydrogen & its Compounds, S-Block Elements, P-Block Elements, D-Block Elements, F-Block Elements, Salt Analysis	Isomerism, General Orgainc Chemistry, Applications of Isomerism, BOC, Alkyl Halide (Substitution & Elimination), Grignard Reagent, Carbonyl Compound, POC, Carbene & Nitrene, Aromatic Chemistry, Biomolecule	6
13	Main	**12-12-2021**	Basic mathematics, Geometrical Optics, Wave Optics, Electrostatics, Gravitation, Current Electricity, Capacitance, Magnetism, EMI, Alternating Current, Modern Physics & Nuclear Physics, Electromagnetic Wave, Semi-Conductors, Communication system, Rectilinear Motion, Projectile Motion, Relative Motion, NLM & Friction, Work power & Energy, Circular Motion, Centre of Mass, Rigid Body Dynamics, Simple Harmonic Motion(SHM), String Waves, Sound Waves	Logarithums, Quadratic Equation, Compound Angles, Trigonomatric Angles & Inequalities, P & C, Binomal Theorem, Probability, Sequence & Series, Solution of Triangle, Determinants & Matrices, Function, ITF, Limits, Continuity, Differentiability, Method of differentiation, Indefinite Integration, Definite Integration, Application of derivative, Differential Equation, Vector & 3D, Area Under Curve, Complex Number	Full Syllabus	Periodic Table & Properties, Chemical Bonding, Coordination, Metallurgy, Types of reaction, Hydrogen & its Compounds, S-Block Elements, P-Block Elements, D-Block Elements, F-Block Elements, Salt Analysis, Environmental Chemistry	Full Syllabus	3
14	Main	**02-01-2022**	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus	3

S. No.	Test Pattern	Test Date	PHYSICS	MATHEMATICS	CHEMISTRY			Testing Hours
					PHYSICAL	INORGANIC	ORGANIC	
15	Main PT-1	**05-01-2022**	-	-	-	-	-	3
16	Main PT-2	**07-01-2022**	-	-	-	-	-	3
17	Main PT-3	**09-01-2022**	-	-	-	-	-	3
18	Main FST-1	**11-01-2022**	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus	3
19	Main FST-2	**13-01-2022**	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus	3
20	Main FST-3	**15-01-2022**	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus	3
21	Main FST-4	**17-01-2022**	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus	3
22	Board (Physics)		Full Syllabus	-	-	-	-	3
23	Board (Chemisty)		-	-	Full Syllabus	Full Syllabus	Full Syllabus	3
24	Board (Maths)		-	Full Syllabus	-	-	-	3
							Total Testing Hours	**87**

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Teaching Experience: 22+ Years

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B.E., BITS - Pilani
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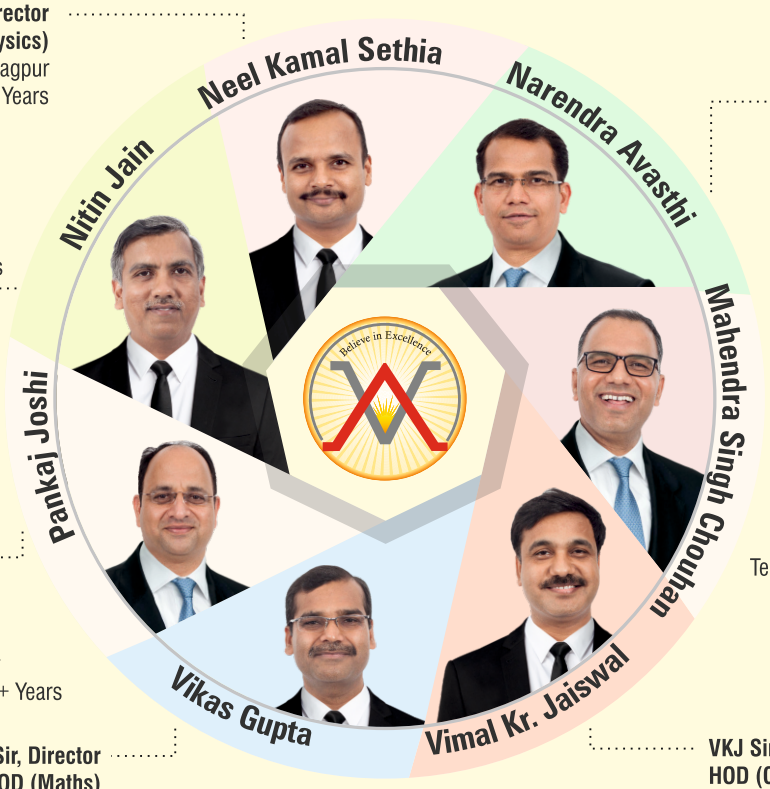

NA Sir, Director
HOD (Chemistry-Physical)
B.Tech, MNIT-Jaipur
Teaching Experience: 19+ Years

MSC Sir, Director
HOD (Chemistry-Organic)
B.Tech, Mumbai University
Teaching Experience: 19 +Years

PJ Sir, Director
HOD (Maths)
B.Tech, NIT-Jamshedpur
Teaching Experience: 21+ Years

VG Sir, Director
HOD (Maths)
B.Tech, IIT-Guwahati
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