



## **PhysicsByAaryan IIT JAM Self Study Course Features**

- 1. Complete Guidance Manual**
- 2. Short Notes for each topic**
- 3. PYQ Solutions**
- 4. Assignments for each Subject**
- 5. Mini Tests**
- 6. Full Length Test Series with Solutions(10Tests)**
- 7. Doubt Class Every Sunday**
- 8. Weekly and Monthly goals**
- 9. Revision Activities**
- 10. Mock Interviews after JAM/Jest Result**
- 11. One Month Jest Preparation after JAM**
- 12. Important Extra Notes for TIFR**
- 13. Lifetime Discount on any other course like Gate/Net after you Jam Exam**
- 14. Career Guidance**
- 15. Become member of Growing Community**

**Course Fee: 2000 for entire Course**

**Validity: Till Jest 2023 Results**

**You can join Course anytime in a year. This is a unique course which provides with best possibility to qualify exams**



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*Mob:9501976811; Join telegram: PhysicsByAaryan; website: physicsbyaaryan.com*

## **How to Join the Course**

### **How to join:**

**Fee for the course : 1999Rs. Only**

**Fee is kept affordable for everyone. Because our motive is to make competitive exams easy and affordable for every student.**

#### **Payment details:**

**Payment method 1**

**Gpay or Paytm : 7719752152**

**Payment method 2**

**UPI I'd : 7719752152@hdfcbank**

**Payment method 3**

**Account number: 50100492955604**

**IFSC code : HDFC0001822**

#### **After you pay the fee:**

- 1. Message the course instructor 'Aaryan mehra' on telegram at number 9501976811.**
- 2. You will be given one google form to fill your basic details.**
- 3. You will be added to the course telegram group, Google classroom and Online testing portal within 24hours.**



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## **Course Designed By:**

**Aaryan Mehra**

**MSc Physics, IIT Delhi (2020-22)**

**PhD at CeNSE, IISc (2022-continued)**

**IIT JAM AIR152**

**JEST AIR87**

**GATE AIR282**

**Qualified UPSC Geophysics Prelims and Mains**

**Founder: PhysicsByAaryan**

**Guiding Students from past 2years**

**16Students of our courses got into IITs this year**

**1 in TIFR, 2 in NISER, 1 in IISER**





## Steps to Prepare in PhysicsByAaryan Self Study Course

### First Preparation Stage

#### 1. Cover the topic by reading book and short notes of PhysicsByAaryan

Complete guidance manual is provided in which recommended books and videos are mentioned for each topic. Ideal Time needed to cover any topic is mentioned. Once you study any topic, make sure to do some numerical problems of the same book which are recommended for reading.

#### 2. Solve PYQ of that topic

Previous year questions are divided topic wise. Solutions are provided in the course.

#### 3. Give Mini Test

Mini Test are available to practice. Mini tests are available for topics combined. This is just to make your topic strong.

After these 3 steps move to next topic and complete the subject.

#### 4. Doubt Class

Attend Doubt class every Sunday.

#### 5. Complete Weekly Tasks

Weekly and Monthly goals are given in the course. Student is expected to complete them.

#### 6. Study 25-30Hours per week

Try to study 25-30Hours per week consistently. Try to give 60-70% of time to IIT JAM



## **Revision Stage**

### **1. Assignment**

Assignment for each subject will be given. There will be 7 assignments, one for each subject. Each assignment will have 120 questions. 60-80MCQ and other are NAT and MSQ.

Do assignments when you complete first 3 steps for Red and Green Topics. (Topics are divided based on their importance)

### **2. Test Series**

Test Series contains 7Subject Test and 3 Full Tests

Once you complete assignment for any subject, Complete its subject test.

I will closely monitor your Scores in tests.

Give full tests once you complete all the subject tests.

### **3. Revision Games**

Every Year, I organise fun Games to revise the syllabus. Participate actively in those games.



## Topics Division

Red Topic: Most Important

Green Topic: Important

Black Topic: Not much Important

Mathematics		
Topic Name	Toughness	Expected days needed
Fourier Series	Hard	1
Stokes and Divergence Theorem	Hard	1
Matrices and Determinants	Easy	1
First order linear differential equations	Easy	1
Continuity and graphs	Moderate	½
Spherical and cylindrical Coordinates	Hard	2
Jacobian	Easy	½
Taylor Series	Easy	½
Vector Algebra and Calculus	Hard	1.5
Multiple Integrals, Greens Theorem	Hard	1.5
First order Differential Equations	Easy	1
Second order ODE with constant coefficients (P.I and C.F)	Easy	1
Complex Numbers	Moderate	1
Limits	Moderate	½
Dirac Delta Function	Easy	½
Perfect and Imperfect differentials	Moderate	½
Partial Derivatives	Easy	½





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<b>Mechanics</b>		
<b>Topic Name</b>	<b>Toughness</b>	<b>Expected days needed</b>
<b>Pseudo Forces (Centrifugal and Coriolis)</b>	<b>Hard</b>	<b>2.5</b>
<b>Gravitation</b>	<b>Easy</b>	<b>1</b>
<b>Central Forces</b>	<b>Hard</b>	<b>3</b>
<b>Centre of Mass, Rigid Body Dynamics, Angular Momentum</b>	<b>Moderate</b>	<b>2</b>
<b>Inertia</b>	<b>Moderate</b>	<b>2</b>
<b>Collisions</b>	<b>Easy</b>	<b>1</b>
<b>Bernoulli Principle</b>	<b>Easy</b>	<b>1</b>
<b>Newton Laws and Applications</b>	<b>Moderate</b>	<b>2</b>
<b>Fluid Mechanics</b>	<b>Moderate</b>	<b>2</b>
<b>Velocity and Acceleration in different coordinates</b>	<b>Moderate</b>	<b>1</b>
<b>Variable Mass Systems</b>	<b>Hard</b>	<b>1</b>

<b>Waves Oscillations and Optics</b>		
<b>Topic Name</b>	<b>Toughness</b>	<b>Expected days needed</b>
<b>SHM</b>	<b>Easy</b>	<b>2</b>
<b>Superposition of SHM</b>	<b>Hard</b>	<b>2</b>
<b>Phase and Group Velocity</b>	<b>Easy</b>	<b>½</b>
<b>Doppler Effect</b>	<b>Moderate</b>	<b>1</b>
<b>Interference</b>	<b>Moderate</b>	<b>3</b>
<b>Diffraction</b>	<b>Moderate</b>	<b>2</b>
<b>Polarization</b>	<b>Hard</b>	<b>3</b>
<b>Waves Parameters (Energy, wavelength, frequency etc) and Equation (different types)</b>	<b>Easy</b>	<b>1</b>



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Ray Optics (Image Formation in lenses and mirrors, Lens and Mirror formula, Lens Makers Formula, TIR, snell law, Magnification)	Moderate	2
Rayleigh Criteria and Resolution	Easy	1
Damped Oscillations	Moderate	1.5
Forced Oscillations	Hard	1.5
Lissajous Figures	Easy	1/2
Sound Waves	Moderate	1
Fermat Principle	Easy	1/2
Thick Lens and Lens Combination	Moderate	2

Electromagnetism		
Topic Name	Toughness	Expected days needed
Electrostatics (Potential, Electrostatic Energy, Gauss Law, Electric Field)	Hard	3
Magnetostatics (Amperes Law, Biot Savarts Law, Magnetic Energy, Vector Potential)	Hard	3
All Boundary Conditions	Easy	1
Faraday Law and Induced EMF	Easy	1
Maxwell Equations	Moderate	1
Em Waves (Parameters, Poynting Vector, Plane Wave Solutions, Phase)	Moderate	2
Boundary Conditions for EM Waves	Easy	1/2
RLC Circuit	Easy	1
Motion of Charged Particles in E.F and M.F	Easy	1
Conductors	Easy	1/2
Capacitors	Easy	1/2
EM waves normal incidence at dielectric interface	Hard	1





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<b>Self and Mutual Inductance</b>	<b>Hard</b>	<b>1</b>
<b>Ac and Dc circuits</b>	<b>Moderate</b>	<b>2</b>

<b>Thermodynamic and Stat. Mech</b>		
<b>Topic Name</b>	<b>Toughness</b>	<b>Expected days needed</b>
<b>KTG</b>	<b>Moderate</b>	<b>3</b>
<b>First Law of Thermodynamics and thermodynamic processes</b>	<b>Easy</b>	<b>3</b>
<b>Entropy and Second Law</b>	<b>Moderate</b>	<b>2</b>
<b>Carnot cycle</b>	<b>Easy</b>	<b>1</b>
<b>Microstates and Macrostates (Distribution rules for different kind of particles)</b>	<b>Moderate</b>	<b>2</b>
<b>Joule Expansion</b>	<b>Easy</b>	<b>1</b>
<b>Thermodynamic Potentials</b>	<b>Moderate</b>	<b>2</b>
<b>Zeroth Law and Temperature</b>	<b>Easy</b>	<b>1</b>
<b>Phase Transitions</b>	<b>Hard</b>	<b>2</b>
<b>Maxwell Relations</b>	<b>Moderate</b>	<b>1</b>
<b>Other topics of Stat Mech</b>	<b>Hard</b>	<b>4</b>

<b>Modern Physics</b>		
<b>Topic Name</b>	<b>Toughness</b>	<b>Expected days needed</b>
<b>Relativity</b>	<b>Hard</b>	<b>2</b>
<b>Black Body Radiations</b>	<b>Easy</b>	<b>½</b>
<b>Compton effect</b>	<b>Easy</b>	<b>½</b>
<b>Bohr Atomic Model</b>	<b>Easy</b>	<b>1/2</b>
<b>Uncertainty Principle</b>	<b>Easy</b>	<b>½</b>



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Wave Particle Duality	Easy	1/2
Infinite Potential Well	Hard	1
Degeneracies in 2D, 3d for well and Harmonic Oscillator	Moderate	1
Harmonic Oscillator Basic and Energy Levels	Moderate	1/2
Properties of Nucleus	Moderate	1.5
Radioactivity	Moderate	1.5
X Rays	Easy	1/2
QM Operators and Wavefunction	Easy	1.5
Step Potential and Barrier Potential	Hard	1.5
Finite Potential Well	Moderate	2
Wavefunction of Harmonic Oscillator	Easy	1
Quantum Formulation	Moderate	2

Electronics and Solid State

Topic Name	Toughness	Expected days needed
Diodes(IV Characteristics and Basics)	Hard	1
Applications of diodes and Zener Diode	Hard	2
Resistivity with temperature	Easy	1/2
BJT (Basics, Types and Modes)	Easy	2
Biasing of BJT (All kinds)	Moderate	3
OPAMP and applications	Hard	3
Digital Electronics (Number systems, Circuits, De Morgan theorem, Gates)	Easy	1
Crystal Structures	Hard	3
Atomic Form Factor in Solid State physics	Easy	1
Amplifiers and oscillators	Moderate	4



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**PhysicsByAaryan Results**

**PHYSICS BY AARYAN**  
**JEST RESULT 2022**

<b>Shraddha</b>  <b>AIR:54</b> <b>Riya Das</b>	<b>Kartik Varshney</b>  <b>AIR:181</b> <b>Subhashree Baral</b>	<b>GARIMA</b>  <b>AIR:209</b> <i>this could be you</i>
 <b>AIR: 281</b>	 <b>AIR:288</b>	

CONTACT : 9501976811 & www.physicsbyaaryan.com

Balram : IIT BOMBAY Msc

Riya : IIT Bombay Msc

Vatsal : IIT Kanpur msc-phd dual and niser int. Phd

Kartik: Niser int. Phd

Divyan : IIT Delhi Msc

Anjali : IIT Roorkee Msc

Garima: IIT Ropar Msc

Hari: IIT Madras

Nilay: IIT Bombay Geophysics

Rohit: IIT ghuwati Msc

Sunny: IIT Inodore Msc

Vishal: IIT Indore Msc

Aditya : IIT Indore MSc Astronomy

Shraddha: IIT Ropar MSc and TIFR Hyderabadh int. Phd

Shruti : IISER TRIVANDRUM Msc

Karthik: IIT Bhilai



**PHYSICS BY AARYAN**  
**IITJAM RESULTS 2022**

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<b>BALRAM</b>  <b>AIR 70</b> <b>ROHIT</b>	<b>VATSAL SINHA</b>  <b>AIR 116</b> <b>GARIMA</b>	<b>KARTHIK</b>  <b>AIR 239</b> <b>DIVYAN</b>
 <b>AIR 304</b> <b>NILAY</b>	 <b>AIR 327</b> <b>SHRADDHA</b>	 <b>AIR 342</b> <b>SUNNY</b>
 <b>AIR 381</b>	 <b>AIR 397</b>	

*Cheers!*  
TO THE SUCCESS

*this could be you*

15 students got the rank between 600-1500.



## Syllabus Guidance Manual

Mathematics	
Topic Name	Book/Study Material
Fourier Series	<ul style="list-style-type: none"><li>• PhysicsByAaryan Short Notes</li><li>• Book: HK DAS: CH12 Full</li></ul>
Vector Algebra and Calculus	<ul style="list-style-type: none"><li>• DJ Griffiths: For Electromagnetism: Ch1 Full (only leave topic how vectors transform)</li><li>• PhysicsByAaryan Short Notes</li></ul>
Matrices and Determinants	<ul style="list-style-type: none"><li>• External Short Notes provided</li></ul>
Differential Equations	<ul style="list-style-type: none"><li>• Class 11 NCERT</li><li>• External Notes Provided</li><li>• PhysicsByAaryan Short Notes</li></ul>
Continuity and graphs	<ul style="list-style-type: none"><li>• Class 11 NCERT only</li></ul>
Jacobian	<ul style="list-style-type: none"><li>• PhysicsByAaryan Short Notes</li></ul>
Taylor Series	<ul style="list-style-type: none"><li>• PhysicsByAaryan Short Notes</li></ul>
Complex Numbers	<ul style="list-style-type: none"><li>• Class 11 NCERT only</li></ul>
Limits	<ul style="list-style-type: none"><li>• Class 11 NCERT only</li></ul>
Dirac Delta Function	<ul style="list-style-type: none"><li>• External Notes Provided</li></ul>

Mechanics	
Topic Name	Book/Study Material
Pseudo Forces (Centrifugal and Coriolis)	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes only</li></ul>
Gravitation	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes</li><li>• HC Verma: Ch 11</li></ul>
Central Forces	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes only</li><li>• JC upadhay: Ch4 (Optional)</li></ul>
Centre of Mass, Rigid Body Dynamics, Angular Momentum	<ul style="list-style-type: none"><li>• HC Verma: Ch 9-10 only</li></ul>
Inertia	<ul style="list-style-type: none"><li>• HC Verma: Ch 10 only</li></ul>
Collisions	<ul style="list-style-type: none"><li>• HC Verma: Ch 9 only</li></ul>
Fluid Mechanics	<ul style="list-style-type: none"><li>• HC Verma: Ch 13</li><li>• PhysicsByAaryan Notes</li></ul>



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<b>Newton Laws and Applications</b>	<ul style="list-style-type: none"><li>• HC Verma: Ch5-6 only</li></ul>
<b>Velocity and Acceleration in different coordinates</b>	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes only</li></ul>

**Waves Oscillations and Optics**

<b>Topic Name</b>	<b>Book/Study Material</b>
SHM	<ul style="list-style-type: none"><li>• External Notes Provided</li><li>• NK Bajaj: Ch 1</li></ul>
Superposition of SHM	<ul style="list-style-type: none"><li>• NK Bajaj: Ch2</li><li>• PhysicsByAaryan Notes of Polarization</li></ul>
Phase and Group Velocity	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes Only</li></ul>
Waves	<ul style="list-style-type: none"><li>• External Notes Provided(Waves)</li></ul>
Interference	<ul style="list-style-type: none"><li>• Subramaniam Marked Topics</li><li>• PhysicsByAaryan Notes</li></ul>
Diffraction	<ul style="list-style-type: none"><li>• Subramaniam Marked Topics</li><li>• PhysicsByAaryan Notes</li></ul>
Polarization	<ul style="list-style-type: none"><li>• Subramaniam Marked Topics</li><li>• PhysicsByAaryan Notes</li></ul>
Ray Optics	<ul style="list-style-type: none"><li>• External Notes Provided</li></ul>
Rayleigh Criteria and Resolution	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes only</li></ul>
Damped Oscillations	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes Only</li></ul>
Forced Oscillations	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes Only</li></ul>

**Electromagnetism**

<b>Topic Name</b>	<b>Book/Study Material</b>
Electrostatics	<ul style="list-style-type: none"><li>• PhysicByAaryan Notes</li><li>• DJ Griffiths: Ch 2</li></ul>
Magnetostatics	<ul style="list-style-type: none"><li>• PhysicByAaryan Notes</li><li>• DJ Griffiths: Ch 5</li></ul>
Electrodynamics	<ul style="list-style-type: none"><li>• PhysicByAaryan Notes</li><li>• DJ Griffiths: Ch 7</li></ul>
RLC Circuit	<ul style="list-style-type: none"><li>• External Notes Provided</li></ul>
Motion of Charged Particles in E.F and M.F	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes of Magnetostatics</li></ul>



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<b>Thermodynamics and Statistical Mechanics</b>	
<b>Topic Name</b>	<b>Book/Study Material</b>
<b>KTG</b>	<ul style="list-style-type: none"><li>• Garg Bansal Gosh: Ch1-2 Marked Topics</li><li>• PhysicsByAaryan Notes</li></ul>
<b>Laws of Thermodynamics, Entropy, Carnot Cycle</b>	<ul style="list-style-type: none"><li>• Garg Bansal Gosh: Ch4-7 Marked Topics</li><li>• PhysicsByAaryan Notes</li></ul>
<b>Microstates and Macrostates (Distribution rules for different kind of particles)</b>	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes Only</li></ul>
<b>Thermodynamic Potentials</b>	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes Only</li></ul>
<b>Phase Transitions</b>	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes Only</li></ul>
<b>Maxwell Relations</b>	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes Only</li></ul>
<b>Other topics of Stat Mech</b>	<ul style="list-style-type: none"><li>• PhysicsByAaryan Notes Only</li></ul>

<b>Modern Physics</b>	
<b>Topic Name</b>	<b>Book/Study Material</b>
<b>Relativity</b>	<ul style="list-style-type: none"><li>• Arthur Bieser: Ch1</li><li>• PhysicsByAaryan Short Notes</li></ul>
<b>Modern Phenomenon (Black Body, Compton, Photoelectric Effect etc)</b>	<ul style="list-style-type: none"><li>• Arthur Bieser: Ch2-3</li><li>• PhysicsByAaryan Short Notes</li></ul>
<b>Quantum Mechanics</b>	<ul style="list-style-type: none"><li>• Arthur Bieser: Ch5</li><li>• PhysicsByAaryan Short Notes</li></ul>
<b>Atomic Physics</b>	<ul style="list-style-type: none"><li>• Arthur Bieser: Ch4</li><li>• PhysicsByAaryan Short Notes</li></ul>
<b>Nuclear Physics</b>	<ul style="list-style-type: none"><li>• Arthur Bieser: Ch11-12</li><li>• PhysicsByAaryan Short Notes</li></ul>







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Differential equations	<a href="https://www.youtube.com/watch?v=gd1FYn86P0c">https://www.youtube.com/watch?v=gd1FYn86P0c</a> <a href="https://www.youtube.com/watch?v=IFpT-Ptmkyg">https://www.youtube.com/watch?v=IFpT-Ptmkyg</a> <a href="https://www.youtube.com/watch?v=GoxFzLTS9AY">https://www.youtube.com/watch?v=GoxFzLTS9AY</a> <a href="https://www.youtube.com/watch?v=AMuPDHj6t3A">https://www.youtube.com/watch?v=AMuPDHj6t3A</a>
Continuity and graphs	<a href="https://www.youtube.com/watch?v=dvzXDXDagaQ">https://www.youtube.com/watch?v=dvzXDXDagaQ</a>
Spherical and cylindrical Coordinates	<a href="https://www.youtube.com/watch?v=khJrW6vNE5o&amp;list=PLxFNyeDbssXqKDh_isAEkEedR7bvpbtqG">https://www.youtube.com/watch?v=khJrW6vNE5o&amp;list=PLxFNyeDbssXqKDh_isAEkEedR7bvpbtqG</a>
Jacobian	<a href="https://www.youtube.com/watch?v=Bw5yEqwMjQU">https://www.youtube.com/watch?v=Bw5yEqwMjQU</a>
Taylor Series	<a href="https://www.youtube.com/watch?v=LDBnS4c7YbA">https://www.youtube.com/watch?v=LDBnS4c7YbA</a>
Complex Numbers	<a href="https://www.youtube.com/watch?v=v_BSEXmMyVM">https://www.youtube.com/watch?v=v_BSEXmMyVM</a>
Limits	<a href="https://www.youtube.com/watch?v=-2U3Czj8E88">https://www.youtube.com/watch?v=-2U3Czj8E88</a>
Dirac Delta Function	<a href="https://www.youtube.com/watch?v=XEAvZAbegoU&amp;list=PLBPnamDgyiJ81GGpK9S-OHnfAVCjqAZO0">https://www.youtube.com/watch?v=XEAvZAbegoU&amp;list=PLBPnamDgyiJ81GGpK9S-OHnfAVCjqAZO0</a>

<b>Mechanics</b>	
<b>Topic Name</b>	<b>Video</b>
Pseudo Forces	<a href="https://www.youtube.com/watch?v=KF8JLp3yiVE">https://www.youtube.com/watch?v=KF8JLp3yiVE</a> <a href="https://www.youtube.com/watch?v=Z1AHmFuizpE">https://www.youtube.com/watch?v=Z1AHmFuizpE</a>
Gravitation	Any Class 11 Lectures
Central Forces	<a href="https://www.youtube.com/watch?v=U8TlnfSWpY">https://www.youtube.com/watch?v=U8TlnfSWpY</a> (Watch this lecture series)
Centre of Mass, Rigid Body Dynamics, Angular Momentum	<a href="https://www.youtube.com/watch?v=6rPKyQqyux0&amp;list=PLqOuewkeBogdxj2uNJx2WE3CUkL9ZR6_5&amp;index=29">https://www.youtube.com/watch?v=6rPKyQqyux0&amp;list=PLqOuewkeBogdxj2uNJx2WE3CUkL9ZR6_5&amp;index=29</a> <a href="https://www.youtube.com/watch?v=VRDTDTunTBc&amp;list=PLqOuewkeBogdxj2uNJx2WE3CUkL9ZR6_5&amp;index=30">https://www.youtube.com/watch?v=VRDTDTunTBc&amp;list=PLqOuewkeBogdxj2uNJx2WE3CUkL9ZR6_5&amp;index=30</a>
Inertia	Any Class 11 Lectures
Collisions	Any class 11 lectures
Fluid Mechanics	Any Class 11 Lectures
Newton Laws and Applications	Any Class 11 Lectures
Velocity and Acceleration in different coordinates	<a href="https://www.youtube.com/watch?v=79mVt09vJQo&amp;list=PLqOuewkeBogdxj2uNJx2WE3CUkL9ZR6_5&amp;index=1">https://www.youtube.com/watch?v=79mVt09vJQo&amp;list=PLqOuewkeBogdxj2uNJx2WE3CUkL9ZR6_5&amp;index=1</a> (Watch this Lecture series)



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Waves Oscillations and Optics	
Topic Name	Video
SHM	<a href="https://www.youtube.com/watch?v=xoJWoMQwTaw&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd">https://www.youtube.com/watch?v=xoJWoMQwTaw&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd</a>
Superposition of SHM	<a href="https://www.youtube.com/watch?v=p8VQbsVBLf0&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=4">https://www.youtube.com/watch?v=p8VQbsVBLf0&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=4</a>
Waves	<a href="https://www.youtube.com/watch?v=5cRRNDyUmpo&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=25">https://www.youtube.com/watch?v=5cRRNDyUmpo&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=25</a>
Interference	<a href="https://www.youtube.com/watch?v=py3InCNED8o&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=49">https://www.youtube.com/watch?v=py3InCNED8o&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=49</a>
Diffraction	<a href="https://www.youtube.com/watch?v=3RZZQvEVrEA&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=53">https://www.youtube.com/watch?v=3RZZQvEVrEA&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=53</a>
Polarization	<a href="https://www.youtube.com/watch?v=w19X6WZjyDU">https://www.youtube.com/watch?v=w19X6WZjyDU</a> <a href="https://www.youtube.com/watch?v=guqs0uXFpiU">https://www.youtube.com/watch?v=guqs0uXFpiU</a>
Ray Optics	Any Class 11 video
Damped Oscillations	<a href="https://www.youtube.com/watch?v=GZZOD3cnPVk&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=7">https://www.youtube.com/watch?v=GZZOD3cnPVk&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=7</a>
Forced Oscillations	<a href="https://www.youtube.com/watch?v=4IYyvjgf5Bk&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=9">https://www.youtube.com/watch?v=4IYyvjgf5Bk&amp;list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd&amp;index=9</a>

Electromagnetism	
Topic Name	Videos
Electrostatics	<a href="https://www.youtube.com/watch?v=eXpy5hQpA2Q&amp;list=PLyqSpQzTE6M_OXWtn1RUnuZNSbSSy6Lys&amp;index=24">https://www.youtube.com/watch?v=eXpy5hQpA2Q&amp;list=PLyqSpQzTE6M_OXWtn1RUnuZNSbSSy6Lys&amp;index=24</a> Watch This Lecture Series
Magnetostatics	<a href="https://www.youtube.com/watch?v=eXpy5hQpA2Q&amp;list=PLyqSpQzTE6M_OXWtn1RUnuZNSbSSy6Lys&amp;index=24">https://www.youtube.com/watch?v=eXpy5hQpA2Q&amp;list=PLyqSpQzTE6M_OXWtn1RUnuZNSbSSy6Lys&amp;index=24</a> Watch this Lecture Series
Electrodynamics	<a href="https://www.youtube.com/watch?v=eXpy5hQpA2Q&amp;list=PLyqSpQzTE6M_OXWtn1RUnuZNSbSSy6Lys&amp;index=24">https://www.youtube.com/watch?v=eXpy5hQpA2Q&amp;list=PLyqSpQzTE6M_OXWtn1RUnuZNSbSSy6Lys&amp;index=24</a> Watch This Lecture Series
RLC Circuit	<a href="https://www.youtube.com/watch?v=6ieUk3Rm1yY">https://www.youtube.com/watch?v=6ieUk3Rm1yY</a> <a href="https://www.youtube.com/watch?v=OYerdzZPSI0&amp;list=PLPbE5bK8B8qVPT7wVaFPa3j7e83rJIBCT">https://www.youtube.com/watch?v=OYerdzZPSI0&amp;list=PLPbE5bK8B8qVPT7wVaFPa3j7e83rJIBCT</a> <a href="https://www.youtube.com/watch?v=Bt6V7D5av9A&amp;list=PLPbE5bK8B8qVPT7wVaFPa3j7e83rJIBCT&amp;index=2">https://www.youtube.com/watch?v=Bt6V7D5av9A&amp;list=PLPbE5bK8B8qVPT7wVaFPa3j7e83rJIBCT&amp;index=2</a> <a href="https://www.youtube.com/watch?v=PLQrPqYIPml">https://www.youtube.com/watch?v=PLQrPqYIPml</a> <a href="https://www.youtube.com/watch?v=nh4q7mIhLrY">https://www.youtube.com/watch?v=nh4q7mIhLrY</a> <a href="https://www.youtube.com/watch?v=RR0sQeDAXgk">https://www.youtube.com/watch?v=RR0sQeDAXgk</a>
Motion of Charged Particles in E.F and M.F	<a href="https://www.youtube.com/watch?v=eXpy5hQpA2Q&amp;list=PLyqSpQzTE6M_OXWtn1RUnuZNSbSSy6Lys&amp;index=24">https://www.youtube.com/watch?v=eXpy5hQpA2Q&amp;list=PLyqSpQzTE6M_OXWtn1RUnuZNSbSSy6Lys&amp;index=24</a> Watch This Lecture Series



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<b>Thermodynamics and Statistical Mechanics</b>	
<b>Topic Name</b>	<b>Video</b>
<b>KTG</b>	<a href="https://www.youtube.com/watch?v=UMXSNjjUVt4">https://www.youtube.com/watch?v=UMXSNjjUVt4</a> <a href="https://www.youtube.com/watch?v=2DzA2_ej_SU&amp;list=PL5X9i0LmT_qLTBsCQ02W4CFSKncSp6xot&amp;index=4">https://www.youtube.com/watch?v=2DzA2_ej_SU&amp;list=PL5X9i0LmT_qLTBsCQ02W4CFSKncSp6xot&amp;index=4</a> <a href="https://www.youtube.com/watch?v=-ZVp-xocyT4&amp;list=PL5X9i0LmT_qLTBsCQ02W4CFSKncSp6xot&amp;index=5">https://www.youtube.com/watch?v=-ZVp-xocyT4&amp;list=PL5X9i0LmT_qLTBsCQ02W4CFSKncSp6xot&amp;index=5</a> <a href="https://www.youtube.com/watch?v=xQ9D4Jz95-A">https://www.youtube.com/watch?v=xQ9D4Jz95-A</a>
<b>Laws of Thermodynamics, Entropy, Carnot Cycle</b>	Any Class 11 Lectures
<b>Microstates and Macrostates (Distribution rules for different kind of particles)</b>	<a href="https://www.youtube.com/watch?v=X-KQkaCnunc&amp;list=PLxFNyeDbssXqKDh_isAEkEedR7bvpbtqG&amp;index=3">https://www.youtube.com/watch?v=X-KQkaCnunc&amp;list=PLxFNyeDbssXqKDh_isAEkEedR7bvpbtqG&amp;index=3</a>
<b>Thermodynamic Potentials</b>	<a href="https://www.youtube.com/watch?v=9s30qibtEjw">https://www.youtube.com/watch?v=9s30qibtEjw</a>
<b>Phase Transitions</b>	<a href="https://www.youtube.com/watch?v=jsitoEf-sNw">https://www.youtube.com/watch?v=jsitoEf-sNw</a> <a href="https://www.youtube.com/watch?v=Q53obRL3XZU">https://www.youtube.com/watch?v=Q53obRL3XZU</a>
<b>Maxwell Relations</b>	<a href="https://www.youtube.com/watch?v=HNR9ILGItYA">https://www.youtube.com/watch?v=HNR9ILGItYA</a>
<b>Other topics of Stat Mech</b>	Videos of PhysicsByAaryan Available in Telegram Group

<b>Modern Physics</b>	
<b>Topic Name</b>	<b>Video</b>
<b>Relativity</b>	<a href="https://www.youtube.com/watch?v=mJpnzaKs6-c">https://www.youtube.com/watch?v=mJpnzaKs6-c</a> <a href="https://www.youtube.com/watch?v=uMc-j5aQTH8&amp;list=PLUI4u3cNGP61Zc3rR6wVM0kpsiyIq0fk8">https://www.youtube.com/watch?v=uMc-j5aQTH8&amp;list=PLUI4u3cNGP61Zc3rR6wVM0kpsiyIq0fk8</a> (Use this Lecture Series)
<b>Modern Phenomenon (Black Body, Compton, Photoelectric Effect etc)</b>	<a href="https://www.youtube.com/watch?v=ugsvADj1wts">https://www.youtube.com/watch?v=ugsvADj1wts</a> <a href="https://www.youtube.com/watch?v=EWqzg0iqNtw">https://www.youtube.com/watch?v=EWqzg0iqNtw</a> <a href="https://www.youtube.com/watch?v=Hy-XdwU343s&amp;list=PL2ub1_oKCn7pnssVgnF87PxnGEwAbUK60">https://www.youtube.com/watch?v=Hy-XdwU343s&amp;list=PL2ub1_oKCn7pnssVgnF87PxnGEwAbUK60</a> <a href="https://www.youtube.com/watch?v=zQHIN34YAIQ">https://www.youtube.com/watch?v=zQHIN34YAIQ</a> <a href="https://www.youtube.com/watch?v=IRgoNZMZYJM">https://www.youtube.com/watch?v=IRgoNZMZYJM</a> <a href="https://www.youtube.com/watch?v=a8FTr2qMutA">https://www.youtube.com/watch?v=a8FTr2qMutA</a> <a href="https://www.youtube.com/watch?v=SFW-cGfN2h4">https://www.youtube.com/watch?v=SFW-cGfN2h4</a> <a href="https://www.youtube.com/watch?v=XH0laTujxLE">https://www.youtube.com/watch?v=XH0laTujxLE</a>
<b>Quantum Mechanics</b>	<a href="https://www.youtube.com/watch?v=fqEtDiYAg5E">https://www.youtube.com/watch?v=fqEtDiYAg5E</a> <a href="https://www.youtube.com/watch?v=igSXRTyS20I">https://www.youtube.com/watch?v=igSXRTyS20I</a> <a href="https://www.youtube.com/watch?v=N4HGYIhQKEs">https://www.youtube.com/watch?v=N4HGYIhQKEs</a>



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	<a href="https://www.youtube.com/watch?v=YP4P_ndTi3E&amp;list=PLxFNyeDbssXqKDh_isAEkEedR7bvpbtqG&amp;index=7">https://www.youtube.com/watch?v=YP4P_ndTi3E&amp;list=PLxFNyeDbssXqKDh_isAEkEedR7bvpbtqG&amp;index=7</a> <a href="https://www.youtube.com/watch?v=ug2IH3OC80Y&amp;list=PLxFNyeDbssXqKDh_isAEkEedR7bvpbtqG&amp;index=8">https://www.youtube.com/watch?v=ug2IH3OC80Y&amp;list=PLxFNyeDbssXqKDh_isAEkEedR7bvpbtqG&amp;index=8</a> <a href="https://www.youtube.com/watch?v=krpWuAG-KdE&amp;list=PLxFNyeDbssXqKDh_isAEkEedR7bvpbtqG&amp;index=9">https://www.youtube.com/watch?v=krpWuAG-KdE&amp;list=PLxFNyeDbssXqKDh_isAEkEedR7bvpbtqG&amp;index=9</a> <a href="https://www.youtube.com/watch?v=TAEfk22RAZo">https://www.youtube.com/watch?v=TAEfk22RAZo</a> <a href="https://www.youtube.com/watch?v=V7yXl2qMQM">https://www.youtube.com/watch?v=V7yXl2qMQM</a> <a href="https://www.youtube.com/watch?v=yG_Ot9rsNaw">https://www.youtube.com/watch?v=yG_Ot9rsNaw</a> <a href="https://www.youtube.com/watch?v=l29vbExLSak">https://www.youtube.com/watch?v=l29vbExLSak</a>
<b>Atomic Physics</b>	Use any class 11 videos
<b>Nuclear Physics</b>	Use any Class 11 videos

<b>Electronics and Solid State</b>	
<b>Topic Name</b>	<b>Videos</b>
<b>Diodes and Applications</b>	<a href="#">Introduction to Diode: What is Diode ? V-I characteristics of the Diode Explained - YouTube</a>
<b>BJT and Biasing</b>	<a href="https://www.youtube.com/watch?v=-VwPSDQmdjM&amp;list=PLwjK_ iyK4LLDoFG8FeiKAr3IStRkPSxqq">https://www.youtube.com/watch?v=-VwPSDQmdjM&amp;list=PLwjK_ iyK4LLDoFG8FeiKAr3IStRkPSxqq</a> Till Lecture 10
<b>OPAMP and applications</b>	<a href="https://www.youtube.com/watch?v=t0IR9CvwZUU">https://www.youtube.com/watch?v=t0IR9CvwZUU</a> <a href="https://www.youtube.com/watch?v=-lNmA6LeI2A">https://www.youtube.com/watch?v=-lNmA6LeI2A</a>
<b>Digital Electronics</b>	Any class 11 videos
<b>Solid State Physics</b>	<a href="https://www.youtube.com/watch?v=USpTJVeRzkQ&amp;list=PLADLRin7kNiG1Dlna9MDA53CMKFHPSi9m&amp;index=7">https://www.youtube.com/watch?v=USpTJVeRzkQ&amp;list=PLADLRin7kNiG1Dlna9MDA53CMKFHPSi9m&amp;index=7</a> Use this Lecture Series



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## **Four Month Full IIT JAM Physics Plan of PhysicsByAaryan**

**October:** Modern Physics + Electronics + Solid State Physics

**November:** Mathematics + Mechanics + Waves + Oscillations

**December:** Optics + EMT + Thermodynamics + Stat. Mech

**January:** Revision + Pending Syllabus

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