

# HSC 1st Year Academic Program

## Pioneer Batch

**Ramadan Batch Time:**

**English Version - 10:00 AM**

**Class & Exam Routine  
(Part-01)**

**Exam time:**

**9.00 am to 11.00 pm.**

Date and time	Live Class (Online Smart Board)	Live Exam (Online)
24 March 2024 (Sunday)	<b>Live class (C-05+06)</b> Chemistry: Chapter- 02	Basic Introductory Exam
<b>All classes and examinations will be closed on 26<sup>th</sup> March 2024 (Tuesday) due to National Independence Day</b>		
28 March 2024 (Thursday)	<b>Live class (P-03+04)</b> Physics: Chapter- 02	<b>Board Standard</b> Daily Live Exam (C-05+06) <b>MCQ</b> (10×1=10); 10 min
29 March 2024 (Friday)	<b>Live class (Z-01+02)</b> Zoology: Chapter- 01	<b>Board Standard</b> Daily Live Exam (P-03+04) <b>MCQ</b> (10×1=10); 10 min
31 March 2024 (Sunday)	<b>Live class (C-07+08)</b> Chemistry: Chapter- 02	<b>Board Standard</b> Daily Live Exam (Z-01+02) <b>MCQ</b> (10×1=10); 10 min
2 April 2024 (Tuesday)	<b>Live class (HM-11+12)</b> H.Math: Chapter- 03	<b>Board Standard</b> Daily Live Exam (C-07+08) <b>MCQ</b> (10×1=10); 10 min
4 April 2024 (Thursday)	<b>Live class (P-05+06)</b> Physics: Chapter- 02	<b>Board Standard</b> Daily Live Exam (HM-11+12) <b>MCQ</b> (10×1=10); 10 min
5 April 2024 (Friday)	<b>Live class (Z-03+04)</b> Zoology: Chapter- 01	<b>Board Standard</b> Daily Live Exam (P-05+06) <b>MCQ</b> (10×1=10); 10 min
<b>Classes and examinations will be closed from 6<sup>th</sup> April to 20<sup>th</sup> April 2024 on the occasion of Eid-ul-Fitr</b>		
<b>After Ramzan Batch Time English Version - 3:00 PM</b>		
21 April 2024 (Sunday)	<b>Live class (P-07+08)</b> Physics: Chapter- 02	<b>Board Standard</b> Daily Live Exam (Z-03+04) <b>MCQ</b> (10×1=10); 10 min
23 April 2024 (Tuesday)	<b>Live class (HM-13+14)</b> H.Math: Chapter- 03	<b>Board Standard</b> Daily Live Exam (P-07+08) <b>MCQ</b> (10×1=10); 10 min
25 April 2024 (Thursday)	<b>Live class (C-09+10)</b> Chemistry: Chapter- 02	<b>Board Standard</b> Daily Live Exam (HM-13+14) <b>MCQ</b> (10×1=10); 10 min
26 April 2024 (Friday)	<b>Live class (HM-15+16)</b> H.Math: Chapter- 03	<b>Board Standard</b> Daily Live Exam (C-09+10) <b>MCQ</b> (10×1=10); 10 min
28 April 2024 (Sunday)	<b>Live class (C-11+12)</b> Chemistry: Chapter- 02	<b>Board Standard</b> Daily Live Exam (HM-15+16) <b>MCQ</b> (10×1=10); 10 min
30 April 2024 (Tuesday)	<b>Live class (Z-05+06)</b> Zoology: Chapter- 01	<b>Board Standard</b> Daily Live Exam (C-11+12) <b>MCQ</b> (10×1=10); 10 min
<b>01 May 2024 (Wednesday)</b>	<b>Chapter-wise Exam [Zoology Chapter-01] (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>	
2 May 2024 (Thursday)	<b>Live class (P-09+10)</b> Physics: Chapter- 02	<b>Board Standard</b> Daily Live Exam (Z-05+06) <b>MCQ</b> (10×1=10); 10 min
3 May 2024 (Friday)	<b>Live class (B-01+02)</b> Botany: Chapter- 01	<b>Board Standard</b> Daily Live Exam (P-09+10) <b>MCQ</b> (10×1=10); 10 min
5 May 2024 (Sunday)	<b>Live class (C-13+14)</b> Chemistry: Chapter- 02	<b>Board Standard</b> Daily Live Exam (B-01+02) <b>MCQ</b> (10×1=10); 10 min
7 May 2024 (Tuesday)	<b>Live class (HM-17+18)</b> H.Math: Chapter- 03	<b>Board Standard</b> Daily Live Exam (C-13+14) <b>MCQ</b> (10×1=10); 10 min
9 May 2024 (Thursday)	<b>Live class (P-11+12)</b> Physics: Chapter- 02	<b>Board Standard</b> Daily Live Exam (HM-17+18) <b>MCQ</b> (10×1=10); 10 min
10 May 2024 (Friday)	<b>Live class (B-03+04)</b> Botany: Chapter- 01	<b>Board Standard</b> Daily Live Exam (P-11+12) <b>MCQ</b> (10×1=10); 10 min
12 May 2024 (Sunday)	<b>Live class (C-15+16)</b> Chemistry: Chapter- 02	<b>Board Standard</b> Daily Live Exam (B-03+04) <b>MCQ</b> (10×1=10); 10 min
14 May 2024 (Tuesday)	<b>Live class (HM-19+20)</b> H.Math: Chapter- 03	<b>Board Standard</b> Daily Live Exam (C-15+16) <b>MCQ</b> (10×1=10); 10 min
16 May 2024 (Thursday)	<b>Live class (P-13+14)</b> Physics: Chapter- 02	<b>Board Standard</b> Daily Live Exam (HM-19+20) <b>MCQ</b> (10×1=10); 10 min
17 May 2024 (Friday)	<b>Live class (B-05+06)</b> Botany: Chapter- 01	<b>Board Standard</b> Daily Live Exam (P-13+14) <b>MCQ</b> (10×1=10); 10 min
19 May 2024 (Sunday)	<b>Live class (C-17+18)</b> Chemistry: Chapter- 02	<b>Board Standard</b> Daily Live Exam (B-05+06) <b>MCQ</b> (10×1=10); 10 min
21 May 2024 (Tuesday)	<b>Live class (HM-21+22)</b> H.Math: Chapter- 03	<b>Board Standard</b> Daily Live Exam (C-17+18) <b>MCQ</b> (10×1=10); 10 min
<b>22 May 2024 (Wednesday)</b>	<b>Chapter-wise Exam [Physics Chapter-02] (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>	
23 May 2024 (Thursday)	<b>Live class (HM-23+24)</b> H.Math: Chapter- 03	<b>Board Standard</b> Daily Live Exam (HM-21+22) <b>MCQ</b> (10×1=10); 10 min
24 May 2024 (Friday)	<b>Live class (B-07+08)</b> Botany: Chapter- 01	<b>Board Standard</b> Daily Live Exam (HM-23+24) <b>MCQ</b> (10×1=10); 10 min
<b>25 May 2024 (Saturday)</b>	---	<b>Board Standard</b> Daily Live Exam (B-07+08) <b>MCQ</b> (10×1=10); 10 min
	<b>Chapter-wise Exam [H.Math Chapter-03] (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>	

The next routine will be published...

## HSC 1st Year Academic Program Pioneer Batch Syllabus-2024 (Online)

Physics 1st paper (Reference Book: <b>UDVASH Parallel Text</b> )		
Chapter	Lecture	Syllabus
<b>Chapter-2</b> Vector	<b>P-03</b>	Quantity, Scalar quantity and Vector quantity, Expression of Vector Quantity, Different types of Vectors, Addition of Vectors: Resultant.
	<b>P-04</b>	Law of Parallelogram, Determination of the Resultant of Two Vectors, Determination of the Direction of Resultant, Some Special Cases of the Law of Parallelogram.
	<b>P-05</b>	Some Characteristics of Vector Addition, Commutative Law, Associative Law, Distributive Law, Resolution of Vector, Determination of the Resultant of More than Two Vectors.
	<b>P-06</b>	Some Uses of Vector Resolution, Towing a boat, Lawn Roller, Concept of River and Boat.
	<b>P-07</b>	River, and Boat related.
	<b>P-08</b>	Subtraction of Vectors, Relative Velocity.
	<b>P-09</b>	Expression of Relative Velocity, Expression of Vectors in the Cartesian Coordinate System.
	<b>P-10</b>	Addition and Subtraction of Vectors Resolved into Components, Determination of Position Vector, Vector in Three-Dimensional Coordinate System.
	<b>P-11</b>	Multiplication of Vector, Multiplication of Vector Quantity with Scalar Quantity.
	<b>P-12</b>	Dot Multiplication of Vectors, Cross Multiplication of Vectors.
	<b>P-13</b>	Calculus, Differentiation, Integration, Functions with Multiple Variables and Partial Differentiation.
	<b>P-14</b>	Scalar and Vector Field, Gradient, Divergence, Curl.

Chemistry 1st paper (Reference Book: <b>UDVASH Parallel Text</b> )		
Chapter	Lecture	Syllabus
<b>Chapter-2</b> Qualitative Chemistry Introduction	C-05	Fundamental particles of atoms, introduction, and atomic models- electron, proton and neutrons discussion, atomic mass unit, atomic expression, isotope, isotone, isobar, isoelectronic, isomer.
	C-06	Radioactive isotope and nuclear reaction (Transmutation, fission and fusion), Rutherford's atomic model discussion.
	C-07	Bohr's atomic model discussion, Application of atomic models and Quantum Mechanics-Derivation for $v, r, n, E$ From Bohr's model, Related Math.
	C-08	De Broglie's equation, Heisenberg's uncertainty principle, Schrodinger's wave equation, Related Math.
	C-09	Quantum Number- Principal Quantum number, Subsidiary Quantum Number, Magnetic Quantum Number, Spin Quantum Number
	C-10	Significance of Quantum Number, Orbit and Orbital Discussion, Quantum Subshell shapes and discussion, Calculation of total orbital and electron number.
	C-11	Electronic Configuration- Aufbau Principle, Hund's Rule, Pauli's Exclusion Principle, $e^-$ configuration of compounds and ions, stability of electronic configuration.
	C-12	Electromagnetic spectrum- Discussion, quantities related to radiation, regions of electromagnetic ray, classification of spectrum, identification of compounds using spectrum.
	C-13	spectrum of H atom + Rydberg Discussions, Related Math.
	C-14	Lines of spectrum, Uses of UV in Fake money and passport identification, Uses of IR ray in medical science, Use of MRI in diagnosis.
	C-15	Solubility and Solubility Product- Mixture and Solution, Solubility, Factors influencing solubility.
	C-16	solubility product, ionic product, Related Math.
	C-17	Principle of Solubility Product, Application of the principle of Solubility Product Common ion and its effect to change solubility
	C-18	Application of common ion, effect of pH on solubility, Related Math.

H.Math 1st Paper (Reference Book: <b>UDVASH Parallel Text</b> )		
Chapter	Lecture	Syllabus
<b>Chapter-3</b> Straight line	HM-11	Exercise – 3.1; Coordinate system and distance between two points, Cartesian coordinate system, Polar coordinate system, transformation of coordinate systems related.
	HM-12	Exercise – 3.1; Distance between two points, Problems relating to the distance between two points.
	HM-13	Exercise – 3.2; Bisector formula, with respect to the coordinates of the internal/external bisector point.
	HM-14	Exercise – 3.2; Parallelogram/Square/Triangle/Circle related, Exercise – 3.3; Area of a polygon, finding area of a triangle by coordinates of vertices of a triangle.
	HM-15	Exercise – 3.3; Displacement parallel to axis, related to finding area, condition of three points being parallel, related to determining the ratio of the bisector of one line by another line.
	HM-16	Exercise – 3.4; Locus, related to determining the equation of locus.
	HM-17	Exercise – 3.5; Slope and equation of a straight line, Problems on Slope and equation of a straight line.
	HM-18	Exercise – 3.5; Relation in terms of two equations pointing to the same straight line, conversion from the general equation of a straight line to an equation of different shapes, intersection of two straight lines.

	HM-19	Exercise – 3.5; Area related, Locus, Exercise – 3.6; The condition that three straight lines are concentric, two parallel straight lines related, Regarding straight lines parallel to a straight line.
	HM-20	Exercise – 3.6; Regarding two straight lines perpendicular to each other, equation of a straight line through the point of intersection of two straight lines.
	HM-21	Exercise – 3.6; Angles included by two straight lines, at different centers.
	HM-22	Exercise – 3.7; Perpendicular distance from a given point to a given straight line, position of the point with respect to the straight line.
	HM-23	Exercise – 3.7; segmentation of the segment joining two points by a line, The perpendicular distance between two parallel straight lines, the equation of the bisector of the angle between two non-parallel straight lines.
	HM-24	Exercise – 3.7; Find the equation of the isosceles of the angle under various conditions, Regarding image.

### Botany (Reference Book: **UDVASH** Parallel Text)

Chapter	Lecture	Syllabus
<b>Chapter-1</b> Cell and its Structure	B-01	Cells, endosymbiosis, cell characteristics, cytology, cell theory, cell types, plant cell, cell wall.
	B-02	Protoplast, cell membrane, cytoplasm and organelles, ribosomes.
	B-03	Endoplasmic reticulum, Golgi bodies, lysosomes, mitochondria.
	B-04	Plastid, centriole, cytoskeleton, peroxisome, glyoxysome, vacuole.
	B-05	Nucleus, Cell inclusions, Chromosome.
	B-06	Hereditary material, DNA, RNA.
	B-07	DNA replication, Transcription, Reverse Transcription.
	B-08	Translation, Central Dogma of Biology, Gene, Genetic Code.

### Zoology (Reference Book: **UDVASH** Parallel Text)

Chapter	Lecture	Syllabus
<b>Chapter-1</b> Animal diversity and Classification	Z-01	Animal diversity: Types, Animal classification: Basis and principles of Animal classification.
	Z-02	Nomenclature of Animals, codes of Nomenclature of Animals, Major phylums of animal kingdom: Non-chordates.
	Z-03	Poriphera, Cnidaria, Platyheminthes.
	Z-04	Nematoda, Mollusca, Annelida.
	Z-05	Arthropoda, Echinodermata.
	Z-06	Chordata: Characteristics of the various subphylums and classes of the order Chordata, classification of vertebrata.

**For any information regarding the online program contact the following numbers**

**Dhaka Branches:** Mirpur-01713-236705, Rupnagar-01713-236734, Cantonment-01713-236724, Uttara-01713-236707, Mohammadpur-01713-236701  
**Science Lab.**-01713-236706, Farmgate (Green Road)-01713-236710, Farmgate (Malek Road)-01713-236711, Shantinagar-01713-236703  
**Malibagh**-01713-236702, **Motijheel**-01713-236908, **Basabo**-01713-236722, **Banshri**-01713-236723, **Laxmibazar**-01713-236720, **Jatrabari**-01713-236719  
**Dania**-01713-236718, **Savar**-01713-236721 **Gazipur**-01713-236746, **Narayanganj**-01713-236717, **Konapara**-01713-236757, **Tongi**-01713-236759  
**Bakshibazar**-01713-236712, **Khilgaon**-01713-236768.

**Branches outside Dhaka:** Mymensingh (Natun Bazar)-01713-236716, Mymensingh (KB)-01713-236769, Kishoreganj-01713-236739  
**Netrokona**-01713-236767, **Jamalpur**-01713-236740, **Sherpur**-01713-236749, **Tangail**-01713-236737, **Sirajganj**-01713-236742, **Bogura**-01713-236727  
**Gaibandha**-01713-236755, **Rangpur (Medical Mor)**-01713-236726, **Rangpur (Khamar Mor)**-01713-236783, **Kurigram**-01713-236753  
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**Pabna**-01713-236736, **Kushtia**-01713-236735, **Meherpur**-01313-368670, **Chuadanga**-01713236764, **Jhenaidah**-01713-236766, **Magura**-01713-236752  
**Jashore**-01713-236731, **Narail**-01713-236788, **Khulna**-01713-236715, **Satkhira**-01713-236750, **Pirajpur**-01713-236790, **Bhola**-01713-236791  
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**Moulvibazar**-01713-23678, **Sunamganj**-01713-236779.