प्रवेश भवन
इलाहाबाद विश्वविद्यालय
प्रयागराज-211002

PRAVESH BHAWAN
UNIVERSITY OF ALLAHABAD
PRAYAGRAJ-211002

No. PB/52/2026

Date: 08/05/2026

Corrigendum

PGAT 2026 (Materials Science)

PGAT 2026 Brochure: Table: List-V: **Courses available for Specialized / Non-conventional subjects** – Serial No. 12 – M.Tech. Materials Science and Technology is being replaced with M.Sc. Materials Science. The Eligibility for M.Sc. Materials Science is as under

"*For admission in M.Sc. (Materials Science), candidate should have Bachelor of Science (B.Sc.)/ B. Tech. or its equivalent degree*".

If the seat remains vacant, candidates who have appeared in PGAT – I in Physics, Chemistry, Mathematics, or other science subjects may also be considered for admission in M.Sc. Materials Science.

Syllabus for PGAT–2026

Mathematical Functions, Simple Integration & Differentiation, Differential equations, Curve of simple functions, Scalar and Vector products. Vector Differentiation, Gradient, Divergence and Curl. Vector integration. Theorems of Gauss. Stoke's and problems based on these.

Thermodynamics, Kinetic Theory of Gases, Conduction of Heat and Radiation.

Motion under central forces, Mechanics of nonrigid bodies, Elastic properties, Fluid Mechanics.

Electrical Circuits: AC, DC and transient behavior.

Semiconductor Electronics including photonics and digital electronics. One dimensional motion in non-dispersive media, Ultrasonics.

Electrostatics in free space and in dielectric media, Electric Current, Magnetostatics, Time varying fields, Electromagnetic waves in free waves, Physical optics.

Atomic Physics, X-ray, Vibration and Rotational spectroscopies, UV-visible spectroscopies, NMR

Need of quantum mechanics, observables and operators, Schrodinger equation and its simple applications upto hydrogen like atoms.

Crystal Structure, Reciprocal Lattice, Interatomic forces and classification of solids, Free electron theory and band gap of solids, Electrical and Magnetic properties of Materials.

Chemical Bonding, Valence bond theory, Molecular orbital theory.

Properties of s and p blocks. Transition and inner transition elements. Coordination compounds, Complex Formation.

Fundamentals of Organic Chemistry, Stereo Chemistry of Carbon Compounds, Isomerism, reaction mechanisms, Chemistry of Fundamental groups.

Chemical Kinetics: Zero, First, Second and Third order reactions, Chemical Equilibria.

Electrochemistry, reversible electrodes, Electrode reactions, Nernst Equation, Determination of Cell E.M.F., Concentration Cells, Acid-Base Concepts.

Photochemistry: Lambert-Beer law, Jablonski Diagram.

Note: The applicants should note that M.Tech. in Materials Science and Technology is being discontinued from the academic session 2026-2027.

Kapinder 8/5/26

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