



Recruitment Section

University of Kashmir

NAAC Accredited Grade A++

NOTICE

It is hereby notified for the information of all the concerned candidates who have applied for the post of **Workshop Instructor** advertised vide Advertisement Notice No. 07 of 2026, dated 31.03.2026, that the scheme and syllabus for the aforementioned post shall be as under:

Scheme/Selection Criteria:

- There will be 80 MCQs (Multiple Choice Questions) and each correct answer will carry 1 mark.
- There will be negative marking of 0.25 for each wrong answer.
- The time allotted for the test will be 90 minutes.
- Appearance in the OMR based Written Test is purely provisional and does not confer any right for selection/appointment.
- The candidates shall ensure that they fulfill all the eligibility conditions for the post on their own before appearing in the OMR based Written Test.
- The final eligibility of the candidates shall be determined strictly at the time of Document verification.
- Candidates will be called for Document verification in the ratio of 1:5 of the posts advertised and only those candidates will be considered for selection on the basis of merit in OMR based Written Test who are declared eligible at the time of Document verification by the Competent Authority.
- The decision of the Competent Authority on all matters, including eligibility and selection, shall be final and binding.
- There will be no Interview/Skill test for the aforesaid post.

The syllabus for the above said post is given in Annexure I to this Notice.

By order,

**Sd/-
Deputy Registrar
Recruitment**

No.F(Adv.7of 2026) Rec/KU/26
Dated :17.08.2026



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ANNEXURE I:

SYLLABUS FOR WORKSHOP INSTRUCTOR

Unit 1: Engineering Workshop Practice Industrial Safety

- **Safety practices:** General industrial safety, personal protective equipment (PPE), fire hazards, and basic 5S workplace organization.
- **Bench Work Fitting:** Types of files, hacksaws, chisels, scrapers; operations like marking, filing, sawing, scraping, and tapping.
- **Sheet Metal Carpentry:** Sheet metal tools, snips, folding, joints (seams); timber properties, seasoning, common hand tools, and carpentry joints.

Unit 2: Engineering Graphics Drawing

- **Projections:** principles of orthographic projections, first-angle and third-angle projections, and isometric views.
- **Machine Drawing:** Drawing of simple machine elements (nuts, bolts, keys, cotters).
- **Blueprints:** Reading and interpreting surface finish symbols, welding symbols, and limits/fits/tolerances on engineering drawings.

Unit 3: Engineering Mechanics Strength of Materials

- **Mechanics:** Resolution of forces, conditions of equilibrium, center of gravity, centroid, and moment of inertia of simple sections.
- **Friction:** Laws of static and dynamic friction, applications of friction.
- **Strength of Materials:** Concepts of stress and strain, Hooke's law, elastic constants, shear force, and simple bending of beams.

Unit 4: Materials Science and Engineering

- **Engineering Materials:** Classification, properties, and applications of ferrous metals (cast iron, steels) and non-ferrous metals (aluminum, copper, and their alloys).
- **Heat Treatment:** Basic processes including annealing, normalizing, hardening, tempering, and surface hardening techniques.

Unit 5: Manufacturing Engineering

- **Foundry Technology:** Pattern making, types of patterns, molding sand preparation, properties, and basic casting processes/defects.
- **Metal Forming:** Principles of forging, rolling, and extrusion; use of hand forging tools.
- **Welding Processes:** Principles of arc welding, gas welding (oxy-acetylene), soldering, and brazing; welding defects and safety precautions.



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- **Lathe Machine:** Constructional features, specifications, and operations (turning, facing, threading, taper turning, knurling).
- **Drilling Machine:** Types of drilling machines, drill bit geometry, reaming, boring, and tapping operations.
- **Shaper, Planer, and Slotter:** Working principles, quick return mechanisms, and basic operations.

Unit 6: Advanced Machining CNC Basics

- **Milling Grinding:** Types of milling machines, up/down milling, indexing; principles of grinding, selection of grinding wheels, and surface/cylindrical grinding.
- **Unconventional Machining:** Basic introduction to EDM (Electrical Discharge Machining) and ECM (Electrochemical Machining).
- **CNC Machines:** Difference between NC and CNC, coordinate systems, and basic part programming (G-codes and M-codes).

Unit 7: Measurements and Metrology

- **Linear Angular Measurements:** Use of Vernier calipers, micrometers, height gauges, depth gauges, bevel protractors, and sine bars.
- **Gauges Inspection:** Slip gauges, dial indicators, and the use of GO/NO-GO plug and ring gauges.
- **Limits Fits:** Concept of interchangeability, limits, fits, and tolerances according to standard systems.

Unit 8: Fluid Mechanics Hydraulic Machinery

- **Fluid Properties:** Density, specific gravity, viscosity, and surface tension.
- **Fluid Pressure:** Measurement of pressure, use of manometers and pressure gauges.
- **Hydraulic Machinery:** Basic working principles and applications of hydraulic pumps (centrifugal and reciprocating) and hydraulic turbines.

Unit 9: Basic Thermal Engineering

- **Thermodynamics:** Basic concepts, systems, properties, and the first and second laws of thermodynamics.
- **Internal Combustion (IC) Engines:** Working principles of 2-stroke and 4-stroke engines, SI (Spark Ignition) and CI (Compression Ignition) engines.
- **Steam Boilers;** properties of steam, basic working of fire-tube and water-tube boilers, boiler mountings, and accessories.