**Job Description: Engineering Graphics Teacher (Classes 11 & 12, CBSE Curriculum)**

**Position Title:** Engineering Graphics Teacher (Classes 11 & 12)

**Reporting To:** HoD – Science & AVP - Science

**Position Type:** Full-time

**Job Overview:** We are seeking a skilled and enthusiastic Engineering Graphics Teacher to join our academic team and teach students in Classes 11 and 12 following the CBSE curriculum. The ideal candidate will have a strong foundation in engineering drawing, computer-aided design (CAD), and technical communication. The teacher will be responsible for planning, delivering, and assessing the Engineering Graphics syllabus while ensuring students develop strong practical skills in graphical representation and technical drawings.

**Key Responsibilities:**

- **Lesson Planning & Delivery:**
  - Plan, prepare, and deliver effective and engaging lessons in Engineering Graphics, focusing on key areas such as drawing conventions, projection techniques, machine drawing, and CAD tools.
  - Ensure that lessons are aligned with the CBSE curriculum and cater to the learning needs of all students in Classes 11 and 12.
  - Use a variety of teaching methods, including lectures, demonstrations, practical sessions, and project-based learning to effectively teach both theory and practical aspects of engineering graphics.
- **Practical and Software Training:**
  - Provide hands-on training in creating technical drawings, sketches, and layouts, both manually and using software such as AutoCAD, SolidWorks, or other relevant CAD tools.
  - Organize and supervise practical sessions where students can practice drafting techniques, sectional views, isometric drawings, and other engineering drawings.
  - Ensure that students understand how to interpret and create detailed technical drawings used in real-world engineering applications.
- **Assessment & Evaluation:**
  - Conduct regular assessments, including assignments, quizzes, projects, and practical exams, to gauge students' understanding of engineering graphics principles.
  - Provide constructive feedback to students on their drawings and help them improve their technical drawing skills.
  - Evaluate student performance based on both theoretical knowledge and practical proficiency in engineering graphics.
- **Student Support:**
  - Offer individualized support to students, especially those who may require extra help with technical concepts or drawing techniques.

- o Encourage problem-solving and critical thinking through design challenges and group projects.
- o Foster a positive, inclusive classroom environment where students feel encouraged to experiment and refine their graphical skills.
- o Organise Support classes and enhancement classes effectively for Board Examination going students.
- **Curriculum Implementation:**
  - o Ensure that all topics in the CBSE syllabus for Engineering Graphics are covered within the academic year.
  - o Regularly review and update lesson plans, ensuring they are up-to-date with the latest industry trends and technological advancements in engineering graphics.
  - o Keep track of student progress and adjust teaching methods to address any gaps in knowledge or skills.
- **Classroom Management:**
  - o Create a disciplined and productive classroom atmosphere conducive to learning and creativity.
  - o Manage classroom resources effectively, ensuring that students have access to necessary materials (drafting boards, drawing sheets, CAD software, etc.).
- **Professional Development:**
  - o Attend faculty meetings, departmental workshops, and professional development programs to stay current with the latest teaching methodologies, software updates, and industry trends in engineering graphics.
  - o Share best practices with colleagues and contribute to the development of the school's curriculum and teaching strategies.
- **Parent and Guardian Communication:**
  - o Maintain regular communication with parents and guardians to inform them of student progress and achievements.
  - o Participate in parent-teacher meetings to discuss students' strengths and areas for improvement.

- **Skills & Competencies:**
  - o Strong understanding of the CBSE Engineering Graphics syllabus and the technical aspects of drawing and design.
  - o Proficiency in CAD software (e.g., AutoCAD, SolidWorks, CATIA) and basic drafting tools.
  - o Ability to teach both manual drafting and computer-aided drawing techniques.
  - o Excellent communication skills, with the ability to explain complex technical concepts clearly and concisely.
  - o Strong organizational skills and the ability to manage classroom resources effectively.
  - o Ability to motivate students for various Model Making competition in the field of Engineering Graphics and Design Thinking and Innovation.

- **Expected Attributes:**

  - A passion for teaching technical subjects and helping students develop practical skills.
  - Creative and innovative approach to lesson delivery and assessment.
  - Patient, approachable, and able to provide constructive feedback to students.
  - Ability to inspire students to pursue careers in engineering and design-related fields.
  - Strong attention to detail and commitment to student success.
  - Ability to teach the skill subjects – Design Thinking and Innovation – DTI for classes 9 and 10.

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**HoD – Science**                                                     **AVP - Science**