

SYLLABUS :-

Prerequisite Workshop - 2 Casting: Types of foundries, steps in making a casting; cast metals; types, materials and allowances of patterns; moulding processes and their characteristics; moulding materials; gating and risering; melting furnaces; casting defects. Welding: Welding processes; welding energy sources and their characteristics; fluxes and coatings; weldability and welding of various metals and alloys; metallurgical characteristics of welded joints; weld testing and inspection. Forming: Classification of metal forming processes; basic metal working concepts and plasticity; yield criterion; slip line fields; estimation of force and energy requirements; technology of bulk and sheet metal forming processes; precision forming processes; various features of different types of metal forming dies; principles of powder forming.