

A large, faint background graphic consisting of four stylized human figures in green, red, blue, and yellow, with their arms raised in a celebratory gesture, similar to the logo above.

Engineering
Revision Timetable
2024 - 2025

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There are digital versions of Engineering textbooks in your teams files. It is recommended that you use this, your lesson notes, and past papers to revise from so that you are studying the most relevant information for this course.

<p>W/C 17th February</p>	<p>Engineering Disciplines:</p> <ul style="list-style-type: none"> • Mechanical Engineering: Revise hydraulics, gears, and pulleys. Examples: hydraulic lifts, gear systems in vehicles, pulley systems in cranes. Understand their applications in solving engineering problems and shaping modern machinery. • Electrical Engineering: Review power stations (DC, AC) and household appliances. Examples: power grids, electric kettles, washing machines. Recall their functions and impact on energy distribution and daily life.
<p>W/C 24th February</p>	<p>Engineering Disciplines:</p> <ul style="list-style-type: none"> • Electronic Engineering: Go over integrated circuits (PCBs), input/output receivers, and transmitters. Examples: microchips in computers, remote controls, radios. Refresh your understanding of their roles in modern electronics and communication. • Aerospace Engineering: Revisit aircraft, space vehicles, and missiles. Examples: commercial airplanes, satellites, rockets. Remember their design, engineering challenges, and impact on transportation and space exploration.
<p>W/C 3rd March</p>	<p>Engineering Disciplines:</p> <ul style="list-style-type: none"> • Telecommunications Engineering: Review mobile networks (3G, 4G, 5G), satellite, telephone, radio, and fibre optic communications. Examples: smartphones, GPS systems, internet infrastructure. Recall their evolution and significance in global communication. • Chemical Engineering: Refresh your knowledge on pharmaceuticals (medicines), fossil fuels, food and drinks, and cosmetics. Examples: drug manufacturing, oil refining, beverage production. Focus on their production processes and applications in everyday life.
<p>W/C 10th March</p>	<p>Engineering Disciplines:</p> <ul style="list-style-type: none"> • Civil Engineering: Revisit buildings, roads, bridges, and railways. Examples: skyscrapers, highways, railway networks. Recall the engineering principles behind their construction and their impact on infrastructure development.

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	<ul style="list-style-type: none"> • Automotive Engineering: Review cars, trucks, motorcycles, and trains. Examples: electric cars, freight trucks, high-speed trains. Focus on their design, engineering advancements, and impact on transportation.
W/C 17th March	<p>Engineering Disciplines:</p> <ul style="list-style-type: none"> • Biomedical Engineering: Refresh your understanding of prosthetics, medical devices, and radiotherapy. Examples: artificial limbs, MRI machines, cancer treatment technologies. Recall their development and impact on healthcare. • Software Engineering: Review applications, systems, and computer programming. Examples: mobile apps, operating systems, coding languages. Focus on their role in modern engineering and technology.
W/C 24th March	<p>Health and Safety Legislation:</p> <ul style="list-style-type: none"> • Health and Safety at Work Legislation: Revise the general responsibilities of employers and employees within the workplace. Understand how this legislation ensures a safe working environment in engineering. • PPE at Work Legislation: Review the purpose and use of personal protective equipment (PPE) in various scenarios. Examples: safety goggles, ear defenders, hard hats. Understand their importance in protecting engineers.
W/C 31st March	<p>Health and Safety Legislation:</p> <ul style="list-style-type: none"> • Manual Handling Operations Legislation: Refresh your knowledge on the safe movement of loads, including risk assessments and mechanical aids. Understand how this legislation prevents injuries in engineering tasks. • COSHH Regulations: Review the dangers of hazardous substances and the necessary precautions. Examples: chemical handling, dust control, gas safety. Understand their importance in maintaining a safe engineering environment.
W/C 7th April	<p>Health and Safety Legislation:</p> <ul style="list-style-type: none"> • RIDDOR: Revise the reporting process, record keeping, and timescales for reporting incidents. Understand how this legislation helps track and prevent workplace accidents in engineering. <p>SI Units and Equations:</p> <ul style="list-style-type: none"> • SI Units of Measurement: Refresh your understanding of the application of SI units (ampere, candela, kelvin, kilogram, metre, mole, second). Recall examples of their use in engineering measurements.

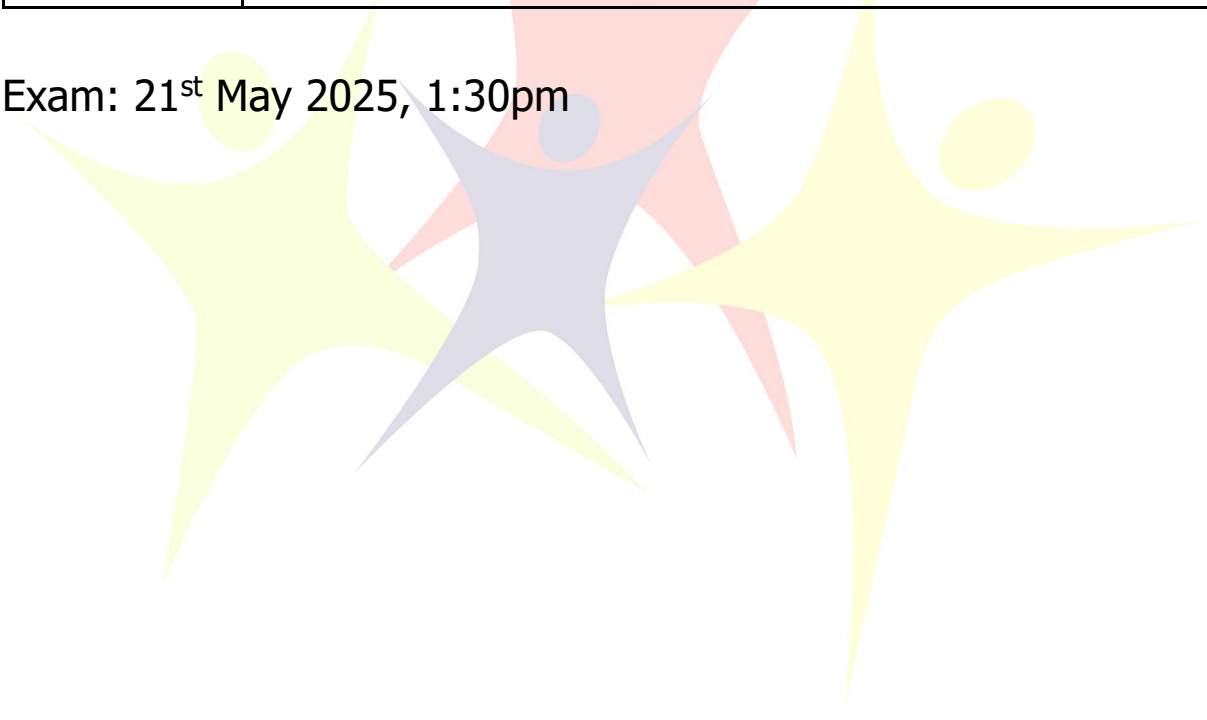
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	<ul style="list-style-type: none"> • Application of Base SI Units: Review how equations are derived from base units. Practice using these equations in engineering contexts.
W/C 14th April	<p>Equations and Calculations:</p> <ul style="list-style-type: none"> • Equations for Properties: Revise equations for energy, force, motion, electrical properties, and geometric shapes. Recall examples of their application in engineering problems. • Application of Equations: Practice using these equations to evaluate unknown factors in various engineering contexts.
W/C 21st April	<p>Engineering Drawings:</p> <ul style="list-style-type: none"> • Drawing Conventions: Review the elements included in an engineering drawing (lines, tolerance, title block). Recall examples of how these conventions are used in engineering designs. • British Standards (BS) 8888: Refresh your understanding of the purpose and application of BS 8888 in engineering drawings. Understand how these standards ensure consistency and accuracy.
W/C 28th April	<p>Properties and Characteristics of Materials:</p> <ul style="list-style-type: none"> • Properties: Revise the chemical, electrical, magnetic, mechanical, optical, and thermal properties of materials. Recall examples of materials used in engineering projects. • Characteristics: Review the aesthetics and environmental impact of materials. Understand how material selection affects engineering design and sustainability.
W/C 5th May	<p>Tools, Equipment, and Machines:</p> <ul style="list-style-type: none"> • Marking Out Tools: Refresh your knowledge on the use of tools like engineer's scribe, steel rule, engineer's square, marking gauge, centre/dot punch, and calipers. Recall their applications in engineering projects and safety measures. • Modifying Tools: Review various saws (hacksaw, mechanical hacksaw, junior hacksaw, crosscut hand saw, tenon saw, coping saw, circular saw, reciprocating saw, band saw, tin snips, jigsaw, scroll saw), pliers (side cut, long nose), hammers (ball peen, claw), cordless drills, angle grinders, routers, lathes (wood lathe, centre lathe), pillar drills, CNC milling machines, CNC lathes, and files. Focus on safety precautions and their role in shaping materials.
W/C 12th May	<p>Tools, Equipment, and Machines:</p> <ul style="list-style-type: none"> • Joining Tools: Revise the use of riveting guns, screwdrivers (Phillips, Torx, Slotted, Pozidriv), spanners (open-ended, combination, ratchet), adhesives (PVA, contact adhesive, epoxy resin, hot glue gun, wood glue, super glue, spray adhesive), soldering irons, welding (MIG, TIG,

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	<p>arc welding), and components (nails, wood screws, wood dowels, rivets, engineering bolts and nuts, engineering screws and nuts). Recall their applications in engineering assemblies and safety measures.</p> <ul style="list-style-type: none"> • Finishing Tools: Review finishing tools like hand sanders (palm sander, portable belt sander, fixed disc sander, fixed belt sander), buffing wheels. Focus on how they work, their uses, health and safety related to them, and how to use them in engineering projects.
W/C 19th May	<p>Production Planning and Processing Skills:</p> <ul style="list-style-type: none"> • Risk Assessment: Refresh your understanding of how to identify hazards, assess risks, and implement control measures. Recall examples of risk assessments in engineering tasks. • Production Plan: Review how to create a production plan using flow charts, Gantt charts, spreadsheets, and time plans. Understand how these tools help manage engineering projects efficiently.

Exam: 21st May 2025, 1:30pm



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