

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 one in the logo.

Engineering
Revision Timetable
2023 - 2024

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Before the November exam you were provided with a printed textbook containing all of your Engineering course content. There is also a digital version of this textbook in your teams files. It is recommended that you use this, and past papers to revise from so that you are studying the most relevant information for this course.

<p>W/C 1 April</p>	<p>Engineering Disciplines</p> <ul style="list-style-type: none"> • Revise how the following areas of Engineering have shaped the modern world. • Remember the examples of each area of Engineering: <ul style="list-style-type: none"> • Mechanical Engineering <ul style="list-style-type: none"> ○ <i>Hydraulics & Pascal's Principle</i> ○ <i>Gears</i> ○ <i>Pulleys</i> • Electrical and Electronic Engineering <ul style="list-style-type: none"> ○ <i>Power stations</i> ○ <i>Household appliances</i> ○ <i>Integrated circuits</i> ○ <i>Input/output receivers and transmitters</i> ○ <i>AC/DC currents</i> • Aerospace Engineering <ul style="list-style-type: none"> ○ <i>Aircraft</i> ○ <i>Space vehicles</i> ○ <i>Missiles</i> • Communications Engineering <ul style="list-style-type: none"> ○ <i>Telephone</i> ○ <i>Radio</i> ○ <i>Mobile (3G, 4G, 5G)</i> ○ <i>Satellite</i> ○ <i>Fibre Optic</i> • Chemical Engineering <ul style="list-style-type: none"> ○ <i>Pharmaceuticals</i> ○ <i>Fossil fuels</i> ○ <i>Food & drink</i> ○ <i>Cosmetics</i>
<p>W/C 8 April</p>	<p>Engineering Disciplines</p> <ul style="list-style-type: none"> • Revise how the following areas of Engineering have shaped the modern world. • Remember the examples of each area of Engineering: <ul style="list-style-type: none"> • Civil Engineering <ul style="list-style-type: none"> ○ <i>Bridges</i> ○ <i>Roads</i> ○ <i>Railways</i> ○ <i>Buildings</i> • Automotive Engineering <ul style="list-style-type: none"> ○ <i>Cars</i>

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	<ul style="list-style-type: none"> ○ <i>Motorcycles</i> ○ <i>Trains</i> ○ <i>Trucks</i> ● Biomedical Engineering <ul style="list-style-type: none"> ○ <i>Prosthetics</i> ○ <i>Medical devices</i> ○ <i>Radiotherapy</i> ● Software Engineering <ul style="list-style-type: none"> ○ <i>Applications</i> ○ <i>Systems</i> ○ <i>Computer programming</i>
W/C 15 April	<p>Health & Safety Legislation in Engineering</p> <p>For each of the following you need to know what they are, why they exist, and how they protect employees and employers.</p> <ul style="list-style-type: none"> ● Health & Safety at Work Act ● Personal Protective Equipment at Work Regulations – <i>Know and recognise PPE, state situations when it is used, and what it protects from.</i> ● Manual Handling Operations Regulations – <i>Know when this applies to workers.</i> ● Reporting of Injuries, Diseases and Dangerous Occurrences Regulations – <i>know what needs to be reported.</i> <ul style="list-style-type: none"> ○ Control of Substances Hazardous to Health – <i>recognise and name the specific symbols.</i>
W/C 22 April	<p>SI Units of Measurement</p> <p>Remember, you do not need to memorise equations – these will be provided for you in the exam. You need to know how to apply the equations to given scenarios.</p> <p>For each unit of measurement, you need to be able to state an example of its use in Engineering, relating to one of the areas of Engineering stated above.</p> <ul style="list-style-type: none"> ● Application of SI Units of Measurement <ul style="list-style-type: none"> ● Equations ● Energy ● Forces & Motion ● Electrical ● Geometric
W/C 29 April	<p>Reading Engineering Drawings</p> <p>Remember: you do not have to draw in your exam, but you need to be able to read and interpret all listed drawing styles.</p> <ul style="list-style-type: none"> ● British standards / BS8888– <i>know the differences between British Standards and ISO Standards, and how/why they are used in Engineering</i> <p>Drawing Conventions</p>

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	<ul style="list-style-type: none"> Title Blocks – <i>know what information goes into a title block</i> Systems of measurement – <i>know the difference between imperial and metric and how to convert between the two</i> Scale – <i>understand how scale works in Engineering drawings</i> Lines – <i>know and recognise the types of lines used in Engineering drawings and what they mean</i> <ul style="list-style-type: none"> Tolerance – <i>know how tolerance is used in drawings and manufacturing</i>
W/C 6 May	Reading Engineering Drawings <ul style="list-style-type: none"> 2D Projections - <i>first and third angle orthographic projection</i> 3D Projections – <i>isometric, axonometric and 2-point perspective</i>
W/C 13 May	Properties and Characteristics of Materials Remember, the specific properties can be found in your course textbook. <ul style="list-style-type: none"> Properties – <i>define what each property is and know a material example that best represents the property.</i> <ul style="list-style-type: none"> <i>Chemical</i> <i>Electrical</i> <i>Mechanical</i> <i>Optical</i> <i>Thermal</i> <i>Characteristics</i> <i>Aesthetic</i> The Environmental Impact of using Engineering materials – <i>extraction, fossil fuels and sustainability</i>
W/C 20 May	Materials Remember, the specific materials can be found in your course textbook. <ul style="list-style-type: none"> Metals – <i>ferrous and non-ferrous metals.</i> Polymers – <i>thermoplastics, thermosetting plastics and elastomers.</i> Wood – <i>hardwoods, softwoods and manufactured boards.</i> Ceramics – <i>glass, cement, brick, pottery and diamond.</i> Composites – <i>GRP, CFRP, and concrete.</i>
W/C 27 May	Tools, Equipment & Machines Remember, the specific tools can be found in your course textbook. <ul style="list-style-type: none"> Marking Out Modification – <i>saws and CNC machines</i> Joining – <i>joining tools and joining components</i> Finishing
W/C 3 June	Tools, Equipment & Machines <ul style="list-style-type: none"> Safe & Correct Use of Engineering Tools Workplace Training Control Measures and Machine Safety Risk Assessments

Exam: 7th June, 9am

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