

Dear Parents/Carers,

I am writing to inform you of some upcoming deadlines for the year 11 Engineering Design group. Students worked well last term and I'm happy to report that we've had some positive feedback regarding their first coursework moderated unit (R040). All marks have been agreed and we are now in a very strong position moving forward. This letter contains key information to ensure all of our engineering students continue with the current momentum and understand how to achieve the success they deserve. Please make a note of the key dates and information below.

R038- May exam: (Principles of Engineering)

All students have been entered for unit R038. This is their final exam and will take place on the **9th of May 2024**. It is imperative that students complete all independent learning tasks set on TEAMS leading up to the exam. An exam question will be set each week leading up to the exam and it is expected that students complete this for homework. All students have been issued with an exam theory workbook. They have also been issued with a knowledge organiser booklet to support them with further reading and revision. Both resources have been uploaded into the files section of their TEAMS page if they lose or misplace the resources. The overview on the back of this page shows the topics and contents of the theory lesson delivered during the Wednesday lesson of each week. Students will also have access to an electronic version of a revision book to help them with their exam (Hodder Boost).

R039- Research coursework: (Communicating Designs)

Students have been working hard on this design unit and are making great progress. This unit needs to be **completed by the 25th March**. This will give students the opportunity to have their work marked and feedback given. Students will then have half term and three more weeks to improve their coursework grade, before submitting it to the moderator. All resources, including a 'WAGOLL' (What a good one looks like), and coursework guide have also been attached with the assignment on TEAMS. Students are following an assignment brief set by the exam board to design a wireless charger with a secondary function. Students need to complete a range of 2D and 3D design ideas, present their developed and chosen design using CAD software and then evaluate their chosen design. Students have been issued with a check list to tick off the required work as and when they finish it.

Coursework drop down days:

To assist and support our Engineering students further, we will also have 2 mornings where students will have further time in a PC room to complete and type up their coursework. These dates will be confirmed in due course.

After school intervention:

Students are more than welcome to stay after school on any day of the week to complete their coursework. We have several ICT rooms available for coursework completion and CAD work. Wednesday will be the official year 11 after school intervention evening in B8. Students can stay until 5pm where they will get advice on their coursework and have the choice of either completing coursework or revise for the exam.

As you can appreciate students still have a lot of work to complete. **Students should be working on their coursework at home every week**. All coursework tasks have been set on TEAMS.

Furthermore, all students have free access to the Fusion 360 CAD software from home. This is web based and as a result students can therefore work on their CAD drawings from home. They just need a PC or laptop.

Half term intervention:

I will also offer half term intervention in February and April half term. These days will be confirmed in due course; however, it is strongly advised that students attend these valuable sessions to work on their CAD drawings and designs.

Students final and overall grade is split between their exam progress (40%) and the quality of their coursework (60%)

Finally, thank you for your support, I know how difficult it can be to encourage students to complete coursework at home, especially having two boys of my own! If you would like to discuss any aspect of the contents of this letter, please do not hesitate to contact me by email, smith@suthersschool.co.uk or simply call and leave a message with our reception team.

Yours sincerely,

Mr Smith

Head of Department for Technology

Associate School Leader

Please refer to the specification below if you wish to find out more about the course:



<https://www.ocr.org.uk/Images/610944-specification-cambridge-nationals-engineering-design-j822.pdf>

Engineering Design outline 15 week countdown!

	Week commencing	Single lesson	Double lesson	Exam preparation
Week 1	8th Jan	CAD fusion 360 – sketching of developed and chosen design	Development of Final design- Freehand sketches	Legislation
Week 2	15th Jan	CAD fusion 360 – sketching of developed and chosen design	Development of Final design- Freehand sketches	Market Pull, Technology Push Scales of manufacture
MOCK EXAM!				
Week 3	22nd Jan	CAD fusion 360 – sketching of constructing components for design	Development of Final design- Freehand sketches	Sustainable design- 6Rs
Week 4	29th Jan	CAD fusion 360 – sketching of constructing components for design	Development of Final design- Annotation and rendering – linking to specification	Planned obsolescence
Week 5	5th Feb	Coursework Deadline for Task 2		
	12th Feb	Half term intervention		
Week 7	19th Feb	CAD fusion 360 – Assembly	Isometric drawing (Free hand of final design)	Breadboarding
Week 8	26th Feb	CAD fusion 360 – Assembly	Exploded Drawing (Free hand of final design)	Shaping, Forming, Joining materials
Week 9	4th March	CAD fusion 360 – Render	3rd Angle Orthographic Drawing- Free hand	User testing
Week 10	11th March	CAD fusion 360 – Engineering drawing	3rd Angle Orthographic Drawing- CAD	<ul style="list-style-type: none"> - threads - holes - chamfers

				- countersinks - knurls.
Week 11	18 th March	Evaluation of design ideas		
Week 12	25th March	Coursework Deadline for Task 3		
	1st April	Half term intervention		
Week 13	15 th Apr	Uplifting of R039- improvement to coursework final deadline 29th April.		Revision for exam
Week 14	22 nd Apr			Revision for exam
Week 15	29 th Apr			Revision for exam
	7 th May	R038 Exam 9th May (AM)		

Grade descriptions:

U	P1	M1	D1	P2	M2	D2	D2*
U	1	2	3	4	5 6	7 8 9	9*