

Subject: Cambridge Nationals Engineering

Exam Board: OCR

Mock paper: 1 hours 25%

Paper 1 Content:

Learning Outcome 1: Know about properties and uses of engineering materials:-

- types of engineering materials
- new and emerging materials
- properties of engineering materials
- materials testing processes, i.e.
- characteristics of engineering materials,
- uses of specific materials

Learning Outcome 2: Understand engineering processes and their application:-

- basic engineering processes
- machine processes
- safe use of tools and equipment

Learning Outcome 3: Know about developments in engineering processes:-

- applications of computer controlled production processes
- additive manufacturing and rapid prototyping processes

Learning Outcome 4: Understand the impact of modern technologies on engineering production:-

- the impact of modern technologies in engineering production
- global manufacturing

Outline content

Adjust to reflect the number of papers you are completing

Useful revision resources:

List websites, links to past papers, books etc here

Websites:-

www.hse.gov

www.technologystudent.com

www.engineeringtoolbox.com

<http://www.engineershandbook.com/>

<https://www.manufacturingguide.com>

Books (available in the LRC):-

“DeGarmo’s Materials and Processes in Manufacturing” – Black & Koster – Wiley ISBN: 978-0-470-87375-5.

“Basic Manufacturing” – Roger Timings – Newnes ISBN 0-7506-5990-4

“Workshop processes, practices & materials” – Bruce J. Black ISBN 978-0-08-089064-7

“Basic Engineering Technology” – Roger Timings – Heinemann Newnes ISBN 0-434-91949-7

“Manufacturing Technology Volume 1” – Roger Timings Prentice hall ISBN 0-582-35693-8

“Manufacturing Technology Volume 2” – Roger Timings Prentice hall ISBN 0-582-35797-7

“GCSE Manufacturing” – Hodder & Stoughton ISBN 0-340-81409-8

Pupils also have their notes from year 10, google classroom tasks set during lock down, as well as the "Exam Questions" booklet, with sample questions in.

Which revision guides etc do you recommend, how can students buy these?

Revision guides are not available for this course.

Revision Tips

Most pupils have a sound understanding of Learning Objective 1.

Learning Objectives 2, 3 & 4 do need focus.

revision plan – e.g. what should they revise each week from half term see the psychology example below

We don't have the exam date yet, so you do not need to add this

Week beginning	Topics to revise	
2/11/20	Properties and uses of engineering materials.	
9/11/20	Manufacturing processes.	
16/11/20	Use of CNC in manufacturing.	
23/11/20	The impact of modern technologies on engineering production.	
30/11/20	The impact of modern technologies on engineering production.	
7/12/20	Mock Exams.	
21/12/20 to 4/1/21	Continue research for controlled assessment tasks.	