

OCR A LEVEL PHYSICS: IMPROVING THE RESULTS OF LOWER ATTAINING STUDENTS

CODE 8749

ABOUT THIS COURSE

This course is aimed at teachers working with mixed ability and lower attaining students who are looking to maximise their potential in the upcoming A Level Physics 2023 exams.

The course focuses on effective, refreshed and specifically-tuned strategies and approaches which excite and motivate students and develop their understanding, learning and levels of attainment. Emphasis will also be on assessing low attainers and intervention strategies to accelerate progress. The course provides a comprehensive toolkit that adds value and will help learners excel in their Summer 2023 exam performance.

PROGRAMME

TIME

Starting off: the first half-term

10.00 – 11.00am

- What are the key skills which affect student performance in Physics?
- What are the signs and symptoms of low attaining students?
- Ensuring your induction programme supports all learners of all abilities
- Identifying and assessing what lower ability students really know? How to find the gaps in a non-threatening manner
- Planning your teaching order for students to learn the basics and encourage confidence
- Raising the pace – how to help physics students adjust to the pace and complexity of the course

Discussion: coffee break

11.00 – 11.15am

Effective techniques that embed subject knowledge and develop skills so that lower ability students thrive

11.15 – 11.50am

- Implementing techniques and methods to ensure that lower ability learners understand key concepts in OCR A level Physics.
- Effective techniques to help lower ability students to retain knowledge, understand difficult topics and develop skills.
- Exploring active learning techniques to develop skills and retain knowledge.

Approaches to Cementing the Fundamental Concepts: Mathematical Skills in OCR Physics for lower ability students

11.50 – 12.30pm

Effective diagnosis of weak areas in students' use of mathematical and strategies for addressing them:

- Number skills – units and significant figures
- Algebra skills – rearranging and substituting formulae
- Graphical skills – interpreting straight line graphs
- Trig skills – vector triangles and resolution

Lunch and informal discussion

12.30 – 1.30pm

Practical Skills: Approaches to Cementing the Fundamental Concepts for lower ability students

1.30 – 2.15pm

Identifying shortcomings in students' practical skills which are tested in each OCR paper and addressing these through both practical lessons and through non-laboratory-based activities:

- Planning experiments – writing workable methods
- Estimating uncertainty – understanding the method and the purpose
- Processing data – effective use of graphical representation
- Evaluating results – critical analysis of practical technique

Interpreting questions and applying appropriate knowledge – key techniques and approaches

2.15 – 3.00pm

- Effective strategies, methods and techniques to support your students in interpreting questions and applying knowledge appropriately.
- Common pitfalls in weakness areas and different strategies for dealing with each weakness areas.
- Practical approaches to enhance student learning.
- Methods for delivering the OCR mandatory topics in Cosmology and Medical Physics.

Embedding Exam techniques into Your Teaching to Accelerate Progress and Attainment

3.00 – 3.45pm

- Ways to embed exam techniques into your teaching to enhance the performance of lower ability students for the exams.
- In depth focus on effective methods of using the mark schemes and peer-assessment to improve exam technique
- Explore exam strategies for the OCR Breadth and Depth Papers and how these can help lower ability learners to increase their grades
- Approaches to accelerate progress, effective intervention techniques within embedding exam technique in teaching

LOCATION/DATE

London

Thursday 09 June 2022

Thursday 10 November 2022

WHO SHOULD ATTEND?

- OCR A level Physics teachers
- Heads of Physics
- Heads of Science
- Teachers of A Level Physics of other exam boards

BENEFITS OF ATTENDING

- Equip you with strategies to support students and accelerate their progress
- Take away approaches that excite and motivate students
- Gain strategies for developing students' skills to overcome weak areas
- Examine techniques and methodologies to allow students to develop a can-do mindset and demonstrate independent practise and personal academic development
- Develop strategies for helping students improve their exam technique
- Gain ideas on effective incorporation of practical work into course delivery