



CCEA Level 1 Award in Occupational Studies  
CCEA Level 2 Award in Occupational Studies

Summer Series 2018

## Principal Moderator's Report

# occupational studies

*Engineering and Engineering  
Services*



## Foreword

This booklet outlines the performance of candidates in all aspects of CCEA's Level 1 and Level 2 Qualifications in Occupational Studies - Engineering and Engineering Services for this series.

CCEA hopes that the Chief Examiner's and/or Principal Moderator's report(s) will be viewed as a helpful and constructive medium to further support teachers and the learning process.

This booklet forms part of the suite of support materials for the specification. Further materials are available from the specification's microsite on our website at [www.ccea.org.uk](http://www.ccea.org.uk).



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# LEVEL 1 AND 2 QUALIFICATIONS IN OCCUPATIONAL STUDIES – ENGINEERING AND ENGINEERING SERVICES

## Principal Moderator’s Report

### Introduction

The number of cash-ins for the summer 2018 series has remained broadly similar at 8050 cash-ins. The total number of unit entries has increased by 1% to 15804. The number of centres adjusted in this series has increased from 69 in summer 2017 to 90 in summer 2018. There were some positive adjustments as well as negative adjustments. Some centres need to include more stretch and challenge assessment opportunities in order to give their candidates access to the higher mark bands within the AO1 criteria. Centres must clearly align AO2 practical tasks with **all** the Assessment Criteria found in each unit specification. If centres are found not to have covered some part of the Assessment Criteria their marks will be adjusted accordingly.

### Internal Standardisation

Whilst there has been an improvement from the previous series, some centres are still not carrying out effective standardisation across units within a pathway. It is important where a centre is entering candidates for a number of units from this pathway that there is a robust and effective internal standardisation process in place.

### Engineering and Engineering Services Introduction

After moderation the team felt that the following points would assist in any future moderation procedures:

- The structure of the questions in section AO1 should be more progressive from simple answering to more stretch and challenge type questions which would help to differentiate in the range of abilities of the learners and consequently reflect in the range of marks achieved by the individual learners.
- The TAC2 should be signed by all teachers/lecturers who deliver units in this session and a sample of the internal standardisation of candidates selected and actually IV'd in each unit and/or any additional units within the pathway. (This would reinforce that IV work had actually taken place and been agreed, resulting in a consistency of the marks/grades awarded across the pathway).
- The learner unit tracking grid from the individual unit specifications must be used to establish the final marks within each section. (Teachers/lecturers can still have individually annotated marking frames to ascertain the marks awarded at the various stages within the candidate portfolio). There were instances where there was no unit tracking grid completed and this made it difficult to see where the candidates obtained their marks.
- The AO1 Section 1 should have a respective 4,3,3 ratio for the marks for Health & Safety, Environmental Issues and related Careers section to which a total of 10 marks are awarded. The Careers section should include evidence of the candidates having carried out independent research into three careers within the vocational area.

AO1 Section 2 'materials and related skills and knowledge' should have the questions specifically related to the practical nature of the tasks to be undertaken in the unit.

- Evaluation marks should not be awarded for summarising the tasks undertaken, but must be more self-reflective, analysing and evaluating work in the light of the overall experience and its influence on future vocational outlook, career choices and job prospects.
- Attention is drawn to the microsite circular S/IF/24/14 (April 2014) for those schools/colleges intending to deliver units 37, 45 & 46 (amendments to specification). A number of centres still submit evidence for AO2 which includes both servicing and valeting. Centres must follow the requirements of the specification to submit work for AO2 in either servicing or valeting, not both.

Overall the standard of the portfolios presented were satisfactory with a few exceptions. The main reason for the adjustments was, as in previous series, leniency of marking particularly in AO1 section 1 and in AO3, the evaluation section. In the case of one centre there was a positive adjustment in the CAD unit. In some cases there was insufficient evidence in AO2 where the photographic evidence to support the completion of tasks was lacking. Also, in some centres there were no mark schemes to show how the candidates obtained their marks. In AO1 and AO3 too many marks were awarded for very basic questions and simplistic answers without stretch and challenge to establish the more able candidate worthy of the higher mark. The AO3 evaluations need to ask the correct questions and should not concentrate on the quality of practical work only. The evaluations should be a reflection of how the candidates performed when completing the unit. They tended to focus mainly on the description of the tasks/experiences.

Internal standardisation needs to be better addressed in some cases to avoid accurately assessed units being penalised as a result of other leniently assessed units in the same pathway. (See bullet point 4 above).

The senior moderation team carried out a number of detailed spot checks on centres as part of the moderation process. This process highlighted that most centres were marking within the tolerance of the specification.

To foster vocational skills, Occupational Studies allows learners to learn for work, through work and about work. This hands-on approach is ideal for those who prefer to develop their skills in a more practical, occupational environment.

Occupational Studies continued to be very popular with learners undertaking two units from any of the six single award pathways.

- Design and Creativity
- Technology and Innovation
- Construction
- Business Services
- Environment and Society
- Engineering and Engineering Services

There are still general issues in some units which include:

- Evidence is required of clearly annotated photographs for AO2 a minimum of seven photographs is required clearly showing the work being carried or in some cases the development of a project.
- Better teacher mark grids that show where and why marks have been awarded in AO1, AO2 and AO3.
- A clearly defined mark scheme is required, showing how the candidates obtained their marks for the various tasks.



- Front cover sheets detailing the name of the unit and the candidates' details were not included in a few centres.
- In the summer 2018 moderation there were entries for all 11 units in the Engineering and Engineering Services pathway.
- There were errors in the marks on the candidates' portfolios when transferred to the TAC1.

### **Basic Fast-Fit Operations**

The second most popular unit in this pathway mainly due to the specific interests of learners in this vocational area and the hobby interests in cars also.

Centres are becoming better resourced with the tools and equipment to provide the necessary learning environment for this unit and meet the specification requirements.

Centres should provide good supporting photographic evidence of the learners undertaking their assessment tasks to endorse the AO2 section in their portfolio of evidence.

### **Basic Vehicle Body Components and Fitting**

This is another popular unit, which requires teamwork and more specific detail in some instances.

Centres are becoming better resourced with the tools and equipment to provide the necessary learning environment for this unit and meet the specification.

(Note specification amendment S/IF/24/14 (April 2014))

Centres should provide supporting photographic evidence of the learners undertaking their assessment tasks to endorse the AO2 section in their portfolio of evidence.

### **CAD – Computer Aided Design**

This unit needs to be delivered by a tutor with the expertise and knowledge of CAD programmes and the technology associated with its delivery. Portfolios should contain hard copies of the assessments undertaken for ease of moderation. Centres are reminded that the CAD drawings must be produced in 2D format and printed to scale on A3 sheets.

This unit can also be taken in the Technology and Innovation pathway.

### **Electrical Wiring Installation**

This is the most popular unit in this pathway. The equipment and resources are fairly minimal with display boards/panels and fixing components re-useable.

Centres should provide supporting photographic evidence of the learners undertaking their assessment tasks to endorse the AO2 section in their portfolio of evidence.

Centres need to be aware that the specification asks for surface mounting of all cables, components and all fixings using display boards/panels with appropriate layouts.

Centres should also ensure that the clipping of cables is in line with industrial standards.

It is also important that there is clear photographic evidence of the functionality of the completed circuit by means of a lit bulb or a multi meter test for continuity.

Basic Health & Safety aspects need to be encouraged by participating centres.

## **Electronic Circuit Construction**

Another popular unit within this pathway that requires resources which are fairly minimal, with many components re-useable and also the tasks can be taught and delivered in minimal space i.e. a suitably resourced classroom or lab with soldering stations.

This unit demands a good understanding of electronic components and their identification and function, including circuitry. It also requires a good level of accuracy, neatness and precision in the assembly and soldering to bread/strip-boards or PCB's to satisfactorily achieve the necessary outcomes. It is important that there is clear evidence produced of the functionality of the two circuits produced by the candidates. There should also be clear evidence of the neatness and accuracy of the soldering techniques by the candidates.

Basic Health & Safety aspects need to be encouraged by participating centres with aprons and safety glasses being used. Care should also be exercised regarding solder fumes.

## **Maintenance of Land Based Machinery**

Only 92 candidates have undertaken this unit. The equipment and resources required are large and expensive requiring considerable space and layout e.g. tractor and/or other land based machinery and associated tools and equipment. Those taking this unit seem to have found it most beneficial.

## **Manufacturing Techniques – Hand Fitting**

Centres are becoming better resourced with the tools and equipment to provide the necessary learning environment for this unit and meet the specification.

Centres should provide supporting photographic evidence of the learners undertaking stages of their assessment task/s to endorse the AO2 section in their portfolio evidence and finished components should be retained. The photographic evidence should clearly show the development of the project through its various stages. These photographs should be clearly annotated by the centre.

This unit can also be taken in the Technology and Innovation pathway.

## **Manufacturing Techniques – Sheet Metal**

Centres are becoming better resourced with the tools and equipment to provide the necessary learning environment for this unit.

Centres should provide supporting photographic evidence of the learners undertaking their assessment tasks to endorse the AO2 section in their portfolio evidence and finished components should be retained. The photographic evidence should clearly show the development of the project through its various stages. All photographs should be clearly annotated by the centre.

This unit can also be taken in the Technology and Innovation pathway.

## **Plumbing**

Centres are becoming better resourced with the tools and equipment to provide the necessary learning environment for this unit in order to meet the specification requirements. Hydraulic testing is an important aspect in these tasks. Centres should also ensure that in the mild steel task candidates are required to use bending equipment to produce a right angled bend.

Centres should provide supporting photographic evidence of the learners undertaking their assessment tasks to endorse the AO2 section in their portfolio evidence and finished components should be retained.

This unit can also be taken in the Construction pathway.

### **Vehicle Servicing and Valeting Operations**

This is the third most popular unit in this pathway mainly due to the interest of learners in this vocational area and the hobby interests in cars also.

Centres are becoming better resourced with the necessary tools and equipment to provide the necessary learning environment for this unit and meet the specification. (Note specification amendment). Circular S/IF/24/14 (April 2014) clearly states that in AO2 centres should provide evidence for candidates either servicing or valeting a car. In this series some centres were still producing evidence for both. Centres should provide supporting photographic evidence of the learners undertaking their assessment tasks to endorse the AO2 section in their portfolio evidence.

This unit can also be taken in the Business Services pathway.

### **Vehicle Technicians Operations**

This unit is more challenging to some candidates than the Basic Fast Fit or Vehicle Servicing units.

Centres are becoming better resourced with the tools and equipment to provide the necessary learning environment for this unit and meet the specification requirements.

Centres should provide supporting photographic evidence of the learners undertaking their assessment tasks to endorse the AO2 section in their portfolio evidence.

## Contact details

The following information provides contact details for key staff members:

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