



National Qualifications 2008

Internal Assessment Report

Subject: X119 Applied Practical Electronics Intermediate 1

The purpose of this report is to provide feedback to centres on verification which has taken place within National Qualifications in this subject.

COMPONENT / COURSEWORK IN NATIONAL COURSES

COMPONENT/COURSEWORK VERIFIED

Insert details

C119: Applied Practical Electronics Intermediate 1

The project Unit of this course forms the external assessment element for which candidates are graded. The project encompasses elements undertaken in the other Units making up the course.

FEEDBACK TO CENTRES

Insert details relating to specific guidance which should be offered to centres based on the verification of centres.

Include:

- *General comments*
- *Areas of good practice*
- *Areas for further development*

General comments:

The centres offering this award during session 07/08 consisted of 4 colleges and 5 schools with at least 1 school/college partnership. The total number of centres offering the award remains fairly static. However the actual centres have changed with some centres dropping out this session while other centres have presented the course for the first time.

As in previous sessions, there are two projects available to all centres with schools opting for the cycle lights project and colleges opting for the traffic light controller project. This reflects the curriculum on offer in each type of centre.

The course, as well as being practical in nature, gives candidates exposure to problem solving techniques and could prove valuable to a wide range of candidates. Many of the skills developed throughout the course are transferable and can be applied to a wide range of careers.

Advice on good practice and areas for further development:

Internal verification procedures were found to be effective in the majority of centres with SQA documentation, regarding the marking of candidate's efforts, being implemented accurately. Regardless of which one of the two available projects is undertaken, candidates appear to enjoy most of the practical elements of the course. Each project closely matches the skills developed within the course whether it is delivered in FE or in school. The two available projects gives centres scope to match the skills acquired on this course to other elements within the curriculum. Candidates particularly appear to enjoy the construction and testing part of the project.

Practical skills, such as soldering, may be new to many school candidates and these candidates would benefit from more experience in these practical areas in order to improve such practical hands-on engineering skills. It may also stimulate interest in engineering as a career choice. It was noted, in some instances that the reports generated by candidates could be neater, especially with regard to circuit diagrams, etc. The use of rulers and other drawing tools should be encouraged.

At intermediate 1 level, candidates find the initial planning and software simulation stages demanding and also appear to have difficulty with the test and evaluation stages. This is probably to be expected at this level and candidates may require more assistance with these stages. Similar to previous sessions, candidates experienced difficulties with the layout of the circuit stripboard, which is relatively complex. This resulted in candidates having further difficulty with the accuracy and neatness of the circuit soldering and circuit implementation. Testing also proved difficult for candidates due to the complexity of the circuit, at this level. Most candidates require assistance with these stages. Candidates also appear to struggle with the final evaluation stage. Greater emphasis should be given to the overall evaluation of the project.