

## Principal Assessor Report 2002

**Assessment Panel:**

**Technical Education**

**Qualification area**

**Subject(s) and Level(s)  
included in this report**

**Craft and Design - Higher**

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## Statistical information: update

Number of resulted courses in 2001	2,519
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Number of resulted courses in 2002	2,598
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### General comments re entry numbers

The above stats, which are a course analysis, include candidates who:

- achieved a grade 1-9 in the external assessment and passed all internal units (course pass)
- achieved a grade 1-9 in the external assessment but did not pass all internal units (course fail)

Candidates who had a 999 in the external assessment are not included unless they completed the External Assessment elements last year and completed the units this year.

Entries showed an increase from last year which is heartening considering that there is a course at intermediate 2 Level, and also the availability of craft skills courses. I still have concerns however regarding trends we may see in the future, the course is still very intensive and this may put some candidates off. This will be an increasingly attractive option if craft skills courses are offered at Higher Level. Hopefully the steps being taken to reduce the burden of assessment will alleviate this.

### General comments

#### Paper 1

The results in this paper although showing a slight improvement from the year before were still disappointing. An effort was made to make marks more available by breaking questions down into smaller parts. There was still evidence that aspects of the course had had light treatment by centres and that course notes had not been used adequately.

#### Paper 2

The results this year were poorer than last year in spite of further work being done on the Design Assignment Specification to clarify the requirements for candidates.

We had hoped that this would make it easier for candidates to access marks in this element, but this did not happen.

There is still difficulty in candidates producing a consistent standard of work throughout their Design Folio. In particular the sections on Developing Ideas and Synthesis of an idea towards a solution are poorly attempted. Indeed in some cases candidates combine them or even confuse them and reduce their chances of gaining marks.

In general it would appear that the ability range of candidate was slightly poorer this year, markers reported that there was deterioration in the standard of written work and in some cases graphical work.

## Grade boundaries at C, B and A for each subject area included in the report

Boundaries were as follows:

Maximum mark attainable: 200

Upper A	162
Lower A	140
B	117
C	94

### General commentary on grade boundaries

*Notional percentage cut-offs for each grade*

Question papers and their associated marking schemes are designed to be of the required standard and to meet the assessment specification for the subject/level concerned.

For National courses the examination paper(s) are set in order that a score of approximately 50% of the total marks for all components merits a grade C (based on the grade descriptions for that grade), and similarly a score of 70 % for a grade A. The lowest mark for a grade B is set by the computer software as half way between the C and A grade boundaries.

### Comments on grade boundaries for each subject area

The pass marks over the last two years have been low reflecting difficulties that centres were experiencing with the Design Assignment specification, this has now been rectified and an effort has been made to raise the pass mark nearer to the half way mark for the subject without increasing the difficulty of the subject.

## Comments on candidate performance

### General comments

See below

### Areas of external assessment in which candidates performed well

Once again candidates understood the factors which influence design; they also had a good understanding of ergonomics and the breakdown of ergonomics into its components. This year in general all questions which tested knowledge and understanding of production processes were well answered. The lead questions were quite well answered as would be expected with the exception of Question 2. Candidates in general had little understanding of market pull and technology push and also answered the second part of the question in a superficial manner. The questions which were answered well were 1, 3,5,7,8.

Questions 9 and 10 were questions which were designed to differentiate candidates and were answered well by able students.

### Areas of external assessment in which candidates had difficulty

#### Paper 1

Questions 2 to a lesser extent as already commented about.

Question 4 a and b were both answered poorly.

Candidates were asked about the process of Batch and Mass production but in general answered what conditions would have to exist for these methods to be considered. They then had little or no knowledge about planning systems in industry and their importance to manufacturers.

Question 6 asked about the activities engaged in the processes of Design Development, Synthesis and Planning for Manufacture, as these are sections in the Design Assignment it would have been expected that candidates would have scored well in this question. The poor responses in this question perhaps go some way to explain why there is difficulty in these sections of the Design Assignment.

#### Design Assignment

As already stated candidates are still experiencing difficulty in the areas of developing ideas and synthesis. In some cases they do not follow the Design Assignment Specification and markers find it difficult to allocate marks.

In quite a few cases candidates still described how they made there final project in the school workshop rather than producing a plan for commercial manufacture as stated.

### Areas of common misunderstanding

Question 4 as already commented on

Question 8 some candidates commented upon toasters in general rather than that illustrated in the question

## **Recommendations**

### **Feedback to centres**

Concern was raised by markers on the level of guidance given to candidates on the design assignment where responses were very alike. Some work was recognised as very similar to work presented from the previous year. While previous good practice is always good to refer to for guidance for new candidates, centres must guard against over reliance on previous work. Giving or setting a theme is a good method of focusing resources for the group but themes should be changed from year to year to keep topics fresh.

In the areas of developing ideas candidates should be choosing two or three of their best ideas based upon an evaluation relating to the specification, changing them in form, texture, colour or materials re-evaluating them after development then synthesising or refining the chosen solution so that it can be manufactured as a commercial product. This means looking again at materials, methods of construction/ assembly, identification of bought parts, sourcing of parts, pricing of bought parts etc. Only then can a final solution be finalised and a working drawing be produced.

If these things are done then a production plan including manufacturing processes, outsourcing/ subcontracting, buying parts and delivery times and cut off dates can be calculated.