



Internal Assessment Report: Computing

Assessment Panel: Computing and Information Systems

The purpose of this report is to provide feedback to centres on verification in National Qualifications in this subject.

Component/Coursework in National Courses

Component/Coursework verified

The following Coursework items were verified:

Advanced Higher Computing — Coursework Project
Higher Computing — Coursework 2008/2009
Intermediate 2 Computing — Coursework 2008/2009
Intermediate 1 Computing Studies — Coursework 2008/2009

The assessment criteria for these items were described in the following guidance documents:

Advanced Higher Computing Arrangements — valid from 2005/2006 (revised 1st edition published April 2005)
Advanced Higher Computing Course Assessment Pack — valid from 2005/2006
Advanced Higher Computing Coursework Pack — valid from 2005/2006
Higher Computing Arrangements — valid from 2006/2007 (revised 2nd edition published October 2006)
Higher Computing Course Assessment Pack — valid from 2004/2005
Higher Computing Coursework Task — valid for session 2008/2009 only
Intermediate 2 Computing Arrangements — valid from 2004/2005 (2nd edition published November 2006)
Intermediate 2 Computing Course Assessment Pack — valid from 2004/2005
Intermediate 2 Computing Coursework Task — valid for session 2008/2009 only
Intermediate 1 Computing Studies Arrangements — valid from 2004/2005 (2nd edition published November 2006)
Intermediate 1 Computing Studies Course Assessment Pack — valid from 2004/2005
Intermediate 1 Computing Studies Coursework Task — valid for session 2008/2009 only

All the above documentation is available from SQA's website at www.sqa.org.uk, the actual Coursework tasks for any particular session being found on the secure area of the site from a date in October onwards.

Feedback to centres

General comments

Centre staff delivering all or any of these Courses are advised to carefully read the SQA Arrangements documents and to refer to all support materials available for the Course(s) they are responsible for. Once the Coursework tasks for the specific session have been downloaded it is advisable to check occasionally over subsequent weeks for possible amendments.

It should be noted that the central verification process only concerns the Coursework. If a centre is selected for verification, NAB assessment materials should **not** be submitted. As in previous years, there were several instances of NAB materials being included and one instance of **only** NAB materials being submitted.

Care should be taken when completing the official paperwork that accompanies materials submitted for verification. Centre staff should read all instructions thoroughly and ensure that submissions are checked, preferably by a second person. This year there were several instances of verifiers having to complete/amend this paperwork. This is not part of their duties and, unless there is an improvement, it may be necessary to place a 'Not Accepted' on centres that fail to comply with the requirements.

Teachers/lecturers should mark Coursework according to the guidelines issued. It is very useful during verification to have the Marker's comments on the marking grid to explain why marks have been awarded/deducted. Some centres currently do this very well; others have still to adopt this good practice.

Centres are advised that evidence of internal verification (or cross marking) is an expectation. Materials submitted for central verification from a single centre may well be drawn from several classes taught by different people. It is crucial that a common marking policy has been employed across that centre and this can only happen if issues have been identified and agreed prior to marking, followed by careful checking across the presentation.

If Coursework is to continue to be a valid and significant part of the assessment of Computing Courses, centres must ensure that it is completed under controlled conditions and that they can vouch for the work being that of the individual candidate. Coursework should be done within the classroom under supervision. Candidates should not collaborate while working on the tasks and any help given by the teacher/lecturer should be taken account of and noted on the marking grid.

Advice on good practice and areas for further development

Advanced Higher

- ◆ Ten centres were selected for visiting verification. Visits took place during early May to ensure that verifiers were able to see completed projects.
- ◆ In most cases candidates were available to demonstrate their work and discuss issues that had arisen during the development of their software. Verifiers enjoy meeting with the candidates and find the process very useful, as often a candidate can explain points that have been omitted from reports.
- ◆ In general, verifiers were impressed with the work being undertaken. Many candidates had chosen to create quizzes and games and had produced attractive pieces of software.
- ◆ However, centres are reminded that AH projects must show a progression in a candidate's knowledge and skills in software development. There should be clear evidence of a modular approach with parameter passing and an understanding of the complex algorithms introduced at AH level.
- ◆ The revised marking scheme introduced for the 2009 diet of exams had been well received by teachers.

- ◆ Candidates should be encouraged to spend a good amount of time preparing a well structured report that conveys their knowledge and expertise at a high level. The marking scheme can be used as a basis for that structure.
- ◆ There appeared to be a wide variation in teacher–candidate contact time between centres offering Advanced Higher Computing. It was apparent that candidates benefited considerably from having a sufficiency of contact time with an experienced, knowledgeable teacher/lecturer.
- ◆ The tolerance for the 2009 AH Computing project was set at ± 7 out of the possible 80 marks.

Higher

- ◆ The Coursework for 65 centres was verified for Intermediate 2/Higher Computing.
- ◆ Centres are reminded that in the Software Development part of the Coursework candidates are expected to adhere to the algorithm given. It is not acceptable for them to devise what they consider to be a ‘better’ solution to the problem.
- ◆ In the Computer Systems part of the Coursework there was some confusion about the budget available. The first release of the Coursework had stated the budget was £1,500 but this was later amended to £2,000. Some centres had been unaware of the amendment. Verifiers accepted both budgets.
- ◆ Candidates appeared to find the identification of servers particularly difficult. This was viewed generously, provided the specification had been met.
- ◆ Some candidates also had problems identifying suitable network operating systems. Verifiers were looking for evidence that candidates could actually differentiate between single user operating systems and network operating systems and in many cases there was little or no evidence of this.
- ◆ In general, candidates’ comparisons of the hardware and software they had identified were very superficial. A knowledge of the content of the Higher Computer Systems Unit is to be expected.
- ◆ There were still too many submissions where source evidence was not included. The specification made it very clear that this was an expectation and, in addition, offered the advice that highlighting the relevant sections was advisable.
- ◆ The tolerance for the 2009 Higher Computing Coursework was set at ± 4 out of the possible 60 marks.

Intermediate 2

- ◆ In the Software Development part of the Coursework, Task 1 asked candidates to refine the algorithm for ‘Calculate VAT to two decimal places’. However, the marking guidelines only mentioned ‘Calculate VAT’ and 1 mark was allocated. To take account of this, verifiers agreed to ignore the need for two decimal places. The need for the two decimal places was picked up in the implementation and 1 of the 2 available marks was allocated to achieving this.
- ◆ In Task 3 of the Software Development part of the Coursework, candidates were asked to complete a test data table. The third row that they were expected to add should have shown exceptional data.
- ◆ There continued to be a number of centres that did not include printed output to show the program being tested. The specification clearly stated that this evidence was a requirement. The 2 marks available for ‘report complete’ were deducted where the evidence was missing.

- ◆ In the Computer Systems part of the Coursework, Task 1 clearly asked that candidates should identify one desktop and one laptop. A number of centres had ignored this, allowing candidates to compare two desktops without penalising them. The specification should be adhered to at all times.
- ◆ In the Computer Systems part of the Coursework, candidates were given a specific budget to work to. Although it was not a requirement to show the total of all hardware recommended, it had to be reasonably clear that they were within budget. It would probably be worthwhile encouraging candidates to show this as a final paragraph of their report.
- ◆ The tolerance for the 2009 Intermediate 2 Computing Coursework was set at ± 2 out of the possible 30 marks.

Intermediate 1

- ◆ The Coursework from 22 centres was verified for Intermediate 1 Computing Studies.
- ◆ In general, the Coursework specification appeared to have been interpreted well by teachers, lecturers and candidates. For the most part, the marking guidelines had been adhered to.
- ◆ At Stage 13 of the Coursework, candidates were asked to name the two different types of graphics packages that could be used. They were expected to state either 'Draw and Paint' or 'Bit-mapped and Vector'. Specific package names were not deemed acceptable.
- ◆ At Stage 14, candidates were expected to name tools that were actually used in their graphic. In some cases marks were awarded when the tools stated were not used. 'Clipart' was not accepted as a tool.
- ◆ The major issue with the submissions examined related to Stage 22, where candidates were asked to provide designs of their presentations on paper. These designs should be carefully drawn and annotated with details such as fonts, font sizes, colours, etc. Too often very rough sketches with no details were awarded full marks.
- ◆ The tolerance for the 2009 Intermediate 1 Computing Studies Coursework was set at ± 2 out of the possible 40 marks.