



Institutional audit

Cranfield University

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Preface

The Quality Assurance Agency for Higher Education's (QAA's) mission is to safeguard the public interest in sound standards of higher education qualifications and to inform and encourage continuous improvement in the management of the quality of higher education. To this end, QAA carries out Institutional audits of higher education institutions.

In England and Northern Ireland QAA conducts Institutional audits on behalf of the higher education sector, to provide public information about the maintenance of academic standards and the assurance of the quality of learning opportunities provided for students. It also operates under contract to the Higher Education Funding Council for England and the Department for Employment and Learning in Northern Ireland to provide evidence to meet their statutory obligations to assure the quality and standards of academic programmes for which they disburse public funding. The audit method was developed in partnership with the funding councils and the higher education representative bodies, and agreed following consultation with higher education institutions and other interested organisations. The method was endorsed by the then Department for Education and Skills. It was revised in 2006 following recommendations from the Quality Assurance Framework Review Group, a representative group established to review the structures and processes of quality assurance in England and Northern Ireland, and to evaluate the work of QAA.

Institutional audit is an evidence-based process carried out through peer review. It forms part of the Quality Assurance Framework established in 2002 following revisions to the United Kingdom's (UK's) approach to external quality assurance. At the centre of the process is an emphasis on students and their learning.

The aim of the Institutional audit process is to meet the public interest in knowing that universities and colleges of higher education in England and Northern Ireland have effective means of:

- ensuring that the awards and qualifications in higher education are of an academic standard at least consistent with those referred to in *The framework for higher education qualifications in England, Wales and Northern Ireland* and are, where relevant, exercising their powers as degree awarding bodies in a proper manner
- providing learning opportunities of a quality that enables students, whether on taught or research programmes, to achieve those higher education awards and qualifications
- enhancing the quality of their educational provision, particularly by building on information gained through monitoring, internal and external reviews and on feedback from stakeholders.

Institutional audit results in judgements about the institutions being reviewed. Judgements are made about:

- the confidence that can reasonably be placed in the soundness of the institution's present and likely future management of the academic standards of awards
- the confidence that can reasonably be placed in the soundness of the institution's present and likely future management of the quality of the learning opportunities available to students.

Audit teams also comment specifically on:

- the institution's arrangements for maintaining appropriate academic standards and the quality of provision of postgraduate research programmes

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- the institution's approach to developing and implementing institutional strategies for enhancing the quality of its educational provision, both taught and by research
- the reliance that can reasonably be placed on the accuracy and completeness of the information that the institution publishes about the quality of its educational provision and the standards of its awards.

If the audit includes the institution's collaborative provision the judgements and comments also apply unless the audit team considers that any of its judgements or comments in respect of the collaborative provision differ from those in respect of the institution's 'home' provision. Any such differences will be reflected in the form of words used to express a judgement or comment on the reliance that can reasonably be placed on the accuracy, integrity, completeness and frankness of the information that the institution publishes, and about the quality of its programmes and the standards of its awards.

Explanatory note on the format for the report and the annex

The reports of quality audits have to be useful to several audiences. The revised Institutional audit process makes a clear distinction between that part of the reporting process aimed at an external audience and that aimed at the institution. There are three elements to the reporting:

- the **summary** of the findings of the report, including the judgements, is intended for the wider public, especially potential students
- the **report** is an overview of the findings of the audit for both lay and external professional audiences
- a separate **annex** provides the detail and explanations behind the findings of the audit and is intended to be of practical use to the institution.

The report is as concise as is consistent with providing enough detail for it to make sense to an external audience as a stand-alone document. The summary, the report and the annex are published on QAA's website.

Summary

Introduction

A team of auditors from the Quality Assurance Agency for Higher Education (QAA) visited Cranfield University (the University) from 21 to 25 June 2010 to carry out an Institutional audit. The purpose of the audit was to provide public information on the quality of the learning opportunities available to students and on the academic standards of the awards that the University offers.

To arrive at its conclusions, the audit team spoke to members of staff throughout the University and to current students, and read a wide range of documents about the ways in which the University manages the academic aspects of its provision.

In Institutional audit, the institution's management of both academic standards and the quality of learning opportunities are audited. The term 'academic standards' is used to describe the level of achievement that a student has to reach to gain an award (for example, a degree). It should be at a similar level across the UK. The term 'quality of learning opportunities' is used to describe the support provided by an institution to enable students to achieve the awards. It is about the provision of appropriate teaching, support and assessment for the students.

Outcomes of the Institutional audit

As a result of its investigations, the audit team's view of Cranfield University is that:

- confidence can reasonably be placed in the soundness of the institution's present and likely future management of the academic standards of the awards that it offers
- confidence can reasonably be placed in the soundness of the institution's present and likely future management of the quality of the learning opportunities available to students.

Institutional approach to quality enhancement

In the Briefing Paper, the University stated its view that quality enhancement is 'inextricably linked' to quality assurance and good day-to-day management of teaching provision. Three key areas were identified in the Briefing Paper as encompassing the University's approach to quality enhancement: its quality assurance and enhancement systems, staff development, and the dissemination of good practice. Many of the examples cited under quality assurance and enhancement systems refer to the provision of clear and concise documentation and information for various audiences.

The Briefing Paper noted that the University recognised that 'there is still a debate to be had about how a university the size and diversity of Cranfield best approaches the identification and dissemination of good practice'. The audit team agrees that systematic procedures for identifying and sharing good practice on a university-wide basis are currently under-developed and would encourage the University as it engages in this debate to consider the further development of such processes.

Postgraduate research students

In the view of the audit team the arrangements that support postgraduate research students are generally comprehensive and well implemented. The Senate Code of Practice provides

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a coherent framework and its various elements are being followed in the faculties. The support for students is generally sound, and notably there is a well-developed and supportive system for regular monitoring of student progress. The University has taken appropriate action in response to the report of the QAA review of research degree programmes in 2006, although regular monitoring of information about the research degree programmes against internal and external indicators is not well developed and does not yet fully meet the expectations of the *Code of practice for the assurance of academic quality and standards in higher education (Code of practice), Section 1: Postgraduate research programmes*, published by QAA.

Published information

The audit team found that reliance can reasonably be placed on the accuracy and completeness of the information the University publishes about the quality of its educational provision and the standards of its awards.

Features of good practice

The audit team identified the following areas as being good practice:

- the clear, comprehensive and effective Senate 'Guide to Courses'
- the integration of all students into the research and industry-linked culture and activities of the University
- the proactive and responsive approach of the library service to user needs
- the access to a wide range of high-quality resources which significantly enhance student learning opportunities
- the thorough and well-monitored arrangements for the regular review of postgraduate research students.

Recommendations for action

The audit team recommends that the University consider further action in some areas.

The team **advises** the University to:

- ensure that Senate's routine quality assurance requirements for partnership courses are implemented in all cases
- establish a cycle for Senate Reviews of Schools which will enable the effective periodic review of all provision to start without further delay
- review and clarify, at university level, assessment regulations for each course
- act with more urgency in considering the effectiveness of institutional procedures in the event of major problems in partnership provision
- redraft formal agreements with partners in the light of Senate requirements and keep them up to date
- monitor the success of postgraduate research programmes against appropriate internal and/or external indicators and targets in all faculties and at university level.

It would be **desirable** for the University to:

- make external examiner reports available as a matter of course to student representatives
- use statistics on admissions and completion at university level to inform strategy and policy

- use Annual Reflective Review reports more effectively to identify good practice and to enhance quality.

Reference points

To provide further evidence to support its findings, the audit team investigated the use made by the University of the Academic Infrastructure, which provides a means of describing academic standards in UK higher education. It allows for diversity and innovation within academic programmes offered by higher education. QAA worked with the higher education sector to establish the various parts of the Academic Infrastructure, which are:

- the *Code of practice for the assurance of academic quality and standards in higher education*
- the frameworks for higher education qualifications in England, Wales and Northern Ireland, and in Scotland
- subject benchmark statements
- programme specifications.

The audit found that the University took due account of the elements of the Academic Infrastructure in its management of academic standards and the quality of learning opportunities available to students. However, with respect to some sections of the *Code of practice*, not all precepts have been fully addressed.

Report

1 An Institutional audit of Cranfield University (the University) was undertaken during the week commencing 21 June 2010. The purpose of the audit was to provide public information on the University's management of the academic standards of the awards that it delivers and of the quality of the learning opportunities available to students.

2 The audit team comprised Professor David Airey, Mrs Jill Lyttle, Mr Jon Rowson, Professor David Timms and Mr Danny Wilding, auditors, and Ms Alison Blackburn, audit secretary. The audit was coordinated for QAA by Ms Fiona Crozier, Assistant Director, Development and Enhancement Group.

Section 1: Introduction and background

3 The University developed from the College of Aeronautics, which was created in 1946. It received its Royal Charter with full degree awarding powers as The Cranfield Institute of Technology in 1969, and in 1975 was joined by the former National College of Agricultural Engineering. In 1984 it established an academic partnership with what is now the College of Management and Technology at Shrivenham in Wiltshire. In 1993 it became Cranfield University. The main campus of the University is located in Bedfordshire, between Bedford and Milton Keynes.

4 From an original focus on aircraft research and design, which remains an important part of the work of the University, Cranfield has grown and diversified into other technologies and into manufacturing and management. Currently, its work is carried out in five faculties: Defence and Security; Engineering and Aerospace; Environment, Science and Manufacturing; Management; and Medicine & Biosciences. These faculties fall within five equivalent schools: Cranfield Defence and Security, Engineering, Applied Sciences, Management, and Cranfield Health.

5 Among the University's distinctive characteristics are that it only offers postgraduate programmes, both taught and research; it is a specialist, research-intensive institution which focuses on applied research in engineering, science, management and health, and much of its work is carried out in collaboration with industry.

6 The University's mission, as defined in its Strategic Plan 2006-7 to 2010-11 is 'to create and transform world class science, technology and management into viable, practical and environmentally desirable solutions that enhance economic development and the quality of life'. It aspires to be 'the University of first choice for students and clients in teaching and research in selected areas of engineering, applied science and management'.

7 In 2009-10 the University employed about 650 full-time equivalent (FTE) academic staff and had around 2,500 FTE students. Both of these figures have declined by more than 10 per cent since 2004-5, when the University ceased its undergraduate programmes. About 30 per cent of students are pursuing research degrees, more than 40 per cent are part-time and more than 50 per cent are from overseas. The student numbers include about 600 individuals who are studying at collaborative institutions.

8 Since the last Institutional audit in 2005, much documentation of University policy has been revised or introduced, particularly the Learning and Teaching Strategy 2009-12, and the useful 'Guide to Courses'. Some Senate 'Codes of Practice' have been updated, including those related to collaborative provision and to postgraduate research students, and templates to streamline some aspects of quality assurance documentation have been introduced, including those for Annual Reflective Review (annual monitoring) and the

introduction of new programmes. Programme specifications have been replaced by 'course summary' and 'course structure' documents. A new 'Guide to Senate Reviews' dispenses with periodic course review in favour of a range of review methods, known as 'Senate Review of a School'; 'Focussed Review' (based on themes or types of provision); and 'Special Measures' (where urgent intervention seems necessary). Senate Review of a School is now the primary method of review, and the first such review is due to take place in 2010-11. Four Focussed Reviews had taken place during 2009-10, though none were complete at the time of the audit.

9 There have also been major changes in arrangements for collaborative provision, following and in part stimulated by a critical QAA audit in 2008-9 of the University's partnership with an Indian institution. A revised Senate Code of Practice for such partnerships was finally approved in March 2010.

10 The University has responded to the QAA review of research degree programmes by making training for supervisors compulsory and by introducing Doctoral Training Centres.

11 Since the last audit, the University's executive team has been augmented by a Pro-Vice-Chancellor (Learning and Teaching). Two new schools have been established: the School of Applied Sciences and Cranfield Health. Schools and faculties have been aligned so that for all practical purposes school and faculty are the same unit. Reporting lines have been changed so that deans are responsible to heads of school; quality assurance is now a formal responsibility of both.

12 The audit team noted that, while much of its documentation had been brought up to date, the University had been slow to implement new arrangements. In relation to collaborative provision, too, the University has been slow to act at institution level where problems at course level have had systemic implications (see paragraph 58).

Section 2: Institutional management of academic standards

13 The University has a wide range of mechanisms for assuring itself of the academic standards of its awards. These include procedures for programme approval, annual monitoring of courses and periodic reviews of schools. Further contributions include the use of external examiners in assessment procedures.

14 In 2008-09, Senate approved a complete set of new procedures for programme approval, monitoring and review, which are now codified in Senate Code of Practice 4/05. At the time of the audit, the new procedures for programme approval and annual monitoring had already been put into effect and the audit team was able to examine full sets of paperwork relating to these. The Senate Code of Practice is supported by two practical guides for use by University staff in undertaking these procedures. The team found that the Guide to Courses, in particular, was a well-written and comprehensive manual and it was confirmed at meetings with University staff that it had been used effectively by course directors and deans. The team considers that the Guide is a feature of good practice that has helped to promote a consistent, university-wide approach to approval and monitoring processes and the provision of accessible course summaries.

15 Proposals for new courses are generally initiated at the departmental level, which is then followed by a two-stage validation process. These combine to ensure that new courses are both aligned with University plans and meet the required academic standards. The audit team examined a complete set of documents relating to the recent approval of a new MSc in the Faculty of Medicine and Biosciences. This confirmed that the process had been

undertaken entirely in accord with the given procedures and had undergone the appropriate faculty and University scrutiny.

16 Although no external input is formally required by the University's approval procedure, the audit team learned during meetings with staff that there had indeed been considerable informal consultation with external parties and existing industrial panels. The team encourages the University to record this information on the course approval forms.

17 Amendments to existing courses can usually be approved at faculty level, although all are subsequently reported to the Teaching Committee. The audit team heard from University staff that the new procedure was well understood and that arrangements were in place at faculty level to monitor the cumulative effects of minor changes between periodic reviews.

18 The new approach to annual monitoring approved by Senate is called Annual Reflective Review. A standard template is completed by each course team. Completed reports are reviewed, usually by the Dean, and a digest of issues or concerns is then reported to the Teaching Committee. The audit team saw several examples of completed Annual Reflective Review forms, as well as examples of the digests and evidence of their consideration at Teaching Committee. This all combined to demonstrate that the exercise had generally been completed properly and that the process could effectively contribute to the maintenance of standards and the quality of learning opportunities. There was also evidence that the University is systematically attempting to gauge the effectiveness of these procedures for programme monitoring.

19 However, the audit team noted that Annual Reflective Reviews had not been submitted for some courses and that no digest had been submitted by one faculty in 2009. This lack of compliance with routine quality assurance monitoring procedures is discussed further in Section 5 in relation to collaborative provision.

20 The newly approved mechanism for reviewing taught courses includes three distinct categories of review. To date the University has only carried out Focussed Reviews. Two of these relate to collaborative provision, and these are discussed below in Section 5.

21 The new procedure for the periodic review of programmes, Senate Reviews of Schools, had still to be used for the first time at the time of the audit and, therefore, the audit team was unable to examine the operation of this in practice. Overall, the team came to the conclusion that the new procedures would provide a comprehensive monitoring and review mechanism if they were executed fully as intended. However, it was noted that, at the time of the audit, there was still no schedule in place for future Senate Reviews of Schools and that many courses had already not been subject to a routine periodic review for eight years. The team could not agree with the University's view that routine annual monitoring measures are a satisfactory substitute and were concerned that the substantial delays had the potential to put the management of standards and quality at risk. It is advisable, therefore, for the University to establish a cycle for Senate Reviews of Schools which will enable the effective periodic review of all provision to start without further delay.

22 Each course has at least one external examiner, who holds an academic position and has significant subject and university sector experience. Some courses may also feature additional examiners, who may be drawn from industry or other sources as appropriate. External examiners are usually nominated by the course team, which has responsibility for ensuring that there is an appropriate set of external examiners in place at the start of the academic year. Official appointments are approved on behalf of the faculty by the Dean and Faculty Boards send external examiner lists to Senate for final approval each year. The

framework used to describe the role of external examiners is defined by the University's Senate Code of Practice 1/06.

23 All external examiners are required to produce an annual report. This is formally submitted to the Vice-Chancellor, although the initial processing is delegated to Registry, which then circulates copies to the course team, the Dean, the Head of School and the faculty administration. Course teams are expected to respond to the comments either informally or, if necessary, formally via the Registry. The audit team examined some external examiners' reports and found them to be rigorous and comprehensive, helped by a well-designed template.

24 Overall, the audit team found that the University is making strong and scrupulous use of independent external examiners and has external examining arrangements which are effective in securing the academic standards of its awards. However, the team considers it desirable that the University conform to the HEFCE requirement that external examiner reports are made available 'as a matter of course' to student representatives.

25 The audit team saw evidence in approval documentation that course teams mapped their courses against *The framework for higher education qualifications in England, Wales and Northern Ireland* (FHEQ). Each course has a course summary and course structure document, which together act as a programme specification. These are made available on the University's public website for both prospective and current students.

26 A large number of courses make use of Industrial Advisory Panels and many courses are accredited by professional, statutory and regulatory bodies. A central list of accreditations is maintained, but reports of accreditation visits are not seen centrally and the University may wish to consider whether there might be some further advantage to be gained from this.

27 Overall, the audit team concluded that the University was making effective use of the Academic Infrastructure and other external reference points.

28 The University has a single-tier examination board system, with Faculty Boards being responsible for appointing and running examination boards under delegated authority from Senate. In some faculties there is a single examination board for all the courses in the faculty's remit, while in others a separate examination board is appointed for each course. Minutes from examination boards are forwarded to Registry, which performs routine checks to ensure conformance with the given regulations. Formal appeals on assessment are managed at university level in accord with Senate Code of Practice 3, which is aligned with Section 6 of the *Code of practice* published by QAA.

29 There are no university-wide examination regulations other than those given in Senate Code of Practice 6, which permits two attempts at an assessment only. All other aspects of assessment are delegated to the faculties and are produced on a course-by-course basis. The audit team found that assessment strategies between faculties and courses varied considerably, although one notable fact is that the normal requirement for a taught master's award at the University is 200 credits at FHEQ level 7 instead of the more usual 180. This very often includes a substantial group project as well as an individual dissertation. The team accepts that some variability in assessment practices across faculties is justified, given the special nature of the institution's taught provision (i.e. the need to satisfy the requirements of various professional, statutory and regulatory bodies), and is satisfied that the University is aware of the issues and potential problems surrounding this.

30 The audit team made a detailed examination of the assessment rules for a wide range of courses from the publicly available course structure documents. While these were

generally found to be sound, the team found some examples where no assessment rules were specified and others where the rules were not sufficiently transparent. Some assessment rules were drafted loosely, so that it was possible, even if unlikely, that students could meet the stated requirements for an award without having met all the intended learning outcomes. In the light of these observations, the team considers it advisable that the institution review and clarify, at university level, assessment regulations for each course.

31 There is a policy of a 20-working-day turnaround to produce written feedback on coursework, although there was a range of evidence that this target was not being met consistently. The audit team was satisfied, however, that this problem had been recognised by the University and is being acted on and monitored as part of the ongoing Learning and Teaching strategy.

32 The University admits that it does not routinely produce statistics on student achievements at an institutional level on the grounds that cohorts tend to be of small size and success rates are high. While the audit team accepts these observations, it believes that some advantage could be gained by consideration at university level of various indicators of student admissions, progression and exit performance across both faculties and the institution as a whole, and considers it desirable for the University to use such statistics to inform strategy and policy.

33 The audit team agreed that confidence can reasonably be placed in the soundness of the University's present and likely future management of the academic standards of the awards that it offers.

Section 3: Institutional management of learning opportunities

34 The audit team examined a wide range of procedures and practice relating to student learning opportunities and found a large number of examples where the *Code of practice* published by QAA is used explicitly and effectively. In particular, the Guide to Courses makes extensive use of Section 7 of the *Code of practice*. The team also saw evidence that as each section of the *Code of practice* is revised the Teaching Committee notes any development and its impact on University policy. Overall, the team found that the University was generally making effective use of the *Code of practice*, although some further work is required with respect to postgraduate research programmes (see Section 6).

35 Most of the structures and procedures used by the University for managing standards also apply to managing student learning opportunities. The terms of reference for both Senate Reviews of Schools and Focussed Reviews include the consideration of a full range of learning provision and student support issues. Evidence of this working in practice was seen in documentation relating to a Focussed Review. Additional mechanisms specifically relating to learning opportunities are the use of industrial advisory panels, employer engagement in activities such as group projects, the links that are made between research activity and teaching, the use of institution-wide feedback and the role of students in quality assurance.

36 Course teams use several mechanisms to collect and respond to student feedback. These include online and paper-based questionnaires, face-to-face meetings and regular meetings between the Course Director and students and their representatives. The audit team saw several examples of evidence in Annual Reflective Review reports that this feedback was being collected and acted on.

37 The University participates in both the Postgraduate Research Experience Survey (PRES) led by the Higher Education Academy and the Postgraduate Teaching Experience

Survey (PTES) as well as running its own surveys of new and graduating students. The audit team saw evidence that the University had analysed and responded to the results of these surveys, and high-level summaries of all the results are provided on the webpages directed at prospective students.

38 Overall, the audit team judged that the University's arrangements for collecting feedback from students contribute effectively to maintaining the quality of student learning opportunities.

39 Students are represented at institutional level through the Cranfield Students' Association, and evidence was found of the Association's influence on University policy at this level. At faculty and course level the student representation system did not always function as intended, with a lack of elected student representatives and a number of students unaware of who was their representative. Furthermore, no clear and formal training is provided by the University to student representatives at any level. However, this variability in student representation across the University was found to be well mitigated by the wholly postgraduate nature of the University, which allows for frequent and meaningful contact with staff and other students to ensure a strong student voice in the management of the quality of learning opportunities.

40 As a wholly postgraduate institution with a strong emphasis on the applied nature of its research output, the University is extremely committed to providing a strong research and industry-informed teaching environment. The audit team found a priority given to research-informed teaching at all levels of the University, and staff appointments to the University reflect this commitment. This approach to teaching and learning is highly successful and contributes positively to the teaching and learning of the students.

41 The University does not offer any pure distance-learning courses, nor does it have a separate e-learning strategy. However, it makes frequent use of blended learning for both its full-time and part-time students. Most taught provision for both full-time and part-time students is undertaken on campus, and all modes of study provide the opportunity to undertake on or off-campus research or placement in an industrial setting. The virtual learning environment is a key teaching and learning resource frequently used on taught courses to supplement direct-contact teaching. The audit team found it to be of a high quality and that students were well served by such provision.

42 The University provides comprehensive and effective learning resources through the Library and IT Services. Students have access to a wide range of hard copy and electronic resources in addition to the services of library subject-specialists. They are well served by the in-house IT training, technical support and the high quality of the intranet. The audit team found evidence of the responsiveness of the library to service-user feedback and of its proactive approach to providing learning resources of the highest standard. An occasional lack of communication was found between departments and IT Services regarding the need to provide a suitable number of software licenses, which had posed a problem for students close to submission deadlines.

43 Overall, the team found that students and other service users are served to a very high standard by the learning resources available to them.

44 The University's admissions policy is reflective of its mission statement, aiming to attract students who have suitable experiential learning credentials as well as those with traditional academic qualifications. In practice, this policy translates into allowing the schools some degree of flexibility when offering applicants a place at the University. This flexibility is regulated primarily at faculty level by the appropriate Dean, with institutional oversight maintained by an annual report to Senate. In very exceptional circumstances the admission

of students is discussed at Senate. The University considers the flexibility in its admissions policy in light of its agenda of widening participation, and students admitted to the University under exceptional circumstances achieve to a high standard. Similarly, there is some flexibility in the admissions policy regarding the ability to study in English, but the University has suitable measures in place to provide both pre-sessional and in-sessional English language support. Support for staff involved in the admissions process was found to be variable, and staff are not provided with any clear training to ensure that they can competently carry out their role. This is something that the University may wish to review.

45 Academic and pastoral support networks are provided to the students by their schools at course level. The details of these support systems are outlined in detail in the course handbooks provided to each student and used as a reference by staff. The University provides support to full-time, part-time and international students through the same primary channels and also accommodates part-time students who are working full-time. Regarding English language support, provision is made by the Learning and Development Team and international students were aware of how to access these provisions. Similarly there were channels through which course directors could recommend students for language support offered by the Learning and Development Team.

46 The University's Learning and Teaching Strategy 2009-2012 recognises the importance of staff engagement and places proper emphasis on the recognition and reward of good teaching. There is a formal induction process, and probationary members of academic staff are allocated a mentor; peer observation of teaching is part of the mentoring process and takes place for all staff in some schools. Staff taking on new roles, including the supervision of research students, undergo training and are also mentored. All staff involved in teaching and supporting student learning, including postgraduate research students, can avail themselves of staff development opportunities.

47 An annual performance and development review identifies staff development needs, and staff who met the team emphasised the importance attached to staff development, recognition and reward. The audit team was told that teaching excellence is explicitly used as part of the case for promotion to senior posts. The University offers a Postgraduate Certificate in Learning, Teaching and Assessment in Higher Education (PgCert LTAHE) accredited by the Higher Education Academy (HEA) as well as shorter versions for various categories of staff; the fellowship route for membership of the HEA is also promoted, and all staff are expected to gain a relevant teaching qualification.

48 The audit team agreed that confidence can reasonably be placed in the soundness of the University's present and likely future management of the quality of the learning opportunities available to students.

Section 4: Institutional approach to quality enhancement

49 The University holds the view that quality enhancement is inextricably linked to quality assurance and good day-to-day management of teaching provision. Its approach to quality enhancement is expressed through its quality assurance and enhancement systems, staff development, and the dissemination of good practice.

50 The Annual Reflective Review report template asks individual course teams to highlight teaching or assessment practices that merit wider dissemination, although it does not explicitly ask them to discuss enhancement activity. The audit team saw examples where good practice was identified, but it learned that there was considerable variability in reports completed to date. The team formed the view that Annual Reflective Review reports had much potential and should provide the Teaching Committee with a university-wide overview, but that this potential was not yet being fully realised.

51 The audit team learned of the range of existing and planned activities for sharing good practice within and across schools, including the annual teaching conference; the University may wish to consider whether its newsletter, 'Perspectives', might aid this dissemination. The team concluded that systematic procedures for identifying and sharing good practice on a university-wide basis are currently under-developed and would encourage the University as it debates how best to approach the identification and dissemination of good practice. In particular, it would be desirable for the University to use Annual Reflective Review reports more effectively to identify good practice and to enhance quality.

Section 5: Collaborative arrangements

52 The University's register of current partnerships lists some long-standing programme validation arrangements with military agencies, but the majority of links are as envisaged in the University's Strategic Plan 2006-11, small scale and ad hoc, typically the delivery of Cranfield courses by Cranfield staff using other institutions' resources. More than half of the 628 students on the 21 partnership programmes are within the University's largest partnership, with the Institute of Clinical Research, India (ICRI); most have 10 students or fewer.

53 The University's procedures for collaborative provision have recently been substantially changed, following the June 2009 report of a QAA overseas audit of the University's partnership with the Institute of Clinical Research, India. The report did not find 'a sufficient basis for confidence in Cranfield's management of quality and standards in relation to [this] large, complex, overseas provision', and made a number of recommendations to do with course management, admissions and assessment, adherence to established procedure, timeliness of action in response to problems, the use of external examiners, and the provision of information to students. The University conducted a thorough analysis of the report, finding that some problems related to the early cohorts of students only. Management lines were revised to remove ambiguity about overall responsibility for quality management of partnerships. A number of changes were formalised in Senate Code of Practice 7/02, 'Partnerships involving academic provision', though a small number of recommendations remained unresolved. The Code was comprehensive, and the new arrangements should forestall unanticipated problems in respect of ICRI.

54 The ICRI partnership experienced significant difficulties from the start, but the University failed to act at that time to address the potential implications for other partnership arrangements. By the time of the QAA overseas audit in 2008-9, the University had made limited progress and it still took until March 2010 for new procedures to be finalised. It is advisable that the University act with more urgency in considering the effectiveness of institutional procedures in the event of major problems in partnership provision.

55 The general framework for the management of quality and standards in courses taught at Cranfield campuses applies also to those taught in partnership. Overall responsibility for management is with heads of school. Senate's Teaching Committee establishes quality assurance requirements, and implementation is overseen by Faculty Boards and deans. Course directors are responsible for the day-to-day business of managing programmes and their students. Course directors may be members of partner staff or Cranfield staff, depending on the kind of partnership.

56 The basic mechanisms of approval, monitoring, and review, and for setting and maintaining standards are common to all courses. Relations with partners are formalised in legal agreements. Some of these are well out of date, and some more recent ones deal almost exclusively with financial and intellectual property details and do not mention such

matters as residual obligations to students. Senate's Code of Practice 7/02 has a means to ensure that future agreements will not suffer these defects; however, the University currently has no timetable for ensuring that extant agreements meet its new requirements. It is advisable to redraft formal agreements with partners in the light of Senate requirements and keep those agreements up to date.

57 Senate Code of Practice 7/02 specifies arrangements for: checking the suitability of a partner; academic approval of the provision; and the establishment of proper contractual arrangements. A site visit and a report by an independent team appointed by the Teaching Committee are required. No partnership had been approved under the new procedures at the time of the Institutional audit, and so the audit team was unable to comment on their effectiveness. However, the new requirement for a risk assessment to be undertaken in respect of all partnership proposals, and for the involvement of the Teaching Committee and Faculty Boards at a much earlier stage than formerly, should expose difficulties before they become problems.

58 The University's procedures for Annual Reflective Review apply to partnership courses as for all others. Cranfield will additionally require from each partnership course an 'annual operating statement' at the beginning of each session. Responsibility for these documents lies with course directors. Examples of completed Annual Reflective Reviews for 2009-10 appeared full, and they should both lead to improvement and give assurance to the sponsoring faculty that courses are progressing as intended. The Teaching Committee does not see Annual Reflective Reviews, but does monitor their submission. A number remained outstanding two months after the specified submission date, including the Annual Reflective Review for the Institute of Clinical Research, India. It is advisable to ensure that Senate's routine quality assurance requirements for partnership courses are implemented in all cases.

59 Two partnerships had had Focussed Reviews at the time of the audit. Neither was complete, though draft reports were available, which suggested that the procedure was fulfilled as intended and would be effective in giving the University assurance that the standards and the quality of learning opportunities in this collaboration were managed effectively.

60 Feedback from students is captured, as for other courses, through the standard mechanisms of monitoring and review. The Annual Reflective Review form asks course directors to describe arrangements for collecting student opinion, and Focussed Review includes at least one session with students. These mechanisms appeared to be working effectively. A Focussed Review team includes a student member, a useful recent innovation, which should further improve the flow of information between students and staff.

61 The University intends that partnerships will also be reviewed as part of the overall provision of a school under the new method of 'Senate Review of a School', but none have yet taken place, due to the University's suspension of its former arrangements for periodic review at the beginning of 2008-09.

62 Standards of courses delivered in partnership are set at approval as for any other course. Assessment, appeals and complaints are managed in accordance with the Cranfield 'Laws', and this is spelled out in course documents. For partner validation, where there is no parallel Cranfield course, the chair of the Board of Examiners is a member of Cranfield staff, appointed by the faculty. Key staff and all members of examination boards must be formally recognised by a rigorous 'recognition' procedure. Where possible, external examiners are the same as for in-house courses. If there is no equivalent course in-house, external examiners are appointed by Cranfield and formally report to the Vice-Chancellor. Their reports confirm that standards meet those of the University at large. Course directors respond to external examiners directly, and their responses are reported in Annual

Reflective Reviews. Where the reviews were submitted, this mechanism appeared to be effective.

63 Most statistical information is collected at course level and reported in Annual Reflective Reviews. As indicated elsewhere in this report, the University does not routinely use data at institution level in managing the quality and standards of its courses, whether delivered through partnership provision or not.

64 Most of the University's partnership courses are commissioned, and therefore not advertised in the normal sense. The major sources of information for students are course manuals, which are reviewed and revised annually, and seemed generally comprehensive. Following criticism in the QAA overseas audit report, Cranfield reviews the ICRI website regularly, and all marketing materials are received and considered at the University.

65 Senate Code of Practice 7/02 seemed a good basis for the management of current collaborative work, and for its development in the future. Provided the University applies it promptly to current as well as future provision, and provided responsible staff are pressed to fulfil its requirements in full, as the present recommendations suggest, the audit team has confidence in the University's arrangements for managing the academic standards and quality of learning opportunities available for students in its awards delivered by collaborative partners.

Section 6: Institutional arrangements for postgraduate research students

66 About 30 per cent of the students at the University are enrolled on programmes leading to master's or doctorate-level degrees by research. The framework for the programmes is provided by regulations and a helpful and clear Code of Practice agreed by the University Senate. The Code is regularly updated, most recently in 2008, and for the most part it conforms to Section 1 of the *Code of practice* published by QAA. The operation and management of the programmes rests with the schools, with scrutiny of processes provided by the Faculty Boards. Although the precise arrangements for boards and committees differ across the faculties, this does not affect their relative effectiveness.

67 Appropriate monitoring arrangements ensure that oversight is provided of individual student progression and that operations in relation, for example, to admission of students, the qualifications and experience of supervisors, supervisory workloads and examination arrangements are effective and conform to the Senate Code of Practice. The audit team also saw that operational issues, such as weaknesses in supervision noted in the student written submission and in the findings of the Postgraduate Research Experience Survey, are dealt with at the appropriate levels. However, there is little routine monitoring of the overall performance of programmes against internal or external indicators or targets at faculty or institutional level. The University is advised to ensure that appropriate monitoring of this type takes place.

68 The arrangements for the regular review of students' progression through their programmes are very well developed and thorough, involving appropriate independence from the supervisors. The completion of the reviews and the associated reports are well monitored. The audit team learned that the students welcomed these regular review meetings and found them helpful. The team considers these arrangements for supporting and monitoring the progress of research students to be a feature of good practice.

69 The University offers a wide range of support for postgraduate research students. This includes: induction programmes; generic and discipline-specific training and

arrangements for personal development planning; and access to a nominated individual, independent of their supervisor, whom students may approach concerning problems. The audit team learned that the students were aware of this support and that take-up was generally described as good, although the team also noted that some students had not participated in training or induction programmes. The recent development of faculty-based Doctoral Training Centres and the university-wide Doctoral Training Committee provides the potential to enhance the student experience further and to strengthen fuller coordination across the University. Students are very satisfied with the physical resources available to them and made particular mention of the library resources and IT staff as providing good support for their programmes of study.

70 Research students' views are canvassed through regular internal and external surveys, which are reported to University committees and to the Cranfield Students' Association. The audit team learned that findings from these surveys have prompted action to improve the student experience. Postgraduate students are also represented on the faculty boards, although awareness of this was not generally high among the students met by the team.

71 The institutional regulations and Code of Practice and the University, school and faculty-based arrangements provide a coherent framework for supporting postgraduate research students. They are generally well managed and provide a good basis for assuring academic standards and enhancing students' learning opportunities. They would be strengthened by the fuller development of routine monitoring of success against appropriate internal and external indicators and targets. In this respect, the University does not yet fully meet the expectations of the *QAA Code of practice, Section 1: Postgraduate research programmes*.

Section 7: Published information

72 The University publishes information for prospective and current students and stakeholders in both hard copy and on its website. The material published is broad in nature and covers the whole range of the students' educational experience. Responsibility for maintaining the accuracy of the information provided to both prospective and current students rests with the marketing team of each faculty. All published material is reviewed and updated annually to ensure accuracy, and students considered all of the information that they received prior to and post-enrolment to be comprehensive and accurate. Regarding current students, course handbooks provide detailed information on issues ranging from learning objectives through to support and complaints procedures and were found to be of a very high standard.

73 The audit team found that reliance could reasonably be placed on the accuracy and completeness of the information the University publishes about the quality of its educational provision and the standards of its awards.

Section 8: Features of good practice and recommendations

Features of good practice

74 The audit team identified the following areas as being good practice:

- the clear, comprehensive and effective Senate 'Guide to Courses' (paragraphs 14 and 34)
- the integration of all students into the research and industry-linked culture and activities of the University (paragraph 40)

- the proactive and responsive approach of the library service to user needs (paragraphs 42 and 43)
- the access to a wide range of high-quality resources which significantly enhance student learning opportunities (paragraphs 42 and 69)
- the thorough and well-monitored arrangements for the regular review of postgraduate research students (paragraphs 68 and 71).

Recommendations for action

75 The audit team recommends that it is **advisable** for the University to:

- ensure that Senate's routine quality assurance requirements for partnership courses are implemented in all cases (paragraphs 19 and 58)
- establish a cycle for Senate Reviews of Schools which will enable the effective periodic review of all provision to start without further delay (paragraph 21)
- review and clarify, at university level, assessment regulations for each course (paragraph 30)
- act with more urgency in considering the effectiveness of institutional procedures in the event of major problems in partnership provision (paragraph 54)
- redraft formal agreements with partners in the light of Senate requirements and keep them up to date (paragraph 56)
- monitor the success of postgraduate research programmes against appropriate internal and/or external indicators and targets in all faculties and at university level (paragraphs 67 and 71).

76 The audit team recommends that it is **desirable** for the University to:

- make external examiner reports available as a matter of course to student representatives (paragraph 24)
- use statistics on admissions and completion at university level to inform strategy and policy (paragraphs 32 and 63)
- use Annual Reflective Review reports more effectively to identify good practice and to enhance quality (paragraphs 50 and 51).

Appendix

Cranfield University's response to the Institutional audit report

Cranfield University would like to thank the QAA and its audit team for a useful and productive Institutional audit, and for its helpful report. It is pleased with the favourable findings outlined in the report, and in particular the recognition of the features of good practice, and how these reflect the important and distinctive mission of the University.

The report makes a number of recommendations for action, and many of these have already been addressed or are part of the University's action plan for 2010-11: in many areas, these represent further enhancements and improvements to mechanisms and procedures introduced relatively recently and the work of the audit team in reviewing these has been very useful.

In other areas, the University is in the final stages of reviewing its five-year Strategic Plan, and the recommendations of this report will feed into the emerging objectives. In particular, the University is mindful of the need to develop appropriate indicators to measure (amongst other things) student progress and the quality of the student experience.

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